Azadi Ka Amrit Mahotsav

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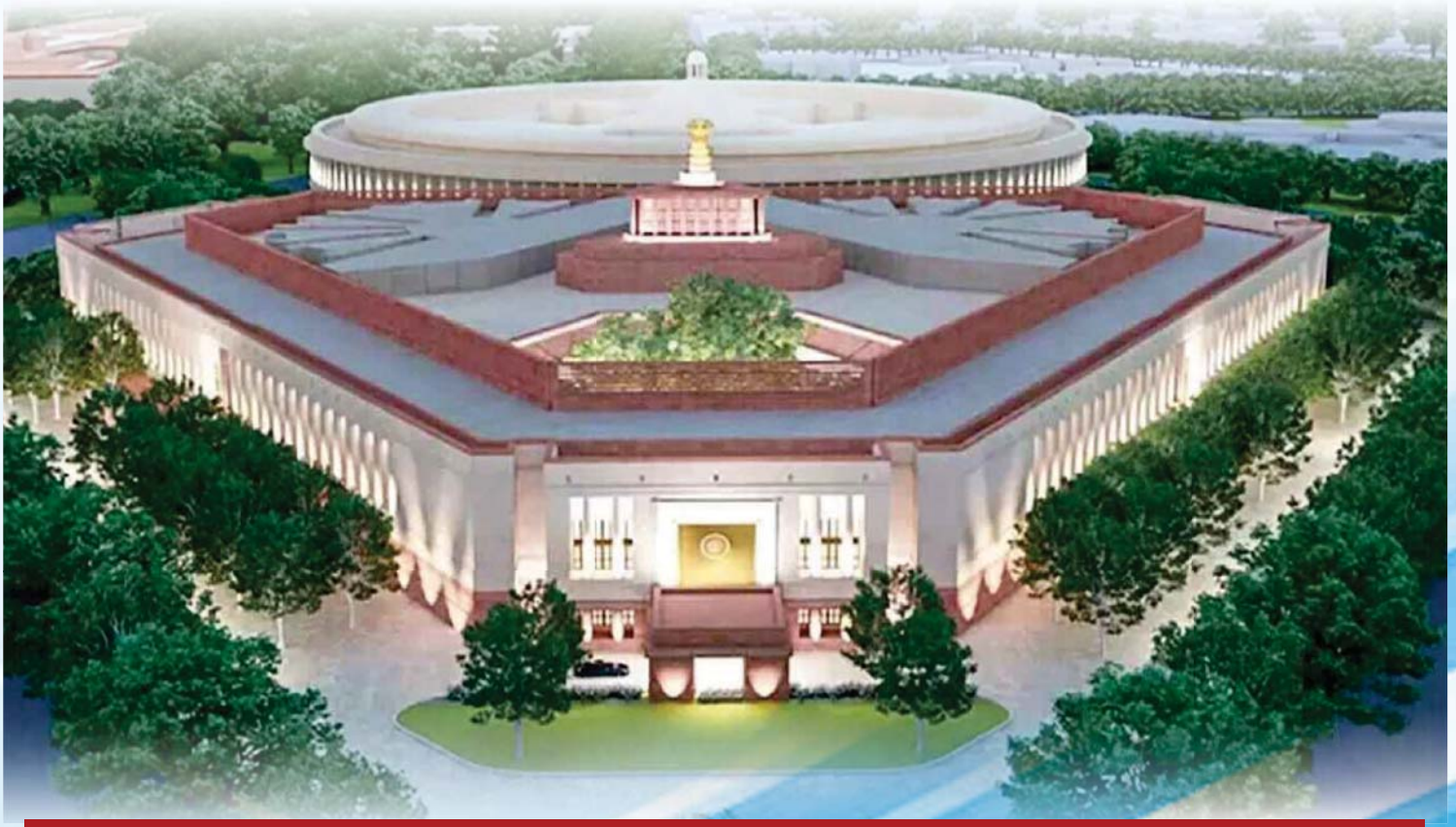
स्वच्छ भारत
एक कदम स्वच्छता की ओर

GOVERNMENT OF INDIA

CENTRAL PUBLIC WORKS DEPARTMENT

DELHI SCHEDULE OF RATES
(E & M)
2022

CPWD



DIRECTOR GENERAL, CPWD, NIRMAN BAHAWAN, NEW DELHI-110011

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2022

CPWD

PUBLISHED UNDER THE AUTHORITY OF
DIRECTOR GENERAL, CPWD, NIRMAN BAHAWAN, NEW DELHI-110011

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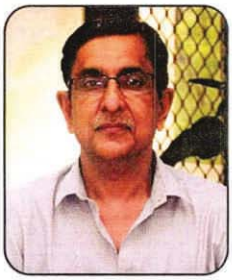
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Published by under the authority of

Director General

Central Public Works Department
Nirman Bhawan
New Delhi-110011



Shailendra Sharma
Director General

सत्यमेव जयते

भारत सरकार
Government of India

CPWD

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FOREWORD

CPWD is the benchmarking organisation in the building construction sector and its documents are useful to other Government Departments, Undertakings and Autonomous Bodies also for their works. This Delhi Schedule of Rates (E&M) is a comprehensive document which is widely followed by these organisations.

The first compilation of Schedule of Rates for Electrical Works took place as far back as in 1935 and thereafter a number of revision editions were issued to meet with requirements of up-gradation of technology and changes in the prevailing market rates. Till 2007, Schedule of Rates for Electrical Works used to be published in two parts i.e. Part-I Internal & Part-II External. However in 2012, both parts were combined into one for the sake of user's convenience. Since 2013 it was renamed as Delhi Schedule of Rates (E&M) as it incorporated items related to HVAC works also.

The Delhi Schedule of Rates (E&M) 2022 is a revision of Delhi Schedule of Rates (E&M) 2018 and takes into account the increased cost of labour, the changes in material cost and the effect of GST on Works Contracts. In addition, chapters for Wet Riser and Sprinkler System and BEE 5 Star Rated Ceiling Fan with Brushless Direct Current (BLDC) Motor have also been added.

I acknowledge the hard work and sincere effort put in by Sh. Dharmesh Chandra Goel, ADG(Tech.), Sh. Vimal Kumar, CE(E)CSQ, Sh. Ramayan Prasad Gupta, SE(E)TAS, Sh. Saurabh Kumar, SE (E)TLQA, Sh. Ashok Kumar Meena, EE (E)TAS, Sh. Sandeep Kumar Das, AE(E)TAS-II, Sh. Rajeev Bisht, AE(E)TAS-I and other staff of CSQ(E) whose names are not mentioned here for the sake of brevity. I also acknowledge the valuable contribution of Sh. Vikas Rana, CE(NDZ-I), Sh. Ravindra Pratap Singh, CE(NDZ-II) and Sh. Ujjwal Mitra, CE(NDZ-III) as well as all those involved in the process of revision and finalisation of Delhi Schedule of Rates (E&M) 2022.

I am sure that this Schedule of Rates (E&M) will be useful to all Engineers of CPWD and to other engineering organizations of Central/State Governments, practicing Architects and E&M Consultants.

(SHAILENDRA SHARMA)

Place: New Delhi
Date: July' 2022



Dharmesh Chandra Goel
Addl. Director General (Tech)

सत्यमेव जयते

भारत सरकार
Government of India

केन्द्रीय लोक निर्माण विभाग
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PREFACE

The DSR (E&M) 2022 is the revised edition of DSR (E&M) 2018 and combines Schedule of Rates for Electrical Works Part-I Internal, Part-II External, few items of Plumbing, Ducting, AHUs of HVAC Works, Fire Detection and Alarm System, Wet riser and Sprinkler System and BEE 5 Star Rated Ceiling Fan With Brush Les Direct Current (BLDC) Motor. This Schedule of Rates is based on the current market rates of materials (without any taxes etc.) at Delhi collected during Jan-Mar 2022 and minimum wages rates issued by Govt. of India for Delhi w.e.f. 01-04-2022.

This Schedule of Rates will be read along with relevant CPWD Specifications of Electrical Works. The Delhi Schedule of Rates (E&M) 2022 now replaces the Delhi Schedule of Rates (E&M) 2018.

The Salient Notes of DSR (E&M) 2022 are:

1. The Items of Works contained herein are to be executed as per CPWD General Specifications for Electrical Works Part-I Internal, Part-II External, Part- IV Sub-Station, CPWD General Specification for HVAC Works 2017, CPWD General Specification for Fire Detection and Alarm System 2018 and CPWD General Specification for Wet Riser and Sprinkler System 2020, with up-to-date amendments/correction slips.
2. The rates in this DSR (E&M) are for working height up to 4.5 meter from floor level wherever height not specified. The rates of materials are for reputed brands, factory fabricated and tested wherever available from manufacturers as submitted by field units.
3. Chapter for Wet riser and Sprinkler System and BEE 5 Star Rated Ceiling Fan with Brush Les Direct Current (BLDC) Motor have been added in this DSR.
4. The rates of AHUs have been incorporated only for four and six rows deep cooling coils. For any change in the parameter, the rates have to be analysed by the NIT approving authority.
5. For Electrical Panels, CPWD General Specifications for Electrical Works Part-IV shall be applicable.
6. The effect of GST on Works Contract has been incorporated in all the items.

Errors, Omissions and /or suggestions for improvements if any may be brought to the notice of Superintending Engineer (E) TAS in the office of Chief Engineer, CSQ (E), CPWD, Nirman Bhawan, New Delhi-110011 (Tel. No. 011-23061418; email: delseetas.cpwd@nic.in; deleeetas.cpwd@gov.in).

(Dharmesh Chandra Goel)

Place: New Delhi
Date: July' 2022

CONTENTS

CHAPTER	NAME OF CHAPTER/SUBHEAD	PAGE NO.
1.	WIRING	1
2.	MCCB, MCB & DB'S	10
3.	RISING MAINS & BUS TRUNKING	14
4.	CABLE TRAYS	18
5.	EARTIHNG	23
6.	LIGHTING CONDUCTOR	25
7.	MV CABLE LAYING	26
8	HT CABLE LAYING	28
9.	MV CABLE JOINTING & END TERMINATION	29
10.	HV CABLE JOINTING & END TERMINATION	32
11.	POLE ERECTION	34
12.	MV OVER HEAD LINE WORK	35
13.	HV OVER HEAD LINE WORK	39
14.	MISC. CIVIL ITEMS	42
15.	LIGHTING CONTROLS	45
16.	HVAC (ONLY PLUMBING, DUCTING & AHU)	46
17.	FIRE DETECTION AND ALARM SYSTEM	55
18.	WET RISER & SPRINKLER SYSTEM	60
19.	BEE 5 STAR RATED CEILING FAN WITH BRUSH LESS DIRECT CURRENT (BLDC) MOTOR	72
Appendix-I	BASIC RATE OF LABOUR & HIRE CHARGES	73
Appendix-II	BASIC RATE OF MATERIAL	74

CHAPTER-1-WIRING

Code No.	Description	Unit	Rate (₹)
	WIRING IN STEEL & PVC CONDUIT		
1.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with piano type switch, phenolic laminated sheet, suitable size MS box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.		
1.1.1	Group A	Point	1221
1.1.2	Group B	Point	1466
1.1.3	Group C	Point	1823
1.2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way piano type switch, phenolic laminated sheet, suitable size MS box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.	Point	1835
1.3	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.		
1.3.1	Group A	Point	1244
1.3.2	Group B	Point	1488
1.3.3	Group C	Point	1845
1.4	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc .as required.	Point	1981
1.5	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Metre	433
1.6	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 2 Nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Metre	662

Code No.	Description	Unit	Rate (₹)
1.7	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.		
1.7.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Metre	327
1.7.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	369
1.7.3	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Metre	428
1.7.4	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	Metre	589
1.7.5	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	Metre	710
1.7.6	2 X 16 sq. mm + 1 X 6 sq. mm earth wire	Metre	942
1.7.7	4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire	Metre	560
1.7.8	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	Metre	677
1.7.9	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	Metre	924
1.7.10	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	Metre	1166
1.7.11	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	Metre	1645
1.8	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with piano type switch, phenolic laminated sheet, suitable size M.S. box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc. as required.		
1.8.1	Group A	Point	993
1.8.2	Group B	Point	1160
1.8.3	Group C	Point	1445
1.9	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way piano type switch, phenolic laminated sheet, suitable size MS box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc. as required.	Point	1457
1.10	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.		
1.10.1	Group A	Point	1015
1.10.2	Group B	Point	1182
1.10.3	Group C	Point	1467
1.11	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.	Point	1562

Code No.	Description	Unit	Rate (₹)
1.12	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Metre	334
1.13	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 2 Nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Metre	537
1.14	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.		
1.14.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Metre	233
1.14.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	275
1.14.3	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Metre	334
1.14.4	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	Metre	439
1.14.5	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	Metre	570
1.14.6	2 X 16 sq. mm + 1 X 6 sq. mm earth wire	Metre	772
1.14.7	4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire	Metre	410
1.14.8	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	Metre	537
1.14.9	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	Metre	754
1.14.10	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	Metre	1005
1.14.11	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	Metre	1365
1.15	Rewiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable and 1.5 sq.mm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/ recessed steel/PVC conduit including dismantling as required.		
1.15.1	Group A	Point	574
1.15.2	Group B	Point	637
1.15.3	Group C	Point	894
1.16	Rewiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable and 1.5 sq.mm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/ recessed steel/PVC conduit including dismantling as required.	Point	894
1.17	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.		
1.17.1	1 x 1.5 sq. mm	Metre	45
1.17.2	2 x 1.5 sq. mm	Metre	70
1.17.3	3 x 1.5 sq. mm	Metre	95

Code No.	Description	Unit	Rate (₹)
1.17.4	4 x 1.5 sq. mm	Metre	120
1.17.5	5 x 1.5 sq. mm	Metre	155
1.17.6	6 x 1.5 sq. mm	Metre	181
1.17.7	7 x 1.5 sq. mm	Metre	216
1.17.8	8 x 1.5 sq. mm	Metre	241
1.17.9	9 x 1.5 sq. mm	Metre	285
1.17.10	10 x 1.5 sq. mm	Metre	311
1.17.11	2 x 2.5 sq. mm	Metre	98
1.17.12	3 x 2.5 sq. mm	Metre	137
1.17.13	4 x 2.5 sq. mm	Metre	177
1.17.14	5 x 2.5 sq. mm	Metre	226
1.17.15	6 x 2.5 sq. mm	Metre	265
1.17.16	7 x 2.5 sq. mm	Metre	314
1.17.17	8 x 2.5 sq. mm	Metre	353
1.17.18	9 x 2.5 sq. mm	Metre	412
1.17.19	10 x 2.5 sq. mm	Metre	451
1.17.20	2 x 4 sq. mm	Metre	147
1.17.21	3 x 4 sq. mm	Metre	206
1.17.22	4 x 4 sq. mm	Metre	275
1.17.23	5 x 4 sq. mm	Metre	337
1.17.24	6 x 4 sq. mm	Metre	396
1.17.25	7 x 4 sq. mm	Metre	457
1.17.26	8 x 4 sq. mm	Metre	516
1.17.27	9 x 4 sq. mm	Metre	579
1.17.28	10 x 4 sq. mm	Metre	648
1.17.29	2 x 6 sq. mm	Metre	216
1.17.30	3 x 6 sq. mm	Metre	304
1.17.31	4 x 6 sq. mm	Metre	402
1.17.32	5 x 6 sq. mm	Metre	491
1.17.33	6 x 6 sq. mm	Metre	598
1.17.34	7 x 6 sq. mm	Metre	687
1.17.35	8 x 6 sq. mm	Metre	785
1.17.36	9 x 6 sq. mm	Metre	874
1.17.37	10 x 6 sq. mm	Metre	967
1.18	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.		
1.18.1	1 Pair	Metre	31
1.18.2	2 Pair	Metre	38
1.18.3	4 Pair	Metre	54
1.19	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	Metre	47

Code No.	Description	Unit	Rate (₹)
1.20	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.		
1.20.1	20 mm	Metre	223
1.20.2	25 mm	Metre	256
1.20.3	32 mm	Metre	326
1.20.4	40 mm	Metre	470
1.20.5	50 mm	Metre	584
1.21	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.		
1.21.1	20 mm	Metre	128
1.21.2	25 mm	Metre	145
1.21.3	32 mm	Metre	184
1.21.4	40 mm	Metre	228
1.21.5	50 mm	Metre	284
1.22	Supplying and fixing metal box of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including painting etc. as required.		
1.22.1	75 mm X 75 mm X 60 mm deep	Each	178
1.22.2	100 mm X 100 mm X 60 mm deep	Each	209
1.22.3	150 mm X 75 mm X 60 mm deep	Each	216
1.22.4	150 mm X 150 mm X 60 mm deep	Each	311
1.22.5	180 mm X 100 mm X 60 mm deep	Each	245
1.22.6	200 mm X 125 mm X 60 mm deep	Each	323
1.22.7	200 mm X 150 mm X 60 mm deep	Each	355
1.22.8	200 mm X 150 mm X 75 mm deep	Each	363
1.22.9	200 mm X 250 mm X 60 mm deep	Each	468
1.22.10	200 mm X 250 mm X 75 mm deep	Each	488
1.22.11	200 mm X 150 mm X 100 mm deep	Each	412
1.22.12	200 mm X 250 mm X 100 mm deep	Each	506
1.22.13	200 mm X 300 mm X 60 mm deep	Each	525
1.22.14	200 mm X 300 mm X 100 mm deep	Each	561
1.22.15	250 mm X 300 mm X 60 mm deep	Each	607
1.22.16	250 mm X 300 mm X 100 mm deep	Each	653
1.23	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.		
1.23.1	5/6 amps switch	Each	52
1.23.2	2 way 5/6 A switch	Each	64
1.23.3	15/16 A switch	Each	121
1.23.4	3 pin 5/6 A socket outlet	Each	69
1.23.5	6 pin 15/16 A socket outlet	Each	137
1.23.6	Telephone socket outlet	Each	109

Code No.	Description	Unit	Rate (₹)
1.23.7	TV antenna socket outlet	Each	95
1.23.8	Bell push	Each	83
1.24	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.		
1.24.1	5/6 A switch	Each	103
1.24.2	2 way 5/6 A switch	Each	148
1.24.3	15/16 A switch	Each	156
1.24.4	3 pin 5/6 A socket outlet	Each	122
1.24.5	6 pin 15/16 A socket outlet	Each	197
1.24.6	Telephone socket outlet	Each	148
1.24.7	TV antenna socket outlet	Each	148
1.24.8	Bell push	Each	140
1.25	Supplying and fixing **two module** stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	Each	369
1.26	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	Each	40
1.27	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.		
1.27.1	1 or 2 Module (75mmX75mm)	Each	298
1.27.2	3 Module (100mmX75mm)	Each	327
1.27.3	4 Module (125mmX75mm)	Each	343
1.27.4	6 Module (200mmX75mm)	Each	402
1.27.5	8 Module (125mmX125mm)	Each	454
1.27.6	12 Module (200mmX150mm)	Each	547
1.28	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required.		
1.28.1	1 or 2 Module	Each	133
1.28.2	3 Module	Each	151
1.28.3	4 Module	Each	158
1.28.4	6 Module	Each	182
1.28.5	8 Module	Each	211
1.28.6	12 Module	Each	272
1.29	Supplying and fixing metal box of 150mm X 75mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 3 pin 5/6 A socket outlet and 5/6 A piano type switch, connections, painting etc. as required.	Each	358
1.30	Supplying and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 5/6 & 15/16 A socket outlet and 15/16 A piano type switch, connections, painting etc. as required.	Each	488

Code No.	Description	Unit	Rate (₹)
1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Each	477
1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	Each	586
1.33	Supplying and fixing 3 pin, 5 A ceiling rose on the existing junction box/ wooden block including connections etc. as required.	Each	87
1.34	Supplying and fixing brass batten/ angle holder including connection etc. as required.	Each	131
1.35	Installation ,Testing, Commissioning of wall bracket /ceiling fittings of all sizes and shapes containing upto two GLS/CFL/LED lamps per fitting, complete with all accessories including connections etc. as required.	Each	119
1.36	Supplying and fixing stiff pendent with 300 mm long, 20 mm dia X 1.6 mm thick steel conduit, aluminium cast back plate and brass holder complete, including wiring the down rod with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and painting etc. as required.	Each	304
1.37	**DELETED**		
1.38	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required.	Each	99
1.39	Providing and fixing plain 16/0.20mm (0.50sqmm) twin flat flexible, FRLS PVC insulated, copper conductor cable, in PVC sleeve of suitable size on the floor/ wall, or side of the table/ door etc. as required.	Metre	44
1.40	Providing and fixing plain 16/0.20mm (0.50sqmm) twin circular flexible FRLS PVC insulated, PVC sheathed copper conductor cable direct on the wall with PVC clips etc. as required.	Metre	40
1.41	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	206
1.42	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc., including supplying and fixing ball and socket arrangement, 2 Nos. down rods of 20 mm dia X 1.6 mm thick steel conduit upto 30 cm length, painting and wiring the down rods and connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	471

Code No.	Description	Unit	Rate (₹)
1.43	Providing and fixing extra conduit down rod of 20 mm dia, 2 X 10 cm length, wiring with 2 X 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable including painting etc. as required. (Note : More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored)	Each	55
1.44	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.	Each	213
1.45	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.	Each	339
1.46	**DELETED**		
1.47	Supplying and fixing extra down rod of 10 cm length G.I. pipe ,15 mm dia, heavy gauge including painting etc. as required. (Note : More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored)	Each	46
1.48	Supplying and fixing extra conduit down rod of 20 cm length G.I. pipe 15 mm dia, heavy gauge including painting etc. as required. (Note : More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored)	Each	52
1.49	Numbering of ceiling fan/ exhaust fan/ fluorescent fittings as required.	Each	57
1.50	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.		
1.50.1	Upto 450 mm sweep	Each	450
1.50.2	510 mm sweep	Each	643
1.51	Extra for fixing the louvers/ shutters complete with frame for a exhaust fan of all sizes.	Each	207
1.52	Painting of ceiling fan in installed position with one or more coats of spray painting with synthetic enamel paint of approved brand and manufacture to give an even shade, including cleaning of surface with detergent etc. as required.	Each	154
1.53	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.		
1.53.1	1 run of cable	Metre	57
1.53.2	2 run of cable	Metre	96
1.53.3	3 run of cable	Metre	134

Code No.	Description	Unit	Rate (₹)
1.54	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.		
1.54.1	Group A	Point	777
1.54.2	Group B	Point	939
1.54.3	Group C	Point	1094
1.55	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.		
1.55.1	Group A	Point	649
1.55.2	Group B	Point	753
1.55.3	Group C	Point	858
1.56	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providng and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).	Each	676
1.57	Supplying & fixing suitable size GI box wih modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	Each	727
1.58	Supplying and fixing PVC batten/ angle holder including connections etc. as required.	Each	110
1.59	Dismantling of ceiling fan and painting the same with with one or more coats of spray painting with synthetic enamel paint of approved brand and manufacture to give an even shade, including cleaning of surface with detergent and replacing the damaged rubber reel, nuts and bolts with washers and safety pins, reinstalling the same as required.	Each	261

Code No.	Description	Unit	Rate (₹)
2.1	Providing and fixing following capacity TP&N disconnector fuse switch unit inside the existing panel board with ISI marked HRC fuses including drilling holes in cubicle panel, making connections, etc. as required.		
2.1.1	32 A TP&N	Each	2152
2.1.2	63 A TP&N	Each	3144
2.1.3	100 A TP&N	Each	6084
2.1.4	125 A TP&N	Each	7189
2.1.5	160 A TP&N	Each	8116
2.1.6	200 A TP&N	Each	9689
2.1.7	315 A TP&N	Each	14566
2.1.8	400 A TP&N	Each	17812
2.2	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.		
2.2.1	100 A, 16 KA,TPMCCB	Each	3777
2.2.2	125 A, 16 KA,TPMCCB	Each	4821
2.2.3	150 A, 16 KA,TPMCCB	Each	5992
2.2.4	200 A, 16 KA,TPMCCB	Each	7691
2.2.5	200 A, 25 KA,TPMCCB	Each	11016
2.2.6	250 A, 25 KA,TPMCCB	Each	12984
2.2.7	250 A, 35 KA,TPMCCB	Each	13881
2.2.8	315 A, 35 KA,TPMCCB	Each	21586
2.2.9	400 A, 35 KA,TPMCCB	Each	21586
2.2.10	500 A, 35 KA,TPMCCB	Each	25554
2.2.11	630 A, 50 KA,TPMCCB	Each	27860
2.2.12	800 A, 50 KA,TPMCCB	Each	36160
2.2.13	100 A,30KA,FPMCCB	Each	7723
2.2.14	125 A,36KA,FPMCCB	Each	8209
2.2.15	200 A,36KA,FPMCCB	Each	15206
2.2.16	250 A,36KA,FPMCCB	Each	17510
2.2.17	250 A,50KA,FPMCCB	Each	18411
2.2.18	400 A,50KA,FPMCCB	Each	42665
2.2.19	630 A,50KA,FPMCCB	Each	43092
2.3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)		
2.3.1	6 way , Double door	Each	2206
2.3.2	8 way , Double door	Each	2573
2.3.3	12 way , Double door	Each	2315
2.3.4	16 way, Double door	Each	3141

Code No.	Description	Unit	Rate (₹)
2.4	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)		
2.4.1	4 way (4 + 12), Double door	Each	4091
2.4.2	6 way (4 + 18), Double door	Each	4974
2.4.3	8 way (4 + 24), Double door	Each	5967
2.5	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)		
2.5.1	4 way (4 + 12), Double door	Each	7512
2.5.2	8 way (4 + 24), Double door	Each	10165
2.5.3	12 way (4 + 36), Double door	Each	12833
2.6	**DELETED**		
2.7	**DELETED**		
2.8	**DELETED**		
2.9	**DELETED**		
2.10	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
2.10.1	Single pole	Each	256
2.10.2	Single pole and neutral	Each	599
2.10.3	Double pole	Each	656
2.10.4	Triple pole	Each	1007
2.10.5	Triple pole and neutral	Each	1228
2.11	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Each	13
2.12	Supplying and fixing following rating, double pole, 240 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
2.12.1	40 A	Each	435
2.12.2	63 A	Each	527
2.13	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
2.13.1	40 A	Each	970
2.13.2	63 A	Each	1034
2.13.3	100 A	Each	1227

Code No.	Description	Unit	Rate (₹)
2.14	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
2.14.1	25 A	Each	2028
2.14.2	40 A	Each	2642
2.14.3	63 A	Each	2722
2.15	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.		
2.15.1	25 A	Each	2586
2.15.2	40 A	Each	3188
2.15.3	63 A	Each	2872
2.16	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	Each	1169
2.17	Supplying and fixing TP sheet steel enclosure on surface/ recess along with 16/25/32 A 415 V "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	Each	1592
2.18	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	Each	1621
2.19	Supplying and fixing 20 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	Each	2590
2.20	Supplying and fixing 30 A, 415 V, TPN Industrial type socket outlet, with 4 pole and earth, metal enclosed plug top alongwith 30 A "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	Each	4107
2.21	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	269
2.22	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	292

Code No.	Description	Unit	Rate (₹)
2.23	Supplying and fixing Cable End Box (Loose Wire Box) suitable for following single pole and neutral, sheet steel, MCB distribution board, 240 Volts, on surface/ recess, complete with testing and commissioning etc. as required.		
2.23.1	For 6 way, Double door SPN MCBDB	Each	752
2.23.2	For 8 way, Double door SPN MCBDB	Each	832
2.23.3	For 10 way, Double door SPN MCBDB	Each	810
2.23.4	For 14 way, Double door SPN MCBDB	Each	902
2.24	Supplying and fixing Cable End Box (Loose Wire Box) suitable for following triple pole and neutral, sheet steel, MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc.as required.		
2.24.1	For 4 way, Double door TPN MCBDB	Each	1080
2.24.2	For 6 way, Double door TPN MCBDB	Each	1124
2.24.3	For 8 way, Double door TPN MCBDB	Each	1340
2.25	Supplying and fixing Cable End Box (Loose Wire Box) suitable for triple pole and neutral, sheet steel, Vertical MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc. as required.	Each	1170

Code No.	Description	Unit	Rate (₹)
3.1	Supplying, installing on wall, testing and commissioning of following capacity rising mains made of 1.6mm thick IP 42 sheet steel enclosure duly painted with powder coating, wall straps, fully PVC insulated 4 Nos aluminium bus bars having current density of 130 A/ sq cm at nominal current rating in convenient sections and suitable for 415 V, 3 phase, 4 wire, 50 Hz, A.C. supply with extension joints, fire proof barriers, expansion joints, thrust pads including jointing and earthing with 2 runs of galvanised iron strips etc. as required. (Rising mains confirming to IS 8623, TEC 439)		
3.1.1	200 A (S.C. rating for 1 sec - 15 kA)	Metre	7321
3.1.2	300 A (S.C. rating for 1 sec - 20 kA)	Metre	7625
3.1.3	400 A (S.C. rating for 1 sec - 25 kA)	Metre	9348
3.1.4	600 A (S.C. rating for 1 sec - 45 kA)	Metre	10425
3.1.5	800 A (S.C. rating for 1 sec - 50 kA)	Metre	12528
3.2	Supplying, installing, testing and commissioning of following capacity TPN tap off box made of 1.6mm thick sheet steel enclosure duly painted with powder coating on existing rising mains complete with TPN disconnector FSU and HRC fuses, connections, earthing etc. as required.		
3.2.1	16 A TPN	Each	8141
3.2.2	32 A TPN	Each	10208
3.2.3	63 A TPN	Each	11541
3.2.4	100 A TPN	Each	14206
3.2.5	200 A TPN	Each	18880
3.2.6	315 A TPN	Each	25661
3.2.7	400 A TPN	Each	29206
3.3	Supplying, installing, testing and commissioning of following capacity TPN distribution tap off box made of 1.6mm thick sheet steel enclosure duly painted with powder coating on existing rising mains complete with HRC fuses, interconnections, earthing etc. as required.		
3.3.1	16 A TPN, 2 way	Each	12211
3.3.2	16 A TPN, 4 way	Each	27217
3.3.3	16 A TPN, 6 way	Each	38565
3.3.4	16 A TPN, 8 way	Each	53391
3.3.5	32 A TPN, 2 way	Each	15039
3.3.6	32 A TPN, 4 way	Each	30697
3.3.7	32 A TPN, 6 way	Each	40303
3.3.8	32 A TPN, 8 way	Each	55999
3.3.9	63 A TPN, 2 way	Each	17126
3.3.10	63 A TPN, 4 way	Each	28957
3.3.11	63 A TPN, 6 way	Each	31256

Code No.	Description	Unit	Rate (₹)
3.3.12	63 A TPN, 8 way	Each	53739
3.4	Supplying, installing, testing and commissioning of following capacity End Feed Unit made of 1.6mm thick sheet steel enclosure duly painted with powder coating to existing rising mains complete with TPN disconnector FSU and HRC fuses, mounting stands, cable end box, brass compression gland, connections, earthing etc. as required.		
3.4.1	200 A TPN	Each	24463
3.4.2	300 A TPN	Each	26876
3.4.3	400 A TPN	Each	29782
3.4.4	600 A TPN	Each	32199
3.4.5	800 A TPN	Each	36291
3.5	Supplying, installation, including suspension, testing and commissioning of following capacity bus trunking with aluminium bus bars having current density of 130 A/ sq cm at nominal current rating in 1.6mm thick IP 42 sheet steel enclosure in convenient sections for use on, 3 phase, 4 wire, 415 V, 50 Hz, A.C. supply including jointing of sections, flexible joints, expansion joints, bends and earthing with 2 runs of galvanised iron strips, suspenders, angle iron bracket, steel fasteners, connecting to earthing system etc. as required.		
3.5.1	800 A	Metre	13996
3.5.2	1000 A	Metre	16520
3.5.3	1250 A	Metre	21253
3.5.4	1400 A	Metre	26472
3.5.5	1600 A	Metre	26559
3.6	Supplying, installation, testing and commissioning of following capacity overhead distribution bus trunking with aluminium bus bars having current density of 130 A/ sq cm at nominal current rating in 1.6mm thick IP 42 sheet steel enclosure in convenient sections with provision of tapping points for use on, 3 phase, 4 wire, 415 volts, 50 Hz, A.C. supply including jointing of sections, bends, earthing with 2 runs of galvanised iron strips, all installation accessories etc. as required.		
3.6.1	200 A	Metre	8169
3.6.2	400 A	Metre	10430
3.7	Supplying, installing, testing and commissioning of following capacity TPN tap off box / plug-in box made of 1.6mm thick sheet steel enclosure duly painted with powder coating on existing overhead bus bar system complete with TPN disconnector FSU and HRC fuses, connections, earthing etc. as required.		
3.7.1	32 A	Each	10208
3.7.2	63 A	Each	11541
3.7.3	100 A	Each	14206
3.8	Supplying, installing on wall, testing and commissioning of following capacity Air Insulated Compact Type Rising Mains for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply with enclosure having IP-54 rating after fixing the tap off boxes and all accessories, made of 1.6mm thick		

Code No.	Description	Unit	Rate (₹)
	steel sheet duly powder coated in convenient sections complete with 4 Nos aluminium bus bars having current density of 130 A/ sq cm at nominal current rating, necessary joints & expansion joints, fire barrier at each floor, provision of tapping at every metre, continuous earthing with 2 Nos aluminium strip of suitable size (one on each side) including, G.I. clamping brackets, angle iron bracket, steel fasteners, connecting to earthing system etc. as required.		
3.8.1	200 A, Isc = 15kA for 1 second	Metre	7969
3.8.2	315 A, Isc = 25kA for 1 second	Metre	9312
3.8.3	400 A, Isc = 30kA for 1 second	Metre	11090
3.8.4	500 A, Isc = 35kA for 1 second	Metre	11139
3.8.5	630 A, Isc = 50kA for 1 second	Metre	12856
3.8.6	800 A, Isc = 50kA for 1 second	Metre	18722
3.8.7	1000 A, Isc = 50kA for 1 second	Metre	19389
3.8.8	1250 A, Isc = 50kA for 1 second	Metre	22990
3.9	Supplying, installing on wall or suspension on ceiling, testing and commissioning of following capacity Air Insulated Compact Type Bus Trunking for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply with metal clad enclosure having IP-54 rating after fixing the tap off boxes and all accessories, made of 1.6mm thick steel sheet duly powder coated in convenient sections complete with 4 Nos aluminium bus bars having current density of 130 A/ sq cm at nominal current rating, necessary joints, elbow joints & expansion joints, fire barrier at each floor, continuous earthing with 2 Nos aluminium strip of suitable size (one on each side) including, G.I. clamping brackets, suspenders, angle iron bracket, steel fasteners, connecting to earthing system etc. as required.		
3.9.1	200 A, Isc = 15kA for 1 second	Metre	8043
3.9.2	315 A, Isc = 25kA for 1 second	Metre	9399
3.9.3	400 A, Isc = 30kA for 1 second	Metre	11195
3.9.4	500 A, Isc = 35kA for 1 second	Metre	11243
3.9.5	630 A, Isc = 50kA for 1 second	Metre	12978
3.9.6	800 A, Isc = 50kA for 1 second	Metre	18902
3.9.7	1000 A, Isc = 50kA for 1 second	Metre	18902
3.9.8	1250 A, Isc = 50kA for 1 second	Metre	21960
3.10	**DELETED**		
3.11	Supplying, installation, testing & commisioning of following capacity End Feed Unit for the existing Air Insulated Compact Type bus trunking/ rising mains for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply made with 1.6mm thick steel sheet enclosure (IP54) duly powder coated with provision of MCCB/ACB (but without MCCB/ACB) complete with necessary joints including clamping brackets, angle iron bracket, steel fasteners, connecting to earthing system etc. as required		

Code No.	Description	Unit	Rate (₹)
3.11.1	200 A, Isc= 15kA for 1 sec	Each	8475
3.11.2	315 A, Isc= 25kA for 1 sec	Each	10215
3.11.3	400 A, Isc= 30kA for 1 sec	Each	11322
3.11.4	500 A, Isc= 35kA for 1 sec	Each	11322
3.11.5	630 A, Isc= 50kA for 1 sec	Each	13442
3.11.6	800 A, Isc= 50kA for 1 sec	Each	17893
3.11.7	1000 A, Isc= 50kA for 1 sec	Each	17893
3.11.8	1250 A, Isc= 50kA for 1 sec	Each	19904
3.12	Supplying, installation, testing & commisioning of following capacity Plug In/ tap off box on the existing Air Insulated Compact Type bus trunking/ rising mains for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply made with 1.6mm thick sheet steel enclosure (IP54) duly powder coated with provision of MCCB/ACB (but without MCCB/ACB) complete etc. as required		
3.12.1	125 A, Isc= 15kA for 1 sec	Each	8671
3.12.2	200 A, Isc= 25kA for 1 sec	Each	8671
3.12.3	250 A, Isc= 30kA for 1 sec	Each	10636
3.12.4	400 A, Isc= 35kA for 1 sec	Each	10636
3.12.5	500 A, Isc= 50kA for 1 sec	Each	16012
3.12.6	630 A, Isc= 50kA for 1 sec	Each	16012
3.13	Supplying, installing by suspension on ceiling, testing and commissioning of following capacity Sandwich Type Rising Mains for use on 3 phase 4 wire 415 volts, 50Hz A.C. supply with metal clad enclosure having IP-54 rating after fixing the tap off boxes and all accessories, made of 1.6mm thick steel sheet duly powder coated in convenient sections complete with 4 Nos aluminium bus bars having current density of 130 A/ sq cm at nominal current rating, necessary joints, elbow joints & expansion joints and bends, fire barrier at each floor, provision of tapping at every metre, adopter box and copper flexible for joints, continuous earthing with 2 Nos aluminium strip of suitable size (one on each side) including, G.I. clamping brackets, suspenders, angle iron bracket, steel fasteners, connecting to earthing system etc. as required		
3.13.1	400 A, Isc= 25kA for 1 sec	Metre	15356
3.13.2	500 A, Isc= 30kA for 1 sec	Metre	16270
3.13.3	630 A, Isc= 50kA for 1 sec	Metre	19211
3.13.4	800 A, Isc= 50kA for 1 sec	Metre	21714
3.13.5	1000 A, Isc= 50kA for 1 sec	Metre	24178
3.13.6	1250 A, Isc= 50kA for 1 sec	Metre	26396
3.13.7	1600 A, Isc= 50kA for 1 sec	Metre	31411
3.13.8	2000 A, Isc= 50kA for 1 sec	Metre	40154
3.13.9	2500 A, Isc= 50kA for 1 sec	Metre	44589
3.13.10	3200 A, Isc= 50kA for 1 sec	Metre	55716
3.13.11	4000 A, Isc= 50kA for 1 sec	Metre	94571

CHAPTER-4-CABLE TRAYS

Code No.	Description	Unit	Rate (₹)
4.1	Supplying and installing following size of perforated painted with powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.		
4.1.1	100 mm width X 50 mm depth X 1.6 mm thickness	Metre	543
4.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	Metre	604
4.1.3	200 mm width X 50 mm depth X 1.6 mm thickness	Metre	689
4.1.4	300 mm width X 50 mm depth X 1.6 mm thickness	Metre	777
4.1.5	375 mm width X 50 mm depth X 2.0 mm thickness	Metre	1015
4.1.6	450 mm width X 50 mm depth X 2.0 mm thickness	Metre	1137
4.1.7	600 mm width X 50 mm depth X 2.0 mm thickness	Metre	1366
4.1.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	928
4.1.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	1058
4.1.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	1224
4.1.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	1463
4.1.12	750 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	1685
4.1.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	1952
4.1.14	600 mm width X 75 mm depth X 2.0 mm thickness	Metre	1497
4.1.15	750 mm width X 75 mm depth X 2.0 mm thickness	Metre	1699
4.1.16	900 mm width X 75 mm depth X 2.0 mm thickness	Metre	2531
4.2	Supplying and installing following size of perforated painted with powder coating M.S. cable trays bends with perforation not more than 17.5%,, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.		
4.2.1	100 mm width X 50 mm depth X 1.6 mm thickness	Each	868
4.2.2	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1018
4.2.3	200 mm width X 50 mm depth X 1.6 mm thickness	Each	1227
4.2.4	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1438
4.2.5	375 mm width X 50 mm depth X 2.0 mm thickness	Each	2006
4.2.6	450 mm width X 50 mm depth X 2.0 mm thickness	Each	2293
4.2.7	600 mm width X 50 mm depth X 2.0 mm thickness	Each	2840
4.2.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Each	1807
4.2.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2108
4.2.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2479
4.2.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3041
4.2.12	750 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3578
4.2.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Each	6544
4.2.14	600 mm width X 75 mm depth X 2.0 mm thickness	Each	3126

Code No.	Description	Unit	Rate (₹)
4.2.15	750 mm width X 75 mm depth X 2.0 mm thickness	Each	3665
4.2.16	900 mm width X 75 mm depth X 2.0 mm thickness	Each	4236
4.3	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Tee with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.		
4.3.1	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1003
4.3.2	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1186
4.3.3	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1446
4.3.4	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1708
4.3.5	375 mm width X 50 mm depth X 2.0 mm thickness	Each	2408
4.3.6	450 mm width X 50 mm depth X 2.0 mm thickness	Each	2758
4.3.7	600 mm width X 50 mm depth X 2.0 mm thickness	Each	3433
4.3.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2167
4.3.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2531
4.3.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2966
4.3.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3654
4.3.12	750 mm width X 62.5 mm depth X 2.0 mm thickness	Each	4318
4.3.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Each	5017
4.3.14	600 mm width X 75 mm depth X 2.0 mm thickness	Each	3760
4.3.15	750 mm width X 75 mm depth X 2.0 mm thickness	Each	4426
4.3.16	900 mm width X 75 mm depth X 2.0 mm thickness	Each	5125
4.4	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Cross Member with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.		
4.4.1	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1139
4.4.2	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1356
4.4.3	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1667
4.4.4	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1979
4.4.5	375 mm width X 50 mm depth X 2.0 mm thickness	Each	2810
4.4.6	450 mm width X 50 mm depth X 2.0 mm thickness	Each	3224
4.4.7	600 mm width X 50 mm depth X 2.0 mm thickness	Each	4025
4.4.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2526
4.4.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2955
4.4.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3452
4.4.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Each	4268
4.4.12	750 mm width X 62.5 mm depth X 2.0 mm thickness	Each	5059
4.4.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Each	5884

Code No.	Description	Unit	Rate (₹)
4.4.14	600 mm width X 75 mm depth X 2.0 mm thickness	Each	4395
4.4.15	750 mm width X 75 mm depth X 2.0 mm thickness	Each	5188
4.4.16	900 mm width X 75 mm depth X 2.0 mm thickness	Each	6014
4.5	Supplying and installing following size of perforated painted with powder coating M.S. cable trays Reducer with perforation not more than 17.5%, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.		
4.5.1	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1003
4.5.2	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1186
4.5.3	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1456
4.5.4	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1718
4.5.5	375 mm width X 50 mm depth X 2.0 mm thickness	Each	2418
4.5.6	450 mm width X 50 mm depth X 2.0 mm thickness	Each	2768
4.5.7	600 mm width X 50 mm depth X 2.0 mm thickness	Each	3433
4.5.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2167
4.5.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2531
4.5.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2966
4.5.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3654
4.5.12	750 mm width X 62.5 mm depth X 2.0 mm thickness	Each	4318
4.5.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Each	5017
4.5.14	600 mm width X 75 mm depth X 2.0 mm thickness	Each	3760
4.5.15	750 mm width X 75 mm depth X 2.0 mm thickness	Each	4426
4.5.16	900 mm width X 75 mm depth X 2.0 mm thickness	Each	5125
	Hot Dipped Galvanized Iron Cable Tray		
4.6	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.		
4.6.1	100 mm width X 50 mm depth X 1.6 mm thickness	Metre	669
4.6.2	150 mm width X 50 mm depth X 1.6 mm thickness	Metre	716
4.6.3	225 mm width X 50 mm depth X 1.6 mm thickness	Metre	895
4.6.4	300 mm width X 50 mm depth X 1.6 mm thickness	Metre	963
4.6.5	375 mm width X 50 mm depth X 2.0 mm thickness	Metre	1213
4.6.6	450 mm width X 50 mm depth X 2.0 mm thickness	Metre	1325
4.6.7	600 mm width X 50 mm depth X 2.0 mm thickness	Metre	1790
4.6.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	1190
4.6.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	1361
4.6.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	1574
4.6.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	1909

Code No.	Description	Unit	Rate (₹)
4.6.12	750 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	2257
4.6.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Metre	2607
4.6.14	600 mm width X 75 mm depth X 2.0 mm thickness	Metre	1955
4.6.15	750 mm width X 75 mm depth X 2.0 mm thickness	Metre	2270
4.6.16	900 mm width X 75 mm depth X 2.0 mm thickness	Metre	2612
4.7	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.		
4.7.1	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1159
4.7.2	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1270
4.7.3	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1694
4.7.4	300 mm width X 50 mm depth X 1.6 mm thickness	Each	1852
4.7.5	375 mm width X 50 mm depth X 2.0 mm thickness	Each	2429
4.7.6	450 mm width X 50 mm depth X 2.0 mm thickness	Each	2683
4.7.7	600 mm width X 50 mm depth X 2.0 mm thickness	Each	3774
4.7.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2388
4.7.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2779
4.7.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3248
4.7.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3732
4.7.12	750 mm width X 62.5 mm depth X 2.0 mm thickness	Each	4838
4.7.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Each	5613
4.7.14	600 mm width X 75 mm depth X 2.0 mm thickness	Each	4131
4.7.15	750 mm width X 75 mm depth X 2.0 mm thickness	Each	4871
4.7.16	900 mm width X 75 mm depth X 2.0 mm thickness	Each	5637
4.8	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.		
4.8.1	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1327
4.8.2	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1383
4.8.3	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1967
4.8.4	300 mm width X 50 mm depth X 1.6 mm thickness	Each	2156
4.8.5	375 mm width X 50 mm depth X 2.0 mm thickness	Each	2843
4.8.6	450 mm width X 50 mm depth X 2.0 mm thickness	Each	3141
4.8.7	600 mm width X 50 mm depth X 2.0 mm thickness	Each	4446
4.8.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2798
4.8.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3315
4.8.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3801
4.8.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Each	4802
4.8.12	750 mm width X 62.5 mm depth X 2.0 mm thickness	Each	5692
4.8.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Each	6621
4.8.14	600 mm width X 75 mm depth X 2.0 mm thickness	Each	4853
4.8.15	750 mm width X 75 mm depth X 2.0 mm thickness	Each	5736
4.8.16	900 mm width X 75 mm depth X 2.0 mm thickness	Each	6648

Code No.	Description	Unit	Rate (₹)
4.9	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Cross member" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.		
4.9.1	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1327
4.9.2	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1383
4.9.3	225 mm width X 50 mm depth X 1.6 mm thickness	Each	1987
4.9.4	300 mm width X 50 mm depth X 1.6 mm thickness	Each	2366
4.9.5	375 mm width X 50 mm depth X 2.0 mm thickness	Each	3108
4.9.6	450 mm width X 50 mm depth X 2.0 mm thickness	Each	3569
4.9.7	600 mm width X 50 mm depth X 2.0 mm thickness	Each	4460
4.9.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Each	2805
4.9.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3260
4.9.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3807
4.9.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Each	4721
4.9.12	750mm width X 62.5 mm depth X 2 mm thickness	Each	5692
4.9.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Each	6621
4.9.14	600 mm width X 75 mm depth X 2.0 mm thickness	Each	4856
4.9.15	750 mm width X 75 mm depth X 2.0 mm thickness	Each	4248
4.9.16	900 mm width X 75 mm depth X 2.0 mm thickness	Each	4910
4.10	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Reducer" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc as required.		
4.10.1	100 mm width X 50 mm depth X 1.6 mm thickness	Each	1655
4.10.2	150 mm width X 50 mm depth X 1.6 mm thickness	Each	1921
4.10.3	225 mm width X 50 mm depth X 1.6 mm thickness	Each	2421
4.10.4	300 mm width X 50 mm depth X 1.6 mm thickness	Each	2823
4.10.5	375 mm width X 50 mm depth X 2.0 mm thickness	Each	3428
4.10.6	450 mm width X 50 mm depth X 2.0 mm thickness	Each	3721
4.10.7	600 mm width X 50 mm depth X 2.0 mm thickness	Each	5145
4.10.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3390
4.10.9	375 mm width X 62.5 mm depth X 2.0 mm thickness	Each	3959
4.10.10	450 mm width X 62.5 mm depth X 2.0 mm thickness	Each	4721
4.10.11	600 mm width X 62.5 mm depth X 2.0 mm thickness	Each	5957
4.10.12	750mm width X 62.5 mm depth X 2 mm thickness	Each	6404
4.10.13	900 mm width X 62.5 mm depth X 2.0 mm thickness	Each	7426
4.10.14	600 mm width X 75 mm depth X 2.0 mm thickness	Each	5264
4.10.15	750 mm width X 75 mm depth X 2.0 mm thickness	Each	6484
4.10.16	900 mm width X 75 mm depth X 2.0 mm thickness	Each	7509

CHAPTER-5-EARTHING

Code No.	Description	Unit	Rate (₹)
5.1	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal/ coke and salt) as required.	Set	5368
5.2	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	Each	6855
5.3	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt) as required.	Set	6256
5.4	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Set	7472
5.5	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt) as required.	Set	12622
5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Set	13838
5.7	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	Metre	51
5.8	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Metre	972
5.9	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Metre	144
5.10	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	1551
5.11	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Metre	706

Code No.	Description	Unit	Rate (₹)
5.12	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required.	Metre	287
5.13	Providing and laying earth connection from earth electrode with 4.00 mm dia copper wire in 15 mm dia G.I. pipe from earth electrode including connection with copper thimble excavation and re-filling as required.	Metre	369
5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	1162
5.15	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Metre	244
5.16	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.	Metre	70
5.17	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing as required.	Metre	155
5.18	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Metre	42
5.19	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Metre	127
5.20	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	Metre	2113

CHAPTER-6-LIGHTING CONDUCTOR

Code No.	Description	Unit	Rate (₹)
6.1	**DELETED**		
6.2	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	Each	518
6.3	Fixing of lightning conductor finial (single prong) with base plate including holes etc. complete as required.	Each	360
6.4	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	Each	113
6.5	**DELETED**		
6.6	**DELETED**		
6.7	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	Metre	126
6.8	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	Metre	197
6.9	Fixing of copper/ G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	Metre	80
6.10	Fixing of copper/ G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	Metre	162
6.11	**DELETED**		
6.12	Providing and fixing testing joint, made of 20 mm X 3 mm thick G.I. strip, 125 mm long, with 4 nos. of G.I. bolts, nuts, chuck nuts and spring washers etc. complete as required.	Each	121
6.13	**DELETED**		
6.14	Providing and laying G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	Metre	195
6.15	Laying copper/ G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	Metre	75

CHAPTER-7-MV CABLE LAYING

Code No.	Description	Unit	Rate (₹)
7.1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.		
7.1.1	Upto 35 sq. mm	Metre	387
7.1.2	Above 35 sq. mm and upto 95 sq. mm	Metre	405
7.1.3	Above 95 sq. mm and upto 185 sq. mm	Metre	422
7.1.4	Above 185 sq. mm and upto 400 sq. mm	Metre	474
7.2	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.		
7.2.1	Upto 35 sq. mm	Metre	269
7.2.2	Above 35 sq. mm and upto 95 sq. mm	Metre	286
7.2.3	Above 95 sq. mm and upto 185 sq. mm	Metre	304
7.2.4	Above 185 sq. mm and upto 400 sq. mm	Metre	356
7.3	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation and refilling the trench etc as required, but excluding sand cushioning and protective covering.		
7.3.1	Upto 35 sq. mm	Metre	200
7.3.2	Above 35 sq. mm and upto 95 sq. mm	Metre	217
7.3.3	Above 95 sq. mm and upto 185 sq. mm	Metre	234
7.3.4	Above 185 sq. mm and upto 400 sq. mm	Metre	287
7.4	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation and refilling the trench etc as required, but excluding sand cushioning and protective covering.		
7.4.1	Upto 35 sq. mm	Metre	126
7.4.2	Above 35 sq. mm and upto 95 sq. mm	Metre	143
7.4.3	Above 95 sq. mm and upto 185 sq. mm	Metre	161
7.4.4	Above 185 sq. mm and upto 400 sq. mm	Metre	213
7.5	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.		
7.5.1	Upto 35 sq. mm	Metre	37
7.5.2	Above 35 sq. mm and upto 95 sq. mm	Metre	57

Code No.	Description	Unit	Rate (₹)
7.5.3	Above 95 sq. mm and upto 185 sq. mm	Metre	77
7.5.4	Above 185 sq. mm and upto 400 sq. mm	Metre	134
7.6	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required.		
7.6.1	Upto 35 sq. mm	Metre	28
7.6.2	Above 35 sq. mm and upto 95 sq. mm	Metre	45
7.6.3	Above 95 sq. mm and upto 185 sq. mm	Metre	63
7.6.4	Above 185 sq. mm and upto 400 sq. mm	Metre	115
7.7	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.		
7.7.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	Metre	55
7.7.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	Metre	130
7.7.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	Metre	153
7.7.4	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	Metre	226
7.8	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.		
7.8.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	Metre	45
7.8.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	Metre	92
7.8.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	Metre	115
7.8.4	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	Metre	185
7.9	Supplying and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	Each	585
7.10	Supplying and fixing cable route marker with 10 cm X 10 cm X 5 mm thick G.I. plate with inscription there on, bolted /welded to 35 mm X 35 mm X 6 mm angle iron, 60 cm long and fixing the same in ground as required.	Each	508

CHAPTER-8-HT CABLE LAYING

Code No.	Description	Unit	Rate (₹)
8.1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.		
8.1.1	Upto 120 sq. mm	Metre	525
8.1.2	Above 120 sq. mm and upto 400 sq. mm	Metre	577
8.2	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.		
8.2.1	Upto 120 sq. mm	Metre	362
8.2.2	Above 120 sq. mm and upto 400 sq. mm	Metre	415
8.3	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.		
8.3.1	Upto 120 sq. mm	Metre	77
8.3.2	Above 120 sq. mm and upto 400 sq. mm	Metre	134
8.4	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.		
8.4.1	Upto 120 sq. mm	Metre	63
8.4.2	Above 120 sq. mm and upto 400 sq. mm	Metre	115
8.5	Laying of one number XLPE power cable of 33 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.		
8.5.1	Upto 120 sq. mm	Metre	530
8.5.2	Above 120 sq. mm and upto 400 sq. mm	Metre	582
8.6	Laying of one number additional XLPE power cable of 33 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.		
8.6.1	Upto 120 sq. mm	Metre	368
8.6.2	Above 120 sq. mm and upto 400 sq. mm	Metre	420
8.7	Laying of one number XLPE power cable of 33 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.		
8.7.1	Upto 120 sq. mm	Metre	82
8.7.2	Above 120 sq. mm and upto 400 sq. mm	Metre	139
8.8	Laying of one number XLPE power cable of 33 KV grade of following size in the existing masonry open duct as required.		
8.8.1	Upto 120 sq. mm	Metre	68
8.8.2	Above 120 sq. mm and upto 400 sq. mm	Metre	120

Code No.	Description	Unit	Rate (₹)
9.1	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.		
9.1.1	2 X 6 sq. mm (19mm)	Each	240
9.1.2	2 X 10 sq. mm (19mm)	Each	241
9.1.3	2 X 16 sq. mm (22mm)	Each	256
9.1.4	2 X 25 sq. mm (22mm)	Each	259
9.1.5	2 X 35 sq. mm (25mm)	Each	310
9.1.6	2 X 50 sq. mm (28mm)	Each	351
9.1.7	3 X 10 sq. mm (22mm)	Each	257
9.1.8	3 X 16 sq. mm (25mm)	Each	270
9.1.9	3 X 25 sq. mm (25mm)	Each	275
9.1.10	3 X 35 sq. mm (28mm)	Each	351
9.1.11	3 X 50 sq. mm (32mm)	Each	373
9.1.12	3 X 70 sq. mm (35mm)	Each	424
9.1.13	3 X 95 sq. mm (38mm)	Each	542
9.1.14	3 X 120 sq. mm (45mm)	Each	597
9.1.15	3 X 150 sq. mm (50mm)	Each	681
9.1.16	3 X 185 sq. mm (57mm)	Each	858
9.1.17	3 X 225 sq. mm (62mm)	Each	972
9.1.18	3 X 240 sq. mm (62mm)	Each	1004
9.1.19	3 X 300 sq. mm (70mm)	Each	1165
9.1.20	3½ X 25 sq. mm (28mm)	Each	313
9.1.21	3½ X 35 sq. mm (32mm)	Each	369
9.1.22	3½ X 50 sq. mm (35mm)	Each	413
9.1.23	3½ X 70 sq. mm (38mm)	Each	468
9.1.24	3½ X 95 sq. mm (45mm)	Each	588
9.1.25	3½ X 120 sq. mm (45mm)	Each	613
9.1.26	3½ X 150 sq. mm (50mm)	Each	697
9.1.27	3½ X 185 sq. mm (57mm)	Each	875
9.1.28	3½ X 225 sq. mm (62mm)	Each	994
9.1.29	3½ X 240 sq. mm (62mm)	Each	1027
9.1.30	3½ X 300 sq. mm (70mm)	Each	1195
9.1.31	3½ X 400 sq. mm (82mm)	Each	1556
9.1.32	4 X 10 sq. mm (25mm)	Each	269
9.1.33	4 X 16 sq. mm (28mm)	Each	309
9.1.34	4 X 25 sq. mm (28mm)	Each	315
9.1.35	4 X 35 sq. mm (32mm)	Each	370
9.1.36	4 X 50 sq. mm (35mm)	Each	418
9.2	Supplying and making outdoor end termination with cast resin compound including aluminium lugs and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.		
9.2.1	2 X 16 sq. mm	Each	1310
9.2.2	2 X 25 sq. mm	Each	1410

Code No.	Description	Unit	Rate (₹)
9.2.3	2 X 35 sq. mm	Each	1410
9.2.4	2 X 50 sq. mm	Each	1410
9.2.5	3 X 16 sq. mm	Each	1410
9.2.6	3 X 25 sq. mm	Each	1410
9.2.7	3 X 35 sq. mm	Each	1410
9.2.8	3 X 50 sq. mm	Each	1503
9.2.9	3 X 70 sq. mm	Each	1503
9.2.10	3 X 95 sq. mm	Each	1799
9.2.11	3 X 120 sq. mm	Each	1799
9.2.12	3 X 150 sq. mm	Each	1799
9.2.13	3 X 185 sq. mm	Each	2392
9.2.14	3 X 225 sq. mm	Each	2392
9.2.15	3 X 240 sq. mm	Each	2761
9.2.16	3 X 300 sq. mm	Each	2761
9.2.17	3½ X 25 sq. mm	Each	1410
9.2.18	3½ X 35 sq. mm	Each	1503
9.2.19	3½ X 50 sq. mm	Each	1503
9.2.20	3½ X 70 sq. mm	Each	1645
9.2.21	3½ X 95 sq. mm	Each	1799
9.2.22	3½ X 120 sq. mm	Each	1799
9.2.23	3½ X 150 sq. mm	Each	2392
9.2.24	3½ X 185 sq. mm	Each	1889
9.2.25	3½ X 225 sq. mm	Each	2761
9.2.26	3½ X 240 sq. mm	Each	2761
9.2.27	3½ X 300 sq. mm	Each	3088
9.2.28	3½ X 400 sq. mm	Each	3521
9.2.29	4 X 16 sq. mm	Each	1410
9.2.30	4 X 25 sq. mm	Each	1410
9.2.31	4 X 35 sq. mm	Each	1503
9.2.32	4 X 50 sq. mm	Each	1503
9.3	Supplying and making straight through joint with cast resin compound including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.		
9.3.1	2 X 16 sq. mm	Each	2673
9.3.2	2 X 25 sq. mm	Each	2673
9.3.3	2 X 35 sq. mm	Each	2673
9.3.4	2 X 50 sq. mm	Each	3040
9.3.5	3 X 16 sq. mm	Each	3040
9.3.6	3 X 25 sq. mm	Each	2673
9.3.7	3 X 35 sq. mm	Each	2673
9.3.8	3 X 50 sq. mm	Each	3040
9.3.9	3 X 70 sq. mm	Each	3542
9.3.10	3 X 95 sq. mm	Each	3779
9.3.11	3 X 120 sq. mm	Each	4231
9.3.12	3 X 150 sq. mm	Each	4231
9.3.13	3 X 185 sq. mm	Each	5017
9.3.14	3 X 225 sq. mm	Each	5668
9.3.15	3 X 240 sq. mm	Each	5668

Code No.	Description	Unit	Rate (₹)
9.3.16	3 X 300 sq. mm	Each	7299
9.3.17	3½ X 25 sq. mm	Each	3040
9.3.18	3½ X 35 sq. mm	Each	3040
9.3.19	3½ X 50 sq. mm	Each	3542
9.3.20	3½ X 70 sq. mm	Each	3572
9.3.21	3½ X 95 sq. mm	Each	4231
9.3.22	3½ X 120 sq. mm	Each	5017
9.3.23	3½ X 150 sq. mm	Each	5017
9.3.24	3½ X 185 sq. mm	Each	5668
9.3.25	3½ X 225 sq. mm	Each	5769
9.3.26	3½ X 240 sq. mm	Each	6972
9.3.27	3½ X 300 sq. mm	Each	8554
9.3.28	3½ X 400 sq. mm	Each	5038
9.3.29	4 X 16 sq. mm	Each	2673
9.3.30	4 X 25 sq. mm	Each	3040
9.3.31	4 X 35 sq. mm	Each	3040
9.3.32	4 X 50 sq. mm	Each	3542
9.4	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.		
9.4.1	2 X 16 sq. mm	Each	2168
9.4.2	2 X 25 sq. mm	Each	2478
9.4.3	2 X 35 sq. mm	Each	2478
9.4.4	2 X 50 sq. mm	Each	2478
9.4.5	3 X 16 sq. mm	Each	2168
9.4.6	3 X 25 sq. mm	Each	2478
9.4.7	3 X 35 sq. mm	Each	2478
9.4.8	3 X 50 sq. mm	Each	2478
9.4.9	3 X 70 sq. mm	Each	3363
9.4.10	3 X 95 sq. mm	Each	3517
9.4.11	3 X 120 sq. mm	Each	4538
9.4.12	3 X 150 sq. mm	Each	4538
9.4.13	3 X 185 sq. mm	Each	4538
9.4.14	3 X 225 sq. mm	Each	4919
9.4.15	3 X 240 sq. mm	Each	4919
9.4.16	3 X 300 sq. mm	Each	6107
9.4.17	3½ X 25 sq. mm	Each	2478
9.4.18	3½ X 35 sq. mm	Each	2478
9.4.19	3½ X 50 sq. mm	Each	2478
9.4.20	3½ X 70 sq. mm	Each	3363
9.4.21	3½ X 95 sq. mm	Each	3517
9.4.22	3½ X 120 sq. mm	Each	4538
9.4.23	3½ X 150 sq. mm	Each	4538
9.4.24	3½ X 185 sq. mm	Each	4538
9.4.25	3½ X 225 sq. mm	Each	4919
9.4.26	3½ X 240 sq. mm	Each	4919
9.4.27	3½ X 300 sq. mm	Each	6107
9.4.28	3½ X 400 sq. mm	Each	7966
9.4.29	4 X 16 sq. mm	Each	2168
9.4.30	4 X 25 sq. mm	Each	2478
9.4.31	4 X 35 sq. mm	Each	3363
9.4.32	4 X 50 sq. mm	Each	3363

Code No.	Description	Unit	Rate (₹)
10.1	Supplying and making indoor cable end jointing with cast resin compound, including lugs and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :		
10.1.1	70 sq. mm	Each	2075
10.1.2	120 sq. mm	Each	2653
10.1.3	240 sq. mm	Each	3549
10.1.4	300 sq. mm	Each	3609
10.2	Supplying and making outdoor cable end jointing with cast resin compound, including lugs and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required :		
10.2.1	70 sq. mm	Each	4769
10.2.2	120 sq. mm	Each	5398
10.2.3	240 sq. mm	Each	6293
10.2.4	300 sq. mm	Each	6293
10.3	Supplying and making straight through cable jointing with cast resin compound, including ferrule and other jointing materials, for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:		
10.3.1	70 sq. mm	Each	4526
10.3.2	120 sq. mm	Each	5137
10.3.3	240 sq. mm	Each	7615
10.3.4	300 sq. mm	Each	8667
10.4	supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:		
10.4.1	70 sq. mm	Each	12181
10.4.2	120 sq. mm	Each	14968
10.4.3	240 sq. mm	Each	16249
10.4.4	300 sq. mm	Each	16249
10.5	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:		
10.5.1	70 sq. mm	Each	18248
10.5.2	120 sq. mm	Each	20100
10.5.3	240 sq. mm	Each	22795
10.5.4	300 sq. mm	Each	22795
10.6	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 11 KV grade as required:		

Code No.	Description	Unit	Rate (₹)
10.6.1	70 sq. mm	Each	29141
10.6.2	120 sq. mm	Each	38083
10.6.3	240 sq. mm	Each	41892
10.6.4	300 sq. mm	Each	41892
10.7	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 33 KV grade as required:		
10.7.1	70 sq. mm	Each	19840
10.7.2	120 sq. mm	Each	30086
10.7.3	240 sq. mm	Each	34216
10.8	Supplying and making outdoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 core, XLPE aluminium conductor cable of 33 KV grade as required :		
10.8.1	70 sq. mm	Each	31563
10.8.2	120 sq. mm	Each	41204
10.8.3	240 sq. mm	Each	71644
10.9	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 core, XLPE aluminium conductor cable of 33 KV grade as required:		
10.9.1	70 sq. mm	Each	54841
10.9.2	120 sq. mm	Each	69628
10.9.3	240 sq. mm	Each	98622

CHAPTER-11-POLE ERECTION

Code No.	Description	Unit	Rate (₹)
11.1	Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.		
11.1.1	Above 4.5 metre and upto 6.5 metre	Each	5566
11.1.2	Above 6.5 metre and upto 8.0 metre	Each	6177
11.1.3	Above 8.0 metre and upto 11.0 metre	Each	7414
11.1.4	Above 11.00 metre and upto 13.00 metre	Each	8136
11.2	Erection of RCC/ PCC pole strut in brick ballast and ramming the foundation including excavation and refilling and secured with holding clamps, bolts, nuts, etc. as required.	Each	9573
11.3	Erection of metallic pole of following length in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.		
11.3.1	Above 4.5 metre and upto 6.5 metre	Each	5121
11.3.2	Above 6.5 metre and upto 8.0 metre	Each	6066
11.3.3	Above 8.0 metre and upto 10.0 metre	Each	7077
11.3.4	Above 10.00 metre and upto 12.00 metre	Each	8177
11.4	Erection of steel tubular or rail pole strut in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling and secured with holding clamps, bolts, nuts, etc. as required.	Each	8673
11.5	Providing and making steel pole collar with cement concrete (1 cement : 3 coarse sand : 6 stone aggregate 20mm) of specified size and shape including form work, plastering if required, curing etc as required. (volume of pole/ pipe not to be deducted)	cum	8135
11.6	Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.		
11.6.1	32 mm dia	Metre	525
11.6.2	40 mm dia	Metre	589

Code No.	Description	Unit	Rate (₹)
12.1	Supplying and erection of stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, turn buckle (20 mm X 60 cm), 7/ 4.00 mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.	Each	5600
12.2	Supplying and erection of stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, turn buckle (20 mm X 60 cm), 7/ 3.15 mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.	Each	5469
12.3	Supplying and erection of stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, bow tightener, 7/ 4.00 mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.	Each	5412
12.4	Supplying and erection of stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, bow tightener, 7/ 3.15 mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.	Each	5276
12.5	Supplying and erection of bow stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, turn buckle (20 mm X 60 cm), 7/ 4.00 mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling and also with 0.6 m long brace of size 50 mm X 50 mm X 6 mm angle iron with 50 mm dia pulley fixed at one end of the brace as required.	Each	5969
12.6	Supplying and erection of bow stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, turn buckle (20 mm X 60 cm), 7/ 3.15 mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling and also with 0.6 m long brace of size 50 mm X 50 mm X 6 mm angle iron with 50 mm dia pulley fixed at one end of the brace as required.	Each	5832

Code No.	Description	Unit	Rate (₹)
12.7	Supplying and erection of bow stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, bow tightener), 7/ 4.00 mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling and also with 0.6 m long brace of size 50 mm X 50 mm X 6 mm angle iron with 50 mm dia pulley fixed at one end of the brace as required.	Each	5781
12.8	Supplying and erection of bow stay set complete (galvanised) with 19/20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm, thimble, stay clamps, bow tightener), 7/ 3.15mm dia G.I. stay wire and strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling and also with 0.6 m long brace of size 50 mm X 50 mm X 6 mm angle iron with 50 mm dia pulley fixed at one end of the brace as required.	Each	5644
12.9	Erection of stay set complete (galvanised) in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.	Each	4158
12.10	Supplying of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) cross arm for 2 wire over head line complete with clamps, bolts, nuts and washer etc including drilling of holes for insulator pins etc (as per drawing) and painting with primer and finished paint as required.	Set	776
12.11	Supplying of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) cross arm for 4 wire over head line complete with clamps, bolts, nuts and washer etc including drilling of holes for insulator pins etc (as per drawing) and painting with primer and finished paint as required .	Set	1279
12.12	Erection of angle iron/ channel iron cross arm on wood/ RCC/ PCC/ steel tubular/ rail pole etc. as required.	Set	308
12.13	Supplying and erection of galvanised 'D' iron clamps complete with shackle insulator (75 mm X 90 mm),G. I. bolts, nuts and washers, coach screws etc. as required.	Set	270
12.14	Supplying and erection of galvanised 'D' iron clamps complete with shackle insulator (100 mm X 110 mm), G.I. bolts, nuts and washers, coach screws etc. as required.	Set	298
12.15	Erection of galvanised 'D' iron clamps and insulator on pole as required.	Set	77
12.16	Supplying and erection of 75 mm X 90 mm shackle insulator with G. I. Bolt, nuts and straps etc. as required .	Set	180
12.17	Supplying and erection of 100 mm X 110 mm shackle insulator with G. I. Bolt, nuts and straps etc. as required .	Set	207

Code No.	Description	Unit	Rate (₹)
12.18	Supplying and erection of 100 mm X 65 mm pin insulator complete with G. I. Spindle and nuts etc. as required .	Set	150
12.19	Supplying and erection of 100 mm X 80 mm pin insulator complete with G. I. Spindle and nuts etc. as required .	Set	150
12.20	Erection of LV/MV shackle/pin insulator etc. as required.	Set	84
12.21	Erection of ACSR conductor of 7/2.11 mm to 7/3.00 mm diameter including binding etc. as required.	Kg	203
12.22	Erection of ACSR conductor of 7/3.35 mm to 7/4.00 diameter and above including binding etc. as required.	Kg	268
12.23	Erection of all aluminium conductor of 7/1.96 mm to 7/3.10 mm diameter including binding etc. as required.	Kg	268
12.24	Erection of all aluminium conductor of 7/3.40 mm to 7/4.00 mm diameter and above including binding etc. as required.	Kg	205
12.25	Erection of G.I. Wire No. 8 SWG including binding etc. as required.	Kg	41
12.26	Erection of hexagonal type guard as required.	Each	220
12.27	Erection of ring type guard as required.	Each	73
12.28	Erection of cradle guard as required.	Each	147
12.29	Supplying and erection of 15 A aerial fuse complete as required.	Each	129
12.30	Supplying and erection of 30 A aerial fuse complete as required.	Each	138
12.31	Erection of aerial fuse as required.	Each	112
12.32	Supplying and fixing MV horn gap lightening arrestor as required.	Each	273
12.33	Fixing of MV lightning arrestor as required.	Each	168
12.34	Supplying and fixing of 32 mm dia X 2.00 metres long G.I. pipe (medium class) bracket for mounting of fluorescent / HPMV / HPSV street light fitting on pole including bending the pipe to the required shape, 2 nos 40 mm X 3 mm flat iron clamps with nuts, bolts and washer, painting the flat iron with primer and finish paint etc. as required.	Each	1477
12.35	Providing and fixing 50 mm dia X 3.2 metres G.I. pipe (including accessories) complete with 50 mm X 50 mm X 6 mm angle iron bracket on wall and 75 mm X 90 mm shackle insulator with straps for house service connection including painting the angle and flat iron with primer and finish paint etc. as required.	Each	3031
12.36	Providing and fixing 50 mm dia X 5.6 metres G.I. pipe (including accessories) complete with 50 mm X 50 mm X 6 mm angle iron cross arm and 40 mm X 3mm M.S. flat iron clamps bends for guard		

Code No.	Description	Unit	Rate (₹)
	wire, 75 mm X 90 mm shackle insulator and straps, 7/ 3.15 mm G.I. wire stay set for house service connection including painting the angle and flat iron with primer and finish paint etc. as required.	Each	4814
12.37	Supplying and fixing of light class G.I. pipe of 50 mm dia. (nominal) 3 metres length along the pole for protection of under ground cable as required.	Each	2564
12.38	Supplying and fixing of light class G.I. pipe of 80 mm dia. (nominal) 3 metres length along the pole for protection of under ground cable as required.	Each	3606
12.39	Supplying and fixing of light class G.I. pipe of 100 mm dia. (nominal) 3 metres length along the pole for protection of under ground cable as required.	Each	4907
12.40	Dismantling of over head lines comprising of copper/ aluminium over head conductor, G.I. wire, cross arms, insulators etc. as required.	Kg	87
12.41	Dismantling of pole/ street light standard/ strut embedded in brick ballast foundation etc. as required.	Each	2003
12.42	Dismantling of pole/ street light standard/ strut embedded in cement concrete foundation etc. as required.	Each	2662

CHAPTER-13-HV OVER HEAD LINE WORK

Code No.	Description	Unit	Rate (₹)
13.1	Supplying and erection of galvanised stay set for 11 KV over head lines complete with 19/ 20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm thick, thimble, stay clamps, turn buckle (20 mm X 600 mm), 7/ 4.00 mm dia G.I. stay wire and 11 KV strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.	Set	5455
13.2	Supplying of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) pole top bracket/ cross arm for single 11 KV over head line conductor complete with 50 mm X 6mm flat iron clamp, bolts, nuts and washers including drilling holes for insulator pins, bolts and nuts etc and painting with primer and finish paint as required.	Each	592
13.3	Supplying of 50 mm X 8 mm M.S. flat iron pole top bracket/ cross arm for single 11/22/33 KV over head line conductor complete with fixing clamps, bolts, nuts and washers drilling holes for insulator pins, bolts and nuts etc and painting with primer and finish paint as required.	Each	615
13.4	Supplying of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) cross arm for two 11 KV over head line conductors complete with 50 mm X 50 mm X 6 mm (angle iron bracket welded to the channel iron and complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts, nuts and washers etc (as per drawing) and painting with primer and finish paint as required.	Each	2334
13.5	Supplying of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) V shape cross arm for two 11 KV over head line conductors complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts, nuts and washers etc (as per drawing) and painting with primer and finish paint as required.	Each	2014
13.6	Erection of pole top/ straight two wire/ V shape two wire, angle iron/ channel iron, cross arm on steel tubular/ rail/ PCC pole for 11/22/33 KV as required.	Set	559
13.7	Supplying of two lengths of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) double pole cross arm for three wire 11KV over head line conductors complete with through bolts and nuts for clamping to the poles, 50 mm X 6 mm M.S. flats welded on one side to the channel iron and with bolts and nuts on the other side for tying the cross arms together, including drilling holes for insulator pins/ fittings, bolts, nuts and washers etc (as per drawing) and painting with primer and finish paint as required.	Set	5125
13.8	Supplying and erection of a set of cross bracing FRLSame work for 11 KV over head line double pole structure having four members		

Code No.	Description	Unit	Rate (₹)
	fabricated out of 50 mm X 50 mm X 6 mm angle iron to form a rectangle of minimum size 1400 mm width X 2500 mm height , complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts and nuts etc (as per drawing) and painting with primer and finish paint as required.	Set	7811
13.9	Erection of double pole 3 wire cross arm for 11KV/ 22KV/ 33 KV over head lines as required.	Each	1283
13.10	Supplying and erection of 11 KV pin insulator complete with large steel head G.I. pin, nuts, washers etc. as required.	Set	312
13.11	Supplying and erection of 11 KV disc insulator for 11 KV over head lines with galvanised insulator fittings, ball and socket type and complete with galvanised strain clamps, bolts, nuts, washers etc. as required.	Set	978
13.12	Erection of disc/ pin insulator for 11 KV over head lines as required.	Set	168
13.13	Supplying and erection of three piece nonlinear resistor type lightning arrestor suitable for 3 wire, 11 KV overhead lines with rated voltage 9 KV (rms) with a nominal discharge current rating of 5 KA and complete with galvanised clamping arrangement, G.I. bolts, nuts, washers etc. as required.	Set	2628
13.14	Supplying and erection of galvanised stay set for 33 KV over head lines complete with 19/ 20 mm dia X 1.8 metres long stay rod, anchor plate of size 45 cm X 45 cm X 7.5 mm thick, thimble, stay clamps, turn buckle (20 mm X 600 mm), 7/ 4.00 mm dia G.I. stay wire and 33 KV strain insulator etc in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.	Set	5466
13.15	Supplying of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) pole top bracket/ cross arm for single 33 KV over head line conductor complete with 50 mm X 6mm flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts, nuts, washers etc and painting with primer and finish paint as required.	Each	619
13.16	Supplying of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) cross arm for two 33 KV over head line conductors complete with 50 mm X 50 mm X 6 mm angle iron bracket welded to the channel iron and complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts, nuts, washers etc and painting with primer and finish paint as required.	Each	2861
13.17	Supplying of channel iron 75 mm X 40 mm X 6 mm (7.14 kg per metre) V shape cross arm for two 33 KV over head line conductors complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts and nuts etc and painting with primer and finish paint as required.	Each	2257

Code No.	Description	Unit	Rate (₹)
13.18	Supplying of channel iron 100 mm X 50 mm X 6 mm (9.56 kg per metre), pole top bracket/ cross arm for single 33 KV over head line conductor complete with 50 mm X 6 mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts and nuts etc and painting with primer and finish paint as required.	Each	761
13.19	Supplying of channel iron 100 mm X 50 mm X 6 mm (9.56 kg per metre) cross arm for two wire 33 KV over head line conductors complete with 50 mm X 50 mm X 6 mm angle iron bracket welded to the channel iron and complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins/ fittings, bolts, nuts, washers etc and painting with primer and finish paint as required .	Each	3552
13.20	Supplying of channel iron 100 mm X 50 mm X 6 mm (9.56 kg per metre) V shape cross arm for two 33 KV over head line conductors complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts, nuts, washers etc and painting with primer and finish paint as required .	Each	2715
13.21	Supplying of two lengths of channel iron 100 mm X 50 mm X 6 mm (9.56 kg per metre) double pole cross arm for three wire 33 KV over head line conductors complete with through bolts and nuts for clamping to the poles, 50 mm X 6 mm M.S. flats welded on one side to the channel iron and with bolts and nuts on the other side for tying the cross arms together, including drilling holes for insulator pins/ fittings, bolts, nuts, washers etc and painting with primer and finish paint as required .	Set	7154
13.22	Supplying and erection of a set of cross bracing FRLSame work for 33 KV over head line double pole structure having four members fabricated out of 65 mm X 65 mm X 6 mm angle iron to form a rectangle of minimum size 2400 mm width X 2800 mm height complete with 50 mm X 6mm M.S. flat iron clamps, bolts and nuts including drilling holes for insulator pins, bolts, nuts, washers etc and painting with primer and finish paint as required .	Set	10929
13.23	Supplying and erection of 33 KV pin insulator complete with large steel head G.I. pin, nuts, washers etc. as required.	Set	825
13.24	Supplying and erection of a set of three 11 KV disc insulator for 33 KV over head lines with galvanised insulator fittings, ball and socket type and complete with galvanised strain clamps, bolts, nuts, washers etc. as required.	Set	2825
13.25	Supplying and erection of single piece nonlinear resistor type lightning arrestor suitable for 3 wire, 33 KV overhead lines with rated voltage 30 KV (rms) with a nominal discharge current rating of 10 KA (station class) and complete with galvanised clamping arrangement, G.I. bolts, nuts, washers etc. as required.	Set	17269

CHAPTER-14-MISC. CIVIL ITEMS

Code No.	Description	Unit	Rate (₹)
14.1	Excavation for foundation in soft soil including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 metres.	cum	Rate to be taken from Civil DSR
14.2	Excavation for cable trenches of depth upto 1.2 m in soft soil including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.	cum	Rate to be taken from Civil DSR
14.3	Filling available excavated earth (excluding rock) in trenches, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 metres.	cum	255
14.4	Excavation for cable trenches in soft soil, depth upto 1.2 m including dressing of sides lift upto 1.5 m, including getting out the excavated soil, refilling with sand and or good soil after laying of cable/ pipe etc in layers of 20 cm, ramming, watering and disposal of surplus excavated soil as directed, within a lead of 50 metres.	cum	654
14.5	Deduct for not consolidation by ramming and watering while re-filling with sand and or good soil in cable/ pipe laying.	cum	145
14.6	Excavation of the cable trenches in hard rock not exceeding 1.5 metres in width, and lift upto 1.5 metres, including getting out the excavated soil and disposal of excavated soil as directed within a lead of 50 metres.	cum	1215
14.7	Providing and laying in position cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) in foundation of pump, DG set etc including form work etc as required.	cum	Rate to be taken from Civil DSR
14.8	Providing and laying in position cement concrete 1:3:6 (1 cement : 2 coarse sand : 6 graded stone aggregate 20 mm nominal size) in foundation of pump, DG set etc including form work etc as required.	cum	Rate to be taken from Civil DSR
14.9	Providing and laying in position cement concrete 1:3:6 (1 cement : 2 coarse sand : 6 graded stone aggregate 40 mm nominal size) in foundation of pump, DG set etc including form work etc as required.	cum	Rate to be taken from Civil DSR
14.10	Providing and laying in position reinforced cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) in foundation of pump, DG set etc including form work etc as required (excluding reinforcement).	cum	Rate to be taken from Civil DSR
14.11	Providing brick work (in width 225 mm or more) with F.P.S. bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) at all levels.	cum	Rate to be taken from Civil DSR
14.12	Providing 15mm thick cement plaster of mix 1:4 (1 cement : 4 fine sand) at all levels.	sqm	Rate to be taken from Civil DSR

Code No.	Description	Unit	Rate (₹)
14.13	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep)and re-filling etc as required		
14.13.1	50 mm dia	Metre	Rate to be taken from Civil DSR
14.13.2	80 mm dia	Metre	Rate to be taken from Civil DSR
14.13.3	100 mm dia	Metre	1806
14.13.4	150 mm dia	Metre	2740
14.14	Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required.		
14.14.1	100 mm dia	Metre	662
14.14.2	150 mm dia	Metre	724
14.14.3	250 mm dia	Metre	975
14.14.4	300 mm dia	Metre	1140
14.15	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. in the existing trench, complete as required.		
14.15.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	Metre	127
14.15.2	90 mm dia (OD-90 mm & ID-76 mm nominal)	Metre	170
14.15.3	120 mm dia (OD-120 mm & ID-103 mm nominal)	Metre	248
14.15.4	160 mm dia (OD-160 mm & ID-135 mm nominal)	Metre	361
14.15.5	200 mm dia (OD-200 mm & ID-175 mm nominal)	Metre	548
14.16	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.		
14.16.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	Metre	247
14.16.2	90 mm dia (OD-90 mm & ID-76 mm nominal)	Metre	290
14.16.3	120 mm dia (OD-120 mm & ID-103 mm nominal)	Metre	368
14.16.4	160 mm dia (OD-160 mm & ID-135 mm nominal)	Metre	481
14.16.5	200 mm dia (OD-200 mm & ID-175 mm nominal)	Metre	668
	ADDITIONAL CIVIL ITEMS INTRODUCED		
Note:-	There are few items which are contained in Civil DSR which are required to be used in exclusive electrical works. Field units should use these items for such purposes.		

Code No.	Description	Unit	Rate (₹)
14.15	i) Providing and fixing M.S. Fan clamp of 16 mm dia M.S. Bar, bent to shape with hooked ends in R.C.C. Slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete. (dsr civil-2014 item no. 10.17)		Rate to be taken from Civil DSR
	ii) Providing and fixing circular/ hexagonal g.i. Box for ceiling fan clamp, of internal dia 140 mm, 73 mm height, top lid of 1.5 mm thick g.i. Sheet with its top surface hacked for proper bonding, top lid shall be screwed into the G.I. Box by means of 3.3 mm dia round headed screws, one lock at the corners. Clamp shall be made of 12 mm dia m.s. Bar bent to shape as per standard drawing. (DSR Civil-2014 item no. 10.18)		Rate to be taken from Civil DSR
	iii) Making hole for installation of exuast fan of size upto 450mm sweep by demolishing brick work munually / by mechanical means including disposal of malba within 50 metres lead and making good the wall by plastering etc. As required. (DSR Civil-2014 item no. 15.7.4 and 13.1.2)		Rate to be taken from Civil DSR
	iv) Painting with one or more coat of synthetic enamel paint of approved brand and manufacturer of required colour to give an even shade. (DSR Civil-2014 item no. 14.54)		Rate to be taken from Civil DSR
	v) Painting with one or more coat of aluminium paint of approved brand and manufacturer to give an even shade. (DSR civil-2014 item no. 14.55) vi) painting with one or more coat of black anticorrosive bituminous paint of approved brand & manufacturer to give an even shade (DSR Civil 2014- item no. 14.56)		Rate to be taken from Civil DSR

CHAPTER-15-LIGHTING CONTROLS

Code No.	Description	Unit	Rate (₹)
15.1	Supplying,installation,testing and commissioning of Passive Infrared(PIR) technology based occupancy sensor having high preformance, non regulating programmable type, suitable for connected load upto 10Amp , for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	4602
15.2	Supplying,installation,testing and commissioning of Passive Infrared(PIR) technology based occupancy sensor with day light dimming(lighting level shall be regulated as per availability of natural day light in an area along with occupancy detection.) having high preformance, regulating programmable type, suitable for connected load upto 10Amp , for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	9171
15.3	Supplying,installation,testing and commissioning of Microwave technology based occupancy sensor having high preformance, non regulating programmable type, suitable for connected load upto 10Amp , for mounting height up to 2.6 mtr and for 5m X 20m coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	Each	11893
15.4	Supplying,installation,testing and commissioning of Astronomical time switch of following configuration to be mounted in feeder pillars / Lighting DBs for automatic switching On & OFF of street lights at sun set & sun rise or twilight(Auto ON, Auto OFF, Auto modes) with manual override facility with 12/24 hour display format with suitable battery and indication for relay status i/c programming at site complete as required.		
15.4.1	1 output per phase and suitable for single phase supply	Each	4389
15.4.2	2 output per phase and suitable for single phase supply	Each	8557
15.4.3	3output(1output per phase) and suitable for three phase supply	Each	10597

Code No.	Description	Unit	Rate (₹)
	PLUMBING **INSULATED CHILLED WATER PIPING (resin bonded fiber glass glass INSULATION)**		
16.1	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with 80 kg/cum density resin bonded fiber glass or 144 Kg/ cu m density mineral wool (non Combustible) pipe section insulation covered with a layer of 120 gm/sqm polythene sheet (vapour barrier) and finally applying 0.63mm aluminium sheet cladding complete with type3 , grade 1 roofing feltstrip(as per IS:1322 as amended up to date) at joints and repairing of damage to building etc. as per specifications and as required. **Note:** The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above.		
16.1.1	400mm dia.(75 mm thick insulation)	Metre	21387
16.1.2	350 mm dia.(75 mm thick insulation)	Metre	12631
16.1.3	300 mm dia.(75 mm thick insulation)	Metre	11064
16.1.4	250mm dia.(75 mm thick insulation)	Metre	9347
16.1.5	200mm dia.(75 mm thick insulation)	Metre	7804
16.1.6	150mm dia. (50mm thick insulation)	Metre	5111
16.1.7	125mm dia.(50mm thick insulation)	Metre	4342
16.1.8	100mm dia. (50mm thick insulation)	Metre	3508
16.1.9	80mm dia. (50mm thick insulation)	Metre	2870
16.1.10	65mm dia.(50mm thick insulation)	Metre	2433
16.1.11	50mm dia.(50mm thick insulation)	Metre	2020
16.1.12	40mm dia. (50mm thick insulation)	Metre	1718
16.1.13	32 mm dia (50mm thick insulation)	Metre	1508
16.1.14	25 mm dia (50mm thick insulation)	Metre	1354
	INSULATED CHILLED WATER PIPING (Nitrile rubber insulation)		
16.2	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping inside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with following closed cell elastometric nitrile rubber of **minimum 45 Kg / cu m density, thermal conductivity 0.037 W/MK or better** at 20 deg mean temperature class 'O' insulation applied by suitable adhesive complete including repairing of damage to building etc. as per specifications and as required complete in all respect.		

Code No.	Description	Unit	Rate (₹)
	Note: The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above.		
16.2.1	400mm dia.(32 mm thick insulation)	Metre	18754
16.2.2	350mm dia.(32 mm thick insulation)	Metre	10213
16.2.3	300mm dia. (32 mm thick insulation)	Metre	8973
16.2.4	250mm dia.(32 mm thick insulation)	Metre	7723
16.2.5	200mm dia.(32 mm thick insulation)	Metre	6242
16.2.6	150mm dia. (32 mm thick insulation)	Metre	4278
16.2.7	125mm dia.(32 mm thick insulation)	Metre	3742
16.2.8	100mm dia. (32 mm thick insulation)	Metre	2980
16.2.9	80mm dia.(32 mm thick insulation)	Metre	2226
16.2.10	65mm dia(32 mm thick insulation)	Metre	1794
16.2.11	50mm dia(32 mm thick insulation)	Metre	1553
16.2.12	40mm dia. (32 mm thick insulation)	Metre	1257
16.2.13	32 mm dia(19 mm thick insulation)	Metre	1047
16.2.14	25 mm dia(19 mm thick insulation)	Metre	869
	INSULATED CHILLED WATER PIPING (expanded polystrene insulation)		
16.3	Supplying, laying/ fixing, testing and commissioning of following nominal sizes of chilled water piping plumbing inside the building (with necessary clamps, vibration isolators and fittings but excluding valves, strainers, gauges etc.) duly insulated with fire retardant quality expanded polystrene moulded pipe section of density 20 kg/cu.m after a thick coat of cold setting adhesive (CPRX compound) wrapping with 500g polythene faced hessain and finally applying 0.63mm aluminium sheet cladding complete with type3 , grade 1 roofing feltstrip(as per IS:1322 as amended up to date) at joints repairing of damage to building etc. as per specifications and as required complete in all respect. Note:-The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above.		
16.3.1	400mm dia.(75 mm thick insulation)	Metre	20098
16.3.2	350 mm dia.(75 mm thick insulation)	Metre	11558
16.3.3	300 mm dia.(75 mm thick insulation)	Metre	10245
16.3.4	250mm dia.(75 mm thick insulation)	Metre	8616
16.3.5	200mm dia (75 mm thick insulation)	Metre	7226
16.3.6	150mm dia. (75 mm thick insulation)	Metre	4834
16.3.7	125mm dia.(50mm thick insulation)	Metre	4057
16.3.8	100mm dia.(50mm thick insulation)	Metre	3468
16.3.9	80mm dia. (50mm thick insulation)	Metre	2714
16.3.10	65mm dia.(50mm thick insulation)	Metre	2300
16.3.11	50mm dia.((50mm thick insulation)	Metre	1917

Code No.	Description	Unit	Rate (₹)
16.3.12	40mm dia. (50mm thick insulation)	Metre	1631
16.3.13	32 mm dia (50mm thick insulation)	Metre	1430
16.3.14	25 mm dia (50mm thick insulation)	Metre	1292
	INSULATION ON EXISTING PIPE		
16.1	Supplying, laying/ fixing, testing and commissioning of following thickness resin bonded fiber glass pipe section insulation having density 80 kg/cum or mineral wool (non combustible) having density of 144 Kg/ cu m duly covered with a layer of 120 gm/sqm polythene sheet (vapour barrier) on existing pipe and finally applying 0.63mm aluminium sheet cladding complete with type3 , grade 1 roofing feltstrip(as per IS:1322 as amended up to date) at joints etc. as per specifications and as required.		
16.4.1	75mm	sqm	2997
16.4.2	65mm	sqm	2402
16.4.3	50mm	sqm	2639
16.4.4	40mm	sqm	2422
16.4.5	25mm	sqm	1941
16.5	Supplying, laying,fixing, testing and commissioning of following thickness closed cell elastrometric nitrile rubber of class 'O' applied by suiatable adhesive , as per specifications and as required complete in all respect.		
16.5.1	32mm	sqm	1120
16.5.2	19mm	sqm	665
16.6	Supplying, laying/ fixing of following thickness insulation with fire retardant quality expanded polystrene moulded pipe section of density 20 kg/cu.m after a thick coat of cold setting adhesive (CPRX compound) wrapping with 500g polythene faced hessain and finally applying 0.63mm aluminium sheet cladding complete with type3 , grade 1 roofing feltstrip(as per IS:1322 as amended up to date) at joints repairing etc. as per specifications and as required complete in all respect.		
16.6.1	75mm	sqm	1333
16.6.2	50mm	sqm	1204
	INSULATED VALVES		
16.7	Supplying, fixing, testing and commissioning of following valves, strainers, gauges in the chilled water plumbing duly insulated to the same specifications as the connected piping and adequately supported as per specifications.		
16.7.1	BUTTERFLY VALVE (MANUAL) with C I body SS Disc, Nitrile Rubber Seal & O- Ring PN 16 pressure rating for chilled water/hot eater circulation as specified		
16.7.1.1	200 mm dia	Each	15661
16.7.1.2	150mm dia	Each	8333
16.7.1.3	125mm dia	Each	7619
16.7.1.4	100mm dia	Each	6640

Code No.	Description	Unit	Rate (₹)
16.7.1.5	80mm dia	Each	4846
16.7.1.6	65mm dia	Each	4530
16.7.1.7	50mm dia	Each	4129
16.7.1.8	40mm dia	Each	3501
16.7.2	BALANCING VALVE WITH BUILT IN MEASURING FACILITY with C I body flanged construction with EPDM coated disc with long pitch with protected out pipe insulation & PN 16 pressure rating for chilled / hot water circulation as specified.		
16.7.2.1	200 mm dia	Each	69603
16.7.2.2	150mm dia	Each	34461
16.7.2.3	125mm dia	Each	26476
16.7.2.4	100mm dia	Each	19885
16.7.2.5	80mm dia	Each	13771
16.7.2.6	65 mm dia	Each	12325
16.7.2.7	50mm dia	Each	10739
16.7.2.8	40 mm dia	Each	7614
16.7.3	NON - RETURN VALVE with duel plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating for chilled / hot water circulation including insulation as specified.		
16.7.3.1	200 mm dia	Each	14492
16.7.3.2	150mm dia	Each	9209
16.7.3.3	125mm dia	Each	7867
16.7.3.4	100 mm dia	Each	6160
16.7.3.5	80mm dia	Each	4272
16.7.3.6	65 mm dia	Each	3781
16.7.4	Y - STRAINER of Ductile CI Body flanged ends with stainless steel strainer for chilled / hot water circulation including insulation as specified		
16.7.4.1	200mm dia	Each	49724
16.7.4.2	150mm dia	Each	28033
16.7.4.3	125mm dia	Each	21924
16.7.4.4	100 mm dia	Each	14687
16.7.4.5	80 mm dia	Each	9882
16.7.4.6	65mm dia	Each	7961
16.7.4.7	50mm dia	Each	5892
16.7.4.8	40mm dia	Each	4399
16.8	Providing and fixing in position the industrial type pressure gauges with gun metal / brass valves complete as required	Each	1196
16.9	Providing & fixing in position the mercury in glass industrial type thermometers.	Each	1043
	CONDENSER WATER PIPE		
16.10	Supplying, fixing, testing and commissioning of condenser water pipes of following sizes of MS 'C' class along with necessary clamps, vibration isolators and fittings such as bends,tees etc.but excluding valves, strainers, gauges etc. adequately supported on rigid supports duly painted/buried in ground excavation and refilling etc. as per specification and as required complete in all respect.		

Code No.	Description	Unit	Rate (₹)
	Note:-The Pipes size 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm dia. And from minimum 7mm thick MS sheet for pipes of 400 mm dia and above.		
16.10.1	300mm dia	Metre	7888
16.10.2	250 mm dia	Metre	6653
16.10.3	200mm dia	Metre	5526
16.10.4	150mm dia	Metre	3699
16.10.5	125mm dia	Metre	3193
16.10.6	100mm dia	Metre	2691
	VALVES WITHOUT INSULATION		
16.11	Supplying, fixing, testing and commissioning of following valves, gauges and strainers for condenser water circulation as per specifications.		
16.11.1	BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified.		
16.11.1.1	200mm dia	Each	14156
16.11.1.2	150mm dia	Each	7033
16.11.1.3	125mm dia	Each	6388
16.11.1.4	100mm dia	Each	5412
16.11.1.5	80mm dia	Each	4055
16.11.1.6	65mm dia	Each	3821
16.11.1.7	50mm dia	Each	3393
16.11.1.8	40mm dia	Each	2865
16.11.2	NON - RETURN VALVE with dual plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified.		
16.11.2.1	200mm dia	Each	12965
16.11.2.2	150mm dia	Each	7899
16.11.2.3	125mm dia	Each	6731
16.11.2.4	100mm dia	Each	5094
16.11.2.5	80mm dia	Each	3477
16.11.2.6	65mm dia	Each	3039
16.11.3	Supplying, fixing, testing and commissioning of following sizes Motorized Butter fly Valve with CI Body, SS Disc,O - ring and minimum PN-16 pressure rating , conforming to BS 5155, IS 13095, with IP-55 actuator, capable of accepting upto 10V DC , and upto 20mA electric signal and providing similar transduced feedback output to control system as required.		
16.11.3.1	350mm dia	Each	112078
16.11.3.2	300mm dia	Each	100436
16.11.3.3	250mm dia	Each	72308
16.11.3.4	200mm dia	Each	55307
16.11.3.5	150mm dia	Each	42877
16.11.3.6	125mm dia	Each	42508
16.11.3.7	100mm dia	Each	41719
16.11.3.8	80mm dia	Each	17838
16.11.3.9	65mm dia	Each	17666
16.11.3.10	50mm dia	Each	17304

Code No.	Description	Unit	Rate (₹)
16.11.4	Supply, Installation, Testing and Commissioning of following sizes electronic, self-balancing, pressure independent type dynamic balancing valve with integrated 2 way modualating control valve in a single body. The actuator shall be capable of accepting upto 10V DC and upto 20mA electric signal and shall provide similar transduced feedback output to control system. Maximum close off pressure shall not be less than 6 Bar for upto 50 mm valves and 7 Bar for 65 mm & above. Valves should have pressure rating of 25 Bar minimum.		
16.11.4.1	150mm dia.	Each	161646
16.11.4.2	125mm dia.	Each	147171
16.11.4.3	100mm dia.	Each	115806
16.11.4 4	80mm dia.	Each	68501
16.11.4.5	65mm dia.	Each	53822
16.11.4.6	50mm dia.	Each	34863
16.11.4.7	40mm dia.	Each	31804
16.11.4.8	32mm dia.	Each	17125
16.11.4.9	25mm dia.	Each	16107
16.11.4.10	20mm dia.	Each	11743
	DUCTING, GRILLS,DIFFUSER AND INSULATION		
16.12.1	Supply, installation, balancing and commissioning of factory fabricated GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.		
16.12.1.1	Thickness 0.63 mm sheet	sqm	1080
16.12.1.2	Thickness 0.80 mm sheet	sqm	1263
16.12.1.3	Thickness 1.00 mm sheet	sqm	1381
16.12.1.4	Thickness 1.25 mm sheet	sqm	1836
16.12.2	Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.		
16.12.2.1	Thickness 0.63 mm sheet	sqm	1058
16.12.2.2	Thickness 0.80 mm sheet	sqm	1229
16.12.2.3	Thickness 1.00 mm sheet	sqm	1629
16.12.2.4	Thickness 1.25 mm sheet	sqm	1793
16.13	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc, as per specifications.	sqm	7046
16.14	Supply, installation, testing and commissioning of Motorized (ON-OFF Type) duct mounted GI volume control damper with enthalpy sensor and necessary control wire (minimum 1.5 sqmm) for integration within AHU room		
16.14.1	Damper	sqm	8784
16.14.2	Actuator	Each	8794

Code No.	Description	Unit	Rate (₹)
16.15	Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers as per specifications.	sqm	9105
16.16	Supplying & fixing of powder coated extruded aluminium Return Air Grills with louvers but without volume control dampers complete as required.	sqm	5910
16.17	Supplying, fixing testing commissioning of supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core.	sqm	12184
16.18	Supplying, fixing testing commissioning of Return air diffusers of powder coated aluminium without volume control dampers with anti smudge ring & removable core.	sqm	8121
16.19	Supply, installation, testing & commissioning of thermal insulated flexible duct of following sizes duly supported at regular interval as per site requirement etc. complete as required as per specifications.		
16.19.1	200 mm dia.	Metre	585
16.20	Supplying, Fixing,testing and commissioning of fire dampers in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring,the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required and as per specifications.		
16.20.1	Fire damper	sqm	10659
16.20.2	Actuator	Each	9948
16.21	Supply and fixing of acoustic lining of supply air duct and plenum with 25 mm thick resin bonded glass wool having density of 32 kg/m³, with 25 mm X 25 mm GI section of 1.25 mm thick, at 600 mm centre to centre covered with Reinforced Plastic tissue paper and 0.5 mm thick perforated aluminum sheet fixed to inside surface of ducts with cadmium plated nuts, bolts, stick pins, CPRX compound etc. complete as required and as per specifications.	sqm	708
16.22	Supplying, fixing acoustic lining on wall and ceiling of AHU rooms with 50mm thick, density 32 kg/cu.m resin bonded glass fiber insulation friction fixed in 610mm x 610 mm frame work made of 25X50X50X50X25 mm made out of 0.6mm thick GI sheet U shaped channel and covered with reinforced fiber glass tissue and finished with 0.80 mm perforated aluminium sheet etc. complete as required and as per specifications.	sqm	1229
16.23	Supplying and fixing of following thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (Class "O") insulation on existing duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required. above. Valves should have pressure rating of 25 Bar minimum.		

Code No.	Description	Unit	Rate (₹)
16.23.1	19mm	sqm	754
16.23.2	25mm	sqm	968
16.24	Supplying and fixing 50 mm thick aluminium foil faced resin bonded flbre glass insulation (on duct) of density 24 kg/cu.m or mineral wool insulation(non combustible) of density 44 kg/cu m after applying two coats of cold setting adhesive (CPRX compound) sealing all joints with self adhesive aluminium tape & covering with 0.63mmx19mm GI wire mesh netting butting all joints and laced with GI wire complete as per specifications and as required. (for indoor applications).	sqm	560
16.25	Supplying and fixing 50mm thick aluminium foil faced resin bonded fibre glass insulation (on duct) of density 24 kg/cu.m or mineral wool insulation(non combustible) of density 44 kg/cu m after applying two coats of cold setting adhesive (CPRX compound) sealing all joints with self adhesive aluminium tape & covering with 0.63mmx19mm GI wire mesh netting & butting all joints and laced with GI wire complete and finally covered with one layer of tar felt stuck with hot bitumen as per specifications and as required. (for outdoor applications)	sqm	483
	AIR HANDLING UNITS		
16.26	Supply, Installation, Testing and commissioning of factory built floor mounted chilled water double skin type horizontal/vertical air handling units made of 25mm thick panels consisting of pre plasticized G.I. casing of thickness 0.8mm outside layer and 0.8 mm inside layer with polyurethane foam (PUF) insulation factory injected between them by injection moulding machine, complete with blower section with blower suitable for static pressure as required, minimum 2 bend GSS/PVC eliminators,cooling coil section with aluminium finned copper tubes (tubes thickness not less than 0.5mm) cooling coil of 6 row deep, filter section with 50mm thick metal viscous/ washable synthetic type air prefilters, belt drive package with TEFC drive motor of efficiency class IE3 suitable for 415 ± 10% volts, 50Hz, 3 Phase AC supply suitably designed for varialbe frequency drive applications, drain connections, stainless steel (18G) drain pan with PUF insulation, 150 mm dia. dial type pressure gauges (2 nos.)and industrial type thermometers (2 nos.) at the inlet and outlet of coil, auto purge valve wherever required, necessary vibration isolation arrangement etc. complete as per specification and of following capacities.		
16.26.1	4300 CMH	Set	105611
16.26.2	5100 CMH	Set	124249
16.26.3	6800 CMH	Set	139621
16.26.4	8500 CMH	Set	172967
16.26.5	10200 CMH	Set	199476
16.26.6	11900 CMH	Set	226705
16.26.7	13600 CMH	Set	243498
16.26.8	15300 CMH	Set	276004

Code No.	Description	Unit	Rate (₹)
16.26.9	17000 CMH	Set	292077
16.26.10	18700 CMH	Set	322784
16.26.11	20400 CMH	Set	346774
16.26.12	23800 CMH	Set	380254
16.26.13	28900 CMH	Set	401576
16.26.14	34000 CMH	Set	445084
16.26.15	39100 CMH	Set	617155
16.27	Supply, Installation, Testing and commissioning of factory built floor mounted chilled water double skin type horizontal/vertical air handling units made of 25mm thick panels consisting of pre plasticized G.I. casing of thickness 0.8mm outside layer and 0.8 mm inside layer with polyurethane foam (PUF) insulation factory injected between them by injection moulding machine, complete with blower section with blower suitable for static pressure as required, minimum 2 bend GSS/PVC eliminators,cooling coil section with aluminium finned copper tubes (tubes thickness not less than 0.5mm) cooling coil of 4 row deep, filter section with 50mm thick metal viscous/ washable synthetic type air prefilters, belt drive package with TEFC drive motor of efficiency class IE3 suitable for 415 ± 10% volts, 50Hz, 3 Phase AC supply suitably designed for variable frequency drive applications, drain connections, stainless steel (18G) drain pan with PUF insulation, 150 mm dia. dial type pressure gauges (2 nos.)and industrial type thermometers (2 nos.) at the inlet and outlet of coil, auto purge valve wherever required, necessary vibration isolation arrangement etc. complete as per specification and of following capacities.		
16.27.1	4300 CMH*	Set	93066
16.27.2	5100 CMH*	Set	109237
16.27.3	6800 CMH*	Set	121888
16.27.4	8500 CMH*	Set	150821
16.27.5	10200 CMH*	Set	176446
16.27.6	11900 CMH*	Set	197518
16.27.7	13600 CMH*	Set	213510
16.27.8	15300 CMH*	Set	242658
16.27.9	17000 CMH*	Set	255373
16.27.10	18700 CMH*	Set	279418
16.27.11	20400 CMH*	Set	302993
16.27.12	23800 CMH*	Set	288089
16.27.13	28900 CMH*	Set	367660
16.27.14	34000 CMH*	Set	407445
16.27.15	39100 CMH*	Set	466836

***NOTE : THE ITEM OF 4 ROW COOLING COIL AHUs SHOULD BE USED ONLY FOR REPLACEMENT OF EXISTING AHUs WHERE HOT WATER GENERATOR AND HOT WATER LINES ARE NOT FEASIBLE TO BE PROVIDED BECAUSE OF THE SITE CONSTRAINTS.**

Code No.	Description	Unit	Rate (₹)
	FIRE DETECTION AND ALARM SYSTEM (CONVENTIONAL)		
17.1.1	Supplying, installation, testing & commissioning of heat detector operating at 54ºC/57ºC with rate of rise cum fixed tempreature (dual thermistor) type with mounting base complete with all connection etc. as required.	Each	1071.00
17.1.2	Supplying, installation, testing & commissioning of smoke detector with builtin LED and mounting base complete with all connections etc. as required.	Each	1153.00
17.1.3	Supplying, installation, testing & commissioning of manual call boxes of MS construction in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc. as required.	Each	474.00
17.1.4	Supplying, installation, testing & commissioning of manual call box of ABS type in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc. as required.	Each	408.00
17.1.5	Supplying, installation, testing & commissioning response indicator on surface/recess MS box having two LEDs metallic cover complete with all connections etc. as required.	Each	196.00
17.1.6	Supplying, installation, testing & commissioning fire alarm sounder with facility to make announcement, mounted in M.S. box (16 SWG) with hinged cover plate & suitable for operation with amplifier i/c line matching transformer etc. complete as required.	Each	557.00
17.1.7	Supplying, installation, testing & commissioning fire alarm sounder with facility to make announcement, mounted in A.B.S. box with hinged cover plate & suitable for operation with amplifier i/c line matching transformer etc. complete as required.	Each	491.00
17.1.8	Supplying, installation, testing & commissioning talk back slave station in surface/recess suitable for operation on simplex mode complete with P.T.T. knob & speaker/microphone enclosed in a M.S.(16 SWG)/ ABS box with break glass in front etc. complete as required.	Each	905.00
17.1.9	Supplying, installation, testing & commissioning sector panel suitable for following zones, complete with visual indications for short circuit fault, open circuit fault, fire condition and all other standard facilities as per IS:2189 with mimic diagram for all area/zone covered, complete with all connections, interconnections as required.		
17.1.9.1	4 Zone	Each	8866.00
17.1.9.2	6 Zone	Each	12178.00
17.1.9.3	10 Zone	Each	16287.00
17.1.10	Supplying, installation, testing & commissioning of main control and indicating panel made out of 16 SWG MS sheet to accommodate the following items duly powder coated in approved colour with louvers for ventilation, locking arrangement, audio and visual indication for fire alarm and public address system, monitoring		

Code No.	Description	Unit	Rate (₹)
	system including connections, interconnections etc complete as required. 10 Zone panel for fire alarm system 250 Watt amplifier racks suitable for operation on 230V AC/24V DC supply conforming to IEC-268-3 complete with all accessories as required - 2 Nos.(one to act as standby) Talk back master station with LED PTT (press to talk) push button for operation on 230V AC/24 V DC supply conforming to IEC-268 for simplex mode of operation/communication suitable for 20 Nos.talk back unit -1 set. Annoucement control desk suitable for selection of different zones selectively and ON ALL CALL switch with visual indication etc. complete as required -1 set. Amplifier change over switch for inter changing amplifier -1 No. Monitor panel for loudspeaker complete with output selector, ON/OFF switch, fuse, visual indications etc. complete as required- 1 No. Gooseneck microphone with stand and ON/OFF switch- 1 No. Main ON/OFF switch, fuse indication lamps, DC and AC voltmeters & ammeters, terminal blocks etc. complete as required -1 set. Battery charger trickle cum boost to take complete load of fire alarm & PA system complete with all accessories including providing & fixing of 2 nos.12 volt, 60 AH each sealed maintenance free batteries -1 set.	Each	70389.00
17.1.11	Supplying, installation, testing & commissioning of main control and indicating panel made out of 16 SWG MS sheet to accommodate the following items duly powder coated in approved colour with louvers for ventilation, locking arrangement, audio and visual indication for fire alarm and public address system, monitoring system including connections, interconnections etc complete as required. 6 zone panel for fire alarm system 100 watt amplifier racks suitable for operation on 230V AC/24V DC supply conforming to IEC-268-3 complete with all accessories as required- 2 Nos.(one to act as standby) Talk back master station with LED PTT (press to talk) push button for operation on 230V AC/24 V DC supply conforming to IEC-268 for simplex mode of operation/communication suitable for 20 Nos.talk back unit -1 set. Annoucement control desk suitable for selection of different zones selectively and ON ALL CALL switch with visual indication etc.,		

Code No.	Description	Unit	Rate (₹)
	complete as required- 1 set. Amplifier change over switch for inter changing amplifier- 1 No. Monitor panel for loudspeaker complete output selector ON/OFF switch, fuse visual indications etc. complete as required- 1 No. Gooseneck microphone with stand and ON/OFF switch -1 No. Mains ON/OFF switch, fuse indication lamps, DC and AC voltmeters & ammeters terminal blocks etc. complete as required -1 set.		
	Battery charger trickle cum boost to take complete load of fire alarm & PA system complete with all accessories including providing & fixing of 2 nos. 12 volt, 30 AH each sealed maintenance free batteries -1 set.	Each	48718.00
	INTELLIGENT FIRE ALARM SYSTEM		
17.2.1	Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5 % V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications.		
17.2.1.1	Ten Loop Panel.	Each	455534.00
17.2.1.2	Two Loop Panel.	Each	239225.00
17.2.2	Supplying, installation, testing & commissioning of central graphical fire alarm management system to centrally monitor and operate the fire alarm system complete as required.	Each	200611.00
17.2.3	Supplying, installation, testing & commissioning of repeater panel wih 320 character/ Touch screen LCD display with inbuilt reset, acknowledge and silence switches complete as required.	Each	108688.00
17.2.4	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required.	Each	2858.00
17.2.5	Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	Each	276.00
17.2.6	Supplying, installation, testing & commisssioning of intelligent addressable programmable sounder complete as required.	Each	2651.00
17.2.7	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	Each	3270.00

Code No.	Description	Unit	Rate (₹)
17.2.8	Supplying, installation, testing & commissioning of intelligent aspiration detector for area coverage of minimum 5000 sq. ft. complete as required.	Each	295326.00
17.2.9	Supplying, installation, testing & commissioning of intelligent addressable thermal detector with rate of rise cum fixed tempreature thermistor complete with base as required.	Each	2726.00
17.2.10	Supplying, installation, testing & commissioning of addressable fire control module complete as required.	Each	3003.00
17.2.11	Supplying, installation, testing & commissioning of addressable phone control module complete as required.	Each	3267.00
17.2.12	Supplying, installation, testing & commissioning of addressable beam detector with short circuit isolator (inbuilt or seperate) complete with emitter and receiver including connections with remote test features etc complete as required.	Each	74937.00
17.2.13	Supplying, installation, testing & commissioning of intelligent addressable duct detector including suitable Photo detector complete with base as required.	Each	7814.00
17.2.14	Supplying, installation, testing & commissioning of addressable manual call point complete as required.	Each	3871.00
17.2.15	Supplying, installation, testing & commissioning of addressable horn cum strobe complete as required.	Each	3506.00
17.2.16	Supplying, installation, testing & commissioning of addressable strobe complete as required.	Each	3367.00
17.2.17	Supplying, installation, testing & commissioning of fire fighter telephone handset complete as required.	Each	5740.00
17.2.18	Supplying, installation, testing & commissioning of intelligent interface unit BACnet/ Modbus protocol i.e. supplying communication links between building management system and fire alarm control panel complete as required.	Each	187744.00
17.2.19	Supplying, installation, testing & commissioning of fire fighter phone jack complete as required.	Each	1600.00
	PUBLIC ADDRESS SYSTEM		
17.3.1	Supplying, installation, testing & commissioning of 6 zone, voice alarm controller with USB, MP3 player (including 6 zone button paging station) with seamless integration facility with main fire alarm panel for voice evacuation complete as required.	Each	126411.00
17.3.2	Supplying, installation, testing & commissioning of 1.5/3/6W ceiling speaker complete as required.	Each	965.00
17.3.3	Supplying, installation, testing & commissioning of 1.5/3/6W metal box ceiling/wall speakers complete as required.	Each	1793.00
17.3.4	Supplying, installation, testing & commissioning of ceiling/wall mounted loud speaker, 3/1.5 Watt in ABS enclosure complete as required.	Each	2428.00
17.3.5	Supplying, installation, testing & commissioning of 6 inches dia, 2 watts, 70/100 volts ceiling speaker complete as required.	Each	1839.00

Code No.	Description	Unit	Rate (₹)
17.3.6	Supplying, installation, testing & commissioning of digital audio amplifier 50 Watt, 25V rms operating at 240 volt AC supply complete as required.	Each	96779.00
17.3.7	Supplying, installation, testing & commissioning of digital audio amplifier 75 Watt, 25V rms operating at 240 Volt AC Supply complete as required.	Each	145793.00
17.3.8	Supplying, installation, testing & commissioning of exit point directional sound speaker with voice and integral audio amplifier with selectable sound pulse patterns complete as required.	Each	10145.00
17.3.9	Supplying, installation, testing & commissioning of Voice command keypad 6 zone, with microphone assembly complete as required.	Each	81756.00
	ASPIRATION DETECTOR ACCESSORIES		
17.4.1	Supply, installation, testing and commissioning of 25 mm Outer dia CPVC PIPE with end caps including making air sampling opening of appropriate dia on appropriate interval and all accessories as required,(rate for area protected in sqm).	sqm	56.00
	CABLING & WIRING		
17.5.1	Supplying & laying of 2x1.5 sqmm fire survival armoured cable, 600/1000V rated with annealed copper conductor having glass mica fire barrier tape covered by an extruded layer of Cross Linkable Ethylene Propylene Rubber (EPR) insulation and LSZH inner bedding, steel wire armouring & LSZH outer sheath complete as required.	Metre	359.00
17.5.2	Supplying & laying of 2x1.5 sqmm fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required.	Metre	173.00
17.5.3	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.		
17.5.3.1	speaker cable Single pair, 2-core, 1.5 sqmm	Metre	54.00
17.5.3.2	speaker cable Two pair, 2-core, 1.5 sqmm	Metre	89.00
17.5.3.3	speaker cable Three pair, 2-core, 1.5 sqmm	Metre	123.00
17.5.3.4	speaker cable Four pair, 2-core, 1.5 sqmm	Metre	158.00
17.5.4	Supplying and fixing 25 mm dia MS flexible pipe with PVC coating along with all ancillaries and accessories like coupler etc. as required.	Metre	53.00
	CONDUITING AND WIRING		
	Please refer to CPWD Specification for internal electrical works		

Code No.	Description	Unit	Rate (₹)
	PUMP		
18.1	(A) Supplying, installation, testing and commissioning of Electric driven **Main Fire Pump** suitable for automatic operation and consisting of following, complete in all respects, as required : (B) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520. (C) Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325. (D) M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. (E) Suitable cement concrete foundation duly plastered with anti vibration pads.		
18.1.1	2850 lpm at 88 m Head	Set	452519.00
18.1.2	2850 lpm at 70 m Head	Set	404830.00
18.1.3	2850 lpm at 56 m Head	Set	403506.00
18.1.4	2280 lpm at 88 m Head	Set	403506.00
18.1.5	2280 lpm at 70 m Head	Set	369064.00
18.1.6	2280 lpm at 56 m Head	Set	331972.00
18.1.7	1620 lpm at 88 m Head	Set	369064.00
18.1.8	1620 lpm at 70 m Head	Set	331972.00
18.1.9	1620 lpm at 56 m Head	Set	284283.00
	Note:*The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm2 pressure at the highest/farthest point.		
18.2	(A) Supplying, installation, testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following, complete in all respects, as required : **(Diesel Driven Pump)** (B) Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520. (C) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required. (D) M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required. (E) Suitable cement concrete foundation duly plastered and with anti vibration pads.		

Code No.	Description	Unit	Rate (₹)
18.2.1	2850 lpm at 88 m Head	Set	684923.00
18.2.2	2850 lpm at 70 m Head	Set	616966.00
18.2.3	2850 lpm at 56 m Head	Set	611622.00
18.2.4	2280 lpm at 88 m Head	Set	635909.00
18.2.5	2280 lpm at 70 m Head	Set	612065.00
18.2.6	2280 lpm at 56 m Head	Set	609415.00
18.2.7	1620 lpm at 88 m Head	Set	629418.00
18.2.8	1620 lpm at 70 m Head	Set	592194.00
18.2.9	1620 lpm at 56 m Head	Set	512713.00
	Note: * The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm2 pressure at the highest/farthest point.		
18.3	(A) Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : **(Jockey Pump)** (B) Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520. (C) Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325. (D) M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. (E) Suitable cement concrete foundation duly plastered and with anti vibration pads.		
18.3.1	180 lpm at 88 m Head	Set	127148.00
18.3.2	180 lpm at 70 m Head	Set	103304.00
18.3.3	180 lpm at 56 m Head	Set	82109.00
18.3.4	300 lpm at 88 m Head	Set	166889.00
18.3.5	300 lpm at 70 m Head	Set	127413.00
18.3.6	300 lpm at 56 m Head	Set	115226.00
18.4	(A) Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: **(Terrace Pump)** (B) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520 (C) Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horiziontal foot mounted type with Class-'F' insulation, conforming to IS-325. (D) M.S. fabricated common base plate, coupling, coupling guard, foundation bolts etc. as required. (E) Suitable cement concrete foundation duly plastered and with anti vibration pads.		

Code No.	Description	Unit	Rate (₹)
18.4.1	900 lpm at 35 m Head	Set	101859.00
18.4.2	450 lpm at 35 m Head	Set	86203.00
	CONTROL PANELS		
18.3	Fabrication, supply, Insallation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, inter-connection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete as per CPWD specification with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply with enclosure protection class IP 42 as required :		
18.5.1	**INCOMING** 250A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Digital Ammeter (0-250 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 300A **OUTGOING** (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps) **MAIN FIRE PUMP** 125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. **JOCKEY PUMP** 63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. **DIESEL ENGINE CONTROL** Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine		

Code No.	Description	Unit	Rate (₹)
	SYSTEM CONTROLLER Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Set	245730.00
18.5.2	**INCOMING** 400A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500A		
	OUTGOING (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)		
	MAIN FIRE PUMP 200 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		
	JOCKEY PUMP 100 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		
	DIESEL ENGINE CONTROL Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine		
	SYSTEM CONTROLLER Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specifications.	Set	287855.00

Code No.	Description	Unit	Rate (₹)

18.5.3 **INCOMING**

630A, 50kA 4 Pole MCCB, Ics=100% Icu rating
Digital Voltmeter 0-500V with selector switch
Ammeter (0-630 A) with selector swtich & CTs etc.
LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps
Set of Copper Bus Bar 800Amps

OUTGOING

(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)

MAIN FIRE PUMP

250 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.

JOCKEY PUMP

125 A, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.

DIESEL ENGINE CONTROL

Control for diesel engine comprising -
Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode
Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication
Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter
All standard relays and accessories for automatic operation of diesel engine

SYSTEM CONTROLLER

Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification — Set — 322960.00

Code No.	Description	Unit	Rate (₹)
18.5.4	**INCOMING** 400A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500Amps **OUTGOING** (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps) **MAIN FIRE PUMP** 125 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets **JOCKEY PUMP** 63 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets **DIESEL ENGINE CONTROL** Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine **SYSTEM CONTROLLER** Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Set	372106.00
18.5.5	**INCOMING** 630A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch		

Ammeter (0-630 A) with selector swtich & CTs etc.
LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps
Set of Copper Bus Bar 800Amps

OUTGOING

(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)

MAIN FIRE PUMP

200 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets

JOCKEY PUMP

100 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets

DIESEL ENGINE CONTROL

Control for diesel engine comprising -
Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode
Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication
Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter
All standard relays and accessories for automatic operation of diesel engine

SYSTEM CONTROLLER

Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification — Set — 449335.00

Code No.	Description	Unit	Rate (₹)
18.5.6	**INCOMING** 800A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-800 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating Set of Copper Bus Bar 1000Amps **OUTGOING** (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps) **MAIN FIRE PUMP** 250 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets **JOCKEY PUMP** 125 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets **DIESEL ENGINE CONTROL** Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter	set	575711.00
	PIPES & ACCESSORIES		
18.6	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding, excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required.		
18.6.1	200 mm. dia (wall thickness = 6.3 mm)	Metre	5561.00
18.6.2	150 mm. Dia	Metre	3804.00
18.7	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :		

Code No.	Description	Unit	Rate (₹)
18.7.1	25 mm dia	Metre	744.00
18.7.2	32 mm dia	Metre	851.00
18.7.3	40 mm dia	Metre	1034.00
18.7.4	50 mm dia	Metre	1281.00
18.7.5	65 mm dia	Metre	1614.00
18.7.6	80 mm dia	Metre	1885.00
18.7.7	100 mm dia	Metre	2555.00
18.7.8	150 mm dia	Metre	3574.00
18.7.9	200 mm dia (wall thickness 6.3 mm)	Metre	5463.00
18.7.10	250 mm dia (wall thickness 6.3 mm)	Metre	6659.00
18.7.11	300 mm dia (wall thickness 7.1 mm)	Metre	4277.00
18.8	Providing, laying, testing & commissioning of 'B' class medium duty G.I. pipe conforming to IS 1239 including welding, fittings like elbows, tees, flanges, tapers, nuts, bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :		
18.8.1	25 mm	Metre	608.00
18.8.2	32 mm	Metre	679.00
18.8.3	40 mm	Metre	831.00
18.8.4	50 mm	Metre	927.00
18.8.5	65 mm	Metre	1159.00
18.8.6	80 mm	Metre	1335.00
18.8.7	100 mm	Metre	1718.00
18.8.8	150 mm	Metre	2375.00
18.9	Supplying and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required :		
18.9.1	Single headed Gunmetal	Set	7646.00
18.9.2	Single headed Stainless steel	Set	6139.00
18.10	Supplying and fixing Single headed external yard hydrant valve with 1 No. 63 mm dia instantaneous FM Gunmetal/Stainless Steel coupling and cast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required :		
18.10.1	Single headed Gunmetal	Set	7646.00
18.10.2	Single headed Stainless steel	Set	6139.00
18.11	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required :		

Code No.	Description	Unit	Rate (₹)
18.11.1	40 mm dia	Set	3591.00
18.11.2	50mm dia	Set	3784.00
18.11.3	65 mm dia	Set	4302.00
18.11.4	80 mm dia	Set	4982.00
18.11.5	100 mm dia	Set	6667.00
18.11.6	150 mm dia	Set	8960.00
18.11.7	200 mm dia	Set	15207.00
18.11.8	250 mm dia	Set	20426.00
18.11.9	300 mm dia	Set	24656.00
18.12	Supplying, fixing, testing & commissioning of double flanged sluice valve of rating PN 1.6 with non rising spindle, bronze/gun metal seat, ISI marked complete with nuts, bolts, washers, gaskets and conforming to IS 780 of following sizes as required :		
18.12.1	40mm dia	Set	5700.00
18.12.2	50 mm dia	Set	7207.00
18.12.3	65mm dia	Set	9236.00
18.12.4	80mm dia	Set	10696.00
18.12.5	100mm dia	Set	14641.00
18.12.6	150mm dia	Set	22762.00
18.12.7	200mm dia	Set	39332.00
18.12.8	250mm dia	Set	46517.00
18.12.9	300mm dia	Set	65720.00
18.13	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm2 complete as required.	Each	1321.00
18.14	Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required :		
18.14.1	40mm dia	Set	5790.00
18.14.2	50mm dia	Set	5790.00
18.14.3	65mm dia	Set	6418.00
18.14.4	80mm dia	Set	7691.00
18.14.5	100mm dia	Set	11050.00
18.14.6	125mm dia	Set	15912.00
18.14.7	150mm dia	Set	17786.00
18.14.8	200mm dia	Set	29282.00
18.14.9	250mm dia	Set	45288.00
18.14.10	300mm dia	Set	60451.00
18.15	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.		
18.15.1	80 mm dia	Each	4710.00
18.15.2	100mm dia	Each	6664.00
18.15.3	150mm dia	Each	11144.00
18.15.4	200mm dia	Each	22265.00
18.15.5	250mm dia	Each	27446.00
18.15.6	300mm dia	Each	36607.00

Code No.	Description	Unit	Rate (₹)
18.16	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required :		
18.16.1	Gun Metal	Set	5202.00
18.16.2	Stainless Steel (Grade 304)	Set	4448.00
18.17	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipmets on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.		
18.17.1	30 m	Set	8675.00
18.17.2	40 m	Set	12073.00
18.18	Supplying & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required:		
18.18.1	Gun metal	Nos.	2416.00
18.18.2	Stainless Steel (Grade 304)	Nos.	1662.00
18.19	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required:		
18.19.1	2 way-100 mm dia M.S. Pipe	Set	6742.00
18.19.2	4 way - 150 mm dia M.S. Pipe	Set	13974.00
18.19.3	3 way - 150 mm dia M.S. Pipe	Set	9455.00
18.20	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	Set	18244.00
18.21	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories :		
18.21.1	Pendent Sprinkler	Each	522.00
18.21.2	Upright Sprinkler	Each	522.00
18.21.3	Horizontal side wall sprinkler	Each	617.00
18.21.4	Concealed sprinkler	Each	1435.00
18.22	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.	Each	1546.00
18.23	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required.		
18.23.1	100mm dia	Each	7514.00
18.23.2	150mm dia	Each	9021.00

Code No.	Description	Unit	Rate (₹)
18.24	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of follwing sizes as required		
18.24.1	80mm dia	Set	42697.00
18.24.2	100mm dia	Set	45002.00
18.24.3	150mm dia	Set	48202.00
18.25	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required.		
18.25.1	700mm	Set	1379.00
18.25.2	1000mm	Set	1578.00
18.25.3	1200mm	Set	1670.00
18.25.4	1500mm	Set	1833.00
18.26	Supplying, installation, testing & commissioning of deluge valve (to be used for water curtains) UL listed with wet pilot basic trim assembly for DVA with test and alarm, drip and drain valve with water motor gong complete as required.		
18.26.1	50 mm dia	Set	82836.00
18.26.2	80 mm dia	Set	83435.00
18.26.3	100mm dia	Set	93378.00
18.26.4	150mm dia	Set	115434.00
18.27	Providing, installation, testing & commissioning of water curtain nozzle 15mm dia nickel chrome plated brass, BSPT, K-factor as per design consideration complete as required.	Each	701.00
18.28	Providing, installation, testing & commissioning of electric release trim assembly for deluge wall with two way solelnoid valve, weather proof operation on 24 volts DC supply complete as required.	Set	7369.00
18.29	Providing, installation, testing & commissioning of adjustable rosette plate for 15mm dia in white finish UL Listed or FM approved complete as required.	Each	225.00
Note:	For Cabling, earthing and cable trays please refer to DSR (E&M) For digging of hard & soft soil please refer to DSR (Civil)		

CHAPTER-19-BLDC

Code No.	Description	Unit	Rate (₹)
19.1	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CM/M/W) minimum 6.00, Air delivery minimum 210 Cum/Min , 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required.	Each	2730

APPENDIX-I
BASIC RATE OF LABOUR & HIRE CHARGES

Code No.	DESCRIPTION	Unit	Rate (₹)
1001	Wireman	day	806
1002	Cable jointer	day	806
1003	Lineman	day	806
1004	Fitter, Grade 1	day	806
1005	Fitter, Grade 2	day	734
1006	Painter	day	734
1007	Khallasi	day	663
1008	Carpenter, Grade 1	day	806
1009	Blacksmith, Grade 2	day	734
1010	Mason, Grade 2	day	734
1011	Stone Chiseler	day	734
1012	Beldar/ coolie	day	663
1013	Bhisti	day	663
1014	Excavator	day	663
1015	Stone Breaker	day	734
1016	Mate	day	663
1017	Engineer	day	1500
1018	Highly Skilled	day	876
1019	Electrician	day	806
1020	Electronic Technician	day	806
1021	Technician	day	806
1022	Software Engineer	day	2100
1081	Hire charges for 5 ton truck	day	4000
1082	Hire charges for compressor and spray gun	day	350
1083	Drilling of 46 Nos 12 mm dia holes on G.I. pipe	L.S.	300
1084	Drilling holes	each	6
1085	Solder jointing	each	12
1086	Welding charges	mm	0.5
1087	Welder	day	806

Note:- **1) Labour rates are exclusive of contractor's profit and overheads and are inclusive of days for weekly day of rest.**

2) Hire charges:- These basic charges include cost of services of operating staff and supply of lubricating oil and diesel also etc.

APPENDIX-II
BASIC RATE OF MATERIAL

Note:- These rates are exclusive of Contractor's profit, Overheads and Carriage and any taxes etc.

Code No.	DESCRIPTION	Unit	Rate (₹)
1101	1.5 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	Metre	18.00
1102	2.5 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	Metre	28.00
1103	4.0 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	Metre	42.00
1104	6.0 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	Metre	63.00
1105	10 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	Metre	106.00
1106	16 sq. mm ISI marked, FRLS PVC insulated, single core copper conductor cable	Metre	164.00
1108	16/0.20 mm (0.5 sqmm) twin core FRLS PVC sheathed, flat flexible copper cable	Metre	20.00
1109	16/0.20 mm (0.5 sqmm) twin circular, FRLS PVC sheathed, workshop flexible copper cable	Metre	21.00
1110	32/0.20 mm (1.0 sqmm) twin circular, FRLS PVC sheathed, workshop flexible copper cable	Metre	13.00
1111	1 pair, 0.5 mm dia annealed copper conductor, FRLS PVC insulated, unarmoured, telephone cable	Metre	8.00
1112	2 pair, 0.5 mm dia annealed copper conductor, FRLS PVC insulated, unarmoured, telephone cable	Metre	13.00
1113	4 pair, 0.5 mm dia annealed copper conductor, FRLS PVC insulated, unarmoured, telephone cable	Metre	25.00
1114	Co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid protected with PVC sheath	Metre	20.00
	CONDUIT (STEEL & PVC) AND ACCESSORIES		
1201	20 mm diA, ISI marked, steel conduit	Metre	73.00
1202	25 mm diA, ISI marked, steel conduit	Metre	93.00
1203	32 mm diA, ISI marked, steel conduit	Metre	130.00
1204	40 mm diA, ISI marked, steel conduit	Metre	218.00
1205	50 mm diA, ISI marked, steel conduit	Metre	285.00
1206	20 mm inspection/ solid bends	Each	24.00
1207	25 mm inspection/ solid bends	Each	32.00
1208	32 mm inspection/ solid bends	Each	60.00
1209	40 mm inspection/ solid bends	Each	85.00
1210	50 mm inspection/ solid bends	Each	160.00
1211	20 mm sockets	Each	8.00
1212	25 mm sockets	Each	9.00

Code No.	Description	Unit	Rate (₹)
1213	32 mm sockets	Each	13.00
1214	40 mm sockets	Each	20.00
1215	50 mm sockets	Each	36.00
1216	20 mm junction box, one way	Each	34.00
1217	20 mm junction box, two way	Each	34.00
1218	20 mm iron staples/ saddles/ screws	Each	8.00
1219	25 mm iron staples/ saddles/ screws	Each	10.00
1220	32 mm iron staples/ saddles/ screws	Each	16.00
1221	40 mm iron staples/ saddles/ screws	Each	19.00
1222	50 mm iron staples/ saddles/ screws	Each	22.00
1224	20 mm diA, ISI marked, PVC conduit	Metre	21.00
1225	25 mm diA, ISI marked, PVC conduit	Metre	29.00
1226	32 mm diA, ISI marked, PVC conduit	Metre	46.00
1227	40 mm diA, ISI marked, PVC conduit	Metre	64.00
1228	50 mm diA, ISI marked, PVC conduit	Metre	97.00
1229	20 mm PVC bends	Each	8.00
1230	25 mm PVC bends	Each	11.00
1231	32 mm PVC bends	Each	18.00
1232	40 mm PVC bends	Each	28.00
1233	50 mm PVC bends	Each	47.00
1234	20 mm PVC couplers	Each	6.00
1235	25 mm PVC couplers	Each	7.00
1236	32 mm PVC couplers	Each	11.00
1237	40 mm PVC couplers	Each	14.00
1238	50 mm PVC couplers	Each	18.00
1239	20 mm PVC junction box, one way	Each	18.00
1240	20 mm PVC junction box, two way	Each	19.00
1241	75 mm X 75 mm X 50 mm PVC box	Each	22.00
	Metal Boxes		
1300	Modular GI box for 2 module	Each	33.00
1301	Modular GI box for 3 module	Each	41.00

Code No.	Description	Unit	Rate (₹)
1302	Modular GI box for 4 module	Each	48.00
1303	Modular GI box for 6 module	Each	74.00
1304	Modular GI box for 8 module	Each	90.00
1305	Modular GI box for 12 module	Each	114.00
1306	75 mm X 75 mm X 60 mm deep metal box	Each	23.00
1307	100 mm X 100 mm X 60 mm deep metal box	Each	35.00
1308	150 mm X 75 mm X 60 mm deep metal box	Each	37.00
1309	150 mm X 150 mm X 60 mm deep metal box	Each	53.00
1310	180 mm X 100 mm X 60 mm deep metal box	Each	45.00
1311	200 mm X 125 mm X 60 mm deep metal box	Each	56.00
1312	200 mm X 150 mm X 60 mm deep metal box	Each	70.00
1313	200 mm X 250 mm X 60 mm deep metal box	Each	90.00
1314	200 mm X 300 mm X 60 mm deep metal box	Each	112.00
1315	250 mm X 300 mm X 60 mm deep metal box	Each	139.00
1316	200 mm X 150 mm X 75 mm deep metal box	Each	76.00
1317	200 mm X 250 mm X 75 mm deep metal box	Each	105.00
1318	200 mm X 150 mm X 100 mm deep metal box	Each	92.00
1319	200 mm X 250 mm X 100 mm deep metal box	Each	119.00
1320	200 mm X 300 mm X 100 mm deep metal box	Each	139.00
1321	250 mm X 300 mm X 100 mm deep metal box	Each	174.00
	WIRING SWITCHES AND ACCESSORIES		
1322	3 mm thick phenolic laminated sheet	sqcm	0.20
1401	Ceiling rose, 3 pin, 5 A ISI marked	Each	20.00
1402	S.P. 5/6 A, one way modular switch, ISI marked	Each	34.00
1403	S.P. 5/6 A, two way modular switch, ISI marked	Each	68.00
1404	S.P. 15/16 A, one way modular switch, ISI marked	Each	74.00
1405	3 pin 5/6 A modular socket outlet, ISI marked	Each	63.00
1406	6 pin 15/16 A modular socket outlet, ISI marked	Each	105.00
1407	Modular bell push, ISI marked	Each	62.00
1408	Stepped type Modular Fan regulator (2 module)	Each	220.00
1409	Telephone Socket outlet modular type	Each	68.00

Code No.	Description	Unit	Rate (₹)
1410	T.V. Socket outlet modular type	Each	68.00
1411	Modular blanking plate	Each	16.00
1412	6 pin 25 amp modular type socket ISI Marked	Each	125.00
1420	Modular base & cover plate for 1 module	Each	42.00
1421	Modular base & cover plate for 2 module	Each	42.00
1422	Modular base & cover plate for 3 module	Each	56.00
1423	Modular base & cover plate for 4 module	Each	61.00
1424	Modular base & cover plate for 6 module	Each	79.00
1425	Modular base & cover plate for 8 module	Each	101.00
1426	Modular base & cover plate for 12 module	Each	147.00
1431	S.P. 5/6 A, one way switch, piano type ISI marked	Each	10.00
1432	S.P. 5/6 A, two way switch, piano type ISI marked	Each	19.00
1433	S.P. 15/16 A, one way switch, piano type ISI marked	Each	48.00
1434	3 pin 5/6 A socket outlet, piano type ISI marked	Each	23.00
1435	6 pin 15/16 & 5/6 A socket outlet, piano type ISI marked	Each	60.00
1436	Bell push, piano type	Each	19.00
1437	Telephone Socket outlet piano type	Each	39.00
1438	T.V. Socket outlet piano type	Each	28.00
1441	Brass pendant holder	Each	34.00
1442	Brass batten/ angle holder	Each	38.00
1443	Brass bracket holder 16 mm	Each	47.00
1444	Call bell/ buzzer, single phase	Each	44.00
1445	PIR Occupancy sensor	Each	3183.00
1446	PIR Occupancy sensor With Day light dimming	Each	6632.00
1447	Microwave occupancy Sensor	Each	8687.00
1448	Astrononical time switch suitable for 1 output per phase and suitable for single phase supply	Each	3022.00
1449	Astrononical time switch suitable for2 output per phase and suitable for single phase supply	Each	6169.00
1450	Astrononical time switch suitable for 3output(1output per phase) and suitable for three phase supply	Each	7709.00
1451	UTP 4 Pair CAT 6 LAN Cable	Metre	28.00
1452	PVC Batten/ Angle Holder	Each	22.00

Code No.	Description	Unit	Rate (₹)
	RISING MAINS BUS TRUNKING AND OVER HEAD BUS-BAR		
1501	200 A, TPN, rising mains in metal enclosure with aluminium busbar including fixing clamp	Metre	5056.00
1502	300 A, TPN, rising mains in metal enclosure with aluminium busbar including fixing clamp	Metre	5286.00
1503	400 A, TPN, rising mains in metal enclosure with aluminium busbar including fixing clamp	Metre	6550.00
1504	600 A, TPN, rising mains in metal enclosure with aluminium busbar including fixing clamp	Metre	7355.00
1505	800 A, TPN, rising mains in metal enclosure with aluminium busbar including fixing clamp	Metre	8906.00
1511	16 A, TPN, 2 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	9029.00
1512	16 A, TPN, 4 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	20357.00
1513	16 A, TPN, 6 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	28894.00
1514	16 A, TPN, 8 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	40057.00
1515	32 A, TPN, 2 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	11164.00
1516	32 A, TPN, 4 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	22984.00
1517	32 A, TPN, 6 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	30206.00
1518	32 A, TPN, 8 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	42026.00
1519	63 A, TPN, 2 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	12739.00
1520	63 A, TPN, 4 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	21670.00
1521	63 A, TPN, 6 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	23377.00
1522	63 A, TPN, 8 way, distribution tap off box with ISI marked HRC fuses for rising mains	Each	40320.00
1526	200 A, TPN, adaptor box with cable end box, with TPN disconnector FSU, ISI marked HRC fuses and brass compression gland for rising mains	Each	18124.00
1527	300 A, TPN, adaptor box with cable end box, with TPN disconnector FSU, ISI marked HRC fuses and brass compression gland for rising mains	Each	19700.00
1528	400 A, TPN, adaptor box with cable end box, with TPN disconnector FSU, ISI marked HRC fuses and brass compression gland for rising mains	Each	21670.00
1529	600 A, TPN, adaptor box with cable end box, with TPN disconnector FSU, ISI marked HRC fuses and brass compression gland for rising mains	Each	23377.00

Code No.	Description	Unit	Rate (₹)
1530	800 A, TPN, adaptor box with cable end box, with TPN disconnector FSU, ISI marked HRC fuses and brass compression gland for rising mains	Each	26004.00
1531	800 A, TPN, bus trunking with aluminium busbars	Metre	10178.00
1532	1000 A, TPN, bus trunking with aluminium busbars	Metre	12083.00
1533	1250 A, TPN, bus trunking with aluminium busbars	Metre	15498.00
1534	1400 A, TPN, bus trunking with aluminium busbars	Metre	19438.00
1535	1600 A, TPN, bus trunking with aluminium busbars	Metre	19438.00
1536	200 A, TPN, overhead busbars with aluminium busbars	Each	5779.00
1537	400 A, TPN, overhead busbars with aluminium busbars	Each	7486.00
1538	32 A, TPN, plug-in-box with TPN disconnector FSU and ISI marked HRC fuses for overhead busbars	Each	7560.75
1539	63 A, TPN, plug-in-box with TPN disconnector FSU and ISI marked HRC fuses for overhead busbars	Each	8523.00
1540	100 A, TPN, plug-in-box with TPN disconnector FSU and ISI marked HRC fuses for overhead busbars	Each	10535.25
1541	16 A, TPN, one way, tap off box with TPN disconnector FSU and ISI marked HRC fuses for rising mains	Each	6000.00
1542	32 A, TPN, one way, tap off box with TPN disconnector FSU and ISI marked HRC fuses for rising mains	Each	7560.75
1543	63 A, TPN, one way, tap off box with TPN disconnector FSU and ISI marked HRC fuses for rising mains	Each	8523.00
1544	100 A, TPN, one way, tap off box with TPN disconnector FSU and ISI marked HRC fuses for rising mains	Each	10535.25
1545	200 A, TPN, one way, tap off box with TPN disconnector FSU and ISI marked HRC fuses for rising mains	Each	14005.50
1546	315 A, TPN, one way, tap off box with TPN disconnector FSU and ISI marked HRC fuses for rising mains	Each	19124.25
1547	400 A, TPN, one way, tap off box with TPN disconnector FSU and ISI marked HRC fuses for rising mains	Each	21800.25
1551	200 A, TPN, compact type rising mains with aluminium busbar including all accessories	Metre	5610.00
1552	315 A, TPN, compact type rising mains with aluminium busbar including all accessories	Metre	6624.00
1553	400 A, TPN, compact type rising mains with aluminium busbar including all accessories	Metre	7932.00
1554	500 A, TPN, compact type rising mains with aluminium busbar including all accessories	Metre	7932.00
1555	630 A, TPN, compact type rising mains with aluminium busbar including all accessories	Metre	9192.00

Code No.	Description	Unit	Rate (₹)
1556	800 A, TPN, compact type rising mains with aluminium busbar including all accessories	Metre	13620.00
1557	1000 A, TPN, compact type rising mains with aluminium busbar including all accessories	Metre	14124.00
1558	1250 A, TPN, compact type rising mains with aluminium busbar including all accessories	Metre	16842.00
1559	200 A, TPN, compact type bus trunking with aluminium busbar including elbows and other all accessories	Metre	5666.00
1560	315 A, TPN, compact type bus trunking with aluminium busbar including elbows and other all accessories	Metre	6690.00
1561	400 A, TPN, compact type bus trunking with aluminium busbar including elbows and other all accessories	Metre	8011.00
1562	500 A, TPN, compact type bus trunking with aluminium busbar including elbows and other all accessories	Metre	8011.00
1563	630 A, TPN, compact type bus trunking with aluminium busbar including elbows and other all accessories	Metre	9284.00
1564	800 A, TPN, compact type bus trunking with aluminium busbar including elbows and other all accessories	Metre	13756.00
1565	1000 A, TPN, compact type bus trunking with aluminium busbar including elbows and other all accessories	Metre	13756.00
1566	1250 A, TPN, compact type bus trunking with aluminium busbar including elbows and other all accessories	Metre	16065.00
1567	200 A, TPN, End Feed Unit for compact rising mains including all accessories	Each	6252.00
1568	315 A, TPN, End Feed Unit for compact rising mains including all accessories	Each	7566.00
1569	400 A, TPN, End Feed Unit for compact rising mains including all accessories	Each	8358.00
1570	500 A, TPN, End Feed Unit for compact rising mains including all accessories	Each	8358.00
1571	630 A, TPN, End Feed Unit for compact rising mains including all accessories	Each	9900.00
1572	800 A, TPN, End Feed Unit for compact rising mains including all accessories	Each	13260.00
1573	1000 A, TPN, End Feed Unit for compact rising mains including all accessories	Each	13260.00
1574	1250 A, TPN, End Feed Unit for compact rising mains including all accessories	Each	14778.00
1575	125 A, TPN, TAP OFF Box for compact rising mains including all accessories	Each	6400.00
1576	200 A, TPN, TAP OFF Box for compact rising mains including all accessories	Each	6400.00
1577	315 A, TPN, TAP OFF Box for compact rising mains including all accessories	Each	7840.00

Code No.	Description	Unit	Rate (₹)
1578	400 A, TPN, TAP OFF Box for compact rising mains including all accessories	Each	7840.00
1579	500 A, TPN, TAP OFF Box for compact rising mains including all accessories	Each	11840.00
1580	630 A, TPN, TAP OFF Box for compact rising mains including all accessories	Each	11840.00
	Sandwich Rising Mains with Aluminium bus bar		
1581	400 A, Isc=25 kA for 1 sec	Metre	11040.00
1582	500 A, Isc=30 kA for 1 sec	Metre	11730.00
1583	630 A, Isc=50 kA for 1 sec	Metre	13950.00
1584	800 A, Isc=50 kA for 1 sec	Metre	15840.00
1585	1000 A, Isc=50 kA for 1 sec	Metre	17700.00
1586	1250 A, Isc=50 kA for 1 sec	Metre	19374.00
1587	1600 A, Isc=50 kA for 1 sec	Metre	23160.00
1588	2000 A, Isc=50 kA for 1 sec	Metre	29760.00
1589	2500 A, Isc=50 kA for 1 sec	Metre	33108.00
1590	3200 A, Isc=50 kA for 1 sec	Metre	41508.00
1591	4000 A, Isc=50 kA for 1 sec	Metre	70839.00
	SWITCH DISCONNECTOR SFU AND MCCB		
1601	32 A, TPN, switch disconnector fuse unit (Panel mounted type) with ISI marked HRC fuses	Each	1443.00
1602	63 A, TPN, switch disconnector fuse unit (Panel mounted type) with ISI marked HRC fuses	Each	2127.00
1603	100 A, TPN, switch disconnector fuse unit (Panel mounted type) with ISI marked HRC fuses	Each	4346.00
1604	125 A, TPN, switch disconnector fuse unit (Panel mounted type) with ISI marked HRC fuses	Each	5151.00
1605	160 A, TPN, switch disconnector fuse unit (Panel mounted type) with ISI marked HRC fuses	Each	5851.00
1606	200 A, TPN switch fuse unit with ISI marked HRC fuses	Each	7009.00
1607	315 A, TPN switch fuse unit with ISI marked HRC fuses	Each	10647.00
1608	400 A, TPN switch fuse unit with ISI marked HRC fuses	Each	13025.00
1610	3 pole MCCB, 100A, 16kA	Each	2644.00
1611	3 pole MCCB, 125A, 16kA	Each	3403.00
1612	3 pole MCCB, 150A, 16kA	Each	4287.00
1613	3 pole MCCB, 200A, 16kA	Each	5541.00
1614	3 pole MCCB, 200A, 25kA	Each	8051.00

Code No.	Description	Unit	Rate (₹)
1615	3 pole MCCB, 250A, 25kA	Each	9522.00
1616	3 pole MCCB, 250A, 35kA	Each	10199.00
1617	3 pole MCCB, 315A, 35kA	Each	15986.00
1618	3 pole MCCB, 400A, 35kA	Each	15986.00
1619	3 pole MCCB, 500A, 35kA	Each	18909.00
1620	3 pole MCCB, 630A, 50kA	Each	20650.00
1621	3 pole MCCB, 800A, 50kA	Each	26915.00
1622	4 pole MCCB,100A,30kA	Each	5623.00
1623	4 pole MCCB, 125A, 36kA	Each	5961.00
1624	4 pole MCCB, 200A, 36kA	Each	11243.00
1625	4 pole MCCB,250A, 36kA	Each	12953.00
1626	4 pole MCCB,250A, 50kA	Each	13633.00
1627	4 pole MCCB,400A, 50kA	Each	31928.00
1628	4 pole MCCB,630A, 50kA	Each	32250.00
	MCB'S, ISOLATORS, RCCB'S AND MCB DB'S		
1705	25 A modular SPMCB, 'C' curve	Each	161.00
1706	6 A, to 32 A, ratings , SP MCB, "C" curve, 10 KA breaking capacity	Each	135.00
1707	6 A, to 32 A, ratings , SPN MCB, "C" curve, 10 KA breaking capacity	Each	394.00
1708	6 A, to 32 A, ratings , DP MCB, "C" curve, 10 KA breaking capacity	Each	437.00
1709	6 A, to 32 A, ratings , TP MCB, "C" curve, 10 KA breaking capacity	Each	702.00
1710	6 A, to 32 A, ratings , TPN MCB, "C" curve, 10 KA breaking capacity	Each	869.00
1711	Single pole, blanking plate	Each	8.00
1712	40 A, 2 pole isolator	Each	270.00
1713	63 A, 2 pole isolator	Each	340.00
1714	40 A, 4 pole isolator	Each	616.00
1715	63 A, 4 pole isolator	Each	664.00
1716	100 A, 4 pole isolator	Each	810.00
1717	25 A, rating, 2 pole RCCB, 30mA	Each	1458.00
1718	40 A, rating, 2 pole RCCB, 30mA	Each	1922.00
1719	63 A, rating, 2 pole RCCB, 30mA	Each	1982.00

Code No.	Description	Unit	Rate (₹)
1720	25 A, rating, 4 pole RCCB, 30mA	Each	1836.00
1721	40 A, rating, 4 pole RCCB, 30mA	Each	2290.00
1722	63 A, rating, 4 pole RCCB, 30mA	Each	2052.00
1723	16/25 A, rating, 2 pole RCBO 100mA/ 300mA sensitivity	Each	0.00
1724	32 A, rating, 2 pole RCBO 100mA/ 300mA sensitivity	Each	0.00
1725	40 A, rating, 2 pole RCBO 100mA/ 300mA sensitivity	Each	0.00
1726	16/25 A, rating, 4 pole RCBO 100mA/ 300mA sensitivity	Each	0.00
1727	32 A, rating, 4 pole RCBO 100mA/ 300mA sensitivity	Each	0.00
1728	40 A, rating, 4 pole RCBO 100mA/ 300mA sensitivity	Each	0.00
1730	20 A, SPN, industrial type socket outlet, with plug top and metal chained cover in sheet steel enclosure	Each	680.00
1731	20 A, TPN, industrial type socket outlet, with plug top and metal chained cover in sheet steel enclosure	Each	997.00
1732	30 A, TPN, industrial type socket outlet, with plug top and metal chained cover in sheet steel enclosure	Each	2142.00
1734	2+2 way, SPN, single door, MCB DB	Each	820.00
1735	2+4 way, SPN, single door, MCB DB	Each	786.00
1736	2+6 way, SPN, single door, MCB DB	Each	1007.00
1737	2+10 way, SPN, single door, MCB DB	Each	1189.00
1738	6 way, SPN, double door, MCB DB	Each	1347.00
1739	8 way, SPN, double door, MCB DB	Each	1624.00
1740	12 way, SPN, double door, MCB DB	Each	1429.00
1741	14 way, SPN, double door, MCB DB	Each	2053.00
1742	Sheet steel DP MCB enclosure	Each	300.00
1743	Sheet steel TP MCB enclosure	Each	354.00
1751	4 way (4+12), TPN, MCB DB, single door, horizontal type	Each	0.00
1752	6 way (4+18), TPN, MCB DB, single door, horizontal type	Each	0.00
1753	8 way (4+24), TPN, MCB DB, single door, horizontal type	Each	0.00
1754	4 way (4+12), TPN, MCB DB, double door, horizontal type	Each	2712.00
1755	6 way (4+18), TPN, MCB DB, double door, horizontal type	Each	3378.00
1756	8 way (4+24), TPN, MCB DB, double door, horizontal type	Each	4128.00
1757	4 way (4+12), TPN, vertical type, MCB DB, single door	Each	0.00

Code No.	Description	Unit	Rate (₹)
1758	8 way (4+24), TPN, vertical type, MCB DB, single door	Each	0.00
1759	12 way (4+36), TPN, vertical type, MCB DB, single door	Each	0.00
1760	4 way (4+12), TPN, vertical type, MCB DB, double door	Each	5294.00
1761	8 way (4+24), TPN, vertical type, MCB DB, double door	Each	7297.00
1762	12 way (4+36), TPN, vertical type, MCB DB, double door	Each	9311.00
1763	4 way, TPN, vertical type, single door, MCB DB with provision to mount MCCB as incomer	Each	0.00
1764	8 way, TPN, vertical type, single door, MCB DB with with provision to mount MCCB as incomer	Each	0.00
1765	12 way, TPN, vertical type, single door, MCB DB with with provision to mount MCCB as incomer	Each	0.00
1771	2 + 4 way, SPN, prewired MCB DB with extended loose wire box, single door	Each	2494.16
1772	2 + 8 way, SPN, prewired MCB DB with extended loose wire box, single door	Each	2902.76
1773	2 + 12 way, SPN, prewired MCB DB with extended loose wire box, single door	Each	4298.81
1774	2 + 4 way, SPN, prewired MCB DB with extended loose wire box, double door	Each	2809.13
1775	2 + 8 way, SPN, prewired MCB DB with extended loose wire box, double door	Each	3277.31
1776	2 + 12 way, SPN, prewired MCB DB with extended loose wire box, double door	Each	4864.89
1779	4 way, (4+12) TPN, prewired MCB DB with extended loose wire box, single door	Each	0.00
1780	6 way, (4+18) TPN, prewired MCB DB with extended loose wire box, single door	Each	0.00
1781	8 way, (4+24) TPN, prewired MCB DB with extended loose wire box, single door	Each	0.00
1782	12 way, (4+36) TPN, prewired MCB DB with extended loose wire box, single door	Each	0.00
1783	4 way, (4+12) TPN, prewired MCB DB with extended loose wire box, double door	Each	6243.92
1784	6 way, (4+18) TPN, prewired MCB DB with extended loose wire box, double door	Each	7520.79
1785	8 way, (4+24) TPN, prewired MCB DB with extended loose wire box, double door	Each	8652.96
1786	12 way, (4+36) TPN, prewired MCB DB with extended loose wire box, double door	Each	10074.54
1787	4 way (4+4), TPN, vertical type, prewired, MCB DB with extended loose wire box, single door	Each	4490.34

Code No.	Description	Unit	Rate (₹)
1788	6 way (4+6), TPN, vertical type, prewired, MCB DB with extended loose wire box, single door	Each	0.00
1789	8 way (4+8), TPN, vertical type, prewired, MCB DB with extended loose wire box, single door	Each	0.00
1790	12 way (4+12), TPN, vertical type, prewired, MCB DB with extended loose wire box, single door	Each	0.00
1791	4 way (4+4), TPN, vertical type, prewired, MCB DB with extended loose wire box, double door	Each	5924.70
1792	6 way (4+6), TPN, vertical type, prewired, MCB DB with extended loose wire box, double door	Each	0.00
1793	8 way (4+8), TPN, vertical type, prewired, MCB DB with extended loose wire box, double door	Each	0.00
1794	12 way (4+12), TPN, vertical type, prewired, MCB DB with extended loose wire box, double door	Each	0.00
	CABLE END BOX		
1801	Cable End Boxes for 6 Way SPN DD DB	Each	371.82
1802	Cable End Boxes for 8 Way SPN DD DB	Each	432.42
1803	Cable End Boxes for 10 Way SPN DD DB	Each	415.89
1804	Cable End Boxes for 14 Way SPN DD DB	Each	484.75
1805	Cable End Boxes for 4 Way TPN DD DB	Each	619.70
1806	Cable End Boxes for 6 Way TPN DD DB	Each	652.75
1807	Cable End Boxes for 8 Way TPN DD DB	Each	815.25
1808	Cable End Boxes for Vertical TPN DD DB	Each	687.60
	BRASS COMPRESSION GLANDS		
2101	Brass compression gland (19 mm) for 2 X 6 sq. mm 1.1 kV grade cable	set	32.25
2102	Brass compression gland (19 mm) for 2 X 10 sq. mm 1.1 kV grade cable	set	32.25
2103	Brass compression gland for (22 mm) 2 X 16 sq. mm 1.1 kV grade cable	set	42.00
2104	Brass compression gland for (22 mm) 2 X 25 sq. mm 1.1 kV grade cable	set	42.00
2105	Brass compression gland for (25 mm) 2 X 35 sq. mm 1.1 kV grade cable	set	49.50
2106	Brass compression gland for (28 mm) 2 X 50 sq. mm 1.1 kV grade cable	set	75.75
2107	Brass compression gland for (22 mm) 3 X 10 sq. mm 1.1 kV grade cable	set	42.00

Code No.	Description	Unit	Rate (₹)
2108	Brass compression gland for (25 mm) 3 X 16 sq. mm 1.1 kV grade cable	set	49.50
2109	Brass compression gland for (25 mm) 3 X 25 sq. mm 1.1 kV grade cable	set	49.50
2110	Brass compression gland for (28 mm) 3 X 35 sq. mm 1.1 kV grade cable	set	75.75
2111	Brass compression gland for (32 mm) 3 X 50 sq. mm 1.1 kV grade cable	set	84.75
2112	Brass compression gland for (35 mm) 3 X 70 sq. mm 1.1 kV grade cable	set	111.00
2113	Brass compression gland for (38 mm) 3 X 95 sq. mm 1.1 kV grade cable	set	139.50
2114	Brass compression gland for (45 mm) 3 X 120 sq. mm 1.1 kV grade cable	set	166.50
2115	Brass compression gland for (50 mm) 3 X 150 sq. mm 1.1 kV grade cable	set	213.75
2116	Brass compression gland for (57 mm) 3 X 185 sq. mm 1.1 kV grade cable	set	273.75
2117	Brass compression gland for (62 mm) 3 X 225 sq. mm 1.1 kV grade cable	set	323.25
2118	Brass compression gland for (62 mm) 3 X 240 sq. mm 1.1 kV grade cable	set	323.25
2119	Brass compression gland for (70 mm) 3 X 300 sq. mm 1.1 kV grade cable	set	386.25
2120	Brass compression gland for (28 mm) 3½ X 25 sq. mm 1.1 kV grade cable	set	75.75
2121	Brass compression gland for (32 mm) 3½ X 35 sq. mm 1.1 kV grade cable	set	84.75
2122	Brass compression gland for (35 mm) 3½ X 50 sq. mm 1.1 kV grade cable	set	111.00
2123	Brass compression gland for (38 mm) 3½ X 70 sq. mm 1.1 kV grade cable	set	139.50
2124	Brass compression gland for (45 mm) 3½ X 95 sq. mm 1.1 kV grade cable	set	166.50
2125	Brass compression gland for (45 mm) 3½ X 120 sq. mm 1.1 kV grade cable	set	166.50
2126	Brass compression gland for (50 mm) 3½ X 150 sq. mm 1.1 kV grade cable	set	213.75
2127	Brass compression gland for (57 mm) 3½ X 185 sq. mm 1.1 kV grade cable	set	273.75
2128	Brass compression gland for (62 mm) 3½ X 225 sq. mm 1.1 kV grade cable	set	323.25
2129	Brass compression gland for (62 mm) 3½ X 240 sq. mm 1.1 kV grade cable	set	323.25

Code No.	Description	Unit	Rate (₹)
2130	Brass compression gland for (70 mm) 3½ X 300 sq. mm 1.1 kV grade cable	set	386.25
2131	Brass compression gland for (82 mm) 3½ X 400 sq. mm 1.1 kV grade cable	set	551.25
2132	Brass compression gland for (25 mm) 4 X 10 sq. mm 1.1 kV grade cable	set	49.50
2133	Brass compression gland for (28 mm) 4 X 16 sq. mm 1.1 kV grade cable	set	75.75
2134	Brass compression gland for (28 mm) 4 X 25 sq. mm 1.1 kV grade cable	set	75.75
2135	Brass compression gland for (32 mm) 4 X 35 sq. mm 1.1 kV grade cable	set	84.75
2136	Brass compression gland for (35 mm) 4 X 50 sq. mm 1.1 kV grade cable	set	111.00
	ALUMINIUM LUGS		
2201	Aluminium lugs for 6 sq. mm cable	Each	1.58
2202	Aluminium lugs for 10 sq. mm cable	Each	2.10
2203	Aluminium lugs for 16 sq. mm cable	Each	3.00
2204	Aluminium lugs for 25 sq. mm cable	Each	4.13
2205	Aluminium lugs for 35 sq. mm cable	Each	4.95
2206	Aluminium lugs for 50 sq. mm cable	Each	7.43
2207	Aluminium lugs for 70 sq. mm cable	Each	11.55
2208	Aluminium lugs for 95 sq. mm cable	Each	12.38
2209	Aluminium lugs for 120 sq. mm cable	Each	17.25
2210	Aluminium lugs for 150 sq. mm cable	Each	22.50
2211	Aluminium lugs for 185 sq. mm cable	Each	27.75
2212	Aluminium lugs for 225 sq. mm cable	Each	39.75
2213	Aluminium lugs for 240 sq. mm cable	Each	48.00
2214	Aluminium lugs for 300 sq. mm cable	Each	67.50
2215	Aluminium lugs for 400 sq. mm cable	Each	97.50
	MV CABLE JOINTING KITS		
2300	Outdoor cable jointing kit with cast resin compound with lugs for 2 X 16 sq. mm 1.1 kV grade cable	set	625.00
2301	Outdoor cable jointing kit with cast resin compound with lugs for 2 X 25 sq. mm 1.1 kV grade cable	set	701.00
2302	Outdoor cable jointing kit with cast resin compound with lugs for 2 X 35 sq. mm 1.1 kV grade cable	set	701.00

Code No.	Description	Unit	Rate (₹)
2303	Outdoor cable jointing kit with cast resin compound with lugs for 2 X 50 sq. mm 1.1 kV grade cable	set	701.00
2304	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 16 sq. mm 1.1 kV grade cable	set	701.00
2305	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 25 sq. mm 1.1 kV grade cable	set	701.00
2306	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 35 sq. mm 1.1 kV grade cable	set	701.00
2307	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 50 sq. mm 1.1 kV grade cable	set	771.00
2308	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 70 sq. mm 1.1 kV grade cable	set	771.00
2309	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 95 sq. mm 1.1 kV grade cable	set	878.00
2310	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 120 sq. mm 1.1 kV grade cable	set	878.00
2311	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 150 sq. mm 1.1 kV grade cable	set	878.00
2312	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 185 sq. mm 1.1 kV grade cable	set	1326.00
2313	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 225 sq. mm 1.1 kV grade cable	set	1326.00
2314	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 240 sq. mm 1.1 kV grade cable	set	1604.00
2315	Outdoor cable jointing kit with cast resin compound with lugs for 3 X 300 sq. mm 1.1 kV grade cable	set	1604.00
2316	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 25 sq. mm 1.1 kV grade cable	set	701.00
2217	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 35 sq. mm 1.1 kV grade cable	set	771.00
2318	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 50 sq. mm 1.1 kV grade cable	set	771.00
2319	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 70 sq. mm 1.1 kV grade cable	set	878.00
2320	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 95 sq. mm 1.1 kV grade cable	set	878.00
2321	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 120 sq. mm 1.1 kV grade cable	set	878.00
2322	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 150 sq. mm 1.1 kV grade cable	set	1326.00
2323	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 185 sq. mm 1.1 kV grade cable	set	946.00
2324	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 225 sq. mm 1.1 kV grade cable	set	1604.00

Code No.	Description	Unit	Rate (₹)
2325	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 240 sq. mm 1.1 kV grade cable	set	1604.00
2326	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 300 sq. mm 1.1 kV grade cable	set	1604.00
2327	Outdoor cable jointing kit with cast resin compound with lugs for 3½ X 400 sq. mm 1.1 kV grade cable	set	1931.00
2328	Outdoor cable jointing kit with cast resin compound with lugs for 4 X 16 sq. mm 1.1 kV grade cable	set	701.00
2329	Outdoor cable jointing kit with cast resin compound with lugs for 4 X 25 sq. mm 1.1 kV grade cable	set	701.00
2330	Outdoor cable jointing kit with cast resin compound with lugs for 4 X 35 sq. mm 1.1 kV grade cable	set	771.00
2331	Outdoor cable jointing kit with cast resin compound with lugs for 4 X 50 sq. mm 1.1 kV grade cable	set	771.00
2332	Straight through cable jointing kit with cast resin compound with ferrules for 2 X 16 sq. mm 1.1 kV grade cable	set	1654.00
2333	Straight through cable jointing kit with cast resin compound with ferrules for 2 X 25 sq. mm 1.1 kV grade cable	set	1654.00
2334	Straight through cable jointing kit with cast resin compound with ferrules for 2 X 35 sq. mm 1.1 kV grade cable	set	1654.00
2335	Straight through cable jointing kit with cast resin compound with ferrules for 2 X 50 sq. mm 1.1 kV grade cable	set	1931.00
2336	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 16 sq. mm 1.1 kV grade cable	set	1931.00
2337	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 25 sq. mm 1.1 kV grade cable	set	1654.00
2338	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 35 sq. mm 1.1 kV grade cable	set	1654.00
2339	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 50 sq. mm 1.1 kV grade cable	set	1931.00
2340	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 70 sq. mm 1.1 kV grade cable	set	2310.00
2341	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 95 sq. mm 1.1 kV grade cable	set	2373.00
2342	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 120 sq. mm 1.1 kV grade cable	set	2714.00
2343	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 150 sq. mm 1.1 kV grade cable	set	2714.00
2344	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 185 sq. mm 1.1 kV grade cable	set	3307.00
2345	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 225 sq. mm 1.1 kV grade cable	set	3799.00
2346	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 240 sq. mm 1.1 kV grade cable	set	3799.00

Code No.	Description	Unit	Rate (₹)
2347	Straight through cable jointing kit with cast resin compound with ferrules for 3 X 300 sq. mm 1.1 kV grade cable	set	4783.00
2348	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 25 sq. mm 1.1 kV grade cable	set	1931.00
2349	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 35 sq. mm 1.1 kV grade cable	set	1931.00
2350	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 50 sq. mm 1.1 kV grade cable	set	2310.00
2351	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 70 sq. mm 1.1 kV grade cable	set	2333.00
2352	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 95 sq. mm 1.1 kV grade cable	set	2714.00
2353	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 120 sq. mm 1.1 kV grade cable	set	3307.00
2354	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 150 sq. mm 1.1 kV grade cable	set	3307.00
2355	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 185 sq. mm 1.1 kV grade cable	set	3799.00
2356	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 225 sq. mm 1.1 kV grade cable	set	3875.00
2357	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 240 sq. mm 1.1 kV grade cable	set	4783.00
2358	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 300 sq. mm 1.1 kV grade cable	set	5730.00
2359	Straight through cable jointing kit with cast resin compound with ferrules for 3½ X 400 sq. mm 1.1 kV grade cable	set	3076.00
2360	Straight through cable jointing kit with cast resin compound with ferrules for 4 X 16 sq. mm 1.1 kV grade cable	set	1654.00
2361	Straight through cable jointing kit with cast resin compound with ferrules for 4 X 25 sq. mm 1.1 kV grade cable	set	1931.00
2362	Straight through cable jointing kit with cast resin compound with ferrules for 4 X 35 sq. mm 1.1 kV grade cable	set	1931.00
2363	Straight through cable jointing kit with cast resin compound with ferrules for 4 X 50 sq. mm 1.1 kV grade cable	set	2310.00
2364	Straight through cable jointing kit with heat shrinkable kit with ferrules for 2 X 16 sq. mm 1.1 kV grade cable	set	1272.75
2365	Straight through cable jointing kit with heat shrinkable kit with ferrules for 2 X 25 sq. mm 1.1 kV grade cable	set	1506.75
2366	Straight through cable jointing kit with heat shrinkable kit with ferrules for 2 X 35 sq. mm 1.1 kV grade cable	set	1506.75
2367	Straight through cable jointing kit with heat shrinkable kit with ferrules for 2 X 50 sq. mm 1.1 kV grade cable	set	1506.75
2368	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 16 sq. mm 1.1 kV grade cable	set	1272.75

Code No.	Description	Unit	Rate (₹)
2369	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 25 sq. mm 1.1 kV grade cable	set	1506.75
2370	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 35 sq. mm 1.1 kV grade cable	set	1506.75
2371	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 50 sq. mm 1.1 kV grade cable	set	1506.75
2372	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 70 sq. mm 1.1 kV grade cable	set	2175.00
2373	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 95 sq. mm 1.1 kV grade cable	set	2175.00
2374	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 120 sq. mm 1.1 kV grade cable	set	2946.00
2375	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 150 sq. mm 1.1 kV grade cable	set	2946.00
2376	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 185 sq. mm 1.1 kV grade cable	set	2946.00
2377	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 225 sq. mm 1.1 kV grade cable	set	3233.25
2378	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 240 sq. mm 1.1 kV grade cable	set	3233.25
2379	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3 X 300 sq. mm 1.1 kV grade cable	set	3882.75
2380	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 25 sq. mm 1.1 kV grade cable	set	1506.75
2381	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 35 sq. mm 1.1 kV grade cable	set	1506.75
2382	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 50 sq. mm 1.1 kV grade cable	set	1506.75
2383	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 70 sq. mm 1.1 kV grade cable	set	2175.00
2384	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 95 sq. mm 1.1 kV grade cable	set	2175.00
2385	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 120 sq. mm 1.1 kV grade cable	set	2946.00
2386	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 150 sq. mm 1.1 kV grade cable	set	2946.00
2387	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 185 sq. mm 1.1 kV grade cable	set	2946.00
2388	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 225 sq. mm 1.1 kV grade cable	set	3233.25
2389	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 240 sq. mm 1.1 kV grade cable	set	3233.25

Code No.	Description	Unit	Rate (₹)
2390	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 300 sq. mm 1.1 kV grade cable	set	3882.75
2391	Straight through cable jointing kit with heat shrinkable kit with ferrules for 3½ X 400 sq. mm 1.1 kV grade cable	set	5286.00
2392	Straight through cable jointing kit with heat shrinkable kit with ferrules for 4 X 16 sq. mm 1.1 kV grade cable	set	1272.75
2393	Straight through cable jointing kit with heat shrinkable kit with ferrules for 4 X 25 sq. mm 1.1 kV grade cable	set	1506.75
2394	Straight through cable jointing kit with heat shrinkable kit with ferrules for 4 X 35 sq. mm 1.1 kV grade cable	set	2175.00
2395	Straight through cable jointing kit with heat shrinkable kit with ferrules for 4 X 50 sq. mm 1.1 kV grade cable	set	2175.00
	11 kV & 33 kV CABLE JOINTING KITS		
2413	Indoor cable jointing kit with cast resin compound with lugs for 11 kV grade XLPE cable for 3 core 70 sq. mm.	set	839.00
2414	Indoor cable jointing kit with cast resin compound with lugs for 11 kV grade XLPE cable for 3 core 120 sq. mm.	set	839.00
2415	Indoor cable jointing kit with cast resin compound with lugs for 11 kV grade XLPE cable for 3 core 240 sq. mm.	set	1225.00
2416	Indoor cable jointing kit with cast resin compound with lugs for 11 kV grade XLPE cable for 3 core 300 sq. mm.	1225	1270.00
2417	Outdoor cable jointing kit with cast resin compound with lugs for 11 kV grade XLPE cable for 3 core 70 sq. mm.	set	2873.00
2418	Outdoor cable jointing kit with cast resin compound with lugs for 11 kV grade XLPE cable for 3 core 120 sq. mm.	set	2911.00
2419	Outdoor cable jointing kit with cast resin compound with lugs for 11 kV grade XLPE cable for 3 core 240 sq. mm.	set	3296.00
2420	Outdoor cable jointing kit with cast resin compound with lugs for 11 kV grade XLPE cable for 3 core 300 sq. mm.	set	3296.00
2421	Straight through cable jointing kit with cast resin compound with ferrules for 11 kV grade XLPE cable for 3 core 70 sq. mm.	set	2253.00
2422	Straight through cable jointing kit with cast resin compound with ferrules for 11 kV grade XLPE cable for 3 core 120 sq. mm.	set	2714.00
2423	Straight through cable jointing kit with cast resin compound with ferrules for 11 kV grade XLPE cable for 3 core 240 sq. mm.	set	4294.00
2424	Straight through cable jointing kit with cast resin compound with ferrules for 11 kV grade XLPE cable for 3 core 300 sq. mm.	set	5088.00
2437	Indoor heat shrinkable cable jointing kit with lugs for 11 kV grade XLPE cable for 3 core 70 sq. mm.	set	8468.20
2438	Indoor heat shrinkable cable jointing kit with lugs for 11 kV grade XLPE cable for 3 core 120 sq. mm.	set	10135.45
2439	Indoor heat shrinkable cable jointing kit with lugs for 11 kV grade XLPE cable for 3 core 240 sq. mm.	set	10811.45

Code No.	Description	Unit	Rate (₹)
2440	Indoor heat shrinkable cable jointing kit with lugs for 11 kV grade XLPE cable for 3 core 300 sq. mm.	set	10811.45
2441	Outdoor heat shrinkable cable jointing kit with lugs for 11 kV grade XLPE cable for 3 core 70 sq. mm.	set	13048.10
2442	Outdoor heat shrinkable cable jointing kit with lugs for 11 kV grade XLPE cable for 3 core 120 sq. mm.	set	14009.45
2443	Outdoor heat shrinkable cable jointing kit with lugs for 11 kV grade XLPE cable for 3 core 240 sq. mm.	set	15753.40
2444	Outdoor heat shrinkable cable jointing kit with lugs for 11 kV grade XLPE cable for 3 core 300 sq. mm.	set	15753.40
2445	Straight through heat shrinkable cable jointing kit with ferrules for 11 kV grade XLPE cable for 3 core 70 sq. mm.	set	20834.45
2446	Straight through heat shrinkable cable jointing kit with ferrules for 11 kV grade XLPE cable for 3 core 120 sq. mm.	set	27585.35
2447	Straight through heat shrinkable cable jointing kit with ferrules for 11 kV grade XLPE cable for 3 core 240 sq. mm.	set	30169.75
2448	Straight through heat shrinkable cable jointing kit with ferrules for 11 kV grade XLPE cable for 3 core 300 sq. mm.	set	30169.75
2528	Indoor heat shrinkable cable jointing kit with lugs for 33 kV grade XLPE cable for 3 core 70 sq. mm.	set	14249.95
2529	Indoor heat shrinkable cable jointing kit with lugs for 33 kV grade XLPE cable for 3 core 120 sq. mm.	set	21548.15
2530	Indoor heat shrinkable cable jointing kit with lugs for 33 kV grade XLPE cable for 3 core 240 sq. mm.	set	24375.00
2531	Outdoor heat shrinkable cable jointing kit with lugs for 33 kV grade XLPE cable for 3 core 70 sq. mm.	set	23099.70
2532	Outdoor heat shrinkable cable jointing kit with lugs for 33 kV grade XLPE cable for 3 core 120 sq. mm.	set	29940.95
2533	Outdoor heat shrinkable cable jointing kit with lugs for 33 kV grade XLPE cable for 3 core 240 sq. mm.	set	52629.20
2534	Straight through heat shrinkable cable jointing kit with ferrules for 33 kV grade XLPE cable for 3 core 70 sq. mm.	set	40671.80
2535	Straight through heat shrinkable cable jointing kit with ferrules for 33 kV grade XLPE cable for 3 core 120 sq. mm.	set	51398.10
2536	Straight through heat shrinkable cable jointing kit with ferrules for 33 kV grade XLPE cable for 3 core 240 sq. mm.	set	72995.00
	OVER HEAD LINE ACCESSORIES		
2601	Stay rod (1.8 M long, 19/20 mm diA,) with anchor plate 45 cm X 45 cm X 7.5 mm complete with thimble etc.	set	432.00
2602	Stay wire (7/4.00 mm diA,)	kg	37.00

Code No.	Description	Unit	Rate (₹)
2603	Stay wire (7/3.15 mm diA,)	kg	37.00
2604	Turn buckle (20 mm X 60 cm)	Each	158.00
2605	Strain insulator	Each	158.00
2606	Bow tightner	Each	16.00
2607	Shackle insulator (75 mm X 90 mm) with G.I. bolts and nuts	set	29.00
2608	Shackle insulator (100 mm X110 mm) with G.I. bolts and nuts	set	50.00
2609	Pin insulator (100 mm X 65 mm) with G.I. spindle and nuts	set	50.00
2610	Pin insulator (100 mm X 80 mm) with G.I. spindle and nuts	set	50.00
2611	MV horn gap lightning arrestor with pin insulator (100 mm X 65 mm), spindle and brass metal parts etc.	set	79.20
2615	15 A aerial fuse complete with porcelain tube as required	Each	13.00
2616	30 A aerial fuse complete with porcelain tube as required	Each	20.00
2618	Stay clamp	set	50.40
2619	Brace (50 mm X 50 mm X 6 mm angle iron)	Metre	169.00
2620	Angle iron bracket (50 mm X 50 mm X 6 mm) 65 cm long	Each	111.60
2623	Eye hook	Each	23.75
2624	Guy clamp	Each	54.00
2635	D' iron clamp (with coach screws)	Each	61.20
2643	Strain insulator 11 kV	Each	18.40
2644	Strain insulator 33 kV	Each	27.20
2645	11 kV pin insulator with pin washers and nuts	set	90.40
2646	11 kV disc insulator	set	404.80
2647	Galvanised insulator hardware fitting ball and socket type with strain clamp, bolts, nuts and washers	set	118.80
2648	33 kV pin insulator with pin washers and nuts	set	404.80
2649	Galvanised insulator hardware fitting ball and socket type with strain clamp, bolts, nuts and washers for 3 Nos 11 kV disk insulator	set	347.00
2650	3 piece lightning arrestor set for 11 kV O.H. lines complete with G.I. clamp bolts and nuts with washers	set	1620.00
2651	Single piece lightning arrestor set for 33 kV O.H. lines complete with G.I. clamp bolts and nuts with washers	set	12600.00
2665	G.I. strap for shackle insulator	set	43.20

Code No.	Description	Unit	Rate (₹)
	CABLE TRAYS		
2701	MS perforated cable tray painted with powder coating 100 X 50 X 1.6 mm	Metre	157.50
2702	MS perforated cable tray painted with powder coating 150 X 50 X 1.6 mm	Metre	196.50
2703	MS perforated cable tray painted with powder coating 225 X 50 X 1.6 mm	Metre	255.50
2704	MS perforated cable tray painted with powder coating 300 X 50 X 1.6 mm	Metre	314.50
2705	MS perforated cable tray painted with powder coating 375 X 50 X 2 mm	Metre	467.00
2706	MS perforated cable tray painted with powder coating 450 X 50 X 2 mm	Metre	540.50
2707	MS perforated cable tray painted with powder coating 600 X 50 X 2 mm	Metre	688.00
2708	MS perforated cable tray painted with powder coating 300 X 62.5 X 2 mm	Metre	417.50
2709	MS perforated cable tray painted with powder coating 375 X 62.5 X 2 mm	Metre	491.50
2710	MS perforated cable tray painted with powder coating 450 X 62.5 X 2 mm	Metre	565.00
2711	MS perforated cable tray painted with powder coating 600 X 62.5 X 2 mm	Metre	712.50
2712	MS perforated cable tray painted with powder coating 750 X 62.5 X 2 mm	Metre	859.50
2713	MS perforated cable tray painted with powder coating 900 X 62.5 X 2 mm	Metre	1007.00
2714	MS perforated cable tray painted with powder coating 600 X 75 X 2 mm	Metre	737.00
2715	MS perforated cable tray painted with powder coating 750 X 75 X 2 mm	Metre	869.50
2716	MS perforated cable tray painted with powder coating 900 X 75 X 2 mm	Metre	1032.00
2717	MS perforated cable tray Connector 100 X 50 X 1.6 mm	Each	30.00
2718	MS perforated cable tray Connector 150 X 50 X 1.6 mm	Each	39.00
2719	MS perforated cable tray Connector 225 X 50 X 1.6 mm	Each	40.00
2720	MS perforated cable tray Connector 300 X 50 X 1.6 mm	Each	40.00
2721	MS perforated cable tray Connector 375 X 50 X 2 mm	Each	44.00
2722	MS perforated cable tray Connector 450 X 50 X 2 mm	Each	51.00
2723	MS perforated cable tray Connector 600 X 50 X 2 mm	Each	56.00
2724	MS perforated cable tray Connector 300 X 62.5 X 2 mm	Each	44.00
2725	MS perforated cable tray Connector 375 X 62.5 X 2 mm	Each	50.00

Code No.	Description	Unit	Rate (₹)
2726	MS perforated cable tray Connector 450 X 62.5 X 2 mm	Each	55.00
2727	MS perforated cable tray Connector 600 X 62.5 X 2 mm	Each	61.00
2728	MS perforated cable tray Connector 750 X 62.5 X 2 mm	Each	67.00
2729	MS perforated cable tray Connector 900 X 62.5 X 2 mm	Each	71.00
2733	MS perforated cable tray Bend 100 X 50 X 1.6 mm	Each	409.50
2734	MS perforated cable tray Bend 150 X 50 X 1.6 mm	Each	510.90
2735	MS perforated cable tray Bend 225 X 50 X 1.6 mm	Each	664.30
2736	MS perforated cable tray Bend 300 X 50 X 1.6 mm	Each	817.70
2737	MS perforated cable tray Bend 375 X 50 X 2 mm	Each	1214.20
2738	MS perforated cable tray Bend 450 X 50 X 2 mm	Each	1405.30
2739	MS perforated cable tray Bend 600 X 50 X 2 mm	Each	1788.80
2740	MS perforated cable tray Bend 300 X 62.5 X 2 mm	Each	1085.50
2741	MS perforated cable tray Bend 375 X 62.5 X 2 mm	Each	1277.90
2742	MS perforated cable tray Bend 450 X 62.5 X 2 mm	Each	1469.00
2743	MS perforated cable tray Bend 600 X 62.5 X 2 mm	Each	1852.50
2744	MS perforated cable tray Bend 750 X 62.5 X 2 mm	Each	2234.70
2745	MS perforated cable tray Bend 900 X 62.5 X 2 mm	Each	2618.20
2746	MS perforated cable tray Bend 600 X 75 X 2 mm	Each	1916.20
2747	MS perforated cable tray Bend 750 X 75 X 2 mm	Each	2299.70
2748	MS perforated cable tray Bend 900 X 75 X 2 mm	Each	2683.20
2749	MS perforated cable tray Reducer 100 X 50 X 1.6 mm	Each	511.55
2750	MS perforated cable tray Reducer 150 X 50 X 1.6 mm	Each	638.30
2751	MS perforated cable tray Reducer 225 X 50 X 1.6 mm	Each	830.05
2752	MS perforated cable tray Reducer 300 X 50 X 1.6 mm	Each	1021.80
2753	MS perforated cable tray Reducer 375 X 50 X 2 mm	Each	1517.75
2754	MS perforated cable tray Reducer 450 X 50 X 2 mm	Each	1756.30
2755	MS perforated cable tray Reducer 600 X 50 X 2 mm	Each	2236.00
2756	MS perforated cable tray Reducer 300 X 62.5 X 2 mm	Each	1356.55
2757	MS perforated cable tray Reducer 375 X 62.5 X 2 mm	Each	1597.05
2758	MS perforated cable tray Reducer 450 X 62.5 X 2 mm	Each	1836.25
2759	MS perforated cable tray Reducer 600 X 62.5 X 2 mm	Each	2315.30
2760	MS perforated cable tray Reducer 750 X 62.5 X 2 mm	Each	2793.05
2761	MS perforated cable tray Reducer 900 X 62.5 X 2 mm	Each	3272.75
2762	MS perforated cable tray Reducer 600 X 75 X 2 mm	Each	2395.25
2763	MS perforated cable tray Reducer 750 X 75 X 2 mm	Each	2874.30
2764	MS perforated cable tray Reducer 900 X 75 X 2 mm	Each	3354.00
2765	MS perforated cable tray Tee 100 X 50 X 1.6 mm	Each	511.55
2766	MS perforated cable tray Tee 150 X 50 X 1.6 mm	Each	638.30
2767	MS perforated cable tray Tee 225 X 50 X 1.6 mm	Each	830.05
2768	MS perforated cable tray Tee 300 X 50 X 1.6 mm	Each	1021.80
2769	MS perforated cable tray Tee 375 X 50 X 2 mm	Each	1517.75
2770	MS perforated cable tray Tee 450 X 50 X 2 mm	Each	1756.30
2771	MS perforated cable tray Tee 600 X 50 X 2 mm	Each	2236.00

Code No.	Description	Unit	Rate (₹)
2772	MS perforated cable tray Tee 300 X 62.5 X 2 mm	Each	1356.55
2773	MS perforated cable tray Tee 375 X 62.5 X 2 mm	Each	1597.05
2774	MS perforated cable tray Tee 450 X 62.5 X 2 mm	Each	1836.25
2775	MS perforated cable tray Tee 600 X 62.5 X 2 mm	Each	2315.30
2776	MS perforated cable tray Tee 750 X 62.5 X 2 mm	Each	2793.05
2777	MS perforated cable tray Tee 900 X 62.5 X 2 mm	Each	3272.75
2778	MS perforated cable tray Tee 600 X 75 X 2 mm	Each	2395.25
2779	MS perforated cable tray Tee 750 X 75 X 2 mm	Each	2874.30
2780	MS perforated cable tray Tee 900 X 75 X 2 mm	Each	3354.00
2781	MS perforated cable tray Cross member 100 X 50 X 1.6 mm	Each	614.25
2782	MS perforated cable tray Cross member 150 X 50 X 1.6 mm	Each	766.35
2783	MS perforated cable tray Cross member 225 X 50 X 1.6 mm	Each	996.45
2784	MS perforated cable tray Cross member 300 X 50 X 1.6 mm	Each	1226.55
2785	MS perforated cable tray Cross member 375 X 50 X 2 mm	Each	1821.30
2786	MS perforated cable tray Cross member 450 X 50 X 2 mm	Each	2107.95
2787	MS perforated cable tray Cross member 600 X 50 X 2 mm	Each	2683.20
2788	MS perforated cable tray Cross member 300 X 62.5 X 2 mm	Each	1628.25
2789	MS perforated cable tray Cross member 375 X 62.5 X 2 mm	Each	1916.85
2790	MS perforated cable tray Cross member 450 X 62.5 X 2 mm	Each	2203.50
2791	MS perforated cable tray Cross member 600 X 62.5 X 2 mm	Each	2778.75
2792	MS perforated cable tray Cross member 750 X 62.5 X 2 mm	Each	3352.05
2793	MS perforated cable tray Cross member 900 X 62.5 X 2 mm	Each	3927.30
2794	MS perforated cable tray Cross member 600 X 75 X 2 mm	Each	2874.30
2795	MS perforated cable tray Cross member 750 X 75 X 2 mm	Each	3449.55
2796	MS perforated cable tray Cross member 900 X 75 X 2 mm	Each	4024.80
	ANGLE/FLAT IRON AND STEEL SHEET		
2801	MS Suspender 6 mm dia 0.75m long	Each	23.00
2802	MS Suspender 8 mm dia 0.75m long	Each	28.00
2803	MS Suspender 10 mm dia 0.75m long	Each	40.00
2804	25 mm X 25 mm X 3 mm angle iron	kg	56.00
2805	35 mm X 35 mm X 4 mm angle iron	kg	56.00
2806	35 mm X 35 mm X 5 mm angle iron	kg	56.00
2807	50 mm X 50 mm X 6 mm angle iron	kg	56.00
2808	65 mm X 65 mm X 6 mm angle iron	kg	56.00
2809	20/25 mm X 3 mm flat iron	kg	56.00
2810	25 mm X 4 mm flat iron	kg	56.00
2811	25 mm X 6 mm flat iron	kg	56.00
2812	40 mm X 3 mm flat iron	kg	56.00
2813	50 mm X 6 mm flat iron	kg	56.00
2814	50 mm X 8 mm flat iron	kg	56.00

Code No.	Description	Unit	Rate (₹)
2815	100 mm X 50 mm X 6 mm channel iron (9.56 kg/ mtr)	kg	56.00
2816	75 mm X 40 mm X 6 mm channel iron (7.14 kg/ mtr)	kg	56.00
2817	1.6 mm thick M.S. sheet	kg	56.00
2818	3 mm thick M.S. sheet	kg	56.00
	GI AND RCC PIPE		
2819	20 mm dia G.I. Pipe (light class)	Metre	171.60
2820	32 mm dia G.I. Pipe (light class)	Metre	282.60
2821	50 mm dia G.I. Pipe (light class)	Metre	458.80
2822	80 mm dia G.I. Pipe (light class)	Metre	715.80
2823	100 mm dia G.I. Pipe (light class)	Metre	1036.80
2824	15 mm diA, G.I. pipe (medium class)	Metre	151.20
2825	20 mm diA, G.I. pipe (medium class)	Metre	190.20
2826	40 mm diA, G.I. pipe (medium class)	Metre	383.40
2827	15 mm diA, G.I. pipe (heavy class)	Metre	169.20
2828	20 mm diA, G.I. pipe (heavy class)	Metre	213.60
2829	Check nut 20mm	Each	6.30
2831	32 mm diA, G.I. pipe (medium class)	Metre	334.80
2832	50 mm diA, G.I. pipe (medium class)	Metre	538.20
2833	80 mm diA, G.I. pipe (medium class)	Metre	871.20
2834	100 mm diA, G.I. pipe (medium class)	Metre	1260.00
2835	150 mm diA, G.I. pipe (medium class)	Metre	1965.00
2836	40 mm to 20 mm reducer	Each	36.00
2837	Nipple 50 mm dia	Each	67.50
2838	40 mm diA, G.I. bend (medium class)	Each	61.20
2839	50 mm diA, G.I. bend (medium class)	Each	94.35
2841	100 mm dia RCC pipe NP2 class	Metre	210.00
2842	150 mm dia RCC pipe NP2 class	Metre	220.00
2843	250 mm dia RCC pipe NP2 class	Metre	365.00
2844	300 mm dia RCC pipe NP2 class	Metre	450.00
2845	100 mm dia RCC collar NP2 class	Each	31.50
2846	150 mm dia RCC collar NP2 class	Each	33.30
2847	250 mm dia RCC collar NP2 class	Each	49.50
2848	300 mm dia RCC collar NP2 class	Each	3.00
	SCREWS, NUT BOTS AND OTHER ACCESSORIES		
2851	Al. Alloy/ cadmium plated iron screws, 20 mm	Each	0.90
2852	Iron screws, 35 mm X 6 mm	Each	1.80
2853	Iron screws, 40 mm X 6 mm	Each	1.80
2854	Iron screws, 45 mm X 6 mm	Each	1.80

Code No.	Description	Unit	Rate (₹)
2855	Steel fastener 6 mm X 75 mm	Each	7.20
2856	Steel fastener 8 mm X 75 mm	Each	10.80
2857	PVC fastener 40mm long	Each	0.90
2858	PVC clip for fixing cable	Each	0.45
2859	Rubber/ PVC bushes	Each	0.90
2860	6 mm dia rivet/ stud/ bolts and nuts	Each	4.50
2861	25mm X 3mm bolts & nuts	Each	3.60
2862	32mm X 8mm bolts & nuts	Each	5.40
2863	38mm X 10mm bolts & nuts	Each	9.00
2864	38 mm X 7 mm, bolts and nuts	Each	7.20
2865	15 mm long X 6 mm dia G.I. bolts and nuts	Each	5.40
2866	10 mm X 25 mm long G.I. bolt with nut etc	Each	10.80
2867	16 mm X 50 mm bolts and nuts with washers	set	9.00
2868	16 mm X 40 mm bolts and nuts with washers	set	9.00
2869	16 mm X 125 mm bolts and nuts with washers	set	21.60
2870	16 mm X 150 mm bolts and nuts with washers	set	25.20
2871	10 mm X 25 mm long tinned brass bolt with nut etc.	Each	31.50
2881	GI saddles 19mm x 0.55mm for conduit	Each	1.80
2882	GI saddles 25mm x 0.90mm for conduit above 25mm	Each	1.80
	HDPE PIPE		
2891	63 mm dia	Metre	78.00
2892	90 mm dia	Metre	108.00
2893	120 mm dia	Metre	156.00
2894	160 mm dia	Metre	228.00
2895	200 mm dia	Metre	360.00
	HDPE PIPE COUPLER		
2896	63 mm dia	Each	16.00
2897	90 mm dia	Each	72.00
2898	120 mm dia	Each	84.00
2899	160 mm dia	Each	168.00
2900	200 mm dia	Each	234.00
2901	20 mm X 3 mm copper tape (0.533 kg/mtr)	kg	612.00
2902	25 mm X 5 mm copper tape (1.15 kg/mtr)	kg	612.00
2903	32 mm X 6 mm copper tape (1.705 kg/mtr)	kg	612.00
2904	8 SWG copper wire (4.0 mm dia)	kg	630.00
2905	600 mm X 600 mm X 3 mm thick copper plate (10.5 kg)	Each	6426.00
2906	Copper saddle	Each	36.00
2907	50 mm X 5mm copper strip (2.30 kg/mtr)	kg	612.00
2908	Brass nipple	Each	13.50

Code No.	Description	Unit	Rate (₹)
2909	Lightning finial, 25 mm dia X 300 mm long, copper	Each	585.00
2910	Lightning finial, 25 mm dia X 300 mm long, G.I.	Each	135.00
2911	20 mm X 3 mm G.I. Tape (0.461 kg/mtr)	kg	72.00
2912	25 mm X 5 mm G.I. strip (1.0 kg/mtr)	kg	63.00
2913	25 mm X 6 mm G.I. strip (1.2 kg/mtr)	kg	58.50
2914	32 mm X 6 mm G.I. Tape (1.475 kg/mtr)	kg	58.50
2915	600 mm X 600 mm X 6 mm thick G.I. plate	Each	1620.00
2916	6 SWG G.I. wire	kg	63.00
2917	GI saddle 20mm x 3mm	Each	3.60
2918	Funnel	Each	22.50
2919	G.I. nuts and through bolts with washer	Each	31.50
2920	Washers	Each	0.00
2921	G.I. Hooks made of 8 SWG GI wire/ GI clip	Each	3.60
2922	CI/MS cover plate hinged to FRLSame with Locking arrangement	Each	315.00
2923	Pulley of 50 mm dia	Each	90.00
2924	clamp, bolts, nuts etc.	set	117.00
2925	Flat iron clamp (50 mm X 6 mm) for G.I. pipe	Each	45.00
2926	G.I. plate (10 cm X 10 cm X 5 mm)	kg	67.50
2927	Ball and socket	Each	22.50
2928	Back plate	Each	9.00
2929	Check nut 20mm	Each	5.40
2930	Rubber reel, nut & bolts with washers and safety pin	Set	67.50
2931	PVC sleeve	Metre	7.20
2932	250 mm X 200 mm H.T. danger notice plate	Each	72.00
2933	200 mm X 150 mm M.V. danger notice plate	Each	54.00
2934	Earthing thimbles and solder	L.S.	18.00
2935	Cement, paint, sand etc.	L.S.	7.20
2936	Painting with primer and finish paint	L.S.	7.20
2937	Diesel	litre	81.00
2938	Cotton waste, cleaning cloth etc.	kg	49.50
2939	Cleaning materials like soap/ detergent	kg	54.00
2940	Tin solder etc.	L.S.	7.20
2941	Charcoal	kg	9.00
2942	Coke	kg	13.50
2943	Salt	kg	10.80
2944	Paint	litre	180.00
2945	Common burnt clay F.P.S. (non modular) bricks class designation 7.5	Each	5.40

Code No.	Description	Unit	Rate (₹)
2946	Fine sand	cum	900.00
2947	Bricks ballast	cum	675.00
2948	Cement	ton	7200.00
2949	Stone aggregate (single size) 40mm nominal size	cum	1350.00
2950	Stone aggregate (single size) 20mm nominal size	cum	1620.00
2951	Stone aggregate (single size) 10mm nominal size	cum	1620.00
2952	Coarse sand (Zone III)	cum	1710.00
9999	Sundries/bending charges	L.S.	2.70
	HVAC Items		
	The Pipes of sizes 150mm & below shall be M.S. 'C' class as per IS : 1239 and pipes size above 150mm shall be welded black steel pipe heavy class as per IS: 3589, from minimum 6.35mm thick M.S. Sheet for pipes upto 350 mm diA, and from minimum 7mm thick MS sheet for pipes of 400 mm dia and above.		
3001	M.S. Pipe 400 mm dia,	Metre	10269.70
3002	M.S. Pipe 350 mm dia,	Metre	5026.00
3003	M.S. Pipe 300 mm dia,	Metre	4369.40
3004	M.S. Pipe 250mm dia,	Metre	3684.10
3005	M.S. Pipe 200mm dia,	Metre	2936.50
3006	M.S. Pipe 150mm dia,	Metre	1815.80
3007	M.S. Pipe 125mm dia,	Metre	1526.00
3008	M.S. Pipe 100mm dia,	Metre	1237.60
3009	M.S. Pipe 80mm dia,	Metre	848.40
3010	M.S. Pipe 65mm dia,	Metre	679.00
3011	M.S. Pipe 50 mm dia,	Metre	531.30
3012	M.S. Pipe 40 mm dia,	Metre	376.60
3013	M.S. Pipe 32 mm dia	Metre	326.20
3014	M.S. Pipe 25 mm dia	Metre	255.50
3023	Pipe aluminium Cladding 0.63mm	sqmtr	360.00
	BUTTERFLY VALVE (MANUAL) with C I body SS Disc, Nitrile Rubber Seal & O- Ring PN 16 pressure rating for chilled water/hot eater circulation as specified		
3024	200 mm dia	Each	9777.00
3025	150mm dia,	Each	4306.80
3026	125mm dia,	Each	3814.20
3027	100mm dia,	Each	3060.60
3028	80mm dia,	Each	2387.40
3029	65mm dia,	Each	2178.60
3030	50mm dia,	Each	2019.60
3031	40mm dia,	Each	1764.00

Code No.	Description	Unit	Rate (₹)
	BALANCING VALVE WITH BUILT IN MEASURING FACILITY with C I body flanged construction with EPDM coated disc with long pitch with protected out pipe insulation & PN 16 pressure rating for chilled / hot water circulation as specified.		
3032	200 mm dia	Each	50680.00
3033	150mm dia	Each	24320.00
3034	125mm dia	Each	18280.00
3035	100mm dia	Each	13320.00
3036	80mm dia	Each	9200.00
3037	65 mm dia	Each	8120.00
3038	50mm dia	Each	7040.00
3039	40 mm dia	Each	4880.00
	NON - RETURN VALVE with duel plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating for chilled / hot water circulation including insulation as specified.		
3040	200 mm dia	Each	8834.40
3041	150mm dia	Each	4988.80
3042	125mm dia	Each	4074.40
3043	100 mm dia	Each	2817.60
3044	80mm dia	Each	1942.40
3045	65 mm dia	Each	1599.20
	Y - STRAINER of Ductile CI Body flanged ends with stainless steel strainer for chilled / hot water circulation including insulation as specified.		
3046	200mm dia	Each	35614.00
3047	150mm dia	Each	18992.00
3048	125mm dia	Each	14769.00
3049	100 mm dia	Each	9325.00
3050	80 mm dia	Each	6237.00
3051	65mm dia	Each	4804.00
3052	50mm dia	Each	3375.00
3053	40mm dia	Each	2471.00
3054	Industrial type pressure gauges with gun metal / brass valves	Each	811.53
3055	Industrial type thermometers.	Each	640.68
	Factory fabricated GSS sheet metal rectangular/round ducting of following sheet thickness		
3056	Thickness 0.63 mm sheet	sq. m	500.34
3057	Thickness 0.80 mm sheet	sq. m	614.75
3058	Thickness 1.00 mm sheet	sq. m	739.83
3059	Thickness 1.25 mm sheet	sq. m	886.27

Code No.	Description	Unit	Rate (₹)
	GSS sheet metal of following sheet thickness		
3060	Thickness 0.63 mm sheet	sq. m	398.14
3061	Thickness 0.80 mm sheet	sq. m	530.85
3062	Thickness 1.00 mm sheet	sq. m	664.32
3063	Thickness 1.25 mm sheet	sq. m	803.14
3064	GI volume control duct damper	sq. m	4591.53
3015	Motorized (ON-OFF Type) duct mounted GI volume control damper with enthalpy sensor and necessary control wire (minimum 1.5 sqmm) for integration within AHU room	sq. m	10800.00
3065	Actuator	sq. m	4599.15
3066	powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers	sq. m	6483.81
3067	Powder coated extruded aluminium Return Air Grills with louvers but without volume control dampers	sq. m	4072.12
3068	Supply air diffusers of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core.	sq. m	8809.32
3069	Return air diffusers of powder coated aluminium without volume control dampers with anti smudge ring & removable core.	sq. m	5742.46
	Thermal insulated flexible duct- 200 mm dia	sq. m	351.61
3070	Fire dampers in supply air duct/main branch and return air path with inbuilt mechanism of spring return action		
3071	Fire damper	sq. m	7318.98
3072	Actuator	sq. m	6734.75
3073	25 mm thick resin bonded glass wool having density of 32 kg/m³,	sq. m	117.46
3074	50mm thick, density 32 kg/cu.m resin bonded glass fiber insulation.	sq. m	234.15
	Duly laminated aluminum foil of mat finish closed cell Nitrile rubber (class "O") insulation for use on existing duct		
3076	19mmthickness	sq. m	451.53
3077	25mmthickness	sq. m	597.97

AIR HANDLING UNITS

Factory built floor mounted chilled water double skin type horizontal/vertical air handling units made of 25mm thick panels consisting of pre plasticized G.I. casing of thickness 0.8mm outside layer and 0.8 mm inside layer with polyurethane foam (PUF) insulation factory injected between them by injection moulding machine, complete with blower section with blower suitable for static pressure as required, minimum 2 bend GSS/PVC eliminators,cooling coil section with aluminium finned copper tubes (tubes thickness not less than 0.5mm) cooling coil of 6 row deep, filter section with 50mm thick metal viscous/ washable synthetic type air prefilters, belt drive package with TEFC drive motor of efficiency class IE 3 suitable for 415 ± 10% volts, 50Hz, 3 Phase AC supply suitably designed for VFD applications, drain connections, stainless steel (18G) drain pan with PUF insulation, 150 mm diA, dial type pressure gauges (2 nos.)and industrial type

Code No.	Description	Unit	Rate (₹)
	thermometers (2 nos.) at the inlet and outlet of coil, auto purge valve wherever required, necessary vibration isolation arrangement etc. complete as per specification and of following capacities.		
3078	4300 CMH	Each	75212.54
3079	5100 CMH	Each	88485.25
3080	6800 CMH	Each	99433.22
3081	8500 MH	Each	123181.02
3082	10200 CMH	Each	142059.66
3083	11900 CMH	Each	161450.85
3084	13600 CMH	Each	173410.17
3085	15300 CMH	Each	196560.00
3086	17000 CMH	Each	208006.78
3087	18700 CMH	Each	229875.25
3088	20400 CMH	Each	246960.00
	Factory built floor mounted chilled water double skin type horizontal/vertical air handling units made of 25mm thick panels consisting of pre plasticized G.I. casing of thickness 0.8mm outside layer and 0.8 mm inside layer with polyurethane foam (PUF) insulation factory injected between them by injection moulding machine, complete with blower section with blower suitable for static pressure as required, minimum 2 bend GSS/PVC eliminators,cooling coil section with aluminium finned copper tubes (tubes thickness not less than 0.5mm) cooling coil of 4 row deep, filter section with 50mm thick metal viscous/ washable synthetic type air prefilters, belt drive package with TEFC drive motor of efficiency class IE 3 suitable for 415 ± 10% volts, 50Hz, 3 Phase AC supply suitably designed for VFD applications, drain connections, stainless steel (18G) drain pan with PUF insulation, 150 mm diA, dial type pressure gauges (2 nos.)and industrial type thermometers (2 nos.) at the inlet and outlet of coil, auto purge valve wherever required, necessary vibration isolation arrangement etc. complete as per specification and of following capacities.		
3089	4300 CMH	Each	66278.14
3090	5100 CMH	Each	77794.32
3091	6800 CMH	Each	86804.24
3092	8500 CMH	Each	107408.90
3093	10200 CMH	Each	125658.31
3094	11900 CMH	Each	140665.42
3095	13600 CMH	Each	152054.24
3096	15300 CMH	Each	172812.20
3097	17000 CMH	Each	181867.12
3098	18700 CMH	Each	198991.53
3099	20400 CMH	Each	215780.34

Code No.	Description	Unit	Rate (₹)
	Motorized Butter fly Valves with CI Body, SS Disc,O - ring and minimum PN-16 pressure rating , conforming to BS 5155, IS 13095, with IP-55 actuator as specified.		
3101	350 mm	Each	79862.80
3102	300 mm	Each	71566.78
3103	250 mm	Each	51524.24
3104	200 mm	Each	38864.75
3105	150 mm	Each	30130.17
3106	125 mm	Each	29870.85
3107	100 mm	Each	29316.36
3108	80 mm	Each	12535.17
3109	65 mm	Each	12413.90
3110	50 mm	Each	12159.92
	Electronic, self-balancing, pressure independent type dynamic balancing valve with integrated 2 way modualating control valves in a single body, alongwith actuator as specified		
3111	150 mm	Each	115183.22
3112	125 mm	Each	104868.31
3113	100 mm	Each	82519.32
3114	80 mm	Each	48136.27
3115	65 mm	Each	37821.36
3116	50 mm	Each	24498.31
3117	40 mm	Each	22348.98
3118	32 mm	Each	12034.07
3119	25 mm	Each	11318.64
3120	20 mm	Each	8251.78

AIR HANDLING UNIT

Factory built floor mounted chilled water double skin type horizontal/vertical air handling units made of 25mm thick panels consisting of pre plasticized G.I. casing of thickness 0.8mm outside layer and 0.8 mm inside layer with polyurethane foam (PUF) insulation factory injected between them by injection moulding machine, complete with blower section with blower suitable for static pressure as required, minimum 2 bend GSS/PVC eliminators,cooling coil section with aluminium finned copper tubes (tubes thickness not less than 0.5mm) cooling coil of 6 row deep, filter section with 50mm thick metal viscous/ washable synthetic type air prefilters, belt drive package with TEFC drive motor of Efficiency Class IE3 suitable for VFD 415 ± 10% volts, 20- 50Hz, 3 Phase AC supply, drain connections, stainless steel (18G) drain pan with PUF insulation, 150 mm diA, dial type pressure gauges (2 nos.)and industrial type thermometers (2 nos.) at the inlet and outlet of coil, auto purge valve wherever required, necessary vibration isolation arrangement etc. complete as per specification and of following capacities.

Code No.	Description	Unit	Rate (₹)
3142	23800 CMH	Each	270803.14
3143	28900 CMH	Each	285987.97
3144	34000 CMH	Each	316972.37
3145	39100 CMH	Each	439515.00
3162	23800 CMH	Each	205166.44
3163	28900 CMH	Each	261833.64
3164	34000 CMH	Each	290167.63
3165	39100 CMH	Each	332463.81
3201	Resin bonded fiber glass insulation of density 80 kg/cu m of thickness 65 mm on existing pipe	sq meter	990.76
	HOT DIPPED GALVANIZED CABLE TRAYS		
3701	MS perforated cable tray Hot Dipped Galvanized 100 X 50 X 1.6 mm	Metre	255.51
3702	MS perforated cable tray Hot Dipped Galvanized 150 X 50 X 1.6 mm	Metre	286.02
3703	MS perforated cable tray Hot Dipped Galvanized 225 X 50 X 1.6 mm	Metre	412.63
3704	MS perforated cable tray Hot Dipped Galvanized 300 X 50 X 1.6mm	Metre	458.39
3705	MS perforated cable tray Hot Dipped Galvanized 375 X 50 X 2 mm	Metre	623.90
3706	MS perforated cable tray Hot Dipped Galvanized 450 X 50 X 2 mm	Metre	693.31
3707	MS perforated cable tray Hot Dipped Galvanized 600 X 50 X 2 mm	Metre	1014.41
3708	MS perforated cable tray Hot Dipped Galvanized 300 X 62.5 X 2 mm	Metre	617.03
3709	MS perforated cable tray Hot Dipped Galvanized 375 X 62.5 X 2 mm	Metre	726.10
3710	MS perforated cable tray Hot Dipped Galvanized 450 X 62.5 X 2 mm	Metre	835.17
3711	MS perforated cable tray Hot Dipped Galvanized 600 X 62.5 X 2 mm	Metre	1056.36
3712	MS perforated cable tray Hot Dipped Galvanized 750 X 62.5 X 2 mm	Metre	1298.14
3713	MS perforated cable tray Hot Dipped Galvanized 900 X 62.5 X 2 mm	Metre	1520.85
3714	MS perforated cable tray Hot Dipped Galvanized 600 X 75 X 2 mm	Metre	1089.15
3715	MS perforated cable tray Hot Dipped Galvanized 750 X 75 X 2 mm	Metre	1307.29
3716	MS perforated cable tray Hot Dipped Galvanized 900 X 75 X 2 mm	Metre	1524.66
3717	MS perforated Hot Dipped Galvanized cable tray Connector 100 X 50 X 1.6 mm	Each	32.03
3718	MS perforated Hot Dipped Galvanized cable tray Connector 150 X 50 X 1.6 mm	Each	38.14

Code No.	Description	Unit	Rate (₹)
3719	MS perforated Hot Dipped Galvanized cable tray Connector 225 X 50 X 1.6 mm	Each	40.42
3720	MS perforated Hot Dipped Galvanized cable tray Connector 300 X 50 X 1.6 mm	Each	40.42
3721	MS perforated Hot Dipped Galvanized cable tray Connector 375 X 50 X 2 mm	Each	40.42
3722	MS perforated Hot Dipped Galvanized cable tray Connector 450 X 50 X 2 mm	Each	40.42
3723	MS perforated Hot Dipped Galvanized cable tray Connector 600 X 50 X 2 mm	Each	40.42
3724	MS perforated Hot Dipped Galvanized cable tray Connector 300 X 62.5 X 2 mm	Each	40.42
3725	MS perforated Hot Dipped Galvanized cable tray Connector 375 X 62.5 X 2 mm	Each	40.42
3726	MS perforated Hot Dipped Galvanized cable tray Connector 450 X 62.5 X 2 mm	Each	40.42
3727	MS perforated Hot Dipped Galvanized cable tray Connector 600 X 62.5 X 2 mm	Each	40.42
3728	MS perforated Hot Dipped Galvanized cable tray Connector 750 X 62.5 X 2 mm	Each	40.42
3729	MS perforated Hot Dipped Galvanized cable tray Connector 900 X 62.5 X 2 mm	Each	40.42
3733	MS perforated Hot Dipped Galvanized cable tray Bend 100 X 50 X1.6 mm	Each	639.92
3734	MS perforated Hot Dipped Galvanized cable tray Bend 150 X 50 X 1.6 mm	Each	715.42
3735	MS perforated Hot Dipped Galvanized cable tray Bend 225 X 50 X1.6 mm	Each	1030.42
3736	MS perforated Hot Dipped Galvanized cable tray Bend 300 X 50 X 1.6 mm	Each	1145.59
3737	MS perforated Hot Dipped Galvanized cable tray Bend 375 X 50 X 2 mm	Each	1558.98
3738	MS perforated Hot Dipped Galvanized cable tray Bend 450 X 50 X 2 mm	Each	1732.88
3739	MS perforated Hot Dipped Galvanized cable tray Bend 600 X 50 X 2 mm	Each	2536.02
3740	MS perforated Hot Dipped Galvanized cable tray Bend 300 X 62.5 X 2 mm	Each	1542.97
3741	MS perforated Hot Dipped Galvanized cable tray Bend 375 X 62.5 X 2 mm	Each	1816.02
3742	MS perforated Hot Dipped Galvanized cable tray Bend 450 X 62.5 X2 mm	Each	2087.54
3743	MS perforated Hot Dipped Galvanized cable tray Bend 600 X 62.5 X 2 mm	Each	2421.61
3744	MS perforated Hot Dipped Galvanized cable tray Bend 750 X 62.5 X 2 mm	Each	3243.05
3745	MS perforated Hot Dipped Galvanized cable tray Bend 900 X 62.5 X 2 mm	Each	3793.73

Code No.	Description	Unit	Rate (₹)
3746	MS perforated Hot Dipped Galvanized cable tray Bend 600 X 75 X 2 mm	Each	2722.88
3747	MS perforated Hot Dipped Galvanized cable tray Bend 750 X 75 X 2 mm	Each	3267.46
3748	MS perforated Hot Dipped Galvanized cable tray Bend 900 X 75 X 2 mm	Each	3812.03
3749	MS perforated Hot Dipped Galvanized cable tray Reducer 100 X 50 X 1.6 mm	Each	1014.41
3750	MS perforated Hot Dipped Galvanized cable tray Reducer 150 X 50 X 1.6 mm	Each	1207.37
3751	MS perforated Hot Dipped Galvanized cable tray Reducer 225 X 50 X 1.6 mm	Each	1572.71
3752	MS perforated Hot Dipped Galvanized cable tray Reducer 300 X 50 X 1.6 mm	Each	1870.93
3753	MS perforated Hot Dipped Galvanized cable tray Reducer 375 X 50 X 2 mm	Each	2305.68
3754	MS perforated Hot Dipped Galvanized cable tray Reducer 450 X 50 X 2 mm	Each	2509.32
3755	MS perforated Hot Dipped Galvanized cable tray Reducer 600 X 50 X 2 mm	Each	3571.02
3756	MS perforated Hot Dipped Galvanized cable tray Reducer 300 X 62.5 X 2 mm	Each	2298.81
3757	MS perforated Hot Dipped Galvanized cable tray Reducer 375 X 62.5 X 2 mm	Each	2706.10
3758	MS perforated Hot Dipped Galvanized cable tray Reducer 450 X 62.5 X 2 mm	Each	3199.58
3759	MS perforated Hot Dipped Galvanized cable tray Reducer 600 X 62.5 X 2 mm	Each	4101.10
3760	MS perforated Hot Dipped Galvanized cable tray Reducer 750 X 62.5 X 2 mm	Each	4425.25
3761	MS perforated Hot Dipped Galvanized cable tray Reducer 900 X 62.5 X 2 mm	Each	5162.03
3762	MS perforated Hot Dipped Galvanized cable tray Reducer 600 X 75 X 2 mm	Each	3577.88
3763	MS perforated Hot Dipped Galvanized cable tray Reducer 750 X 75 X 2 mm	Each	4485.51
3764	MS perforated Hot Dipped Galvanized cable tray Reducer 900 X 75 X 2 mm	Each	5224.58
3765	MS perforated Hot Dipped Galvanized cable tray Tee 100 X 50 X1.6 mm	Each	766.53
3766	MS perforated Hot Dipped Galvanized cable tray Tee 150 X 50 X1.6 mm	Each	800.85
3767	MS perforated Hot Dipped Galvanized cable tray Tee 225 X 50 X1.6 mm	Each	1237.12
3768	MS perforated Hot Dipped Galvanized cable tray Tee 300 X 50 X1.6 mm	Each	1374.41

Code No.	Description	Unit	Rate (₹)
3769	MS perforated Hot Dipped Galvanized cable tray Tee 375 X 50 X 2 mm	Each	1870.93
3770	MS perforated Hot Dipped Galvanized cable tray Tee 450 X 50 X 2 mm	Each	2079.15
3771	MS perforated Hot Dipped Galvanized cable tray Tee 600 X 50 X 2 mm	Each	3043.22
3772	MS perforated Hot Dipped Galvanized cable tray Tee 300 X 62.5 X 2 mm	Each	1851.86
3773	MS perforated Hot Dipped Galvanized cable tray Tee 375 X 62.5 X 2 mm	Each	2220.25
3774	MS perforated Hot Dipped Galvanized cable tray Tee 450 X 62.5 X 2 mm	Each	2504.75
3775	MS perforated Hot Dipped Galvanized cable tray Tee 600 X 62.5 X 2 mm	Each	3229.32
3776	MS perforated Hot Dipped Galvanized cable tray Tee 750 X 62.5 X 2 mm	Each	3887.54
3777	MS perforated Hot Dipped Galvanized cable tray Tee 900 X 62.5 X 2 mm	Each	4554.15
3778	MS perforated Hot Dipped Galvanized cable tray Tee 600 X 75 X 2 mm	Each	3267.46
3779	MS perforated Hot Dipped Galvanized cable tray Tee 750 X 75 X 2 mm	Each	3921.10
3780	MS perforated Hot Dipped Galvanized cable tray Tee 900 X 75 X 2 mm	Each	4574.75
3781	MS perforated Hot Dipped Galvanized cable tray Cross member 100 X 50 X 1.6 mm	Each	766.53
3782	MS perforated Hot Dipped Galvanized cable tray Cross member 150 X 50 X 1.6 mm	Each	800.85
3783	MS perforated Hot Dipped Galvanized cable tray Cross member 225 X 50 X 1.6 mm	Each	1251.61
3784	MS perforated Hot Dipped Galvanized cable tray Cross member 300 X 50 X 1.6 mm	Each	1533.05
3785	MS perforated Hot Dipped Galvanized cable tray Cross member 375 X 50 X 2 mm	Each	2071.53
3786	MS perforated Hot Dipped Galvanized cable tray Cross member 450 X 50 X 2 mm	Each	2401.78
3787	MS perforated Hot Dipped Galvanized cable tray Cross member 600 X 50 X 2 mm	Each	3053.90
3788	MS perforated Hot Dipped Galvanized cable tray Cross member 300 X 62.5 X 2 mm	Each	1857.20
3789	MS perforated Hot Dipped Galvanized cable tray Cross member 375 X 62.5 X 2 mm	Each	2179.07
3790	MS perforated Hot Dipped Galvanized cable tray Cross member 450 X 62.5 X 2 mm	Each	2509.32
3791	MS perforated Hot Dipped Galvanized cable tray Cross member 600 X 62.5 X 2 mm	Each	3168.31

Code No.	Description	Unit	Rate (₹)
3792	MS perforated Hot Dipped Galvanized cable tray Cross member 750 X 62.5 X 2 mm	Each	3887.54
3793	MS perforated Hot Dipped Galvanized cable tray Cross member 900 X 62.5 X 2 mm	Each	4554.15
3794	MS perforated Hot Dipped Galvanized cable tray Cross member 600 X 75 X 2 mm	Each	3269.75
3795	MS perforated Hot Dipped Galvanized cable tray Cross member 750 X 75 X 2 mm	Each	2797.63
3796	MS perforated Hot Dipped Galvanized cable tray Cross member 900 X 75 X 2 mm	Each	3262.88
3801	GI Suspender 6 mm dia 0.75m long	Each	21.36
3802	GI Suspender 8 mm dia 0.75m long	Each	26.69
3803	GI Suspender 10 mm dia 0.75m long	Each	32.03
3804	25 mm X 25 mm X 3 mm Galvannised slotted/angle iron/ channel	kg	43.47
3805	35 mm X 55 mm X 4 mm Galvannised slotted/angle iron/ channel	kg	43.47
3806	35mm X 35 mm X 5 mm Galvannised slotted/angle iron/ channel	kg	43.47
4001	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-75 mm thickness for 400 mm dia pipe	Meter	1850.34
4002	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-75 mm thickness for 350 mm dia pipe	Meter	1654.32
4003	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-75 mm thickness for 300 mm dia pipe	Meter	1356.10
4004	Resin bonded fiber glass pipe section 250mm insulation having density 80 kg/cum-75 mm thickness for 250 mm dia pipe	Meter	1184.49
4005	Resin bonded fiber glass pipe section 200 mm insulation having density 80 kg/cum-75 mm thickness for 200 mm dia pipe	Meter	1002.97
4006	Resin bonded fiber glass pipe section 150 mm insulation having density 80 kg/cum-50 mm thickness for 150 mm dia pipe	Meter	507.20
4007	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-50 mm thickness for 125mm dia pipe	Meter	447.71
4008	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-50 mm thickness for 100 mm dia pipe	Meter	200.59
4009	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-50 mm thickness for 80 mm dia pipe	Meter	331.02
4010	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-50 mm thickness for 65 mm dia pipe	Meter	299.75
4011	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-50 mm thickness for 50 mm dia pipe	Meter	261.61
4012	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-50mm thickness for 40 mm dia pipe	Meter	235.68

Code No.	Description	Unit	Rate (₹)
4013	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-50 mm thickness for 32 mm dia pipe	Meter	221.95
4014	Resin bonded fiber glass pipe section insulation having density 80 kg/cum-50 mm thickness for 25 mm dia pipe	Meter	202.12
4015	Nitrile rubber (closed cell elastometric nitrile rubber of class 'O') Insulation -32 mm thickness	per sq mtr.	669.66
4016	Nitrile rubber (closed cell elastometric nitrile rubber of class 'O') Insulation -19 mm thickness	per sq mtr.	370.68
4017	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -75mm thickness for 400 mm dia pipe	Meter	1047.20
4018	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -75mm thickness for 350 mm dia pipe	Meter	895.42
4019	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -75mm thickness for 300mm dia pipe	Meter	771.86
4020	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -75mm thickness for 250 mm dia pipe	Meter	644.49
4021	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -75 mm thickness for 200 mm dia pipe	Meter	549.15
4022	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -50 mm thickness for 150 mm dia pipe	Meter	260.85
4023	Expanded polystrene moulded pipe section of density 20kg/cum Insulation - 50 mm thickness for 125 mm dia pipe	Meter	229.58
4024	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -50 mm thickness for 100 mm dia pipe	Meter	202.12
4025	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -50 mm thickness for 80 mm dia pipe	Meter	167.03
4026	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -50 mm thickness for 65 mm dia pipe	Meter	152.54
4027	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -50 mm thickness for 50 mm dia pipe	Meter	134.24
4028	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -50 mm thickness for 40 mm dia pipe	Meter	119.75
4029	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -50 mm thickness for 32 mm dia pipe	Meter	112.12
4030	Expanded polystrene moulded pipe section of density 20kg/cum Insulation -50 mm thickness for 25 mm dia pipe	Meter	102.97
4031	Resin bonded fiber glass insulation of thickness 75 mm on existing pipe	Per sq meter	1366.02
4032	Resin bonded fiber glass insulation of density 80 kg/cu.mt. of thickness 50 mm on existing pipe	Per sq meter	1120.42
4033	Resin bonded fiber glass insulation of density 80 kg/cu.mt. of thickness 40 mm on existing pipe	Per sq meter	971.69
4034	Resin bonded fiber glass insulation of thickness 25 mm on existing pipe	Per sq meter	641.44

Code No.	Description	Unit	Rate (₹)
4037	Expanded polystrene insulation of thickness 75 mm on existing pipe	Per sq meter	224.24
4038	Expanded polystrene insulation of thickness 50 mm on existing pipe	Per sq meter	149.49
4069	Acoustic lining of supply air duct with 25mm thick resin bonded glass wool having density of 32kg/m3	Per sq meter	117.46
4070	Reinforced fiber glass tissue and 0.08mm perforated aluminium sheet	Per sq meter	319.58
4071	50 mm thick resin bonded glass wool having density of 32kg/m3	Per sq meter	234.15
4072	50 mm thick resin bonded glass wool having density of 24 kg/m3 with factory laminated aluminium foil	Per sq meter	173.14
4073	Resin bonded fiber glass insulation of thickness 65 mm on existing pipe	Per sq meter	1238.64
	FIRE DETECTION AND ALARM SYSTEM		
4101	Heat Detectors of electronic Rate of Rise cum fixed tempreature (Dual Thermistor) type with mounting base complete with all connection etc.	Each	750.00
4102	Smoke Detector with built in LED, mounting base complete with all connection etc.	Each	812.50
4103	Manual call boxes of MS Type in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc.	Each	300.00
4104	Manual call boxes of ABS Type in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc.	Each	250.00
4105	Response indicator on surface/recessed MS Box having two LED's metallic covers complete with all connections etc.	Each	90.00
4106	Fire alarm sounders (electronic) with facility to make announcement, mounted in M.S. Box (16 SWG) with hinged cover plate & suitable for operation with amplifier i/c line matching transformer etc.	Each	362.50
4107	Fire alarm sounders (electronic) with facility to make announcement, mounted in A,B.S. Box with hinged cover plate & suitable for operation with amplifier i/c line matching ttransformer etc.	Each	312.50
4108	Talk back slave station in surface/recess suitable for operation on simplex mode complete with P.T.T. Knob & speaker/microphone enclosed in a M.S (16 SWG)/ABS.Box, break glass in front etc.	Each	625.00
	Sector panels suitable for following zones, complete with visual indications for short circuit fault, open circuit fault fire conditions and all other standard facilities as per IS:2189, mimic diagram for all area/zone covered complete with all connections, interconnections		
4109	4 Zone fire alarm control panel as per IS: 2189 with backlit LCD Display	Each	4875.00
4110	6 Zone fire alarm control panel as per IS: 2189 with backlit LCD Display	Each	7375.00
4111	10 Zone fire alarm control panel as per IS: 2189 with backlit LCD Display	Each	9750.00

Code No.	Description	Unit	Rate (₹)
	Main control and indication panel made out of 16 SGW MS sheet to accommodate the following items duly stove anameled painted in approved colour with louvers for ventilation's locking arrangement including audio and visual indication for fire alarm and public address system, monitoring system including providing and fixing the following connections, interconnections etc.		
4112	10 zone control panel for fire alarm system with following:- 250 Watt amplifier racks suitable for operation on 230V AC/24V DC supply conforming to IEC-268-3 complete with all accessories as required 2 Nos.(one to act as standby) Talk back master station with LED PTT (Press to talk) push button for operation on 230V AC/24 V DC supply conforming to IEC-268 for simplex mode of operation/communication suitable for 20 Nos. talk back unit 1 set. Annoucement control desk suitable for selection of different zones selectively and ON ALL CALL switch with visual indication etc., complete as required 1 Set. Amplifier change over switch for inter changing amplifier 1 No. Monitor panel for loudspeaker complete output selector ON/OFF switch, fuse visual indications etc. complete as required 1 No. Gooseneck microphone with stand and ON/OFF switch 1 No. Mains ON/OFF switch, fuse indication IA, DC and AC voltmeters & Ammeters terminal blocks etc. complete as required 1 Set. Battery charger trickle cum boost to take complete load of fire alarm & PA system complete with all accessories including providing & fixing of 2 nos.12 volt, 60 AH each sealed maintenance free batteries 1 Set.	Each	47177.00
4113	6 zone control panel for fire alarm system with following:- 100 Watt amplifier racks suitable for operation on 230V AC/24V DC supply conforming to IEC-268-3 complete with all accessories as required 2 Nos.(one to act as standby) Talk back master station with LED PTT (Press to talk) push button for operation on 230V AC/24 V DC supply conforming to IEC-268 for simplex mode of operation/communication suitable for 20 Nos. talk back unit 1 set. Annoucement control desk suitable for selection of different zones selectively and ON ALL CALL switch with visual indication etc., complete as required 1 Set. Amplifier change over switch for inter changing amplifier 1 No. Monitor panel for loudspeaker complete output selector ON/OFF switch, fuse visual indications etc. complete as required 1 No. Gooseneck microphone with stand and ON/OFF switch 1 No. Mains ON/OFF switch, fuse indication IA, DC and AC voltmeters & Ammeters terminal blocks etc. complete as required 1 Set. Battery charger trickle cum boost to take complete load of fire alarm & PA system complete with all accessories including providing & fIxing of 2 nos.12 volt,30 AH each sealed maintenance free batteries 1 Set.	Each	32272.00

Code No.	Description	Unit	Rate (₹)
	Micro processor based. Intelligent Addressable Main Fire alarm panel, Central Processing Unit ,with the following loop module and with each loop capacity of 120 detector per loop with total of 240 detectors and devices with loop length up to 2 kmtr, network communication card, minimum 320 character graphics, LCD display with touch screen or other keypad and 1000 event history logs in the non volatile memory (EEPROM) power supply unit at 230+ 5 % V, 48 Hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout logs and facility to have integration with analog voice evacuation system(which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel should be compatible for integration with IBMS system with open protocol Bacnet/IP, complete as per specs and as required for following loops.		
4114	10 Loop Control Panel having CPU with 640 character display including backlite LCD display qwerty programming and operating manuals, supporting 1 to 10 signaling line circuits (upto 5 extendable cards & supporting 103 network modes) complete as required. Control and expander moudules. Control and expander moudules. Dress Plate. Battery dress plate. Chassis low profile. Dress Panel blanck covers. Backnete protocol.	Each	338000.00
4115	Two Loop Control Panel having CPU with 640 character display including backlite LCD display qwerty programming and operating manuals, supporting 1 to 10 signaling line circuits (upto 5 extendable cards & supporting 103 network modes) complete as required. Control and expander moudules. Dress Plate. Battery dress plate. Chassis low profile. Dress Panel blanck covers. Backnete protocol.	Each	177650.00
4116	Central graphical fire alarm management system i/c software	Each	147250.00
4117	320 character LCD display repeater panel.	Each	81000.00
4118	Intelligent photothermal detector	Each	2099.50
4119	Response indicator on surface/recessed MS Box having two LED's metallic covers complete with all connections etc.	Each	150.00
4120	Intelligent addressable programmable sounder.	Each	1824.00
4121	Cost of fault isolator complete with base	Each	2291.40
4122	Cost of intelligent aspiration detector	Each	220000.00
4123	Cost of intelligent addressable thermal detector	Each	1881.00

Code No.	Description	Unit	Rate (₹)
4124	Cost of control module	Each	2090.00
4125	Cost of addressable fire phone control module	Each	2289.50
4126	Cost of addressable beam detector with remote test features	Each	55100.00
4127	Cost of intelligent duct detector unit with photothermal detector complete with base	Each	5721.85
4128	Cost of manual call point	Each	2745.50
4129	Cost of Horn cum strobe	Each	2470.00
4130	Cost of Strobe.	Each	2364.55
4131	Cost of fire fighter telephone handset	Each	4275.00
4132	Intelligent interface unit BACnet protocol for communication link between building management system and fire alarm control panel.	Each	141550.00
4133	Cost of fire fighter phone jack	Each	1149.50
4134	6 Zone, voice alarm controller with USB, MP3, AM/FM player (including zone button paging station).	Each	95250.00
4135	Cost of 1.5/3/6W Ceiling Speaker	Each	670.00
4136	Cost of 1.5/3/6W Metal Ceiling Speakers.	Each	1295.00
4137	Cost of wall mounted loud speaker, 3/1.5 Watt in ABS enclosure	Each	1775.00
4138	Cost of 2 watt, 70 Volts ceiling speaker.	Each	1330.00
4139	Cost of Digital audio amplifier 50 Watt 25VRMS operating of 240 Volt AC Supply.	Each	73000.00
4140	Digital audio amplifier 75 Watt 25VRMS operating of 240 Volt AC Supply.	Each	110000.00
4141	Cost of Exit point directional sound speaker with voice and integral audio amplifier with selectable sound pulse patterns	Each	7600.00
4142	Cost of Digital voice command keypad	Each	37082.50
4143	Cost of 25 mm Outer dia PVC/ABS Pipe with end caps including making air sampling operning of appropriate dia on appropriate interval.	meter	78.00
4144	Cost of Fire Survival armoured cable,Fibre glass tape wrapped, ZH inner, outer sheath 2x1.5 Sq. mm cable.	meter	196.20
4145	Cost of Fire alarm armoured FRLS cable 2 x 1.5 sqmm	meter	58.20
	Speaker cable of following pairs ,cores and size of PVC insulated FRLS copper conductor cable with LHC in the existing surface / recessed steel conduit / PVC casing and capping including connections etc.		
4146	Cost of single pair 2-core 48/0.2 mm, speaker cable	meter	24.64
4147	Cost of 25 mm dia MS flexible pipe with PVC coating along with all ancillaries & accessories like coupler etc.	meter	25.00
4148	Two pair 0.5 Sq. mm copper twisted cable for talk back system.	meter	8.16
4149	Addressable beam detector	Each	55100.00

Code No.	Description	Unit	Rate (₹)
4150	Cost of two pair 2-core 48/0.2 mm for PA System.(wastage 5%)	meter	49.28
4151	Cost of three pair 2-core 48/0.2 mm Speaker Cable for PA System.(wastage 5%)	meter	73.92
4152	Cost of four pair 2-core 48/0.2 mm Speaker Cable for PA System. (wastage 5%)	meter	98.56
	WET RISER & SPRINKLER SYSTEM		
	Fire Hydrant single outlet gunmetal NB inlet brass spindle 63mm female instantanous/outlet with PVC blank cap and GI chain as per IS:5290 (ISI Marked)		
4201	Single head gunmetal hydrant valve	Each	4685.00
	Short stainless steel branch pipe 63mm male intantanous inlet male threaded outlet fitted with 15mm bore nosle as per IS:903 (ISI Marked)		
4202	Single Head Stainless Steel Hydrant Valve	Each	3547.00
	Short gunmetal pipe 63mm male intantanous inlet male threaded outlet fitted with 15mm bore nozzle as per IS:903 (ISI Marked)		
4203	Gunmetal short branch pipe	Each	1758.00
4204	Short stainless steel branch pipe	Each	1189.00
	FBC CI Body having two nos. gunmetal 63mm male instantanous inlet coupling confirming to IS:903 fitted with non return valve flange outlet of 100mm dia complete with 25mm size gunmetal drain valve, two nos. rubber blanck caps and chain		
4205	Two way gunmetal FBC connection	Each	4002.00
4206	Three way gunmetal FBC connection	Each	6050.00
4207	Four way gunmetal FBC connection	Each	9462.00
	Sythetic fibre circular woven jackated rubber lined fire hose delivery having 38Kg. Per Cm. Sq. burst pressure, 28Kg. Per Cm. proof pressure, 14Kg. Per Cm. working pressure as per IS:636 (ISI Marked) Type A in 15 Meters length, 63mm dia duly copper via bounded two coupling pair of male female parts any duly intantanous type, 63mm size as per IS:903 (ISI Marked)		
4208	RRL Hose with male female gunmetal coupling	Each	3861.00
4209	RRL Hose with male female stainless steel coupling	Each	3292.00
	19mm swinging hose reel complete reinforced braided thermoplastic red/black hose		
4210	Swinging type hose reel complete with 19mm x 30 Mtrs. Thermolplastic hoseType-II	Each	2043.00
4211	Swinging type hose reel complete with 19mm x 40 Mtrs. Thermolplastic hose Type-II	Each	3232.00

Code No.	Description	Unit	Rate (₹)
4212	Hose reel drum	Each	2350.00
4213	25mm dia gun metal globe valve & nozzle.	Each	691.00
	Sprinkler operating at 68^0 centigrade standard response, standard coverage 15mm BPST, K56 UL listed and FM approved		
4214	68^0 centigrade Pendant Sprinkler	Each	168.00
4215	68^0 centigrade Upright Sprinkler	Each	168.00
4216	68^0 centigrade Sidewall Sprinkler	Each	240.00
4217	68^0 centigrade Concealed Sprinkler	Each	857.00
	Sprinkler flexible drops stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread 1 No. reducer + 1 No. Nipple + 2 Side Brackets + 1 Center Bracket + 625 mm stockbar		
4218	700mm flexible drop	Each	795.00
4219	1000mm flexible drop	Each	945.00
4220	1200mm flexible drop	Each	1015.00
4221	1500mm flexible drop	Each	1137.50
4222	Water flow switch for 100mm dia pipe	Each	4945.00
4223	Water flow switch for 150mm dia pipe	Each	6083.00
	hydraulic alarm valve with water motor gong bell and constant pressure trim assembly complete as required		
4224	150mm dia hydraulic alarm valve with water motor gong	Each	34933.00
4225	100mm dia hydraulic alarm valve with water motor gong	Each	32517.00
4226	80mm dia hydraulic alarm valve with water motor gong	Each	30777.00
	Deluge valve with wet pilot basic trim assembly with test and alarm, drip and drain valve with water motor gong		
4227	150mm dia deluge valve	Each	84888.00
4228	100mm dia deluge valve	Each	68238.00
4229	80mm dia deluge valve	Each	60732.00
4230	50mm dia deluge valve	Each	60280.00
	Water curtain nozzle, 15mm dia BPST K-Factor as per design consideration		
4231	Water curtain nozzle, nickel chrome plated brass	Each	313.20
4232	Electric release trim assembly for deluge valve with two way solenoid valve, weather proof operation on 24 volts DC	Each	5382.00
4233	Adjustable rosette plate for 15mm dia (Powder Coated)	Each	80.00
	BUTTERFLY VALVE PN 1.6 rating		
4234	40mm dia butterfly valve	Each	1948.00
4235	50mm dia butterfly valve	Each	1948.00

Code No.	Description	Unit	Rate (₹)
4236	65mm dia butterfly valve	Each	2150.00
4237	80mm dia butterfly valve	Each	2382.00
4238	100mm dia butterfly valve	Each	3305.00
4239	125mm dia butterfly valve	Each	4175.00
4240	150mm dia butterfly valve	Each	4803.00
4241	200mm dia butterfly valve	Each	9188.00
4242	250mm dia butterfly valve	Each	12912.00
4243	300mm dia butterfly valve	Each	16105.00
	MS pipe as per IS/1239 ISI MARKED C Class (heavy)		
4244	25mm dia MS Pipe	m	118.00
4245	32mm dia MS Pipe	m	155.00
4246	40mm dia MS Pipe	m	180.00
4247	50mm dia MS Pipe	m	265.00
4248	65mm dia MS Pipe	m	350.00
4249	80mm dia MS Pipe	m	424.00
4250	100mm dia MS Pipe	m	634.00
4251	125mm dia MS Pipe	m	819.00
4252	150mm dia MS Pipe	m	938.00
4253	200mm dia MS Pipe (6.3 mm thick)	m	1426.00
4254	250mm dia MS Pipe (6.3 mm thick)	m	1798.00
4255	300mm dia MS Pipe (7.1 mm thick)	m	2106.00
	GI pipe as par IS/1239 ISI MARKED C Class (heavy)		
4256	25mm dia G.I. Pipe	m	171.00
4257	32mm dia G.I. Pipe	m	215.00
4258	40mm dia G.I. Pipe	m	250.00
4259	50mm dia G.I. Pipe	m	310.00
4260	65mm dia G.I. Pipe	m	395.00
4261	80mm dia G.I. Pipe	m	505.00
4262	100mm dia G.I. Pipe	m	714.00
4263	150mm dia G.I. Pipe	m	1066.00
	NON RETURN VALVE cast Iron double flange as per IS/5312 PN 1.6 rating complete with Bronze body & wedge Stainless Steel spindle, Gland packing, Rubber gasket		
4264	40mm dia Non Return Valve	Each	3311.00
4265	50mm dia Non Return Valve	Each	3311.00
4266	65mm dia Non Return Valve	Each	3785.00
4267	80mm dia Non Return Valve	Each	4366.00
4268	100mm dia Non Return Valve	Each	6607.00
4269	125mm dia Non Return Valve	Each	10290.00
4270	150mm dia Non Return Valve	Each	11718.00
4271	200mm dia Non Return Valve	Each	20013.00
4272	250mm dia Non Return Valve	Each	31946.00

Code No.	Description	Unit	Rate (₹)
4273	300mm dia Non Return Valve	Each	43392.00
	NON RISING cast Iron double flange SLUICE Valve as per ISI/14846 PN 1.6 rating comple te with Bronze body & wedge Stainless Steel spindle, G land packing, Rubber gasket		
4274	40mm DIA Sluice Valve	Each	3540.00
4275	50mm DIA Sluice Valve	Each	4532.00
4276	65mm DIA Sluice Valve	Each	5875.00
4277	80mm DIA Sluice Valve	Each	6663.00
4278	100mm DIA Sluice Valve	Each	9324.00
4279	125mm DIA Sluice Valve	Each	12511.00
4280	150mm DIA Sluice Valve	Each	15461.00
4281	200mm DIA Sluice Valve	Each	27639.00
4282	250mm DIA Sluice Valve	Each	32913.00
4283	300mm DIA Sluice Valve	Each	47409.00
	Cast iron double flange strainer with stainless steel mesh, PN 1.6 rating complete with accessories as required.		
4284	80mm dia CIDF SS mesh Strainer	Each	2530.80
4285	100mm dia CIDF SS mesh Strainer	Each	3636.00
4286	150mm dia CIDF SS mesh Strainer	Each	6791.40
4287	200mm dia CIDF SS mesh Strainer	Each	14689.80
4288	250mm dia CIDF SS mesh Strainer	Each	18450.90
4289	300mm dia CIDF SS mesh Strainer	Each	25366.50
4290	25mm Air release valve as per IS:14845 ISI Marked	Each	1350.00
	electric driven main fire pump with motor, base plate coupling, coupling guard, foundation bolts and anti vibration pads		
4291	2850 lpm at 88 m Head	Each	331000.00
4292	2850 lpm at 70 m Head	Each	295000.00
4293	2850 lpm at 56 m Head	Each	294000.00
4294	2280 lpm at 88 m Head	Each	294000.00
4295	2280 lpm at 70 m Head	Each	268000.00
4296	2280 lpm at 56 m Head	Each	24000.00
4297	1620 lpm at 88 m Head	Each	268000.00
4298	1620 lpm at 70 m Head	Each	240000.00
4299	1620 lpm at 56 m Head	Each	204000.00
	diesel engine driven main fire pump, tank, exhaust, foundation bolts, anti vibration pads etc.		
4300	2850 lpm at 88 m Head	Each	505000.00
4301	2850 lpm at 70 m Head	Each	453700.00
4302	2850 lpm at 56 m Head	Each	451000.00
4303	2280 lpm at 88 m Head	Each	468000.00

Code No.	Description	Unit	Rate (₹)
4304	2280 lpm at 70 m Head	Each	450000.00
4305	2280 lpm at 56 m Head	Each	448000.00
4306	1620 lpm at 88 m Head	Each	463100.00
4307	1620 lpm at 70 m Head	Each	435000.00
4308	1620 lpm at 56 m Head	Each	375000.00
	electric driven pressurisation pump (Jockey pump)		
4309	180 lpm at 88 m Head	Each	90000.00
4310	180 lpm at 70 m Head	Each	72000.00
4311	180 lpm at 56 m Head	Each	56000.00
4312	300 lpm at 88 m Head	Each	120000.00
4313	300 lpm at 70 m Head	Each	90200.00
4314	300 lpm at 56 m Head	Each	81000.00
	electric driven pressurisation pump (Terrace pump)		
4315	900 lpm at 35 m Head	Each	70909.00
4316	450 lpm at 35 m Head	Each	59091.00
4317	Air Vessel 250 mm	Each	12646.00
4318	Pressure switch	Each	986.00
4319	**Orifice plate made of 6 mm. thick stainless steel with orifice of required size in between flange & landing valve of external and internal hydrant to reduce pressure to working pressure of 3.5 kg/cm^2**	Each	802.00
4320	Cost of Cement concrete foundation with 35x35x5 mm angle frame on edges duly plastered Cum with inertia bloacks.	Cum	4500.00
	Cost of Control Panel		
4321	**INCOMING**		
	250A, 50kA 4 Pole MCCB, Ics=100% Icu rating		
	Digital Voltmeter 0-500V with selector switch		
	Digital Ammeter (0-250 A) with selector swtich & CTs etc.		
	LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps		
	Set of Copper Bus Bar 300A		
	OUTGOING		
	(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)		
	Main Fire Pump		
	125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		

Code No.	Description	Unit	Rate (₹)
	Jockey Pump 63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. **Diesel Engine Control** Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine **System Controller** Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	175000.00
4322	**Incomings** 400A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500A **Outgoings** (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps) **Main Fire Pump** 200 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. **Jockey Pump** 100 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.		

Code No.	Description	Unit	Rate (₹)
	Diesel Engine Control Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine **System Controller** Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specifications.	Each	205000.00
4323	**Incomings** 630A, 50kA 4 Pole MCCB, Ics=100% Icu rating Digital Voltmeter 0-500V with selector switch Ammeter (0-630 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 800Amps **Outgoings** (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps) **Main Fire Pump** 250 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. **Jockey Pump** 125 A, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. **Diesel Engine Control** Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication		

Code No.	Description	Unit	Rate (₹)
	Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine **System Controller** Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	230000.00
4324	**Incomings** 400A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-400 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 500Amps **Outgoings** (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps) **Main Fire Pump** 125 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets **Jockey Pump** 63 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets **Diesel Engine Control** Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine **System Controller** Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump,		

Code No.	Description	Unit	Rate (₹)
	Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	265000.00
4325	**Incomings** 630A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-630 A) with selector swtich & CTs etc. LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 800Amps **Outgoings** (Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps) **Main Fire Pump** 200 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 75 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets **Jockey Pump** 100 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets **Diesel Engine Control** Control for diesel engine comprising - Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter All standard relays and accessories for automatic operation of diesel engine **System Controller** Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	320000.00
4326	**Incomings** 800A, 50kA 4 Pole MCCB, Ics=100% Icu Rating Digital Voltmeter 0-500V with selector switch Ammeter (0-800 A) with selector swtich & CTs etc.		

Code No.	Description	Unit	Rate (₹)
	LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps Set of Copper Bus Bar 1000Amps		
	Outgoings		
	(Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)		
	Main Fire Pump		
	250 Amp, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 100 hp pump with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets		
	Jockey Pump		
	125 Amp, 50kA TPN MCCB, Ics=100% Icu, with Suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all acceessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation. - 2 sets		
	DIESEL ENGINE CONTROL		
	Control for diesel engine comprising -		
	Automatic/Manual selctor switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode		
	Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication		
	Battery charger suitbale for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter		
	All standard relays and accessories for automatic operation of diesel engine		
	System Controller		
	Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification	Each	410000.00
4327	Basic cost of 4 mm thick Anti Corrosive Pipe Protection Bituminous Tape,	sq m	210.00
4328	Basic cost of anticorrosive Black paint	Litre	110.00
4329	Cost of 4 Nos. Nuts bolts and washers	Set	50.00
4330	Cost of 1 No. 3 mm thick rubber gasket	Each	70.00
4331	Cost of 1 No. MS flange as per IS drilling 16 mm thick LS	Set	200.00
4332	Cost of Welding rod	Job	40.00
4333	Cost of 40 mm dia Flange	Each	110.00
4334	Cost of 8 Nos. Nut bolt fastner and packing gaskets	Each	90.00
4335	Cost of Welding rod LS	Each	60.00

Code No.	Description	Unit	Rate (₹)
4336	Cost of 50 mm dia butterfly valve	Each	110.00
4337	Cost of 50mm dia Flange	Each	110.00
4338	Cost of 65 mm dia Flange	Each	110.00
4339	Cost of 65 mm dia butterfly valve	Each	110.00
4340	Cost of 80 mm dia Flange	Each	220.00
4341	Cost of 8 Nos. Nut bolt fastner and packing gaskets	Each	180.00
4342	Cost of Welding rod LS	Each	90.00
4343	Cost of 100 mm dia Flange	Each	220.00
4344	Cost of 150 mm dia Flange	Each	220.00
4345	Cost of 200 mm dia Flange	Each	340.00
4346	Cost of 8 Nos. Nut bolt fastner and packing gaskets	Each	300.00
4347	Cost of Welding rod LS	Each	120.00
4348	Cost of 250 mm dia Flange	Each	340.00
4349	Cost of 300 mm dia Flange	Each	340.00
4350	Cost of packing gaskets	LS	50.00
4351	Cost of 125 mm dia Flange	Each	220.00
4352	Cost of 80 mm dia Flange	Each	110.00
4353	Cost of 100 mm dia Flange	Each	110.00
4354	Cost of 150 mm dia Flange	Each	110.00
4355	Cost of 25mm dia socket, union, nipples (Lumpsum)	Each	210.00
4356	Cost of 25mm dia gunmetel gate valve	Each	770.00
4357	Cost of 250mm dia air vessel wit air release valve and 25mm dia gunmetel wheel valve for drainage	Each	1400.00
4358	Cost of 15mm dia MS Socket & teflon tape (Lumpsum)	Each	45.00
4359	Cot of teflon tape	Each	20.00
4360	25mm dia MS Socket	Each	45.00
4361	Cost of MS Socket 15mm dia	Each	35.00
4362	Cost of water flow switch	Each	6500.00
4363	Cost of Packing gaskets	LS	50.00
4364	Cost of 4 Nos. Nut Bolt fastner & packing gaskets	LS	90.00
4365	Cost of 12 Nos. Nut bolt fastner and packing gaskets	Each	450.00
	BEE 5 STAR RATED CEILING FAN WITH BRUSH LES DIRECT CURRENT (BLDC) MOTOR		
4400	Basic Price for 1200 mm sweep BLDC Ceiling fan i/c all accessories/fittings/ supports etc.	Each	1900.00

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S. No.	Reference under which Issued	Item No.	Page No.	Remarks

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Central Public Works Department (CPWD)
In the Service of the nation since 168 Years.

Under the Ministry of Housing and Urban Affairs, Government of India, CPWD provides single window services for all facets of the government built environment in India and abroad.

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CPWD also discharges other functions such as the custody of estates, valuation, rent assessment, technical advice to government, consultancy services, standardization and benchmarking, State Ceremonies (Republic Day, Samadhis, etc.), processing of DPRs for development of urban infrastructure under JNNURM, North Eastern region and works of other Ministries for centrally funded works. CPWD also assists in organizing public and ceremonial functions, and upkeep of historical and important monuments.

Delhi Schedules of Rates (E&M) 2022

The DSR (E&M) 2022 incorporates Schedule of Rates for Internal & External Electrical Works, rates for chilled water pipes, ducting, insulation, valves, AHUs etc. pertaining to low side of Air-conditioning Works, Fire Detection and Alarm System, Wet riser and Sprinkler System and BEE 5 Star Rated Ceiling Fan With Brush Les Direct Current (BLDC) Motor.

CPWD

CENTRAL PUBLIC WORKS DEPARTMENT

Ministry of Housing and Urban Affairs,
Government of India
www.cpwd.gov.in