

We touch your **electricity** everyday!



**GLOBAL SPECIALIST
FOR POWER BUSBARS**

Sandwich Busbar Trunking System



CELEBRATING

50
— YEARS —

metabar

Manufacturing Facilities



Greater Noida - India



Haridwar - India



Boom-Belgium

C&S Electric Ltd. is one of the leading manufacturer of electrical equipment in India. It's wide range of electrical and electronic products find application in power generation, distribution, control, protection and final consumption.

C&S employs over 4000 people including 400 engineers, and has 17 state-of-the-art manufacturing plants. It has 23 sales/marketing offices across India and its products are exported to more than 85 countries.

The Power Busbar Division of C&S founded four decade ago and has been meeting the evolving needs of power generating stations, process and manufacturing industries, infrastructure establishments, technological centers and real estate developments with its complete and fully tested product line of Busduct, Bustrunking and associated equipment.

The Eta-com group was founded in 1979 and ever since markets a full range of cast resin insulated busway systems. The concept which was already in use in the sixties in industrial installations is now in the third generation form. Due to the typical characteristics, the system guarantees the integrity of many projects world-wide, providing safe and maintenance free electrical power supplies in both Low Voltage and Medium Voltage installations.

With the acquisition of Eta-com in December 2011, the co-operation between the two companies gives birth to a **Global Power Busbars Specialist**.



metabar range cover Sandwich Bustrunking, Air Insulated Bustrunking & Lighting Trunking.

Bustrunking has lower impedance in comparison to cable and conventional busducts for the same application. Lower impedance means less energy lost during distribution and this translates into cost savings and makes this as energy saver

Flexible Distribution because of Plug-in type arrangement at regular intervals or as per customer design provides efficient power distribution.

Bustrunking system requires less space for Installation in a building / industry as compared to conventional busduct and cable system, so optimum utilization of space.

Material and manpower used in busway is lower than cable & conventional busduct. It saves money on raw materials and creates less waste by buying pre-engineered lengths of busway.

Bustrunking system comes with provision of expansions, changes, replacement and reusing. Metabar Bustrunking can be supplied in following standard types:

SB - Sandwich Type

Up to 1000 V AC Three phase conductors and/or
50,100 % Protective internal & isolated earth
And 100 & 200 % neutral

Al-conductors range up to 5000 A
Cu-conductors range up to 6300 A
DC application on request
Other frequencies on request



CB-Compact Air Insulated Type

Up to 1000 V AC
Three phase conductors and/or
50,100 % Protective internal & isolated Earth
And 100 % Neutral

Al-conductors range up to 1250 A
Cu-conductors range up to 2000 A
DC application on request
Other frequencies on request



LB-Lighting Trunking

Up to 500 V AC
Three phase conductors
Cu-conductors range up to 63 A



betobar is the leading technology in the world for cast resin insulated busbars in low & medium voltage installations.

This concept is unique as it is based on the direct encapsulation of copper or aluminium conductors with an insulation compound, B.I.M. casting mix, consisting of epoxy-resin mixed under vacuum. This B.I.M. casting mix has excellent electrical characteristics and high mechanical withstand with specific physical properties. It is moisture-resistant, fire-resistant and self-extinguishing. A flexible fabrication method, universal moulds and an integrated process controlled mixing technique allow the production of an almost unlimited number of element forms for L.V. as for M.V. applications. The prefabricated elements are self-supporting and are interconnected electrically by joining the conductors with 2-sided compression contacts, ensuring an excess of contact surfaces and a maximum of adjustment. Junctions and element extremities are overcast with a B.I.M. casting mix resulting in a homogeneous insulation over the full length of the connection.

betobar busbars can be supplied in the following standard types:

For Low Voltage

- LA - series
- Up to 1000 V AC / 1500V DC
- Three phase conductors and/or
- Protective earth / 50,100,150 % neutral
- Al-conductors range up to 5000 A
- Cu-conductors range up to 6300 A
- DC application on request
- Other frequencies on request



For Medium Voltage

Type	Current Rating	Voltage Rating
SH-Series	Al upto 1600A Cu upto 1600A	3.6 KV to 12 KV



Type	Current Rating	Voltage Rating
PH-Series	Al upto 4000A Cu upto 5000A	3.6 KV to 17.5 KV

Other current and voltage ratings on request.



IP68
degree of protection

IK10
mechanical resistance



explosion proof

Isobar range covers Isolated Phase Busduct, Segregated Phase Busducts and Non-Segregated Phase Busducts.

C&S is a market leader in India and amongst the major global companies for design, manufacture, erection and commissioning of Isolated Phase Bus Ducts upto 1000MW power plants.

Today, we have an enviable track record of having associated with 4 Units of 800 MW, 43 Units of 660 MW, 33 Units of 500 MW, 60 Units of 250 MW, 50 Units of 150 MW Thermal Power Stations, Hydro Power Plants and Nuclear Power Plants, besides many Captive/Private Power Projects of capacity less than 100 MW. The largest proportion of 80,000 MW power generated in India flows through C&S Isobar busducts.

Isobar Busduct have been successfully type tested for highest peak current during short circuit test and also for temperature rise test at world famous laboratories like KEMA-Holland and EDF-France, CPRI-Bhopal & Bangalore and at IIT-Roorkee (For Seismic tests)

Isolated Phase Busduct

C&S offers a wide range of natural air cooled Isolated Phase busducts with voltage rating of 11kV to 38kV having current rating of 100A to 30,000A, with the short circuit current withstand capacity of 309 kA/sec & 845 kA peak. These busducts have applications in all generating stations from 50MW & above.



Segregated Phase Busducts

C&S offer a wide range of Segregated Phase Busducts for Medium Voltage applications from 3.3 kV to 33 kV upto 5000A with a maximum Short Circuit Current withstand capability of 50 kA rms for 3sec. and 128 kA peak. Segregated Phase Busducts find applications in Power Generating Stations and Industrial or Distribution Plants for lower capacity generator connections, inter-connections between switchgear and transformers.

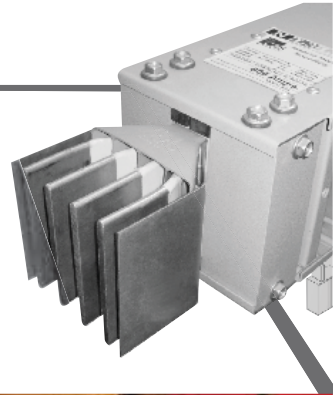


Non-Segregated Phase Busducts

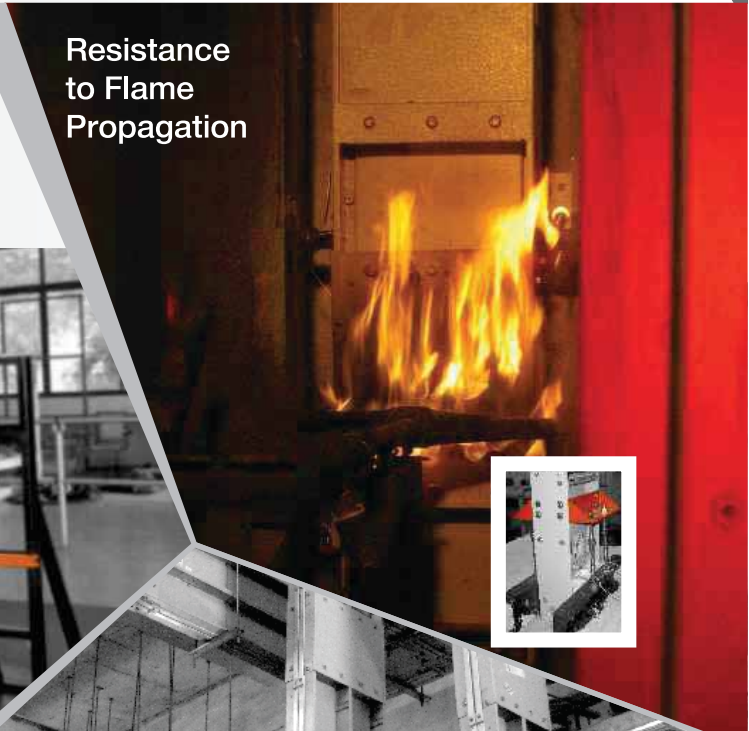
C&S offer a wide range of Non-Segregated Phase Bus ducts for Low Voltage applications from 415V to 1.1 kV upto 6500A with a maximum Short Circuit Current withstand capability of 80 kA rms for 1sec. and 180 kA peak. Non-Segregated Phase Bus Ducts are commonly used in industrial utilities, power plants for interconnection between switchgear and transformers and also for lower capacity of generator (viz DG sets)



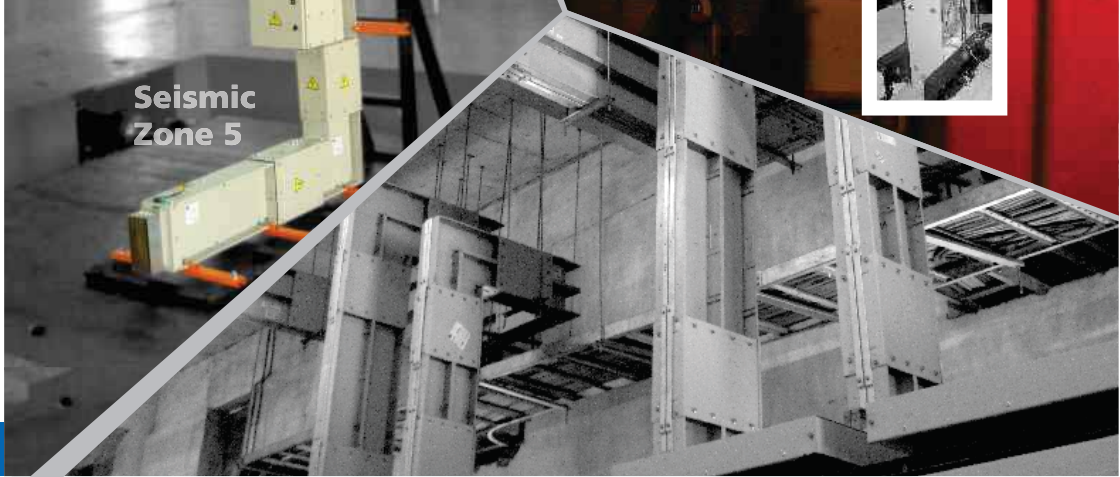
Sandwich Insulated



**Resistance
to Flame
Propagation**



**Seismic
Zone 5**



Applications

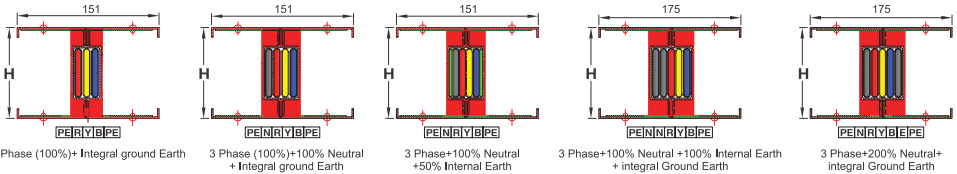


Technical Specifications

Sandwich Busway

Compliance of Standard	IEC 61439 (1&6) & IS 8623 (1&2)
Independent Certification Authority	CPRI, ASTA, UL
Busbar Arrangement	Sandwich Type
Busbar Ratings	Copper 630 ~ 6600A Aluminium 400 ~ 5000A
Busbar Configuration	3 Phase+50% Integral Ground Earth 3 Phase+100% Neutral+Integral Ground Earth 3 Phase+100% Neutral+50% Internal Earth 3 Phase+100% Neutral+100% Internal Earth+Integral Ground Earth 3 Phase+200%Neutral+Integral Ground Earth
Rated Operational Voltage (Ue)	1000 Volt, AC
Rated Insulation Voltage (Ui)	1000 Volt, AC
Rated Impulse Withstand Voltage (Uimp)	12 KV (1.2/50 μ s)
Rated Frequency	50 Hz / 60 Hz
Enclosure Material	1.6 mm G.I
Surface Coating on Enclosure	Powder coated (RAL-7032)
Busbar Material (Phase/Neutral)	Copper 99.9% pure ETP grade Aluminium with high conductivity & strength
Busbar Material - Internal Earth (Optional)	1.5 mm Copper
Busbar Material - External Earth (Optional)	Copper / Aluminium
Busbar Insulation	Polyester+Mica
Degree of Protection	IP54 for Plug in type, IP55 for feeder type (IP65 on request)
Fire Rating	240 Min. (ISO 834)
Seismic Compliance	Zone-5
Joint	Uniblock Joint (tamper proof shear off nut)
Plug -in-Box	32~800 A

SBC (Copper Sandwich Insulated Bus Trunking)



Rated Current (In)	Amps	630	800	900	1000	1100	
Product Code	---	SBC 040N1	SBC 050N1	SBC 060N1	SBC 070N1	SBC 080N1	
Busbar size per phase (No. of busbars)	mm	6x40(1)	6x50(1)	6x60(1)	6x70(1)	6x80(1)	
Overall Height (H)	mm	85	95	105	115	125	
Rated Three Phase RMS Short Time Current for 1 Second (I _{cw})	kA	40	50	50	65	65	
Rated Three phase Peak short time current (I _{pk})	kA	84	105	105	143	143	
Rated Single Phase RMS Short Time Current for 1 Second (I _{cw})	kA	24	30	30	39	39	
Rated Single phase Peak short time current (I _{pk})	kA	50.4	63	63	81.9	81.9	
Approximate Weight of Bustrunking							
3 Phase + 50% Integral Earth	kg/mtr.	20	22	24	27	29	
3 Phase + 100% Neutral + 50% Integral Earth	kg/mtr.	22	25	28	31	34	
3 Phase + 200% Neutral+50% Integral Earth	kg/mtr.	25	29	32	36	40	
3 Phase+100% Neutral+100% Isolated Earth+50% Integral Earth	kg/mtr.	25	29	32	36	40	
Electrical Characteristics for 50 Hz							
AC Resistance at 20°C (R ₂₀)	milliohms /mtr.	0.0740	0.0592	0.0499	0.0427	0.0378	
A.C. Resistance at thermal conditions (R _t)	milliohms /mtr.	0.0959	0.0767	0.0645	0.0553	0.0489	
Reactance (X)	milliohms /mtr.	0.0417	0.0333	0.0278	0.0238	0.0208	
Impedance at thermal conditions (Z)	milliohms /mtr.	0.1045	0.0836	0.0703	0.0602	0.0531	
Composite Voltage drop at full Load concentrated at the end of bustrunking run (ΔV)	mV/mtr./A at 0.7 P.F.	0.1678	0.1342	0.1126	0.0965	0.0850	
	mV/mtr./A at 0.8 P.F.	0.1761	0.1409	0.1183	0.1014	0.0894	
	mV/mtr./A at 0.9 P.F.	0.1809	0.1447	0.1216	0.1042	0.0920	
	mV/mtr./A at 1.0 P.F.	0.1660	0.1328	0.1118	0.0958	0.0847	
Electrical Characteristics for 60 Hz							
AC Resistance at 20°C (R ₂₀)	milliohms /mtr.	0.0742	0.0594	0.0500	0.0429	0.0379	
A.C. Resistance at thermal conditions (R _t)	milliohms /mtr.	0.0961	0.0769	0.0648	0.0556	0.0491	
Reactance (X)	milliohms /mtr.	0.0500	0.0400	0.0333	0.0286	0.0250	
Impedance at thermal conditions (Z)	milliohms /mtr.	0.1083	0.0867	0.0729	0.0625	0.0551	
Composite Voltage drop at full Load concentrated at the end of bustrunking run (ΔV)	mV/mtr./A at 0.7 P.F.	0.1784	0.1427	0.1198	0.1027	0.0905	
	mV/mtr./A at 0.8 P.F.	0.1851	0.1482	0.1244	0.1067	0.0941	
	mV/mtr./A at 0.9 P.F.	0.1876	0.1501	0.1262	0.1082	0.0955	
	mV/mtr./A at 1.0 P.F.	0.1664	0.1332	0.1122	0.0962	0.0851	

Voltage Drop Calculation Formulae

$$\Delta V = k \times \sqrt{3} \times (R_l \cos \phi + X_l \sin \phi) \times I_b \times L$$

Where

ΔV is the composite voltage drop of the system (V);

R_l & X_l are the mean resistance and reactance value of the system (m Ω /mtr)

I_b is the actual load current of the circuit being considered (A);

L is the length of the system being considered (M);

$\cos \phi$ is the load power factor being considered;

k is the load distribution factor:

$k=1$, if full load is concentrated at the end of the busbar trunking run;
 $k=(n+1)/2n$, if the load is uniformly spread between n branches.

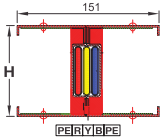
	1250	1600	1800	2000	2250	2500	3200	3600	4000	4500	5000	6000	6600
	SBC 100N1	SBC 125N1	SBC 150N1	SBC 175N1	SBC 200N1	SBC 230N1	SBC 125N2	SBC 150N2	SBC 175N2	SBC 200N2	SBC 230N2	SBC 175N3	SBC 200N3
	6x100(1)	6x125(1)	6x150(1)	6x175(1)	6x200(1)	6x230(1)	6x125(2)	6x150(2)	6x175(2)	6x200(2)	6x230(2)	6x175(3)	6x200(3)
	145	170	195	220	245	275	340	390	440	490	550	660	735
	80	100	100	100	100	100	150	150	150	150	150	150	175
	176	220	220	220	220	220	330	330	330	330	330	330	385
	48	60	60	60	60	60	90	90	90	90	90	90	105
	100.8	132	132	132	132	132	198	198	198	198	198	198	231

	34	40	46	52	58	65	75	87	100	112	127	145	164
	40	47	55	62	70	79	90	105	121	136	155	177	200
	47	56	65	74	83	94	106	124	142	161	183	209	236
	47	56	65	74	83	94	106	124	142	161	183	209	236

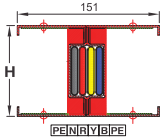
	0.0311	0.0249	0.0207	0.0179	0.0157	0.0136	0.0124	0.0104	0.0090	0.0078	0.0068	0.0060	0.0052
	0.0403	0.0322	0.0268	0.0232	0.0203	0.0177	0.0161	0.0134	0.0116	0.0102	0.0088	0.0077	0.0068
	0.0170	0.0136	0.0127	0.0109	0.0095	0.0083	0.0070	0.0064	0.0055	0.0049	0.0042	0.0038	0.0033
	0.0437	0.0350	0.0297	0.0256	0.0224	0.0195	0.0176	0.0149	0.0128	0.0113	0.0098	0.0086	0.0076
	0.0698	0.0559	0.0482	0.0416	0.0364	0.0316	0.0282	0.0242	0.0209	0.0183	0.0160	0.0141	0.0123
	0.0735	0.0588	0.0504	0.0435	0.0380	0.0331	0.0296	0.0252	0.0218	0.0191	0.0166	0.0147	0.0129
	0.0756	0.0605	0.0514	0.0444	0.0389	0.0338	0.0304	0.0257	0.0222	0.0195	0.0170	0.0149	0.0131
	0.0697	0.0558	0.0465	0.0402	0.0352	0.0306	0.0279	0.0232	0.0201	0.0176	0.0153	0.0134	0.0117

	0.0313	0.0251	0.0209	0.0181	0.0159	0.0138	0.0126	0.0106	0.0092	0.0080	0.0070	0.0062	0.0054
	0.0405	0.0325	0.0271	0.0235	0.0206	0.0179	0.0163	0.0137	0.0119	0.0104	0.0091	0.0080	0.0070
	0.0204	0.0163	0.0152	0.0130	0.0114	0.0099	0.0084	0.0077	0.0066	0.0059	0.0051	0.0046	0.0040
	0.0454	0.0363	0.0311	0.0268	0.0235	0.0205	0.0184	0.0157	0.0136	0.0119	0.0104	0.0092	0.0081
	0.0743	0.0595	0.0516	0.0446	0.0390	0.0340	0.0302	0.0260	0.0225	0.0199	0.0173	0.0153	0.0135
	0.0773	0.0619	0.0533	0.0461	0.0403	0.0351	0.0314	0.0269	0.0233	0.0205	0.0179	0.0158	0.0139
	0.0785	0.0629	0.0537	0.0464	0.0407	0.0354	0.0318	0.0271	0.0234	0.0206	0.0180	0.0159	0.0140
	0.0702	0.0562	0.0469	0.0407	0.0356	0.0310	0.0283	0.0237	0.0205	0.0180	0.0157	0.0138	0.0122

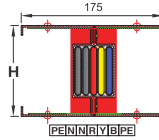
SBA (Aluminium Sandwich Insulated Bus Trunking)



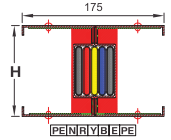
3 Phase (100%)+ Integral ground Earth



3 Phase (100%)+100% Neutral + Integral ground Earth



3 Phase+100% Neutral +100% Internal Earth + integral Ground Earth



3 Phase+200% Neutral+ integral Ground Earth

Rated Current (In)	Amps	400	500	630	700	800	1000
Product Code	---	SBA 040N1	SBA 050N1	SBA 060N1	SBA 070N1	SBA 080N1	SBA 100N1
Busbar size per phase (No. of busbars)	mm	6x40(1)	6x50(1)	6x60(1)	6x70(1)	6x80(1)	6x100(1)
Overall Height (H)	mm	85	95	105	115	125	145
Rated Three Phase RMS Short Time Current for 1 Second (Icw)	kA	25	30	40	40	50	65
Rated Three phase Peak short time current (Ipk)	kA	52.5	63	84	84	105	143
Rated Single Phase RMS Short Time Current for 1 Second (Icw)	kA	15	18	24	24	30	39
Rated Single phase Peak short time current (Ipk)	kA	30	36	50.4	50.4	63	81.9
Approximate Weight of Bustrunking							
3 Phase + 50% Integral Earth	kg/mtr.	15	16	17	18	19	22
3 Phase + 100% Neutral + 50% Integral Earth	kg/mtr.	16	17	18	19	21	24
3 Phase + 200% Neutral + 50% Integral Earth	kg/mtr.	17	18	20	22	23	26
3 Phase+100% Neutral+100% Isolated Earth+50% Integral Earth	kg/mtr.	17	18	20	22	23	26
Electrical Characteristics for 50 Hz							
AC Resistance at 20°C (R20)	miliohms /mtr.	0.1198	0.0958	0.0806	0.0691	0.0611	0.0503
A.C. Resistance at thermal conditions (Rt)	miliohms /mtr.	0.1553	0.1243	0.1046	0.0896	0.0792	0.0652
Reactance (X)	miliohms /mtr.	0.0417	0.0333	0.0278	0.0238	0.0208	0.0170
Impedance at thermal conditions (Z)	miliohms /mtr.	0.1608	0.1286	0.1082	0.0927	0.0819	0.0674
Composite Voltage drop at full Load concentrated at the end of bustrunking run (∇V)	mV/mtr./A at 0.7 P.F.	0.2398	0.1919	0.1612	0.1381	0.1218	0.1001
	mV/mtr./A at 0.8 P.F.	0.2585	0.2068	0.1738	0.1490	0.1314	0.1081
	mV/mtr./A at 0.9 P.F.	0.2736	0.2189	0.1840	0.1577	0.1392	0.1145
	mV/mtr./A at 1.0 P.F.	0.2690	0.2152	0.1811	0.1553	0.1372	0.1130
Electrical Characteristics for 60 Hz							
AC Resistance at 20°C (R20)	miliohms /mtr.	0.1200	0.0961	0.0809	0.0694	0.0614	0.0506
A.C. Resistance at thermal conditions (Rt)	miliohms /mtr.	0.1557	0.1246	0.1050	0.0900	0.0796	0.0656
Reactance (X)	miliohms /mtr.	0.0500	0.0400	0.0333	0.0286	0.0250	0.0204
Impedance at thermal conditions (Z)	miliohms /mtr.	0.1635	0.1309	0.1101	0.0944	0.0834	0.0687
Composite Voltage drop at full Load concentrated at the end of bustrunking run (∇V)	mV/mtr./A at 0.7 P.F.	0.2506	0.2006	0.1685	0.1445	0.1274	0.1048
	mV/mtr./A at 0.8 P.F.	0.2677	0.2143	0.1801	0.1544	0.1363	0.1121
	mV/mtr./A at 0.9 P.F.	0.2805	0.2245	0.1888	0.1619	0.1430	0.1177
	mV/mtr./A at 1.0 P.F.	0.2697	0.2159	0.1818	0.1559	0.1379	0.1137

Voltage Drop Calculation Formulae

$$\Delta V = k \times \sqrt{3} \times (R_l \cos \phi + X_l \sin \phi) \times I_b \times L$$

Where

ΔV is the composite voltage drop of the system (V);

R_l & X_l are the mean resistance and reactance value of the system (m Ω /mtr)

I_b is the actual load current of the circuit being considered (A);

L is the length of the system being considered (M);

$\cos \phi$ is the load power factor being considered;

k is the load distribution factor:

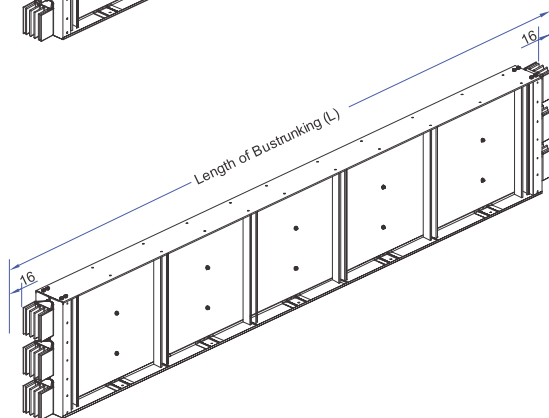
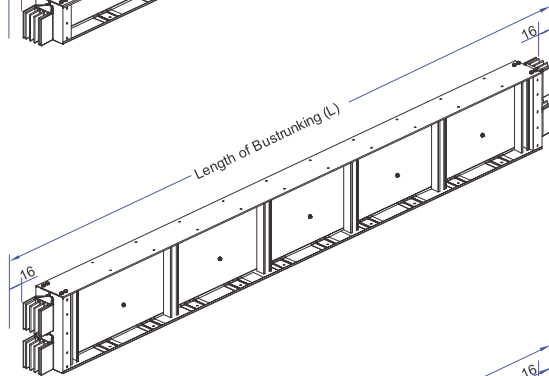
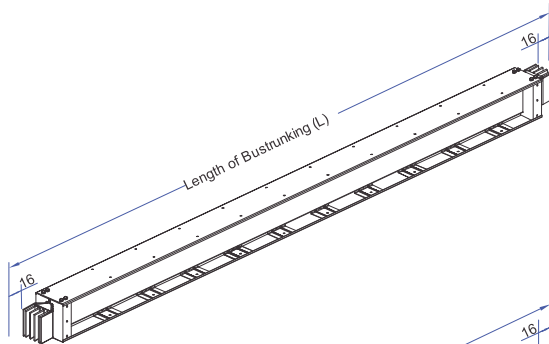
$k=1$, if full load is concentrated at the end of the busbar trunking run;
 $k=(n+1)/2n$, if the load is uniformly spread between n branches.

	1250	1350	1600	1800	2000	2250	2500	3200	3600	4000	4500	5000
	SBA 125N1	SBA 150N1	SBA 175N1	SBA 200N1	SBA 230N1	SBA 125N2	SBA 150N2	SBA 175N2	SBA 200N2	SBA 230N2	SBA 175N3	SBA 200N3
	6x125(1)	6x150(1)	6x175(1)	6x200(1)	6x230(1)	6x125(2)	6x150(2)	6x175(2)	6x200(2)	6x230(2)	6x175(3)	6x200(3)
	170	195	220	245	275	340	390	440	490	550	660	735
	65	65	100	100	100	120	120	120	120	120	120	120
	143	143	220	220	220	264	264	264	264	264	264	264
	39	39	60	60	60	72	72	72	72	72	72	72
	81.9	81.9	132	132	132	158.4	158.4	158.4	158.4	158.4	158.4	158.4
	25	28	30	33	38	44	50	57	63	71	81	90
	27	30	34	37	42	49	56	63	71	80	91	101
	30	34	38	42	46	55	63	71	79	89	101	114
	30	34	38	42	46	55	63	71	79	89	101	114
	0.0402	0.0335	0.0290	0.0254	0.0221	0.0201	0.0168	0.0145	0.0127	0.0111	0.0097	0.0085
	0.0522	0.0435	0.0376	0.0329	0.0314	0.0261	0.0217	0.0188	0.0165	0.0157	0.0125	0.0110
	0.0136	0.0127	0.0109	0.0095	0.0083	0.0070	0.0064	0.0055	0.0049	0.0042	0.0038	0.0033
	0.0539	0.0453	0.0392	0.0343	0.0325	0.0270	0.0227	0.0196	0.0172	0.0162	0.0131	0.0115
	0.0801	0.0684	0.0591	0.0517	0.0483	0.0403	0.0343	0.0296	0.0260	0.0242	0.0199	0.0174
	0.0864	0.0734	0.0634	0.0555	0.0521	0.0434	0.0368	0.0318	0.0279	0.0261	0.0213	0.0187
	0.0916	0.0774	0.0669	0.0585	0.0552	0.0460	0.0387	0.0335	0.0293	0.0277	0.0224	0.0196
	0.0904	0.0753	0.0652	0.0570	0.0544	0.0452	0.0377	0.0326	0.0285	0.0272	0.0217	0.0190
	0.0405	0.0338	0.0293	0.0257	0.0225	0.0204	0.0171	0.0148	0.0130	0.0112	0.0100	0.0088
	0.0526	0.0439	0.0380	0.0333	0.0286	0.0265	0.0221	0.0192	0.0169	0.0143	0.0129	0.0114
	0.0163	0.0152	0.0130	0.0114	0.0099	0.0084	0.0077	0.0066	0.0059	0.0051	0.0046	0.0040
	0.0551	0.0464	0.0402	0.0352	0.0288	0.0278	0.0234	0.0203	0.0178	0.0162	0.0137	0.0121
	0.0839	0.0720	0.0622	0.0545	0.0388	0.0425	0.0363	0.0314	0.0277	0.0242	0.0213	0.0187
	0.0898	0.0766	0.0662	0.0580	0.0431	0.0454	0.0386	0.0334	0.0294	0.0261	0.0227	0.0199
	0.0943	0.0799	0.0691	0.0606	0.0472	0.0476	0.0403	0.0349	0.0307	0.0277	0.0236	0.0207
	0.0911	0.0760	0.0659	0.0577	0.0496	0.0459	0.0383	0.0333	0.0292	0.0272	0.0224	0.0197

- Transformer to Panel
- Panel to Panel
- Generator to Panel
- Panel to Rising main
- Panel to Horizontal Distribution Bustrunking

Straight Length (Feeder)

Standard Length: 3000mm
Maximum Length: 3000mm
Minimum Length: 500mm



Straight Length with PIP

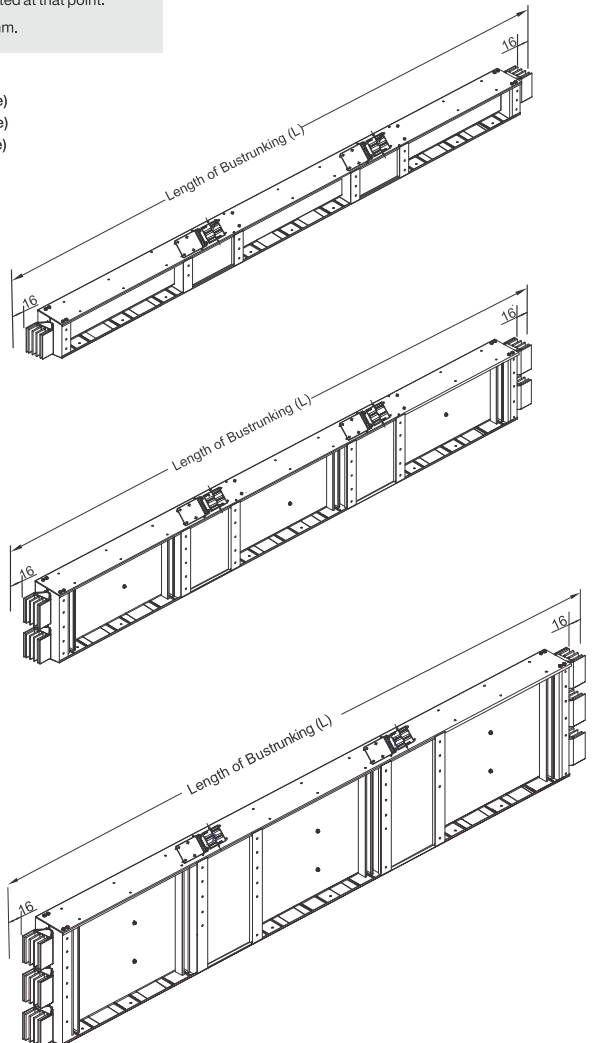
- For tapping Power from Main Line through Plug-in-Boxes.
- Plug-in point shown are indicative only.
- Plug-in -Point (PIP) shall be as per the site requirement (up to 4 Nos max on either side).
- Same plug in point(PIP) Canbe used for all rating PIBs .
- PIP on both side at same position can be given in trunking with bus bar size 100 mm & above.
- PIP position to be fixed according to the PIB selected at that point.
- Distance between PIP should be multiply of 125 mm.

Standard & Max. Length: 2900mm

Mini. Length: 1250mm. upto 400A PIBs ("C" type)

1500mm. upto 630A PIBs ("D" type)

1750mm. upto 800A PIBs ("E" type)



Uniblock Joint

- Joint can be fitted / removed in installed condition without removal of section.
- Heavy duty disc spring used on both sides for uniform distribution of pressure.
- Joint can be tightened easily with help of spanner on nut side.(spanner not required on bolt head side)
- Shear off nut ensures tightness of joint at desired torque and eliminates the need of torque wrench during installation.
- Tamper proof cap over shear off nut prevents opening of nut after achieving desired torque. Nut can only be opened after cap is broken.

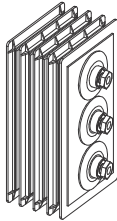
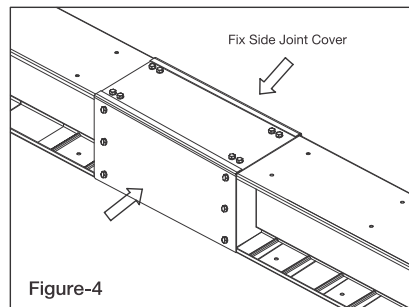
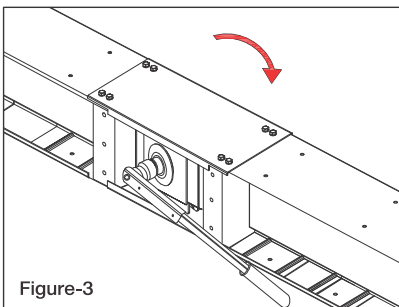
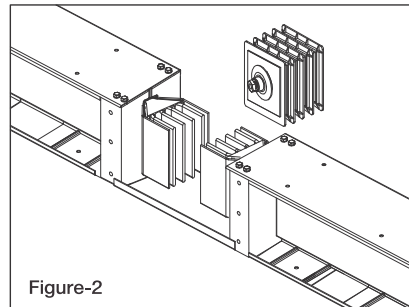
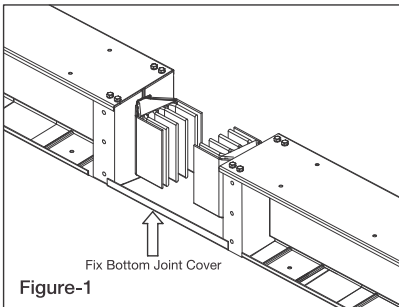
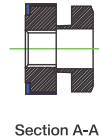
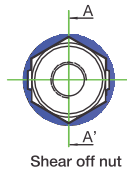
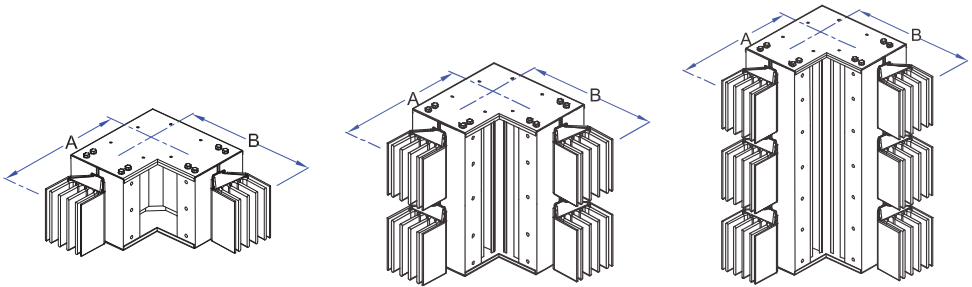


Figure - C



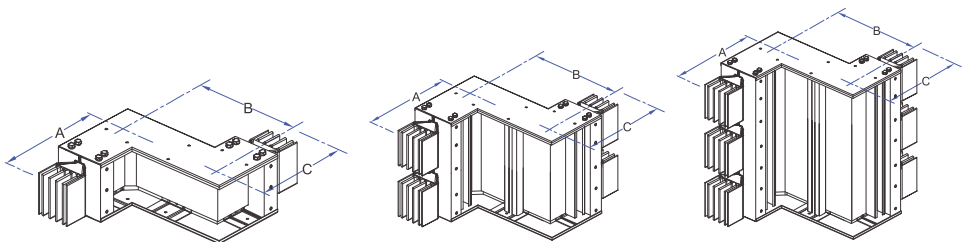
Edge Elbow

Current Rating	Standard Dimn. A x B (mm)
Copper - 630-6600A	500 x 500
Aluminium - 400-5000A	500 x 500



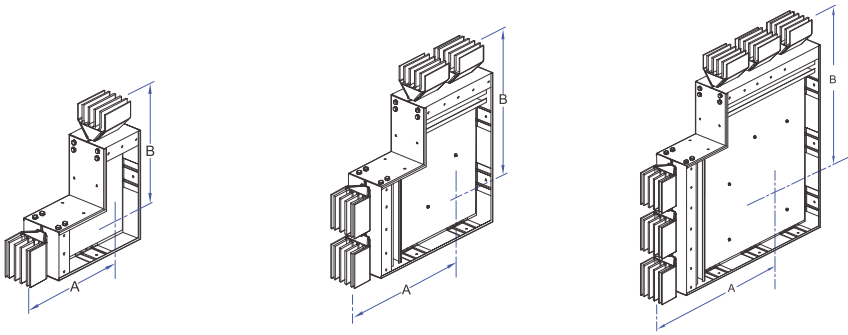
Offset Edge Elbow

Current Rating	Standard Dimn. A x B x C (mm)
Copper - 630-6600A	500 x 500 x 500
Aluminium - 400-5000A	500 x 500 x 500



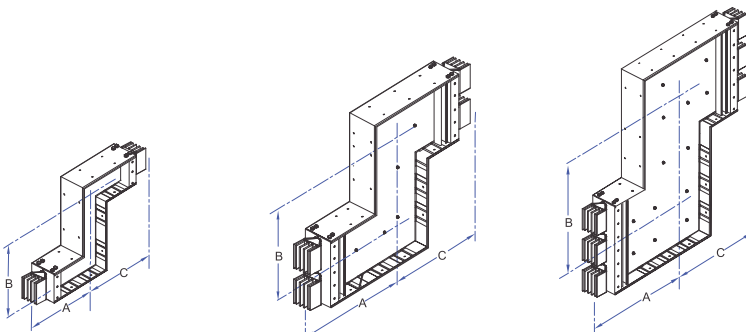
Flat Elbow

Current Rating	Standard Dimn. A x B (mm)	Minimum Dimn. A x B (mm)	Maximum Dimn. A x B (mm)
Copper - 630-2500A Aluminium - 400-2000A	500 x 500	500 x 500	750 x 750
Copper - 3200-5000A Aluminium - 2250-4000A	500 x 550	500 x 550	750 x 750
Copper - 6000-6600A Aluminium - 4500-5000A	600 x 600	600 x 600	750 x 750



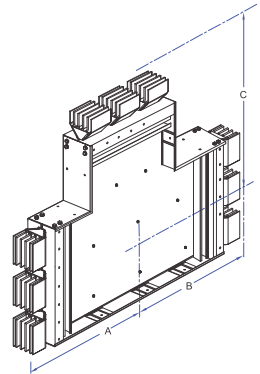
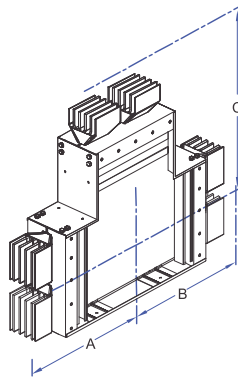
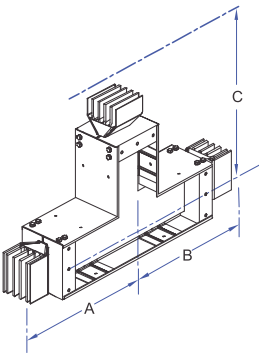
Offset Flat Elbow

Current Rating	Standard Dimn. A x B x C (mm)	Minimum Dimn. A x B x C (mm)	Maximum Dimn. A x B x C (mm)
Copper - 630-2500A Aluminium - 400-2000A	500 x 500 x 500	500 x 180 x 500	500 x 1000 x 500
Copper - 3200-5000A Aluminium - 2250-4000A	500 x 500 x 500	500 x 180 x 500	500 x 1000 x 500
Copper - 6000-6600A Aluminium - 4500-5000A	600 x 600 x 600	600 x 180 x 600	600 x 1000 x 600

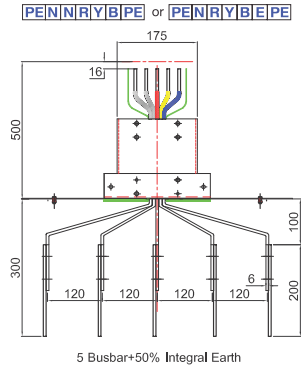
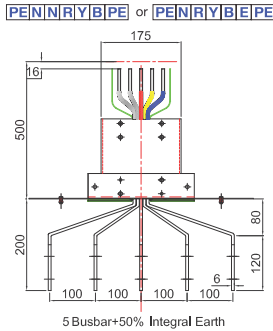
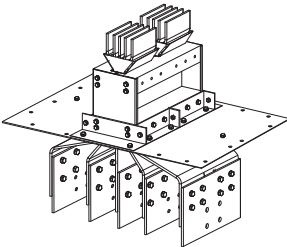
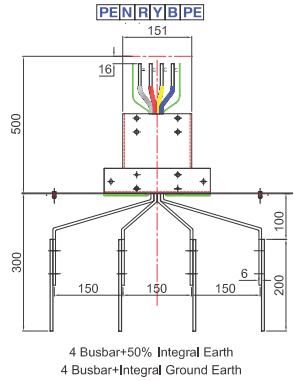
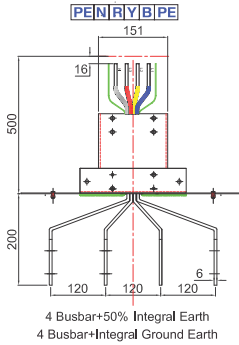
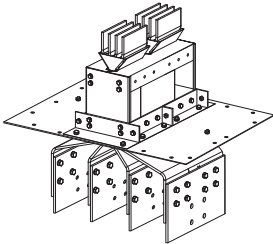
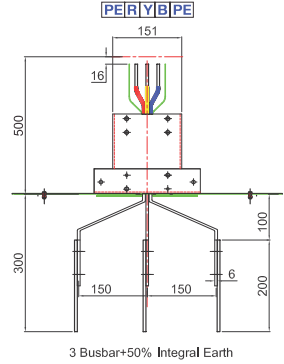
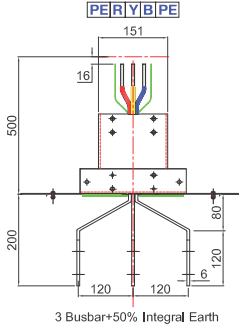
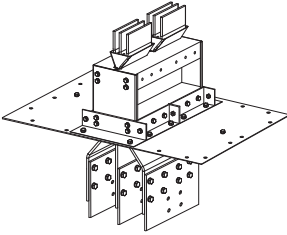


Flat Tee

Current Rating	Standard Dimn. A x B x C (mm)
Copper - 630-2500A Aluminium - 400-2000A	500 x 500 x 500
Copper - 3200-5000A Aluminium - 2250-4000A	500 x 500 x 500
Copper - 6000-6600A Aluminium - 4500-5000A	600 x 600 x 600



Flanged End



Copper 630-2500A
Aluminium 400-2000A

Copper 3200-6600A
Aluminium 2250-5000A

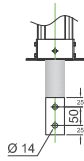
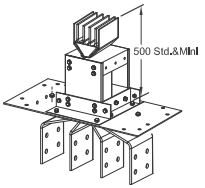


Figure 1
BUSBAR WIDTH
40 ~ 80mm

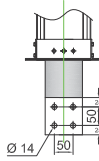


Figure 2
BUSBAR WIDTH
100 ~ 125mm

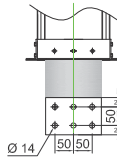


Figure 3
BUSBAR WIDTH
150 ~ 175mm

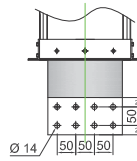


Figure 4
BUSBAR WIDTH
200 ~ 230mm

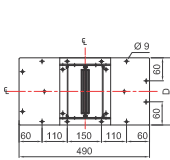


Figure 5

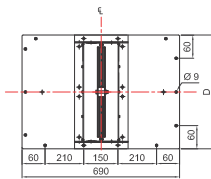


Figure 6
TERMINATION HOLES
(Ø14) AS PER REQUIREMENT

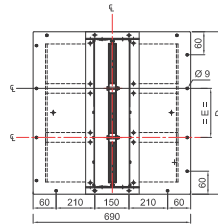
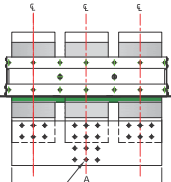
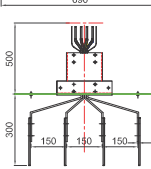
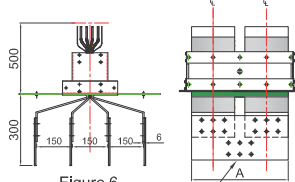
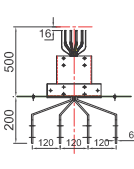


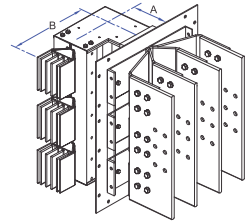
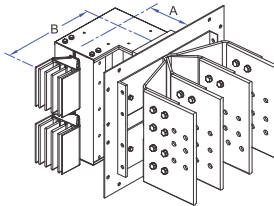
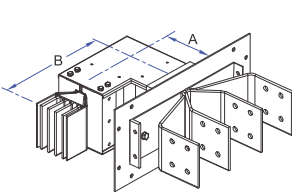
Figure 7
TERMINATION HOLES
(Ø14) AS PER REQUIREMENT



Busbar size (No. Of Busbar)	Copper		Aluminium		Dimensions			Busbar Hole Details	Terminal Details	
	Rating	Code	Rating	Code	D	A	E			
40 x 6 (1)	630	SBC 40 N1	400	SBA 40 N1	146	40	-	Figure 1	Figure 5	
50 x 6 (1)	800	SBC 50 N1	500	SBA 50 N1	156	50	-	Figure 1		
60 x 6 (1)	900	SBC 60 N1	630	SBA 60 N1	166	60	-	Figure 1		
70 x 6 (1)	1000	SBC 70 N1	700	SBA 70 N1	176	70	-	Figure 1		
80 x 6 (1)	1100	SBC 80 N1	800	SBA 80 N1	186	80	-	Figure 1		
100 x 6 (1)	1250	SBC 100 N1	1000	SBA 100 N1	206	100	-	Figure 2		
125 x 6 (1)	1600	SBC 125 N1	1250	SBA 125 N1	231	125	-	Figure 2		
150 x 6 (1)	1800	SBC 150 N1	1350	SBA 150 N1	256	150	-	Figure 3		
175 x 6 (1)	2000	SBC 175 N1	1600	SBA 175 N1	281	175	-	Figure 3		
200 x 6 (1)	2250	SBC 200 N1	1800	SBA 200 N1	306	200	-	Figure 4		
230 x 6 (1)	2500	SBC 230 N1	2000	SBA 230 N1	336	230	-	Figure 4	Figure 6	
125 x 6 (2)	3200	SBC 125 N2	2250	SBA 125 N2	402	296	-	Figure 2		
150 x 6 (2)	3600	SBC 150 N2	2500	SBA 150 N2	452	346	-	Figure 3		
175 x 6 (2)	4000	SBC 175 N2	3200	SBA 175 N2	502	396	-	Figure 3		
200 x 6 (2)	4500	SBC 200 N2	3600	SBA 200 N2	552	446	-	Figure 4		
230 x 6 (2)	5000	SBC 230 N2	4000	SBA 230 N1	612	506	-	Figure 4		
175 x 6 (3)	6000	SBC 175 N3	4500	SBA 175 N3	723	617	221	Figure 3		
200 x 6 (3)	6600	SBC 200 N3	5000	SBA 200 N3	798	692	246	Figure 4		
										Figure 7

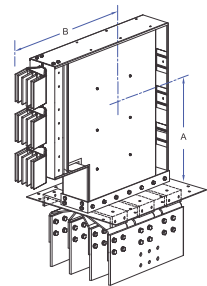
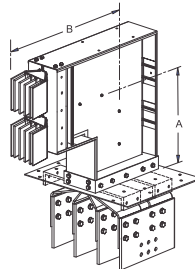
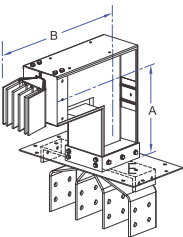
Flange End With Edge Elbow

Current Rating	Standard Dimn. A x B (mm)	Minimum Dimn. A x B (mm)	Maximum Dimn. A x B (mm)
Copper - 630-6600A Aluminium - 400-5000A	275 x 400	275 x 400	600 x 400



Flanged End with Flat Elbow

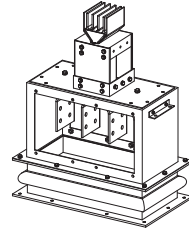
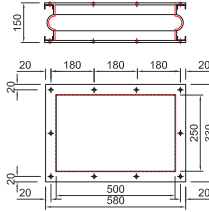
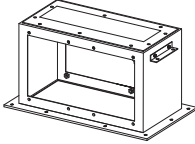
Current Rating	Standard Dimn. A x B (mm)	Minimum Dimn. A x B (mm)	Maximum Dimn. A x B (mm)
Copper - 630-2500A Aluminium - 400-2000A	275 x 400	275 x 400	1000 x 400
Copper - 3200-5000A Aluminium - 2250-4000A	425 x 550	425 x 550	1000 x 550
Copper - 6000-6600A Aluminium - 4500-5000A	575 x 600	575 x 600	900 x 600



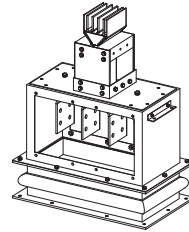
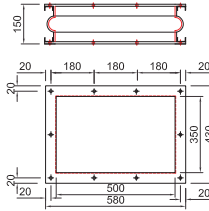
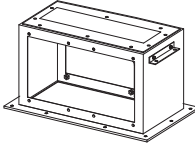
- Flange End Box are used for matching the standard Bustrunking flange assembly with the Panel/ DG/ Trf. flange.
- Flange Bellow need to be fixed between Flanged End Box and Genset termination box to avoid impact of vibrations of Genset being transferred to bustrunking.

Flanged End Box & Flange Bellow

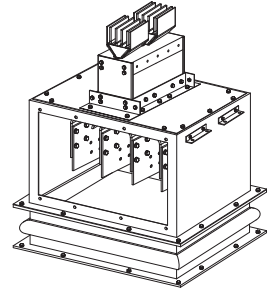
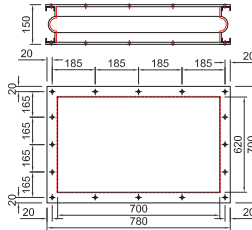
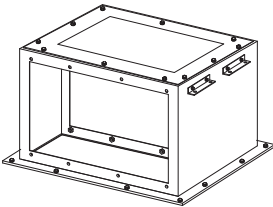
Copper 630-1600A
Aluminium 400-1250A



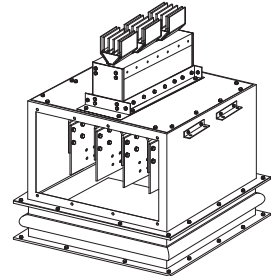
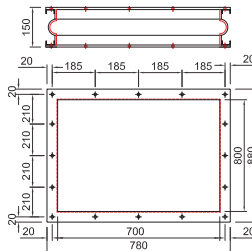
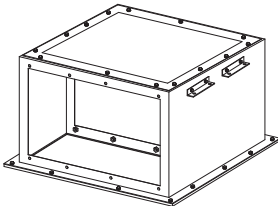
Copper 1800-2500A
Aluminium 1350-2000A



Copper 3200-5000A
Aluminium 2250-4000A



Copper 6000-6600A
Aluminium 4500-5000A

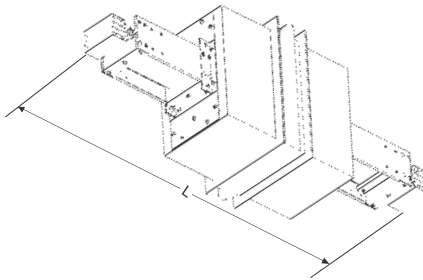


Flanged End Box

Flange Bellow

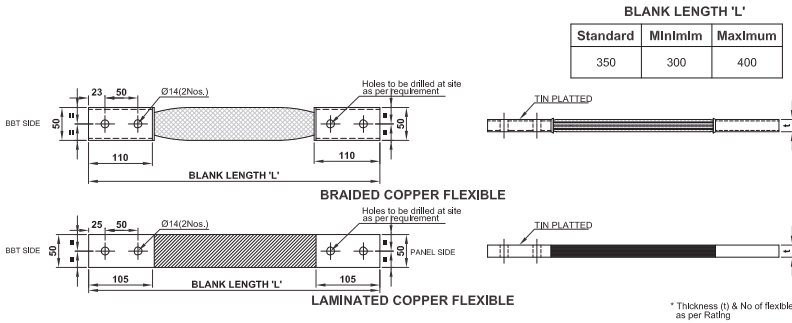
- It is required to permit certain movement in the axial direction of the bus trunking due to thermal expansion.
- It is recommended to use after every 50 mtr of straight run.
- To be used only in Indoor Application.
- Standard Dimension (L) :- 1500mm

Thermal Expansion joint unit



- Braided / Laminated Copper Flexible need to be used to connect flanged end busbar with busbars of Panel/ Transformer / Generators.

Copper Flexible



- It is used to terminate and to protect the end of plug-in bustrunking.
- It can be remove easily for extension of bustrunking .

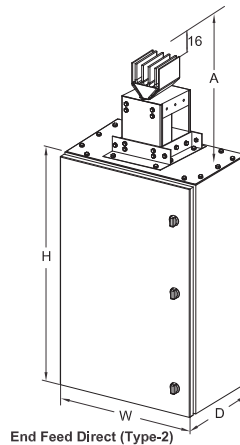
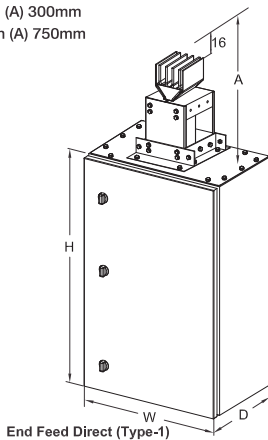
End Cover



End Feed Direct

- To charge bustrunking through cables from one end of bustrunking.
- End feed is available with sufficient space for direct connection through lugs and bolts.
- 300 mm length of bustrunking is integrally fitted (measured with bustrunking) along with End Feed as standard practice so that joint between End Feed and bustrunking is exactly same as joint of two normal bustrunking lengths.
- Undrilled cable gland plate is provided at bottom for multiple cable entry.

Standard Dimension (A) 300mm
 Minimum Dimension (A) 300mm
 Maximum Dimension (A) 750mm

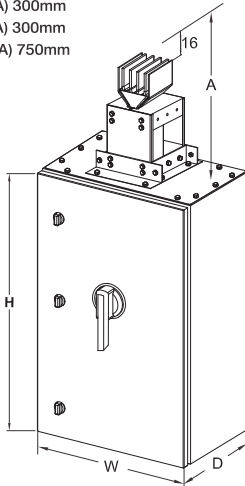


Copper		DIMENSIONS (mm)			Recommend Al. Cable Size 3.5 core sqmm (No.)	Aluminium		DIMENSIONS (mm)			Recommend Al. Cable Size 3.5 core sqmm (No.)
Rating	Code	Height(H)	Width(W)	Depth(D)		Rating	Code	Height(H)	Width(W)	Depth(D)	
630	SBA 40N1	600	500	370	300(2)	400	SBA 40N1	600	500	370	150(2)
800	SBA 50N1	600	500	370	400(2)	500	SBA 50N1	600	500	370	240(2)
900	SBA 60N1	600	500	370	400(2)	630	SBA 60N1	600	500	370	300(2)
1000	SBA 70N1	600	500	370	185(4)	700	SBA 70N1	600	500	370	300(2)
1100	SBA 80N1	600	500	370	240(4)	800	SBA 80N1	600	500	370	400(2)
1250	SBA 100N1	600	500	370	300(4)	1000	SBA 100N1	600	500	370	185(4)
1600	SBA 125N1	800	500	370	240(6)	1250	SBA 125N1	800	500	370	300(4)
1800	SBA 150N1	800	500	370	240(6)	1350	SBA 150N1	800	500	370	300(4)
2000	SBA 175N1	800	500	370	300(6)	1600	SBA 175N1	800	500	370	240(6)
2250	SBA 200N1	800	500	370	300(6)	1800	SBA 200N1	800	500	370	240(6)
2500	SBA 230N1	800	500	370	300(8)	2000	SBA 230N1	800	500	370	300(6)
3200	SBA 125N2	800	650	600	240(12)	2250	SBA 125N2	800	650	600	300(8)
3600	SBA 150N2	800	650	600	240(14)	2500	SBA 150N2	800	650	600	300(8)
4000	SBA 175N2	800	650	600	300(12)	3200	SBA 175N2	800	650	600	240(12)
4500	SBA 200N2	800	650	600	300(14)	3600	SBA 200N2	800	650	600	240(14)
5000	SBA 230N2	800	650	600	300(16)	4000	SBA 230N2	Data on request			
6000	SBA 175N3	Data on request				4500	SBA 175N3	Data on request			
6600	SBA 200N3	Data on request				5000	SBA 200N3	Data on request			

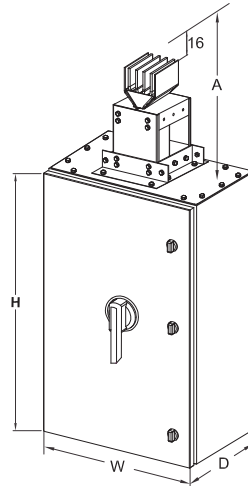
- To charge bustrunking through cables from one end of bustrunking.
- End feed is available with MCCB, SFU, Isolators, fuse holders etc. can be fitted in End Feed as per requirement.
- 300 mm length of bustrunking is integrally fitted (measured with bustrunking) along with End Feed as standard practice so that joint between End Feed and bustrunking is exactly same as joint of two normal bustrunking lengths.
- Undrilled cable gland plate is provided at bottom for multiple cable entry.

End Feed With Switchgear

Standard Dimension (A) 300mm
Minimum Dimension (A) 300mm
Maximum Dimension (A) 750mm



End Feed Switchgear (Type-1)



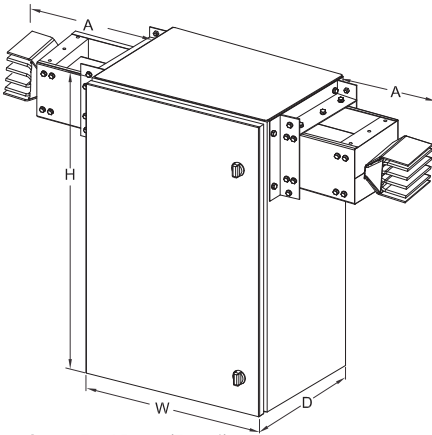
End Feed Switchgear (Type-2)

Copper		DIMENSIONS (mm)			Recommend Al. Cable Size 3.5 core sqmm (No.)	Aluminium		DIMENSIONS (mm)			Recommend Al. Cable Size 3.5 core sqmm (No.)
Rating	Code	Height(H)	Width(W)	Depth(D)		Rating	Code	Height(H)	Width(W)	Depth(D)	
630	SBA 40N1	800	500	370	300(2)	400	SBA 40N1	800	500	370	150(2)
800	SBA 50N1	800	500	370	400(2)	500	SBA 50N1	800	500	370	240(2)
900	SBA 60N1	1000	500	370	400(2)	630	SBA 60N1	800	500	370	300(2)
1000	SBA 70N1	1000	500	370	185(4)	700	SBA 70N1	800	500	370	300(2)
1100	SBA 80N1	1000	500	370	240(4)	800	SBA 80N1	800	500	370	400(2)
1250	SBA 100N1	1000	500	370	300(4)	1000	SBA 100N1	1000	500	370	185(4)
1600	SBA 125N1	1000	500	370	240(6)	1250	SBA 125N1	1000	500	370	300(4)
1800	SBA 150N1	1000	500	370	240(6)	1350	SBA 150N1	1000	500	370	300(4)
2000	SBA 175N1	1000	500	370	300(6)	1600	SBA 175N1	1000	500	370	240(6)
2250	SBA 200N1	1000	500	370	300(6)	1800	SBA 200N1	1000	500	370	240(6)
2500	SBA 230N1	1000	500	370	300(8)	2000	SBA 230N1	1000	500	370	300(6)
3200	SBA 125N2	1000	650	600	240(12)	2250	SBA 125N2	1000	650	600	300(8)
3600	SBA 150N2	Data on request				2500	SBA 150N2	1000	650	600	300(8)
4000	SBA 175N2	Data on request				3200	SBA 175N2	1000	650	600	240(12)
4500	SBA 200N2	Data on request				3600	SBA 200N2	1000	650	600	240(14)
5000	SBA 230N2	Data on request				4000	SBA 230N2	Data on request			
6000	SBA 175N3	Data on request				4500	SBA 175N3	Data on request			
6600	SBA 200N3	Data on request				5000	SBA 200N3	Data on request			

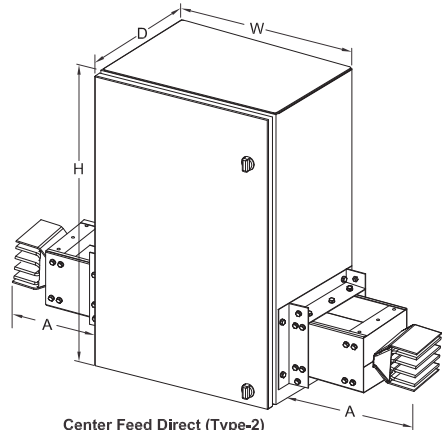
- To charge bustrunking through cables from middle of bustrunking.
- Center feed Unit is available with sufficient space for direct connection through lugs and bolts.
- Undrilled cable gland plate is provided at bottom for multiple cable entry.

Center Feed Direct

Standard Dimension (A) 300mm
 Minimum Dimension (A) 300mm
 Maximum Dimension (A) 300mm



Center Feed Direct (Type-1)



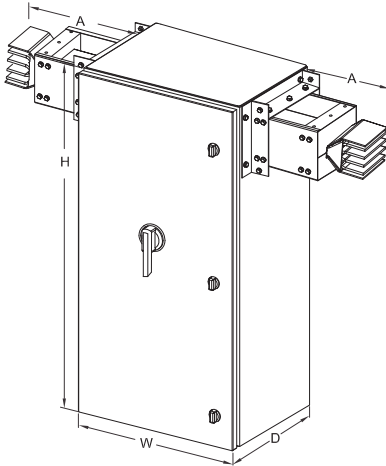
Center Feed Direct (Type-2)

Copper		DIMENSIONS (mm)			Recommend Al. Cable Size 3.5 core sqmm (No.)	Aluminium		DIMENSIONS (mm)			Recommend Al. Cable Size 3.5 core sqmm (No.)
Rating	Code	Height(H)	Width(W)	Depth(D)		Rating	Code	Height(H)	Width(W)	Depth(D)	
630	SBA 40N1	800	500	370	300(2)	400	SBA 40N1	800	500	370	150(2)
800	SBA 50N1	800	500	370	400(2)	500	SBA 50N1	800	500	370	240(2)
900	SBA 60N1	800	500	370	400(2)	630	SBA 60N1	800	500	370	300(2)
1000	SBA 70N1	800	500	370	185(4)	700	SBA 70N1	800	500	370	300(2)
1100	SBA 80N1	800	500	370	240(4)	800	SBA 80N1	800	500	370	400(2)
1250	SBA 100N1	800	500	370	300(4)	1000	SBA 100N1	800	500	370	185(4)
1600	SBA 125N1	1000	500	370	240(6)	1250	SBA 125N1	800	500	370	300(4)
1800	SBA 150N1	1000	500	370	240(6)	1350	SBA 150N1	1000	500	370	300(4)
2000	SBA 175N1	1000	500	370	300(6)	1600	SBA 175N1	1000	500	370	240(6)
2250	SBA 200N1	1000	500	370	300(6)	1800	SBA 200N1	1000	500	370	240(6)
2500	SBA 230N1	1000	500	370	300(8)	2000	SBA 230N1	1000	500	370	300(6)
3200	SBA 125N2	1000	650	600	240(12)	2250	SBA 125N2	1000	650	600	300(8)
3600	SBA 150N2	1000	650	600	240(14)	2500	SBA 150N2	1000	650	600	300(8)
4000	SBA 175N2	1000	650	600	300(12)	3200	SBA 175N2	1000	650	600	240(12)
4500	SBA 200N2	1000	650	600	300(14)	3600	SBA 200N2	1000	650	600	240(14)
5000	SBA 230N2	1000	650	600	300(16)	4000	SBA 230N2	Data on request			
6000	SBA 175N3	Data on request				4500	SBA 175N3	Data on request			
6600	SBA 200N3	Data on request				5000	SBA 200N3	Data on request			

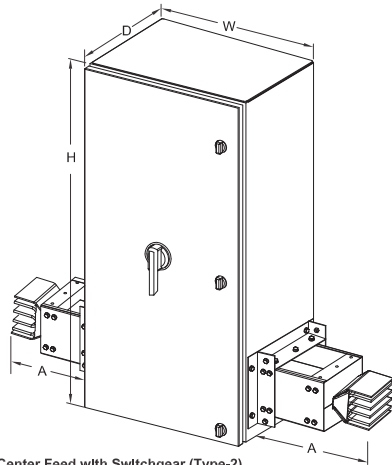
- To charge bustrunking through cables from middle of bustrunking.
- Center feed Unit is available with MCCB, SFU, Isolators, fuse holders etc. can be fitted in Center Feed Unit as per requirement.
- Undrilled cable gland plate is provided at bottom for multiple cable entry.

Center Feed With Switchgear

Standard Dimension (A) 300mm
Minimum Dimension (A) 300mm
Maximum Dimension (A) 300mm



Center Feed with Switchgear (Type-1)



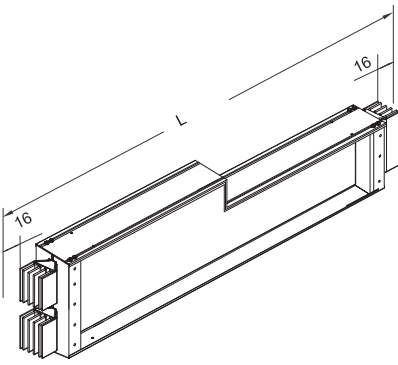
Center Feed with Switchgear (Type-2)

Copper		DIMENSIONS (mm)			Recommend Al. Cable Size 3.5 core sqmm (No.)	Aluminium		DIMENSIONS (mm)			Recommend Al. Cable Size 3.5 core sqmm (No.)
Rating	Code	Height(H)	Width(W)	Depth(D)		Rating	Code	Height(H)	Width(W)	Depth(D)	
630	SBA 40N1	1000	500	370	300(2)	400	SBA 40N1	1000	500	370	150(2)
800	SBA 50N1	1000	500	370	400(2)	500	SBA 50N1	1000	500	370	240(2)
900	SBA 60N1	1000	500	370	400(2)	630	SBA 60N1	1000	500	370	300(2)
1000	SBA 70N1	1000	500	370	185(4)	700	SBA 70N1	1000	500	370	300(2)
1100	SBA 80N1	1000	500	370	240(4)	800	SBA 80N1	1000	500	370	400(2)
1250	SBA 100N1	1000	500	370	300(4)	1000	SBA 100N1	1000	500	370	185(4)
1600	SBA 125N1			Data on request		1250	SBA 125N1	1000	500	370	300(4)
1800	SBA 150N1			Data on request		1350	SBA 150N1			Data on request	
2000	SBA 175N1			Data on request		1600	SBA 175N1			Data on request	
2250	SBA 200N1			Data on request		1800	SBA 200N1			Data on request	
2500	SBA 230N1			Data on request		2000	SBA 230N1			Data on request	
3200	SBA 125N2			Data on request		2250	SBA 125N2			Data on request	
3600	SBA 150N2			Data on request		2500	SBA 150N2			Data on request	
4000	SBA 175N2			Data on request		3200	SBA 175N2			Data on request	
4500	SBA 200N2			Data on request		3600	SBA 200N2			Data on request	
5000	SBA 230N2			Data on request		4000	SBA 230N2			Data on request	
6000	SBA 175N3			Data on request		4500	SBA 175N3			Data on request	
6600	SBA 200N3			Data on request		5000	SBA 200N3			Data on request	

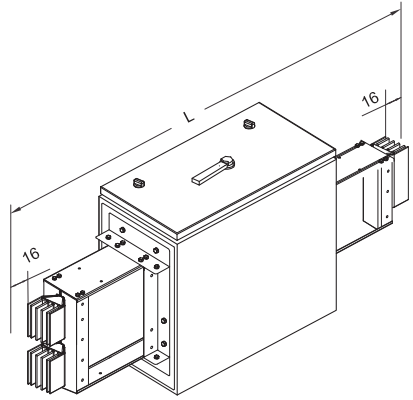
- These are required to connect two dissimilar rating of busbar. Reducer may be designed with switching or isolating device

Reducer

Standard Dimension (L)1500mm



Reducer (Direct)

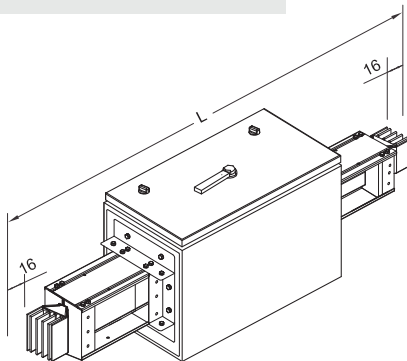


Reducer (Switchgear)

- These are required to isolate the busbar run, in between, for various reasons. Section Isolator Unit can be fitted with Load Breaker Switches / SFUs / MCCBs.

Sectional Isolator

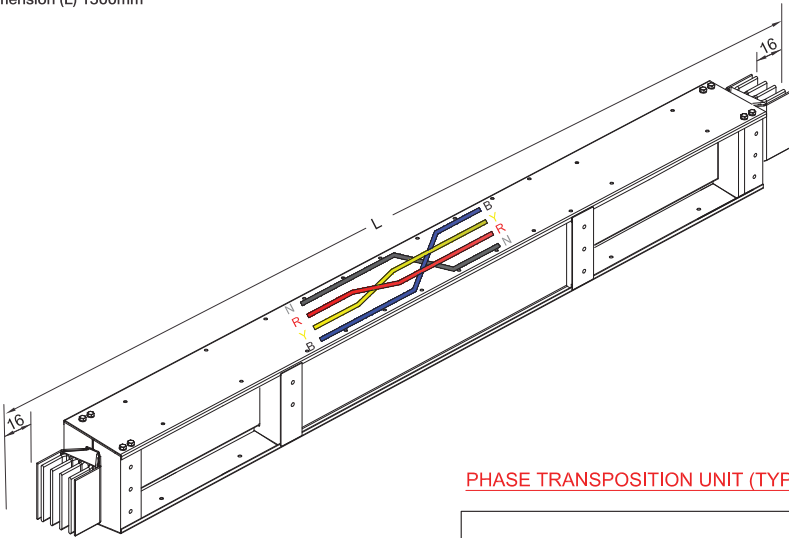
Standard Dimension (L)1500mm



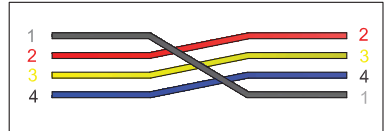
- Phase transposition unit are used to change the relative position of the phase conductors in order to balance the inductive reactances or to transpose the phases (such as NRYB to BYRN)
- To be used only in Indoor Application.

Standard Dimension (L) 1500mm

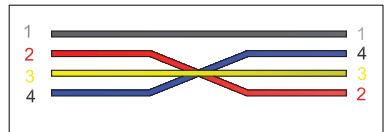
Phase Transposition Unit



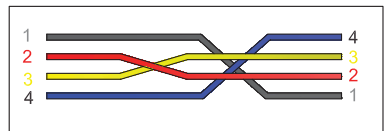
PHASE TRANSPOSITION UNIT (TYPE-1)



PHASE TRANSPOSITION UNIT (TYPE-2)

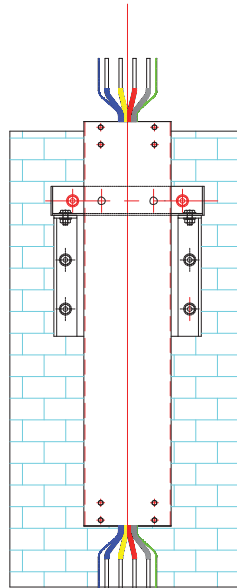
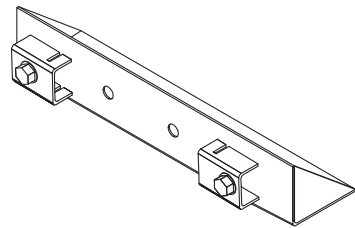
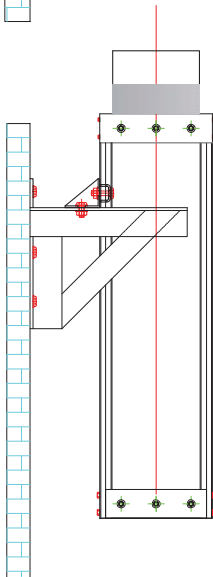
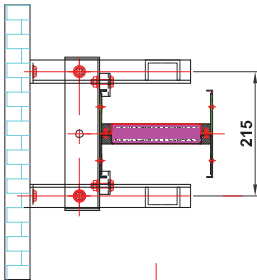


PHASE TRANSPOSITION UNIT (TYPE-3)



Vertical Support

- Vertical support is used to control Horizontal movement of sandwich rising main.
- Recommendation for using hangers per floor:-
 - Vertical Support is recommended per floor per rising main along with rigid or spring hanger when the floor height is between 3.5 to 4.5 Mtrs.
 - Vertical Support is common for all ratings of Sandwich Rising Mains.
 - Vertical Support is installed approximately at 2.0 Mtr. Height for floor level.

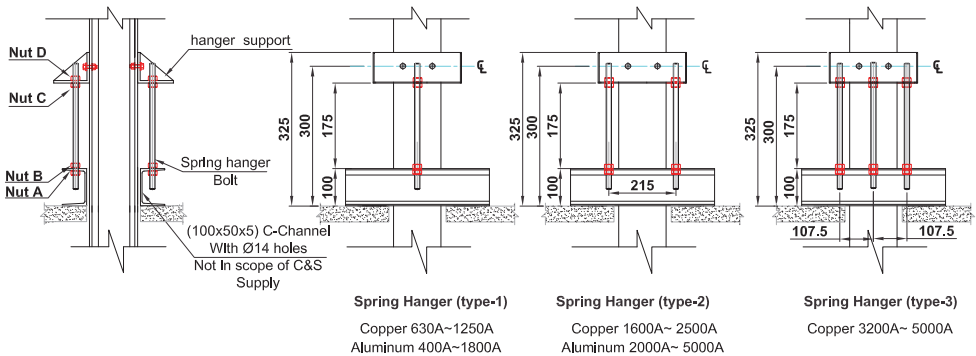


- One set of Rigid hanger per rising main must be installed at the start of the rising mains (i.e. At the lowest floor) to prevent expansion of bustunking in downward direction. These can be fitted on 100x50X5 (or equivalent) channels mounted on floor / wall as shown below (not in scope of C&S supply)

Recommendation for using hangers per floor:-

- Up to 4.5 M: 01 rigid hanger+01 Vertical support. (for ensuring vertical alignment of rising Mains.)
- 4.5m>6.0 M : 01 rigid hanger+01 Vertical support+01 Spring Hanger.

Vertical Rigid Hanger



Installation Sequence

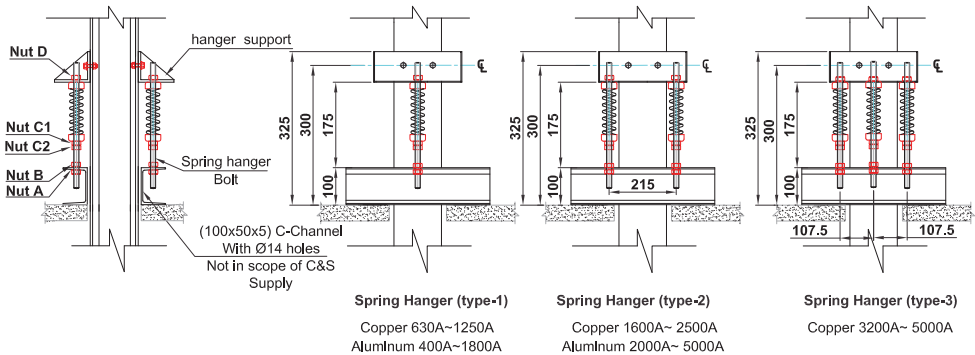
- Remove Nut A from Rigid Hanger on both sides.
- Mount "Hanger Support" through 2 Nos. Ø13 predrilled holes provided on desired rising main section.
- Insert "Rigid hanger bolts" into C-channel (already fixed at the floor level with desired holes)
- Adjust Nut 8 on to the C-channel (on both sides parallelly) ensuring center line (€) of rigid hanger support positioned as 300 mm from floor level (or as indicated in drawing)
- Tighten & lock nut A.
- Ensure nut "C & D" remains fully tightened during entire process.

- One set of Spring hanger per rising main per floor (excluding lowest floor) need to be installed to sustain the bustrunking load and to allow vertical expansion of bustrunking in upward direction only. These can be fitted on 100x50x5 (or equivalent) channels mounted on floors I walls as shown below (not in scope of C&S supply)

Recommendation for using hangers per floor :

- Up to 4.5 M: 01 Vertical spring hanger+01 Vertical support. //(for ensuring vertical alignment of rising mains.)
- 4.5 M > 6.0 M: 02 Vertical spring hanger+01 Vertical support.

Vertical Spring Hanger

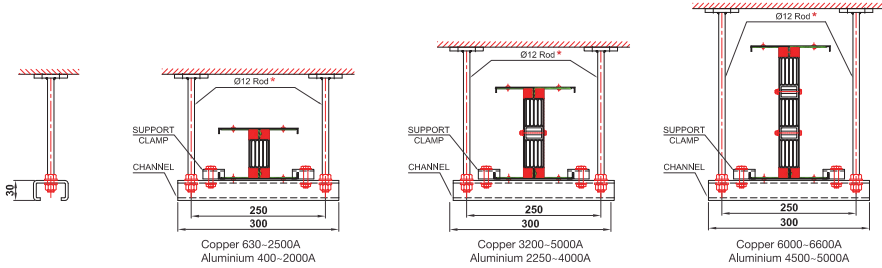


Installation Sequence

- Remove nut A from spring hanger on both sides.
- Mount "Hanger support" through 2 Nos. Ø13 predrilled holes provided on desired Rising main section
- Insert "Spring hanger bolts" into C-channel (already fixed at the floor level with desired holes)
- Adjust nut B on to the C-Channel ensuring center line (ε) of Hanger Support positioned at 300 mm from floor level (or as indicated in drawing)
- If two section are required at any floor, then Ujoin upper section with lower section (fitted with spring hanger) so that entire weight of rising main for that floor falls on spring hanger.
- Open & bring down nut C1 & C2 slowly (on both sides parallelly) until a gap of 1-2mm is created between nut D and spring hanger support
- Lock nut C1 & C2 at this position
- Loosen Nut D for allowing thermal expansion of rising main.

- These support need to be provided on horizontal feeder run at an interval of 1.5 Meter (or as per site requirement)

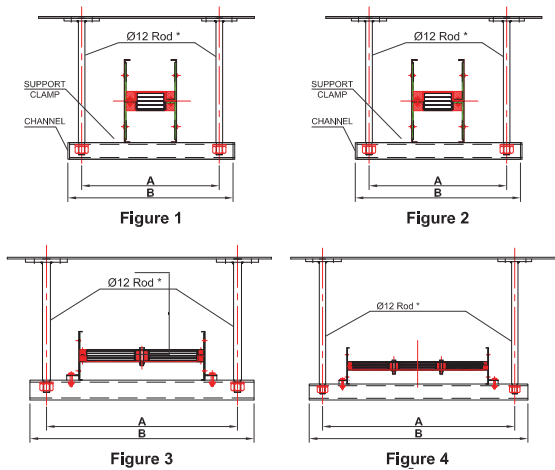
Edgewise Horizontal Support



* Not in scope of supply

- These support need to be provided on horizontal feeder run at an interval of 1.5 Meter (or as per site requirement)

Flatwise Horizontal Support



Current Rating	Standard Dimensions		Code	Detail
	A	B		
Copper 630A–1250A Aluminium 400A–1000A	250	300	Type-A	Figure 1
Copper 1600A–2500A Aluminium 1250A–2000A	400	450	Type-B	Figure 2
Copper 3200A–5000A Aluminium 2250A–4000A	650	700	Type-C	Figure 3
Copper 6000A–6600A Aluminium 4500A–5000A	850	900	Type-D	Figure 4

Plug-in-Box

- Plug in box enclosure is made from G. I with bottom hinged door.
- Plug in contacts are made out of silver plated copper with spring steel backup pressure clips for ensuring uniform pressure and low contact resistance .
- For cables entry, provision of gland plates are provided on both sides and bottom of Plug in Box.
- Earth contact of Plug-in boxes makes first & breaks last.
- Plug in box are suitable for MCCB with DIRECT rotary handle.
- Silver Plated contacts are properly shrouded I isolated.
- Plug in boxes can only be fitted on to the Bustrunking with corrected polarity .
- Plug in boxes can be used for MCB upto 63 amps .
- Plug in boxes can be used for Fuse holder (BS) upto 63 amps.
- Recommended cable size is maximum 25sqmm for Aluminium.

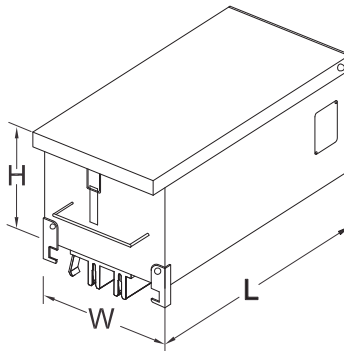


Figure-2

No. of Poles	H	W	L
3P/4P	100	180	280
5P	100	204	280

Plug-in-Box

- Plug in box enclosure is made from G.I with side hinged door.
- Plug in contacts are made out of silver plated copper with spring steel backup pressure clips for ensuring uniform pressure and low contact resistance .
- For cables entry, provision of gland plates are provided on both sides and bottom of Plug in Box.
- Earth contact of Plug-in boxes makes first & breaks last.
- Plug in box are suitable for MCCB/SFU's with rotary handle and door interlocking.
- Plug in boxes are available with Interlocking with bustrunking to ensure "Plug-in" and "Plug-Out" possible only in "OFF" Condition.
- Silver Plated contacts are properly shrouded / isolated.
- Plug in boxes can only be fitted on to the Bustrunking with corrected polarity

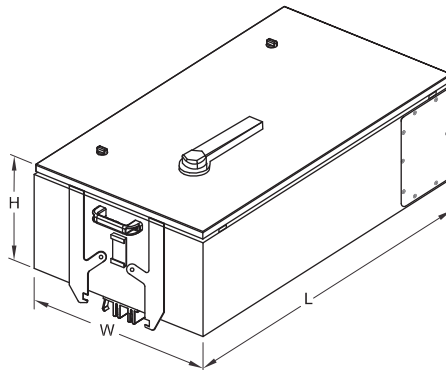


Figure -1

Product Code	PIB X-N	PIB X-B	PIB X-C	PIB X-D	PIB X-E
		3B/4B/5B	3B/4B/5B	3B/4B/5B	3B/4B/5B
With MCCB	32-125A*	160-250A	315-400A	500-630A	800A
With MCCB + Extended R/H	32-125A**	160-250A	315-400A	500-630A	800A
With MCCB + Direct R/H	32-125A	160-250A	315-400A	500-630A	800A
With SFU	32-125A	160-250A	315-400A	500-630A	800A
Final Box Size (L x W x H)	430x300x200	500x300x250	600x400x250	800x400x250	1000x400x250
Recommended Cable Size(Aluminium)	70 Sqmm	150 Sqmm	2 x 150 Sqmm	2 x 300 Sqmm	2 x 400 Sqmm

(*) For MCCB length upto 165mm use PIBX-A and MCCB above 165mm use PIB-N

(**) For MCCB + R/H height upto 120mm use PIBX-A & above use PIB-N

Note: This is applicable for 3/4 pole system. For 5 Pole we will go with the Linear design.

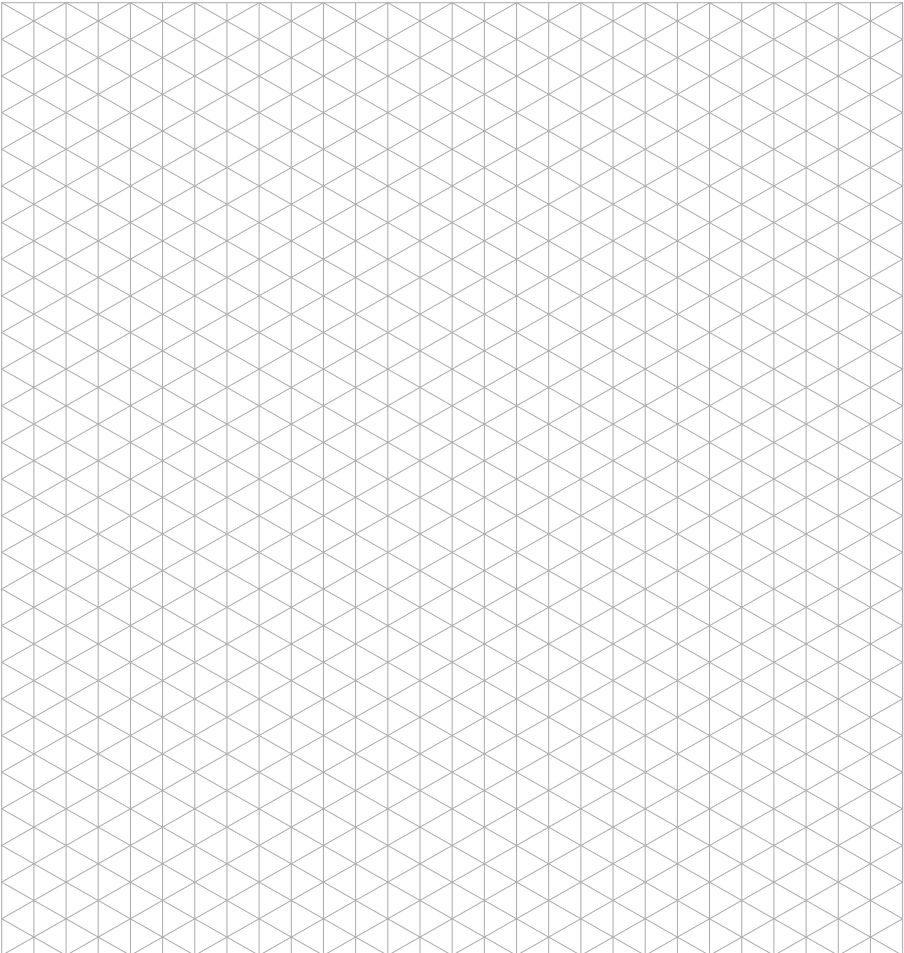
Busway Route Planner

Customer : _____

Date : _____

Information required for quotation. Please, photocopy this form and attach to your inquiry.

In	Un	Freq.		Temp.		Project :					
A	V	Hz		t_0	t_{max}	Job no.:					
				°C	°C						
Conductors	3P	N	PE	+ -		Line	Length total	Outdoor	ΔU	%	Tap off's
Cu <input type="checkbox"/> Al <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		no.	m	m			In no.



Type Test Certificates

CPRI Certificate No. 2013-ITN-17350
Laboratory Ref: CPRI/STD6-Bnyapd

TYPE TEST CERTIFICATE OF SHORT CIRCUIT PERFORMANCE

TEST OBJECT : 330KV 220A Switchgear Insulated Bulkheading (AIR Breaker) (S220A)

IDENTIFICATION : 020117350

MANUFACTURER : C & S Electric Ltd., (Badrakurug Junction)
Plot No. 1A, Sector - 8C, Integrated Industrial Estate, SE, BODOLU, Haridwar, Uttarakhand (Uttarakhand)

TESTED FOR : C & S Electric Ltd. (Badrakurug Junction)
Plot No. 1A, Sector - 8C, Integrated Industrial Estate, SE, BODOLU, Haridwar, Uttarakhand (Uttarakhand)

DATE OF TEST : 14th Feb 2013

TESTED AT : Central Power Research Institute
Strategic Training & Development Station,
Sankarapur, Mysore - 572 327

The test object constructed in accordance with the description, drawings and programme associated in this certificate has been subjected to the series of tests as per the requirements of:

IS 14263-2:2011, IS 14263-3:2011 (Series 6) - TTT

This certificate is given in accordance with the description, drawings and programme associated in this certificate and the performance has been found to comply with the above standard (s) and to comply the whole extent of the requirements as specified above and

The Institute accepts no liability for the test object. The responsibility for conformity of any equipment having this test certificate rests with the tested manufacturer.

This certificate is subject to any amendments resulting from test

As per the provisions of the aforesaid, a certificate of fitness is issued for the purpose of the test object as per the requirements of the above standard (s) and to comply the whole extent of the requirements as specified above and



 17 FEB 2013

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

Test Report No. : 2013/STL/063 **Date** : 20 MAR 2013

Name and Address of the Customer : M/s C&S Electric Ltd. (Badrakurug Junction)
Plot No. 1A, Sector - 8C, Integrated Industrial Estate, SE, BODOLU, Haridwar, Uttarakhand (Uttarakhand)

Name and Address of the Manufacturer : M/s C&S Electric Ltd. (Badrakurug Junction)
Plot No. 1A, Sector - 8C, Integrated Industrial Estate, SE, BODOLU, Haridwar, Uttarakhand (Uttarakhand)
105/1, Noida, Sector - 10, Gurgaon (Haryana)

Particulars of Sample(s) Tested :

Condition of sample(s) on receipt : New

Type : Switchgear type

Designation : S220A17350

Serial Number(s) : 020117350

Number of Sample(s) Tested : 01

CPRI sample code number(s) : 02011735011

Particulars of tests conducted :

Details of Tests : IS: 14263-2, 3 & 6C of IS: 14263-3:2011 and as per Customer's Requirement

Tests in accordance with Standard Specification : IS: 14263-2, 3 & 6C of IS: 14263-3:2011 and as per Customer's Requirement

Sampling Plan : N/A

Customer's Requirements : (1) Shipping weight to meet for the customer (As per IS: 14263-2, 3 & 6C of IS: 14263-3:2011 and as per Customer's Requirement)

Deviation, if any : N/A

Name of the witnessing persons : Customer's Representative : M/ Sanjay K. Gupta, Manager QA

Customer's Representative : N/A

Test conducted with name and address of Manufacturer : N/A

Documents constituting this report (in words) :

No. of Sheets : FIVE

No. of Drawings : N/A

No. of Photographs : N/A

No. of Test Circuit Diagrams : N/A

No. of Test Reports : TWO



 20 MAR 2013

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

Test Report No. : 2013/STL/068 **Date** : 06 FEB 2013

Name and Address of the Customer : M/s C&S Electric Ltd., (Badrakurug Junction)
Plot No. 1A, Sector - 8C, Integrated Industrial Estate, SE, BODOLU, Haridwar, Uttarakhand (Uttarakhand)

Name and Address of the Manufacturer : M/s C&S Electric Ltd., (Badrakurug Junction)
Plot No. 1A, Sector - 8C, Integrated Industrial Estate, SE, BODOLU, Haridwar, Uttarakhand (Uttarakhand)

Particulars of Sample(s) Tested :

Condition of sample(s) on receipt : New

Type : Switchgear type

Designation : S220A17350

Serial Number(s) : 02011735011

Number of Sample(s) Tested : 01

CPRI sample code number(s) : 02011735011

Particulars of tests conducted :

Details of Tests : IS: 14263-2, 3 & 6C of IS: 14263-3:2011 and as per Customer's Requirement

Tests in accordance with Standard Specification : IS: 14263-2, 3 & 6C of IS: 14263-3:2011 and as per Customer's Requirement

Sampling Plan : N/A

Customer's Requirements : N/A

Deviation, if any : N/A

Name of the witnessing persons : Customer's Representative : M/ Sanjay K. Gupta, Manager QA

Customer's Representative : N/A

Other than Customer's Representative : N/A

Test conducted with name and address of the Manufacturer : N/A

Documents constituting this report (in words) :

No. of Sheets : FIVE

No. of Drawings : N/A

No. of Photographs : N/A

No. of Test Circuit Diagrams : N/A

No. of Test Reports : TWO



 06 FEB 2013

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)



TEST REPORT

Test Report No. : 2013/STL/067 **Date** : 06 FEB 2013

Name and Address of the Customer : M/s C&S Electric Limited,
Badrakurug Junction, Plot No. 1A, Sector - 8C, Integrated Industrial Estate, SE, BODOLU, Haridwar, Uttarakhand (Uttarakhand)

Name and Address of the Manufacturer : M/s C&S Electric Limited,
Badrakurug Junction, Plot No. 1A, Sector - 8C, Integrated Industrial Estate, SE, BODOLU, Haridwar, Uttarakhand (Uttarakhand)

Particulars of Sample(s) Tested :

Condition of sample(s) on receipt : New

Type : Switchgear type

Designation : S220A17350

Serial Number(s) : 02011735011

Number of Sample(s) Tested : 01

CPRI sample code number(s) : 02011735011

Particulars of tests conducted :

Details of Tests : IS: 14263-2, 3 & 6C of IS: 14263-3:2011 and as per customer's requirement

Tests in accordance with Standard Specification : IS: 14263-2, 3 & 6C of IS: 14263-3:2011 and as per customer's requirement

Sampling Plan : N/A

Customer's Requirements : Maximum temperature rise 100 on busbar and joints of air in TCR and on Enclosure 200 as per the customer

Deviation, if any : N/A

Name of the witnessing persons : Customer's Representative : M/ Sanjay Kumar Gupta, Dy. Manager QA

Customer's Representative : N/A

Other than Customer's Representative : N/A

Test conducted with name and address of the Manufacturer : N/A

Documents constituting this report (in words) :

No. of Sheets : SEVEN

No. of Drawings : N/A

No. of Photographs : N/A

No. of Test Circuit Diagrams : N/A

No. of Test Reports : TWO



 06 FEB 2013

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)

TEST REPORT

CPR

Test Report No. 2513/STL/152 Date: 20 MAR 2015

Name and Address of the Customer: M/s C&E Electric Ltd., Bhadrachalam (District), Plot No. 19, Dimple RC, Integrated Industrial Estate, SE, BICOLU, Rangapur, Hyderabad (Dist:Hydrabad)

Name and Address of the Manufacturer: M/s C&E Electric Ltd., Bhadrachalam (District), Plot No. 19, Dimple RC, Integrated Industrial Estate, SE, BICOLU, Rangapur, Hyderabad (Dist:Hydrabad)

Particulars of Sample(s) Tested: 1000V, 100kVA, Sandwitch Insulated Busbarring

Condition of sample(s) on receipt: New

Type: Sandwitch type

Designation: DBA/79/1

Serial Number(s): Nil

Number of Samples Tested: Nil

CPR Sample Code Number(s): Nil

Quantity of sample, if any: Nil

Particulars of tests conducted: Degree of protection IP (in Category): IP00

IEC 60529:13 & IEC 60207:15

IEC 61438-1, 2011 & IEC 61438-2, 2012

Tests to be conducted with: Nil

Standard Specification: Nil

Sampling Plan: Nil

Customer's Requirements: Nil

Consistency of any: Nil

Name of the witnessing person: Mr. Srinivas H. Gupta, Manager, C&E

Customer's Representative: Nil

Other than Customer's Representative: Nil

Test conducted with name and address of the laboratory: Nil

Decisions constituting this report (in words): Nil

No. of Sheets: Nil

No. of Checkpoints: Nil

No. of Samples: Nil

No. of Photographs: Nil

No. of Test Circuit Diagrams: Nil

No. of Drawings: Nil

TEST ENGINEER: (S. BHATTACHARYA) JOINT DIRECTOR

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)

TEST REPORT

CPR

Test Report No. 2507/STL/151 Date: 17 MAR 2015

Name and Address of the Customer: M/s DST Electric Ltd., Bhadrachalam (District), Plot No. 19, Dimple RC, Integrated Industrial Estate, SE, BICOLU, Rangapur, Hyderabad (Dist:Hydrabad)

Name and Address of the Manufacturer: M/s DST Electric Ltd., Bhadrachalam (District), Plot No. 19, Dimple RC, Integrated Industrial Estate, SE, BICOLU, Rangapur, Hyderabad (Dist:Hydrabad)

Particulars of Sample(s) Tested: 1000V, 100kVA, Sandwitch Insulated Busbarring

Condition of sample(s) on receipt: New

Type: Sandwitch type

Designation: DBA/79/1

Serial Number(s): Nil

Number of Samples Tested: Nil

CPR Sample Code Number(s): Nil

Quantity of sample, if any: Nil

Particulars of tests conducted: Degree of protection IP (in Category): IP00

IEC 60529:13 & IEC 60207:15

IEC 61438-1, 2011 & IEC 61438-2, 2012

Tests to be conducted with: Nil

Standard Specification: Nil

Sampling Plan: Nil

Customer's Requirements: Nil

Consistency of any: Nil

Name of the witnessing person: Mr. Srinivas H. Gupta, Manager, C&E

Customer's Representative: Nil

Other than Customer's Representative: Nil

Test conducted with name and address of the laboratory: Nil

Decisions constituting this report (in words): Nil

No. of Sheets: Nil

No. of Checkpoints: Nil

No. of Samples: Nil

No. of Photographs: Nil

No. of Test Circuit Diagrams: Nil

No. of Drawings: Nil

TEST ENGINEER: (S. BHATTACHARYA) JOINT DIRECTOR

CENTRAL POWER RESEARCH INSTITUTE
(Member of STL)

TEST REPORT

CPR

Test Report No. 2513/STL/151 Date: 20 MAR 2015

Name and Address of the Customer: M/s C&E Electric Ltd., Bhadrachalam (District), Plot No. 19, Dimple RC, Integrated Industrial Estate, SE, BICOLU, Rangapur, Hyderabad (Dist:Hydrabad)

Name and Address of the Manufacturer: M/s C&E Electric Ltd., Bhadrachalam (District), Plot No. 19, Dimple RC, Integrated Industrial Estate, SE, BICOLU, Rangapur, Hyderabad (Dist:Hydrabad)

Particulars of Sample(s) Tested: 1000V, 100kVA, Sandwitch Insulated Busbarring

Condition of sample(s) on receipt: New

Type: Sandwitch type

Designation: DBA/79/1

Serial Number(s): Nil

Number of Samples Tested: Nil

CPR Sample Code Number(s): Nil

Particulars of tests conducted: Verification of Resistance of Insulating material (Insulation level & dielectric strength) as per clause 10.1 of IEC 61438-1, 2011 & IEC 61438-2, 2012

IEC 61438-1, 2011 & IEC 61438-2, 2012

IEC 102-3.2 of IEC 61438-1, 2011 & IEC 61438-2, 2012

IEC 60207:15

Tests to be conducted with: Nil

Standard Specification: Nil

Sampling Plan: Nil

Customer's Requirements: Nil

Consistency of any: Nil

Name of the witnessing person: Mr. Srinivas H. Gupta, Manager, C&E

Customer's Representative: Nil

Other than Customer's Representative: Nil

Test conducted with name and address of the laboratory: Nil

Decisions constituting this report (in words): Nil

No. of Sheets: Nil

No. of Checkpoints: Nil

No. of Samples: Nil

No. of Photographs: Nil

No. of Test Circuit Diagrams: Nil

No. of Drawings: Nil

TEST ENGINEER: (S. BHATTACHARYA) JOINT DIRECTOR

KEMA

Comets & Switinger Holding Ltd.
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110 049, HEERDEEN

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10001
Testing of Insulator breaking system types CEC1000, IEC1000, IEC1791, IEC1792 and IEC1793 from the manufacturer Comets & Switinger Company Ltd.

Dear Sir,

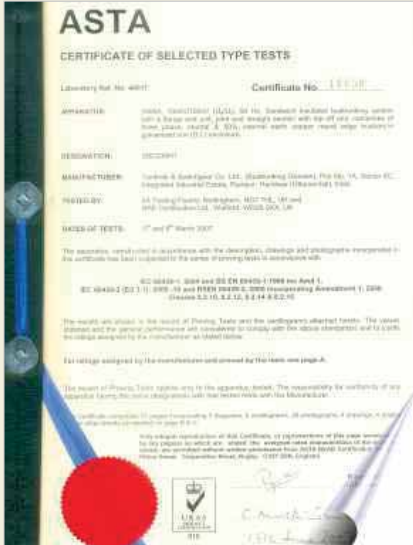
We enclose herewith the Insulator breaking system, type CEC1000, IEC1000, IEC1791, IEC1792 and IEC1793, from the manufacturer Comets & Switinger Company Ltd., have been tested according to IEC 61438-2 as in the clauses mentioned in pages 3 and 9. The tests as set down in the reports from IEC and STANRA Laboratories dated March 11, 2014 were witnessed by KEMA.

We trust that you have obtained your authority. If not, please do not hesitate to contact us.

Yours faithfully,
KEMA Quality Dept.
H. L. Schreijers

KEMA Quality Dept.
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t +31 (0) 485 481000
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www.kema.com

Member of the IEC's Quality Network



Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
ETA Engineering Pvt Ltd.	Shapath V	SBA70N1,125N2	AHMEDABAD
ETA Engineering Pvt Ltd.	Shapath V	SBA70N1,125N2	AHMEDABAD
Antelec Ltd	HCCB,	SBC230N3,SBA150N3,SBA175N2	AHMEDABAD
Bhumi & Drishti Associates	Harsha Engineering Changodar Ahmedabad	SBA60N1	AHMEDABAD
Sterling & Wilson Ltd	Ford Motors Ltd (Body Shop)	SBA 175N2/150N2/100N2/175N1/125N1	AHMEDABAD
Amco Engineers Gujrat	LG Hospital Ahmedabad	SAB100N2/60N1/40N1	AHMEDABAD
WOOSHIN SYSTEMS CO LTD. Korea.	FORD , Sanand	SBA175N1/SBA100N2/SBA175N2	AHMEDABAD
HEC Infra Projects Pvt Ltd.	J.Kumar Infra Projects Ltd., ESIC Hospital & Medical Collage	SBA 175N2/150N2/100N2/175N1/125N1 /80N1	AHMEDABAD
HEC Infra Projects Pvt Ltd.Ahemdabad	HEC Infra Projects Pvt Ltd.Ahemdabad	SBA80N1/60N1/100N1/100N2	AHMEDABAD
HEC Infra Projects Pvt Ltd.	J.Kumar Infra Projects Ltd., ESIC Hospital & Medical Collage	SBA 175N2/150N2/100N2/175N1/125N1 /80N1	AHMEDABAD
Sterling & Wilson Ltd	Ford Motors Ltd (Body Shop)	SBA 175N2/150N2/100N2/175N1/125N1	AHMEDABAD
Amco Engineers Gujrat	LG Hospital Ahmedabad	SAB100N2/60N1/40N1	AHMEDABAD
WOOSHIN SYSTEMS CO LTD. Korea.	FORD , Sanand	SBA175N1/SBA100N2/SBA175N2	AHMEDABAD
Drishti Electricals,Ahemdabad	Harsha Engineering Ltd,	SBA 175N3/60N1/LBC254BA5SP3	AHMEDABAD
Amco Engineers,Ahemdabad	Civil Hospital , Sola ,	SBA150N2/60N1	AHMEDABAD
RN Electricals Aurangabad	Canpack india aurangabad	SBA200N3	AURNGABAD
Sterling & Wilson Ltd.	Perkins India Pvt. Limited	SBA200N3/150N3/175N2/150N2/80N1	AURANGABAD
Sterling & Wilson Ltd.	Perkins India Pvt. Limited	SBA200N3/150N3/175N2/150N2/80N1	AURANGABAD
Spark On Rivulet, Pune	Chalet Hotel-Banglore	SBA175N2/SBA200N3/SBA100N1	BANGALORE
M/S Blue Star Limited,Bangalore	M/s Nokia Siemens,	SBA100N2	BANGALORE
M/s Oracle	M/s Iflex Tech park	SBA175N1,SBA100N1,SBA150N3, SBA100N2,4000A RESIN CAST	BANGALORE
M/s Micron Electricals, Bangalore	Market city	SBA150N3,SBA100N2,SBA175N1, SBA125N1,SBA100N1	BANGALORE
Krishn Electricals	A O Smith,	SBC175N2,SBC125N2	BANGALORE
M/s Micron Electricals,Bangalore	M/s Cisco B11 & B12	SBA150N3,SBA150N2,SBA100N2	BANGALORE
M/s Sterling and Wilson Ltd,Bangalore	TCS	SBC125N1,SBC40N1	BANGALORE
M/s Sterling and wilson Ltd	M/s Amitha Tech Park	SBA150N2,SBA175N1,SBA80N1	BANGALORE
M/s Oracle	M/s Iflex Tech park	SBA175N1,SBA100N1	BANGALORE
M/s Oracle	M/s Iflex Tech park	SBA175N1,SBA100N1	BANGALORE
ETA Engg,Pvt Ltd	Ritz Carlton	SBA100N1/SBA150N2	BANGALORE
M/s Sterling and wilson Ltd	M/s Amitha Tech Park	SBA150N2,SBA175N1,SBA80N1	BANGALORE
Sterling & Wilson	CISCO Banglore	SBA150N2/100N2	BANGALORE
Shree Electricals Pune	Tulip Data City	SBA150N3	BANGALORE
Sterling & Wilson Limited	The Capital	SBA200N3	BANGALORE
ETA Engineering Pvt Ltd.	Asendas IT Park	SBA80N1,150N1,175N1,150N2,150N3	BANGALORE
Pravin Electricals Pvt Ltd	Capgemini IT Park	SBA80N1,100N1,100N2,150N2	BANGALORE
M/s. MICRON ELECTRICALS	M/s CISCO - B15	SBA100,150N2	BANGALORE
Bagmane Construction Pvt Ltd	Bagmane Toronto	SBA150N2,100N1,80N1	BANGALORE

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
Bagmane Construction Pvt Ltd	Bagmane WTC4	SBA175N2,150N2,125N1,100N1	BANGALORE
Bagmane Construction Pvt Ltd	Bagmane WTC5	SBA150N2,175N1,80N1	BANGALORE
Sterling & Wilson Pvt Ltd	UST Global Campus	SBA80N1/60N1/175N2	BANGALORE
Sterling & Wilson	Lulu Marriott courtyard	SBA175N2,150N2,125N1	BANGALORE
RGA Software System P Ltd	Pritek Park	SBA150N3,175N2,80N1,125N1,100N1	BANGALORE
Micron Electricals	Marg Shopping mall	SBA175N2,150N2,100N2,175N1,125N1,100N1	BANGALORE
Micron Electricals	Prestige Shantiniketan	SBA175N1,100N2	BANGALORE
Sterling & Wilson Ltd	Nirlon Knowledge Park	SBA175N2	BANGALORE
Sterling & Wilson Powergen PLtd	Nirlon Knowledge Park	SBA150N3	BANGALORE
Micron Electricals	Continental Hospital	SBA150N2/100N2	BANGALORE
Blue Star Ltd, Bangalore	Viceroy Hotel,	SBA175N2,SBA125N1	BANGALORE
Pravin Electricals Pvt. Limited,Banglore	Hinduja Reality Ventures Ltd.,Banglore	SBA 150N3	BANGALORE
Micron Electricals, Bangalore	CISCO Systems Indis Pvt Ltd,	SBA150N2	BANGALORE
Sterling & Wilson Ltd,	Hindustan Coca Cala Beverages Ltd	SBC230N2	BANGALORE
RMZ Ecoworld Infrastructure Pvt Ltd	RMZ Ecoworld Infrastructure Pvt Ltd	SBA175N2,125N1,80N1	BANGALORE
Krishn Electricals, Bangalore	Harvest Hotels & Serviced Apartments Pvt Ltd,	SBA175N2, SBA100N2, SBA175N1	BANGALORE
MildStone Buildcon Pvt Ltd, Bangalore	Construction of SEZ (Phase I), Outer Ring Road,	SBA175N3, SBA175N2, SBA150N2	BANGALORE
Power Point Electrical Engineers	ManyataTech Park	SBA175N2,150N2,175N1,125N1	BANGALORE
Krishn Electricals, Banagalore	Kernlibers Spring & Hangers, Tumkur	SBA150N2,CBA1250,400,1000,800,	BANGALORE
Gopalan Enterprises India Pvt Ltd, Bangalore	M/s. Global Axis,	SB150N2,100N2	BANGALORE
Pragathi controls, Bangalore	Karle,	SBA175N2,175N1,100N2	BANGALORE
Sequent Electricals, Bangalore	Global Phase I,	SBA100N2	BANGALORE
Micron Electricals, Bangalore	Bosch Ltd, Bidadi	SBA100N2,175N1,150N2, CBA500	BANGALORE
RMZ Eco World Infrastruvture Pvt Ltd, Bangalore	RMZ Eco World Infrastruvture Pvt Ltd	SBA175N1,125N1	BANGALORE
Pravin Electricals Pvt. Limited,Banglore	Hinduja Reality Ventures Ltd.,Banglore	SBA 150N3	BANGALORE
Micron Electricals, Bangalore	CISCO Systems Indis Pvt Ltd,	SBA150N2	BANGALORE
RMZ Ecoworld Infrastructure Pvt Ltd	RMZ Ecoworld Infrastructure Pvt Ltd	SBA175N2,125N1,80N1	BANGALORE
Sterling & Wilson Ltd, Bangalore	Lotus Mall, Mangalore	SBA175N2,150N3,	BANGALORE
Krishn Electricals, Bangalore	Harvest Hotels & Serviced Apartments	SBA175N2, SBA100N2, SBA175N1	BANGALORE
MildStone Buildcon Pvt Ltd, Bangalore	Construction of SEZ (Phase I)	SBA175N3, SBA175N2, SBA150N2	BANGALORE
Power Point Electrical Engineers & Contractors, Bangalore	ManyataTech Park @ MFAR Green Heart	SBA175N2,150N2,175N1,125N1	BANGALORE
Krishn Electricals, Banagalore	Kernlibers Spring & Hangers, Tumkur	SBA150N2,CBA1250,400,1000,800,	BANGALORE
Gopalan Enterprises India Pvt Ltd, Bangalore	M/s. Global Axis,	SB150N2,100N2	BANGALORE
Pragathi controls, Bangalore	Karle,	SBA175N2,175N1,100N2	BANGALORE
Sequent Electricals, Bangalore	Global Phase I,	SBA100N2	BANGALORE
Micron Electricals, Bangalore	Bosch Ltd, Bidadi	SBA100N2,175N1,150N2, CBA500	BANGALORE
RMZ Eco World Infrastruvture Pvt Ltd, Bangalore	RMZ Eco World Infrastruvture Pvt Ltd	SBA175N1,125N1	BANGALORE
Krishn Electricals, Bangalore	Kirloskar Toyota Textile Machinery Pvt Ltd	SBA150N3,SBA100N2	BANGALORE

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
RMZ Galleria India Pvt Ltd, Bangalore	RMZ Galleria - Mixed Use,	SBA100N2	BANGALORE
Micron Electricals, Bangalore	HP Campus DG upgradation works	SBA200N3	BANGALORE
Amber Electrotech Ltd ,New Delhi	AIIMS	SBA80N1,SBA100N1,SBA125N1,CBA400	BHOPAL
Power & Instrumentation (Guj.) Ltd.Indore (MP)	Indian Institute of Science Education and Research centre. , MP.	SBA 150N3/SBA 175N2/SBA 175N1/SBA 100N1	BHOPAL
Power & Instrumentation (Guj.) Ltd.Indore (MP)	Indian Institute of Science Education and Research centre. , MP.	SBA 150N3/SBA 175N2/SBA 175N1/SBA 100N1	BHOPAL
Sterling & Wilson, Noida	ESIC Hospital, Patna	SBA125N1 & SBA150N2	BIHAR
M/s Bansal Biscuit Pvt Ltd,Kolkata	Bansal Biscuit,Patna		BIHAR
Jakson Engineers Limited,New Delhi	Pratibha Industries Ltd. PATNA, Bihar	SBA100N2/125N1	BIHAR
Jakson Engineers Limited,New Delhi	Pratibha Industries Ltd. PATNA, Bihar	SBA100N2/125N1	BIHAR
Servotech Electricals Pvt Ltd IT park Chandigarh	Hotel cum conversation centre	SBA150N1,150N2	CHANDIGARH
HEC Infra Projects Pvt Ltd.,Ahmedabad	Hyatt Project	SBA150N2/SBA125N1	CHANDIGARH
HEC Infra Projects Pvt Ltd.,Ahmedabad	Hyatt Project	SBA150N2/SBA125N1	CHANDIGARH
ETA Engineering Pvt. Ltd., Chennai	ETA Technopark	SBA150N3, SBA150N2, SBA100N2 & SBA125N1	CHENNAI
M/s Sterling and wilson Pvt Ltd,Chennai	MFAR Hotels Ltd,	SBA100N2	CHENNAI
M/s ETA Enggineering Pvt Ltd,Chennai	M/s Prestige Palladium,	SBA150N2,SBA80N1,SBA60N1	CHENNAI
M/s Ethnic tobacco Co. Ltd, Guntur	M/s Ethnic tobacco Co. Ltd, Guntur	SBC230N2,SBA100N2,SBA125N1	CHENNAI
Goms Electrical	M/s Husky Injection Moulding ,	SBA150N2,SBA100N2,SBA125N1	CHENNAI
Sterling & Wilson Limited	Birla Surya Ltd	SBA80N1,150N1,175N2,150N2,100N2,175	CHENNAI
Sterling & Wilson	Sundram Clayton	SBA200N3/150N3	CHENNAI
ETA Engg,Pvt Ltd	Nokia Ssiemens Network	SBC125N2,SBC40N1	CHENNAI
Epower Engineering	L&T Kobelco Machinery Pvt Ltd	SBA175N1,80N1,60N1	CHENNAI
E Power Engineering	Gold Hill	SBA17N1,100N2	CHENNAI
Epower Engg	HMI engineering	SBC125N2	CHENNAI
ETA Engg,Pvt Ltd	TKAP 210K(B159)	SBC125N2/175N2	CHENNAI
Consolidated Construction	Emersion Ambemath	SBA175N2,150N2,CBA200	CHENNAI
Micron Electricals	BMW-DH4- Expansion Project	SBA175N2,40N1/ LBC25	CHENNAI
Consolidated tech.	IISER	SBA175N2,175N1,80N1	CHENNAI
M/s Faery Estates Private Limited	M/s. SP Infocity, Block - B	SBA175N2,175N1,80N1	CHENNAI
ETA Engineering Pvt ltd, Chennai	ETA Techno Park - HCL,	SBA175N2,SBA175N2	CHENNAI
E Power Engineering	SRM Hospital	SBA100N2,SBA175N2, CBA630	CHENNAI
G V S Projects Pvt Ltd	Mahindra Satyam Tower-2	SBA175N3	CHENNAI
ETA ENGINEERING PVT LTD, Chennai	Anand Citi Centre Holdings Pvt Ltd,	SBA175N1,SBA125N1,	CHENNAI
E Power Engineering, Chennai	L&T Construction,	SBA175N2,SBA100N2,SBA150N2	CHENNAI
E Power Engineering, Chennai	Hyundai Wia,	SBA150N2, 150N3, 175N2	CHENNAI
L & T Construction Lttd Chennai	ESIC Hospital Kollam	SBA60N1/175N2/125N1/150N2	CHENNAI
L&T Construction Ltd, Chennai	Kundankulam Nuclear Power Plant Project, Tiruneveli	SBC100N1,40N1	CHENNAI
Tech Mech Engineers, Chennai	Tex Valley Erdode Mall,	SBA125N1,CBA400	CHENNAI
Faery Estates Pvt Ltd, Mumbai	SP Infocity,	SBA175N2,150N2,175N1,125N1,CBA250	CHENNAI

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
E Power Engineering - Chennai	HMI Eng.Shop # 3 - ,	SBC230N2	CHENNAI
E Power Engineering - Chennai	Mobis Audio & Air Bag System,	SBC125N2,SBC175N1	CHENNAI
Hitachi Automotive Systems India Pvt Ltd, Chennai	Hitachi Automotive Systems India Pvt Ltd,	SBA175N1,SBA150N3	CHENNAI
Cosmos Enterprises, Chennai	Tirumala Dairy Pvt Ltd,	SBA150N3,100N2	CHENNAI
Sterling & Wilson Ltd, Chennai	Estancia IT Park Pvt Ltd,	SBA150N3,175N2,150N2,100N2	CHENNAI
E Power Engineering, Chennai	Hyundai Wia,	SBA150N2, 150N3, 175N2	CHENNAI
L&T Construction Ltd, Chennai	Kundankulam Nuclear Power Plant Project, Tiruneveli	SBC100N1,40N1	CHENNAI
Tech Mech Engineers, Chennai	Tex Valley Erdode Mall,	SBA125N1,CBA400	CHENNAI
Faery Estates Pvt Ltd, Mumbai	SP Infocity,	SBA175N2,150N2,175N1,125N1,CBA250	CHENNAI
E Power Engineering - Chennai	HMI Eng.Shop # 3 - ,	SBC230N2	CHENNAI
E Power Engineering - Chennai	Mobis Audio & Air Bag System,	SBC125N2,SBC175N1	CHENNAI
Hitachi Automotive Systems India Pvt Ltd, Chennai	Hitachi Automotive Systems India Pvt Ltd,	SBA175N1,SBA150N3	CHENNAI
Cosmos Enterprises, Chennai	Tirumala Dairy Pvt Ltd,	SBA150N3,100N2	CHENNAI
Sterling & Wilson Ltd, Chennai	Estancia IT Park Pvt Ltd,	SBA150N3,175N2,150N2,100N2	CHENNAI
Sterling & Wilson Ltd, Chennai	BOSCH, Adugodi	SBA175N2,150N2,100N1,175N1	CHENNAI
Sterling & Wilson Ltd, Chennai	Cadbury India Ltd, Tada	SBA150N3,125N1,100N1,CBA400	CHENNAI
Sterling & Wilson Ltd, Chennai	Dailmer india Commercial Vehicles Pvt ltd,	SBA150N2,175N1,60N1	CHENNAI
Sterling & Wilson Ltd, Chennai	RMZ Eco World, Plot 4A - 4B,	SBA100N2	CHENNAI
E Power Engineering, Chennai	ECHIER Motor Limited (Unit : Royal Enfield)	SBA175N1,40N1	CHENNAI
Pravin Electricals Pvt. Limited Mumbai	Perot Systems,Coimbatore	SBA150N2/175N1/100N1/40N1/50N1	COIMBATORE
E City Real Estate Mumbai	Fun Republic Coimbatore	SBA80N1/100N1,175N1,150N2,150N3,175	COIMBATORE
E Power Engineering, Chennai	Texmo Industries, Coimbatore	SBA150N2, SBA200N1, SBA150N1	COIMBATORE
E Power Engineering, Chennai	Texmo Industries, Coimbatore	SBA150N2, SBA200N1, SBA150N1	COIMBATORE
GBJ Hotels Pvt Ltd, Coimbatore	GBJ Hotels, Coimbatore	SBA125N1,175N1	COIMBATORE
M/s Ahluwalia Contracts (I) Ltd.,New Delhi	Raddison Hotel,Jaipur	SBA150N3,SBA100N2	DELHI
M/s Bharat Hotel Ltd	The lalit Hotel,	SBA175N1	DELHI
M/s MAC Associates,New Delhi	DMRC PH-2,New	SBC40N1	DELHI
MEC Electric Contracts P Ltd	JW Merriot DIAL at New	SBA175N1,SBA125N1,SBA150N2	DELHI
Sterling & Wilson Ltd. Sant nagar east of kailash	Central Square Plaza -6	SBA100N2,150N2,175N1	DELHI
Pooja Singla Builders & Engineers Pvt. Ltd.	COD Oval Cant.	SBA150N2,125N1	DELHI
Voltas Limited New delhi	RR Hospital (MES)	SBA100/125N1,SBA150N/175N2	DELHI
Voltas Limited New delhi	DMRC sushant loak GGN.	SBA100/125N1,SBA150N/175N2	DELHI
Pravin Electricals Pvt. Ltd., Mumbai	NICSI Data centre at	SBA150N3	DELHI
Maha laxmi,New Delhi	MES Ojhar		DELHI
S.L. Enterprises,New Delhi	Vaayu Bhawan,New	SBA125N1,SBA150N3	DELHI
Reliance Elektrik Works	Scoper complex, Lodhi Road, New	SBA100N2,SBA175N1,SBA100N1	DELHI
Reliance Electric Works,New Delhi	Rail Bhawan,New	SBC200N1	DELHI
Sterling & Wilson Ltd,New Delhi	Ashoka Leyland Ltd,Pantnagar	SBA150N3,SBA150N2,	DELHI

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
Sterling & Wilson Ltd	Century Textile	SBA100N1/175N1/175N2	DELHI
Rai Industrial Power Pvt Ltd,New Delhi	Leela Hotel,	SBA150N2	DELHI
Shivam Engineers,Delhi	IVRCL,New	SBA125N1,SBA175N1,CBA400,CBA250	DELHI
SL Enterprises,New Delhi	NSIC Campus,New	SBA100N2,SBA175N1,SBA125N1	DELHI
Siemens Limited EIL,New Delhi	EIL,New	SBA175N2	DELHI
"PUREEARTH INFRASTRUCTURE LIMITED"	Pureearth self	SBA175N1/100N2/150N2	DELHI
MEC ELECTRIC CONTRACTS PVT. LTD.,Delhi	Hyatt Hotel , New	SBA200N3	DELHI
SL ENTERPRISES NEW DELHI	RASHTRAPATI BHAWAN NEW	SBC230N1	DELHI
Reliance Elecktrik Works,New Delhi	A.E. (Electrical) CPWD, New	SBA150N3/SBA150N2	DELHI
ETA Engineering Pvt. Ltd.New Delhi.	DMRC Phase-III,	SBC230N2	DELHI
Ambience Towers Private Limited,New Delhi	Ambience Towers Private Limited,New	SBA150N2/175N2/100N2/80N1	DELHI
Ambience Towers Private Limited,New Delhi	Ambience Towers Private Limited,New	SBA150N2/SBA175N2/SBA175N1/SBA80N1	DELHI
S. L. Enterprises,New Delhi	MS Flats, BD Marg, New	SBC230N1/SBA40N1/SBA50N1	DELHI
"Sudhir Power Projects Limited, New Delhi"	The Pride Hotel, New	SBA150N2/SBA100N2	DELHI
Consortium of Sudhir Power Projects Ltd. & Sudhir Gensets Ltd.,New Delhi	DMRC CE-09 LOT 3 (Underground), New	SBC230N2/125N2/100N1	DELHI
Reliance Elecktrik Works,New Delhi	A.E. (Electrical) CPWD, New	SBA150N3/SBA150N2	DELHI
ETA Engineering Pvt. Ltd.New Delhi.	DMRC Phase-III,	SBC230N2	DELHI
Ambience Towers Private Limited,New Delhi	Ambience Towers Private Limited,New	SBA150N2/175N2/100N2/80N1	DELHI
Ambience Towers Private Limited,New Delhi	Ambience Towers Private Limited,New	SBA150N2/SBA175N2/SBA175N1/SBA80N1	DELHI
S. L. Enterprises,New Delhi	MS Flats, BD Marg, New	SBC230N1/SBA40N1/SBA50N1	DELHI
"Sudhir Power Projects Limited, New Delhi"	The Pride Hotel, New	SBA150N2/SBA100N2	DELHI
Consortium of Sudhir Power Projects Ltd. & Sudhir Gensets Ltd.,New Delhi	DMRC CE-09 LOT 3 (Underground), New	SBC230N2/125N2/100N1	DELHI
Panun Entracon Pvt. Ltd.New Delhi	Rail Bhawan, New	SBC125N2	DELHI
Reliance Electric Works	Scope Minar, New	SBA175N3	DELHI
Shivam Engineers,New Dehi	Winter Hills,New	SBA60N1/40N1/150N2	DELHI
"HST Enterprises gautam nagar "	AIIMS	SBA175N2	DELHI
Sudhir Power Projects Limited,New Delhi	American Embassy School, New	SBC230N1/175N1	DELHI
Spire Techpark Private Limited	World Trade Center	SBA175N1/125N1/80N1	DELHI
Tractors India Pvt Ltd, New Delhi	Amazon, Bilaspur	SBA150N2,125N1	DELHI
EVIO Private Limited, , Mumbai	IIT	SBC 40N1	DELHI
Green Electricals	IVRC	SBA175N2/100N2/175N1/125N1/100N1	GUJARAT
L&T MHI Boilers P. Ltd Surat Gujrat	Hazira Manufacturing Facility	SBA100N1	GUJARAT
JOP Power,Goa	Goa Airport	SBA175N2,SBA150N2	GOA
Larsen & Toubro Ltd	EWAC-Ankaleshwar	SBA175N1,100N1,60N1,40N1	GUJARAT
Bhumi & Dristi Associates	Banas Dairy	SBC200N3	GUJARAT
TTK Presige Ltd.	Gujrat Unit 1 Project	SBA800A,CBA250A	GUJARAT
TTK Prestige Limited	Gujrat	SBA200N3	GUJARAT
Blue Tech Associates	Gujrat	SBC50N1/70N1	GUJARAT

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
Sudhir Power Projects Limited,GUJRAT	"Colgate Palmolive (India) Ltd. , Gujrat"	SBC230N2	GUJARAT
Hitachi Plant Technologies India Pvt.Ltd., Gujarat	Toyo Ink India Pvt.Ltd.,Gujarat.	SBA150N3/100N2	GUJARAT
Sudhir Power Projects Limited,GUJRAT	"Colgate Palmolive (India) Ltd. , Gujrat"	SBC230N2	GUJARAT
Hitachi Plant Technologies India Pvt.Ltd., Gujarat	Toyo Ink India Pvt.Ltd.,Gujarat.	SBA150N3/100N2	GUJARAT
NCC Limited	ESIC Hospital Project, Gulbarga	SBA60N1,80N1,125N1,175N1,100N2,175N2,150N2	GULBARGA
JOP Power,Goa	Goa Airport	SBA175N2,SBA150N2	GOA
M/s Munjal Showa Ltd,Haridwar	M/s Munjal Showa Ltd,Haridwar	SBA150N2,SBA175N3	HARIDWAR
M/s SRS Real Estate Ltd,Faridabad	SRS Residency,Faridabad	SBA40N1,SBA60N1,SBA80N1	HARYANA
M/s Amtek Ring Gears Limited,Gurgaon	M/s Amtek Ring Gears Limited,Gurgaon	SBA175N3,SBA175N1	HARYANA
M/s Sterling & Wilson Pvt Ltd,Noida	Dr. Fresh IT park,Gurgaon	SBA100N1,SBA150N2	HARYANA
M/s Sterling & Wilson Pvt Ltd,Noida	Cyberwalk Manesar Gurgaon		HARYANA
M/s Sterling & Wilson Pvt Ltd,Noida	A. buildwell Pvt Ltd,Gurgaon	SBA200N2,SBA200N1,SBA100N1	HARYANA
Cairns Energy India PTY Ltd,Gurgaon	M/s Bhagyam Field Development Project	SBC150N1,SBC150N2	HARYANA
Cairns Energy India PTY Ltd,Gurgaon	Mangla Processing Terminal	SBC150N2	HARYANA
J.S Control & Automation	Prakash Industries limited	SBA175N2	HARYANA
Sudhir Power Projects Ltd	TDI Mall Kundli Sonipat	SBA150N2	HARYANA
Sterling & Wilson Pvt Ltd,Noida	One Horizon Gurgaon	SBA150N3,SBA175N1	HARYANA
Nutech Contractor & Electrical Systems Pvt Ltd,Gurgaon	Canary Residency,Gurgaon	SBA80N1	HARYANA
NKG Infrastructure Limited	Medical College and Hospital Faridabad	SBA175N2,SBA175N1	HARYANA
Sudhir Power Projects	Verandas, Gurgaon	SBA80N1,SBA175N1,SBA175N2	HARYANA
Sudhir Power Projects Limited,Gurgaon	Sky View Corporate park,Gurgaon	SBA175N1,SBA175N2	HARYANA
Reliance Electric	HLL	SBA150N1/200N1	HARYANA
Sudhir Power Projects Limited	MGF METROPOLIS MALL, GURGAON	SBA200N3	HARYANA
SUZUKI MOTOR CYCLE INDIA PVT. LIMITED, GURGAON, HARYANA	SUZUKI MOTOR CYCLE INDIA PVT. LIMITED, GURGAON,	SBA150N2,CBA400	HARYANA
SATKARTAR ELECTRONICS,GURGAON, HARYANA	IREO PRIVATE LIMITED, GURGAON,	SBA100N1,SBA80N1,SBA60N1,SBA40N1	HARYANA
Milestones Engineering Pvt Ltd .GURGAON , HARYANA	Imperial Estate, Faridabad,	SBA175N1,SBA100N1,SBA60N1,	HARYANA
Jastech Systems Pvt. Ltd.Gurgaon,	SRS Royal Hills,	SBA40N1/60N1/80N1	HARYANA
United Engineers,Gurgaon	United Engineers,Gurgaon	SBA150N3/SBA175N2/SBA80N1	HARYANA
Bharat Electricals, Manesar, Gurgaon, Haryana	Bharat Electricals, Manesar, Gurgaon,	SBA150N2/175N1/100N1/80N1	HARYANA
Triple A Engineering Pvt. Ltd. Gurgaon	Triple A Engineering Pvt. Ltd. Gurgaon	SBA150N2/175N1/80N1	HARYANA
"Antelec Limited, Gurgaon"	Vatika Town Square Manesar	SBA150N3	HARYANA
Sudhir Power Projects Limited,Gurgaon,	The Villas, DLF, Phase-II, , Gurgaon,	SBA175N1	HARYANA
Brisk infrastructure & developers Pvt. Ltd.	Lumbini terrace homes, sec-109, gurgaon, hr.	SBA125N1/80N1/50N1/150N2/175N1	HARYANA
Milestones Engineering Pvt Ltd .GURGAON , HARYANA	Imperial Estate, Faridabad,	SBA175N1,SBA100N1,SBA60N1,	HARYANA
Jastech Systems Pvt. Ltd.Gurgaon,	SRS Royal Hills,	SBA40N1/60N1/80N1	HARYANA
United Engineers,Gurgaon	United Engineers,Gurgaon	SBA150N3/SBA175N2/SBA80N1	HARYANA
Bharat Electricals, Manesar, Gurgaon, Haryana	Bharat Electricals, Manesar, Gurgaon,	SBA150N2/175N1/100N1/80N1	HARYANA
Triple A Engineering Pvt. Ltd. Gurgaon	Triple A Engineering Pvt. Ltd. Gurgaon	SBA150N2/175N1/80N1	HARYANA

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
"Antelec Limited, Gurgaon"	Vatika Town Square Manesar	SBA150N3	HARYANA
Sudhir Power Projects Limited,Gurgaon,	The Villas, DLF, Phase-II, , Gurgaon,	SBA175N1	HARYANA
Brisk infrastructure & developers pvt. Ltd.	Lumbini terrace homes, sec-109, gurgaon, hr.	SBA125N1/80N1/50N1/150N2/175N1	HARYANA
Sudhir Power Projects Limited,Gurgaon, Haryana	"Tata Housing Deveopment Co. Ltd. Gurgaon, "	SBA175N2/150N2/100N2/175N1	HARYANA
Jakson Limited,Faridabad	Amazon Warehouse Facility at Bilaspur,	SBA200N3/150N3/150N2/100N2/80N1	HARYANA
Timken Services (P) Ltd.Gurgaon, Haryana	Timken Services (P) Ltd.Gurgaon,	SBA150N2/SBA175N1	HARYANA
Blue Star Limited, Gurgaon	DMRC PHASE-3, LOT-4,	SBC230N2/175N2/230N1/100N1	HARYANA
Triple A Engineering Pvt. Ltd.Gurgaon,	Michael Schumacher World Tower, Gurgaon	SBA150N2/100N2/175N1/125N1/80N1	HARYANA
United Himalayan Industry,New Delhi	Enigma Housing Society, Gurgaon	SBA125N1/100N1/70N1/50N1/40N1	HARYANA
Genraal cable Energy P.LTD Baddi	Self.	SBC 175N3, SBA150N3/175N2	HIMACHAL PRADESH
BE Contracts P Ltd,Mandi	ESIC Hospital,Mandi	SBA125N1,SBA175N2,SBA100N2	HIMACHAL PRADESH
JACKSON LIMITED	ESIC Mandi	SBA175N1/100N2	HIMACHAL PRADESH
Budhiraja Electricals	IIP Dehradun	SBA150N2/SBA200N1	HIMACHAL PRADESH
Tractor India Pvt Ltd, Ghaziabad	ONGC, Dehradun	SBC200N3	HIMACHAL PRADESH
Budhiraja Electricals	IIP Dehradun	SBA150N2/SBA200N1	HIMACHAL PRADESH
Tractor India Pvt Ltd, Ghaziabad	ONGC, Dehradun	SBC200N3	HIMACHAL PRADESH
CRSSG-NCC (JV) NBCC-ESIC Hospital	NBCC-ESIC Hospital,Mandi,	SBA125N1/175N2/100N2	HIMACHAL PRADESH
AAPT India	WIPRO Hindupur		HINDUPUR
M/s Bluestar Limited	M/s Princeton towers,	SBA150N3,SBA150N2	HYDERABAD
S10020B	CMC		HYDERABAD
Rohani Industrial Electricals Limited Mumbai	Tata Aerospace Hyderabad	SBA150N3/SBA60N1	HYDERABAD
Sterling & Wilson	Meenakshi Tech park	SBA175N3,N1 150N2, 125N1,100N1	HYDERABAD
Sequent Electricals	Vikas Telecom limited	SBA175N2	HYDERABAD
NMC Electricals	LEPL-II	SBA150N2,175N1,80N1	HYDERABAD
Blue Star Limited	Prestige Polygon	SBA100N1/175N2	HYDERABAD
Sterling & Wilson	Raheja Building	SBA150N3,150N2	HYDERABAD
Amararaja	Corp office	SBA175N2,150N2,175N1,60N1	HYDERABAD
Bluestar Ltd.	CCHPL	SBA150N3/100N2, CBA800/400	HYDERABAD
Square A Enterprises	Mahaveer Infra	SBA125N1,80N1,40N1,150N2	HYDERABAD
Micron Electricals	Mahindra Satyam Tower-2	SBC50N1/SBA175N1	HYDERABAD
Micron Electricals	PBEL city-Ph-2	SBA175,80,60N1	HYDERABAD
Micron Electricals	TSI Business Park	SBA200N3,175N2,100N1,CBA400,200	HYDERABAD
Sterling & Wilson	Hindustan Coca Cola	SBC230N3,SBA175N2,150N3	HYDERABAD
Sterling Power Gen	Wipro Hydb.	SBA150N3	HYDERABAD
Micron Electricals	Manjushree technopark	SBA200N3/175N2/150N2	HYDERABAD
Pragathi Controls	Cyber City Hydrabad	SBA175N3/N2 & 200N1	HYDERABAD
L&T Limited	HP GR Tech Park	SBA175N3/N2 & 200N1	HYDERABAD
Sai Sudhir Ifrastructure	INCOIS HYD	SBC150N2,SBC175N1	HYDERABAD

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
Micron Electricals, Hyderabad	TCS,	SBA100N2,SBC50N1	HYDERABAD
Sri Balaji Infra Iondia Pvt Ltd,Hyderabad	TIFR,	SBC175N2,125N1, CBA200	HYDERABAD
Sterlin & Wilson Powergen Pvt Ltd, Hyderabad	TSI Business Park,	SBA150N3, 175N2	HYDERABAD
NCC Limited	ESIC Hospital Project, Gulbarga	SBA60N1,80N1,125N1,175N1,100N2,175N2,150N2	HYDERABAD
Trendset Builders Pvt Ltd, Hyderabad	Trendset Multiplex,	SBA150N2,SBA175N1,SBA60N1	HYDERABAD
Sterling & Wilson Ltd, Hyderabad	Metro Rail,	SBC70N1,40N1,125N2	HYDERABAD
Micron Electricals, Hyderabad	Tech Mahindra Technology Centre SEZ,	SBA175N2,SBA175N1,SBC50N1	HYDERABAD
All Tec Power Solutions, Secunderabad	Tech Park Shanta Sri Ram Constructions,	SBA150N3,150N2,100N2,175N1,125N1	HYDERABAD
Sri Balaji Infra Iondia Pvt Ltd,Hyderabad	TIFR,	SBC175N2,125N1, CBA200	HYDERABAD
Sterling & Wilson Ltd,	Hindustan Coca Cala Beverages Ltd	SBC230N2	HYDERABAD
Sterlin & Wilson Powergen Pvt Ltd, Hyderabad	TSI Business Park,	SBA150N3, 175N2	HYDERABAD
Trendset Builders Pvt Ltd, Hyderabad	Trendset Multiplex,	SBA150N2,SBA175N1,SBA60N1	HYDERABAD
Sterling & Wilson Ltd, Hyderabad	Metro Rail,	SBC70N1,40N1,125N2	HYDERABAD
Micron Electricals, Hyderabad	Tech Mahindra Technology Centre SEZ,	SBA175N2,SBA175N1,SBC50N1	HYDERABAD
All Tec Power Solutions, Secunderabad	Tech Park Shanta Sri Ram Constructions,	SBA150N3,150N2,100N2,175N1,125N1	HYDERABAD
Power & instrumentation (Gujrat) Ltd, Hydrabad,.	AAI , Tirupati	SBA 125N1/100N2/175N2	HYDERABAD
Manjeera Retail Holdings Pvt Ltd,	Manjeera Trinity Corporate	SNA100N2,175N1,150N2,150N3	HYDERABAD
Firepro Systems	Sahrudaya Health Care	SBA125N1,80N1,40N1	HYDERABAD
Govt of india Department of Atomic Energy RR CAT Indore	RRCAT indore	SBA175N2	INDORE
VE Commercial Vehicles	Eicher Project	SBA150N2,100N1	INDOR
Pravin Electricals Pvt Ltd	Hotel & Mall At Jamshedpur	SBC125N2	JAMSHEDPUR
Pace Electricals, Trissur, Kerala	Emerson Network (Airtel),Calicut, Kerala	SBA150N2	KERALA
L & T Construction Lted Chennai	ESIC Hospital Kollam	SBA60N1/175N2/125N1/150N2	KERALA
Consolidated Technologies, Kochi	Trissur Sobha City Commercial, Kochi	SBA175N2,150N2,175N1	KERALA
TATA Consultancy	TCS Kochi	SBA125,100,60N1, SBC175,125,70,50N1	KOCHI
Martinet Engineers Pvt. Ltd. Kolkatta, West Bengal	Shrishti Hotel Pvt. Ltd. Kolkatta West Bengal.	SBA150N2/125N1/60N1/80N1	KOLKATA
Sterling Electro Enterprises Pvt. Ltd.Bhandup(W), Mumbai	Hindustan Coca Cola Beverages Pvt. Ltd., Jalpaiguri, West Bengal	SBA100N2/150N3	KOLKATA
Herald Corporation	Forum Rangoli Mall	SBA175N2,SBA100N2	KOLKATA
Blue star Limited,Kolkata	DCN Mall-	SBA175N2,SBA175N1,SBA125N1	KOLKATA
Sterling & Wilson Ltd,Kolkatta	CIL, Rajarhat , Kolkatta	SBC230N1,SBC40N1	KOLKATA
ABB Limited	M/s KOLKOTTA AIRPORT		KOLKATA
O.P Gupta & Co.,Kolkatta	Century Mall		KOLKATA
Larsen & Toubro limited,Chennai	ESIC Joka campus,Kolkatta	SBA150N2,SBA100N2,SBA80N1	KOLKATA
Klystron Electronics P. ltd,Kolkatta	TCS Kolkatta	SBC70N1,SBC40N1	KOLKATA
Simplex Infrastructure Ltd, Kolkata	Durgapur Airport	SBA175N2,SBA150N2	KOLKATA
MCCHEM ANLAGEN ENERGIES & INFRA TECH PVT LTD	ANKIT METALS,W.B	SBA150N3,SBA175N2	KOLKATA
Micron Electricals	TCS Ltd, Ecospace,	SBC70N1, SBC40N1	KOLKATA
Simplex Infrastructure Ltd, Kolkata	DG MAP Sukna,	SBA40N1	KOLKATA

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
Kolkata Light House, Kolkata	RDH Building	SBC125N1,175N1	KOLKATA
Knight Deal Trade Pvt. Ltd.(Magus Bengal Estates LLP), Kolkata	Mani Casadona, Rajarhat	SBA175N2	KOLKATA
Simplex Infrastructure Ltd, Kolkata	RVNL, Dankuni	SBC230N2	KOLKATA
Simplex Infrastructure Ltd, Kolkata	DG MAP Sukna,	SBA40N1	KOLKATA
Kolkata Light House, Kolkata	RDH Building	SBC125N1,175N1	KOLKATA
Knight Deal Trade Pvt. Ltd.(Magus Bengal Estates LLP), Kolkata	Mani Casadona, Rajarhat	SBA175N2	KOLKATA
Simplex Infrastructure Ltd, Kolkata	RVNL, Dankuni	SBC230N2	KOLKATA
Simplex Infrastructures Ltd, Kolkata	ASSAM Lagisislative Assambly-Dishpur	SBA175N2/100N2/125N1/SBA80N1	KOLKATA
Sterling & Wilson Ltd, Bangalore	Lotus Mall, Mangalore	SBA175N2,150N3,	MANGALORE
Micon Electricals, Kochi	TCS, Thiruvananthapuram	SBA100N2,SBA175N1	MANGALORE
ETA Engineering Pvt. Ltd.	Time Square,	SBA200N2	MUMBAI
Siemens Ltd., Navi Mumbai	Vedanta Hospital at	SBA200N2, SBA200N1, SBA80N1 & SBA40N1	MUMBAI
Blue Star India Ltd., Mumbai	Market City - Kurla	SBA175N1, SBA150N2 & SBA100N2	MUMBAI
Power solutions Mumbai	TCG House-BKC()	SBA200,150,125,100 N1	MUMBAI
Siemens Ltd., Navi Mumbai	BALCO- Korba (Bus duct Package)	SBA100,175N1 & SBA100,150,175N2,& SBA150N3	MUMBAI
Power solutions Mumbai	TCG House-BKC()	SBA150N2,125N1	MUMBAI
Listenlights Electrical Engineers & contractors, Mumbai	Kalpataru	SBC175N2/SBC70N1	MUMBAI
Blue Star India Ltd., Mumbai	CDKD Hospital	SBC125N1/125N2/70N1	MUMBAI
ETC Energy Therapy Co.Pvt. Ltd	Bombay Stock Exchange	SBA200N2/80N1/125N1/175N1	MUMBAI
Antelec Limited, Mumbai	Tech Mahindra	SBA150N2 & SBC40N1	MUMBAI
Spark on Rivulet Pune	L&T Data Centre Powai	SBA40N1	MUMBAI
Bluestar India Limited Mumbai	CDKD Hospital	SBA150N3/175N2/100N2	MUMBAI
Yogiraj Powertech	BARC-RLG substation	SBC125N2	MUMBAI
Supreme Infrastructure Limited	ESIC Hospital	SBA175N2,150N2,100N2,175N1,CBA800	MUMBAI
STERLING & WILSON LTD,New Delhi	Continental India Limited , Meerut	SBA175N2,SBA175N3	MEERUT
Ahluwalia Contracts India Ltd	Bank Of India	SBA150N2,SBC125N1,CBC400	MUMBAI
Antelec Ltd	Global software solution	SBA175N2,175N1,100N1	MUMBAI
ETA Engineering	ONGC Kurla Complex	SBA150N3,125N1,60N1,40N1	MUMBAI
ETA Engineering	GIFT City	SBA200N2,100N2,175N2	MUMBAI
Pravin Electricals Pvt. Limited	Lodha Primero Building	SBA175N2	MUMBAI
ABB Limited	Metro	SBA150N3,175N2,175N1	MUMBAI
Antelec Ltd Mumbai	Sify IT park	SBA175N2/175N1/100N1	MUMBAI
Pravin Electricals Pvt. Limited,Mumbai	Pravin Electricals Pvt. Limited,	SBA 100N1,SBA 125N1,SBA 150N1	MUMBAI
Unity Infraprojects Limited, Mumbai	Cooper Hospital,	SBC125N2	MUMBAI
Antelec Limited, Mumbai	Sify IT Park at Navi	SBA 175N2/175N1/100N1	MUMBAI
Sterling Electro Enterprises Pvt. Limited, Mumbai	Carlesberg,	SBC 125N2	MUMBAI
Antelec Ltd Mumbai	Sify IT park	SBA175N2/175N1/100N1	MUMBAI
Pravin Electricals Pvt. Limited,Mumbai	Pravin Electricals Pvt. Limited,	SBA 100N1,SBA 125N1,SBA 150N1	MUMBAI

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
Unity Infraprojects Limited, Mumbai	Cooper Hospital,	SBC125N2	MUMBAI
Antelec Limited, Mumbai	Sify IT Park at Navi	SBA 175N2/175N1/100N1	MUMBAI
Sterling Electro Enterprises Pvt. Limited, Mumbai	Carlesberg,	SBC 125N2	MUMBAI
Power & instrumentation(Gujrat) Ltd.	Zyodus Hospital	SBA 60 N1/SBA 80 N1/SBA 100 N1/SBA 175 N1	MUMBAI
Mumbai International Airport Pvt Ltd ,Mumbai	CSIA,	SBA 175N1	MUMBAI
Reliance Industries Limited,Mumbai	TC-22,	SBA 60N1/80N1/100N1/125N1	MUMBAI
Pravin Electricals Pvt. Limited, , Mumbai	INDIA BULLS SKY 882	SBA17N1/100N1/50N1	MUMBAI
Reliance Industries Ltd,Nagpur	IDC Data centre -1 Nagpur	SBA 150N2	NAGPUR
Thyssenkrupp Engine component I Pvt. Ltd,Nashik	Thyssenkrupp	SBA125N1/100N2	NASHIK
Sterling & Wilson Ltd. Noida	Jaypee Greens (Sun Court)	SBA150N2,SBA125,80N1	NOIDA
Green Power International Pvt ltd,Noida	Hero Honda Motors Ltd.,Dharuhera	SBA200N3	NOIDA
Jaypee sports Ltd,Noida	F-1 Race track,Greater Noida		NOIDA
Kaygee Engineers	Jaypee infratech Pavilion Courts,Noida	SBA80N1,SBA60N1,SBA40N1	NOIDA
MEC Electric Contracts P Ltd,Noida	Aakriti Hotels Pvt Ltd,Greater Noida	SBA175N2,SBA60N1,SBA100N1	Greater Noida
Subros ltd Noida	Subros ltd Noida	SBA175N1, CBA630/400	NOIDA
Bhasin Infotech & Infrastructure Pvt. Ltd	Grand Venezia Mall , Graeter Noida	SBA150N3/150N2/175N1	Greater Noida
NKG Infrastructure Ltd	ESIC Noida	SBA150N2/175N1/125N1	NOIDA
MEC Engineers ,Noida	Aachvis IT Park,Noida	SBA100N2,SBA175N2,SBA175N1	NOIDA
Technical Assistance ,Noida	Jaypee Moon Court,Greater Noida	SBA100N1,SBA60N1	Greater Noida
Kataria Electricals,Noida	Jaiprakash Associate Limited,Noida	SBA60N1,SBA40N1	NOIDA
TRIMOORTI ELECTRICALS	JP KOSMOS, NOIDA, UP	SBA100N1/80N1/60N1/40N1	NOIDA
SEIGHTEEN ELECTRICAL	KLASSIC TOWERS, JP GREENS, NOIDA	SBA80N1/60N1/40N1	NOIDA
ENKAY ELECTRICALS PVT. LTD	Noida Expressway	SBA175N1/CBA1000/CBA800/CBA500	NOIDA
Mahavira Electricals,NOIDA	Klassic Towers,NOIDA	SBA80N1/SBA60N1/SBA40N1	NOIDA
Srex Engineers Pvt. Ltd.Ballabgarh, Haryana	JP Kosmos,NOIDA, UP	SBA125N1/SBA100N1/SBA80N1/SBA60N1/SBA40N1	NOIDA
Stellar Venturer (P) Ltd. NOIDA	Stellar Business Park , Greater Noida,	SBA175N2/SBA150N2/	Greater Noida
Mahavira Electricals,NOIDA	Klassic Towers,NOIDA	SBA80N1/SBA60N1/SBA40N1	NOIDA
Srex Engineers Pvt. Ltd.Ballabgarh, Haryana	JP Kosmos,NOIDA, UP	SBA125N1/SBA100N1/SBA80N1/SBA60N1/SBA40N1	NOIDA
Stellar Venturer (P) Ltd. NOIDA	Stellar Business Park , Greater Noida,	SBA175N2/SBA150N2/	Greater Noida
Reliance Industries Ltd,Nagpur	IDC Data centre -1 Nagpur	SBA 150N2	NAGPUR
Power & Instrumentation(Gj)	Biju Patnaik Airport	SBA100N2,125N1	ORISSA
UTKAL BUILDERS LTD	UTKAL SIGNATURE	SBA175N2,SBA150N2	ORISSA
TATA Consultancy	TCS Buvaneshwar	SBA40,60N1, SBC100/40N1	ORISSA
ETA Engineering Pvt Ltd, Kolkata	NISER-KHURDA(ORISSA)	SBC40N1,SBC125N2,SBC175N1	ORISSA
ETA Engineering Pvt Ltd, Kolkata	NISER-KHURDA(ORISSA)	SBC40N1,SBC125N2,SBC175N1	ORISSA
Rohini Industrial Electricals Ltd	Ashok Leyland	SBA150N2/CBA630	PANTNAGR
Siemens Ltd.	Imsofer Chocklet- Baramati	SBA40N1/60N1	PUNE
Micron Electricals, Bangalore	Wipro Ltd Data centre at PDC-		PUNE

Reference List - Domestic

CUSTOMER	PROJECT	PRODUCT	STATE
Spark On Rivulat	SHIMIZU CO.--NIPRO INDIA	SBA175N2/175N1/100N2/100N1/60N1	PUNE
Santosh Electrical Co. Pvt Limited	Endurance Magneti Marelli Shcok	SBA175N3/200N1/150N1/70N1/60N1	PUNE
Spark On Rivulet	Kumar Pacific Mall	SBA200N3	PUNE
R.N.Industrial Electricals P Ltd	Varroc Engineering	SBA80N1,100N1,175N1,100N2	PUNE
Spark On Rivulet	Jabil Circuit	SBA 175N2	PUNE
Rothe Erde India Pvt Ltd.	Wadivarhe Project	SBA80N1,SBA100N1,SBA125N1, SBA100N2,SBA175N1	PUNE
Reliance Industries Limited	R TG Complex	SBA80N1	PUNE
KFIL	Hospet project	SBA200N2	PUNE
Spark On Rivulet, PUNE	Avery Dennison A/c. Diplomat,	SBA 175 N2/100N2	PUNE
Spark On Rivulet, PUNE	Avery Dennison A/c. Diplomat,	SBA 175 N2/100N2	PUNE
Servotech Electricals Pvt Ltd IT park Chandigarh	Hotel cum conversation centre	SBA150N1,150N2	PUNJAB
Sterling & Wilson Ltd, Punjab	The Trilium Mall	SBA175N2/150N2/125N1/100N1/80N1	PUNJAB
HEC Infra Projects Pvt Ltd.,Ahmedabad	Hyatt Project	SBA150N2/SBA125N1	PUNJAB
HEC Infra Projects Pvt Ltd.,Ahmedabad	Hyatt Project	SBA150N2/SBA125N1	PUNJAB
Grams Electrical Pvt. Ltd.Ludhiana	Emmar MGF The Views Mohali Hills, Mohali,	SBA125N1/80N1/60N1/175N2/125N2	PUNJAB
M/s Zeniya Power Solutions	Hitech Gears Ltd,Bhiwadi	SBA200N3,SBA100N2,CBA500	RAJASTHAN
Hi-Tech Gears Ltd.	Hi-Tech Gears Ltd.	SBA150N3,SBA175N1,CBA500	RAJASTHAN
ETA Engineering Pivate Limited	Jaipur Metro Supply	SBC230N2	RAJASTHAN
Siemens Limited	Hero Moto Corp.Neemrana	SBA150N3,SBA100N2	RAJASTHAN
"Sudhir Power Projects Limited, New Delhi"	JCB Jaipur,	SBA60N1	RAJASTHAN
Nitin Spinners Ltd.Bhilwara, Rajasthan	Nitin Spinners Ltd.Bhilwara,	SBA150N3/175N2/150N2/100N1	RAJASTHAN
Nitin Spinners Ltd.Bhilwara, Rajasthan	Nitin Spinners Ltd.Bhilwara,	SBA175N2/150N2/100N2/100N1	RAJASTHAN
Siemens Limited	Hero Moto Corp.Neemrana	SBA150N3,SBA100N2	RAJASTHAN
"Sudhir Power Projects Limited, New Delhi"	JCB Jaipur,	SBA60N1	RAJASTHAN
Nitin Spinners Ltd.Bhilwara, Rajasthan	Nitin Spinners Ltd.Bhilwara,	SBA150N3/175N2/150N2/100N1	RAJASTHAN
Nitin Spinners Ltd.Bhilwara, Rajasthan	Nitin Spinners Ltd.Bhilwara,	SBA175N2/150N2/100N2/100N1	RAJASTHAN
Andritz Hydro Pvt ltd	Teesta Urja	SBA150N1,100N2,200N2	SIKKIM
HAERISONS CORPORATION,Delhi	HEAVY VEHICLE FACORY, AVADI, TAMIL NADU	SBC50N1,SBC230N1	TAMIL NADU
Micron Electricals	TCS, Thiruvananthapuram	SBA60N1, SBA100N1,SBC70N1,SBC40N1	TAMIL NADU
Micron Electricals, Kochi	TCS, Thiruvananthapuram	SBA100N2,SBA175N1	TAMIL NADU
Supernova Engineers Limited	BSNL Vellora	SBA175N1/	VELLORA
M/s NMC Electricals,Secunderabad	LEPL,Vijaywada	SBA100N2	VIJAYWADA
STERLING & WILSON LIMITED, New Delhi	Hindustan coca Cola Beverages Pvt. Ltd. Varanasi	SBC230N2,SBA175N2	VARANASI
NCC Limited	DGNP Vishakhapatnam	SBA40N1	VISHAKHA

Reference List - Overseas

CUSTOMER	PROJECT	PRODUCT	COUNTRY
Master power	Red Court Hotel.		BRAZIL
PT Munhean Puma Perkasa	Clariant-Jakarta Indonesia	SBA 230N2	INDONESIA
MunHean Singapore	Emporium Ball Room Indonesia	SBA125N1	INDONESIA
PT MunHean Puma Perkasa	Asia Pacific,Indonesia	SBC125N2	INDONESIA
PT MunHean Puma Perkasa	Haris Hotel Indonesia	SBA125N1/50N1	INDONESIA
PT MunHean Puma Perkasa	Haris Hotel- Add. Elements - Indonesia	SBA125N1	INDONESIA
PT MunHean Puma Perkasa	Imporium Ball Room - Customer Complaint	SBA150N1(Edge Elbow & Joint Kit)	INDONESIA
PT Munhean Puma Perkasa	One Casablanca-Jakarta	SBA230N2/175N3	INDONESIA
Central Electricals	Fortis Tower	SBA40,60N1	KENYA
Central Electricals International Limited	Ushrika	SBA100N2,SBA125N1	KENYA
Central electrical	Ushrika	SBA100N2,125N1	KENYA
Power Megger Limited	Kenya	SBC400/SBC400	KENYA
Gulf Engineering,Kuwait	Salmiya Hotel Kuwait	SBC230N1,175N1,125N1	KUWAIT
Gulf Engineering Company KSCC	Kuwait	SBC175N1	KUWAIT
Quality Light & Heavy Equipment Co. Ltd.	Quality Lighthing - Kuwait	SBC175N1	KUWAIT
Munhean Singapore PT	Malaysia	SBC50N1	MALAYSIA
MunHean Singapore PTE Ltd.	Thanlynin Star City, 8th Storey Building	SBA125N1	MYANMAR
MunHean Singapore PTE Ltd.	The Residence @26 - Myanmar	SBA60N1	MYANMAR
MunHean Singapore PTE Ltd.	A3 Star City - Myanmar	SBA175N1	MYANMAR
Mun Hean Singapore Pte. Ltd.	Yankin Project	SBA 100N1	MYANMAR
Mun Hean Singapore Pte. Ltd.	Dagon Seikkan-Myanmar	SBA50N1/CBA200	MYANMAR
Green Power International Pvt. Ltd.	Lagos Nigeria	SBC175N2/175N1/125N1	NIGERIA
Green Power International Pvt. Ltd	Nutty Fruity Lagos - Nigeria	SBC125N1	NIGERIA
Mun Hean Singapore Pte. Ltd.	Wabag dangote-Nigeria	SBC 175 N1/175 N2	NIGERIA
MH Poly-electromechs. Inc	Unitop Puerto Princea Project	SBA100,175N1	PHILIPPINES
MH Poly-electromechs. Inc	Celadon Park San Lazaro	SBA125N2,200N1	PHILIPPINES
MH Poly- Electromechs,inc	Uptown-21	SBA100N1	PHILIPPINES
MH Poly- Electromechs,inc	E Block 2 (CEBU City)	SBA175N2,150N2,100N2	PHILIPPINES
MH Poly- Electromechs,inc	SM 2Ecom Interconnection	SBA150 N3	PHILIPPINES
MH Poly- Electromechs,inc	Alturas-Ubay	SBA175 N2	PHILIPPINES
MH Poly- Electromechs,inc	Clayx Project	SBA175,150,100 N2	PHILIPPINES
MH Poly- Electromechs,inc	SM Gensan	SBA175N2/200N3	PHILIPPINES
MH Poly- Electromechs,inc	Eastwood Legrand	SBA150N3	PHILIPPINES
MH Poly- Electromechs,inc	Suntrust Aurora Project	SBA125N1	PHILIPPINES
MH Poly- Electromechs,inc	Little Baguio Terraces Project	SBA100N1,175N1,125N1	PHILIPPINES
Munhean Singapore	Resort World -Philippines	SBC200N3	PHILIPPINES
Munhean Singapore	Makati Residences - Philipines	SBA175N1	PHILIPPINES
Mun Hean Pte Ltd	CEBU SM CyberWest	SBA175N2/150N3/200N3	PHILIPPINES
MunHean Singapore PTE Ltd.	Marco Polo -Philippines	SBA125N1	PHILIPPINES
MunHean Singapore PTE Ltd.	Calyx Residences Cebu-Philippines	SBA175N1	PHILIPPINES
MunHean Singapore PTE Ltd.	Alturas Bohol -Philippines	SBA125N1,SBA100N1	PHILIPPINES
MunHean Singapore PTE Ltd.	E- Block 3 - Manila City, Phillipines	SBC175N2	PHILIPPINES
MunHean Singapore PTE Ltd.	Little Baguio Terraces -Manila	SBA125N1/SBA100N1	PHILIPPINES
MunHean Singapore PTE Ltd.	Suntrust Aurora-Manila	SBA125N1	PHILIPPINES
MunHean Singapore PTE Ltd.	Manhattan park view-Manila	SBA175N2/SBA150N3	PHILIPPINES

Reference List - Overseas

CUSTOMER	PROJECT	PRODUCT	COUNTRY
MunHean Singapore PTE Ltd.	Gaisano South -Cebu	SBC175N3	PHILIPPINES
MunHean Singapore PTE Ltd.	Glorietta 5 Add. Requirement - Manila	SBC100N1	PHILIPPINES
MunHean Singapore PTE Ltd.	Mighty Tobacco Corp., Cebu	SBC50N1, SBC175N2	PHILIPPINES
MunHean Singapore PTE Ltd.	Rliance IT Center-Philippines	SBA125N1	PHILIPPINES
MunHean Singapore PTE Ltd.	11th Storey Res. Project	SBA125N1	PHILIPPINES
MunHean Singapore PTE Ltd.	Fort Victoria (Additional) - Manila	SBA175N2/150N2	PHILIPPINES
MunHean Singapore PTE Ltd.	Aeon Prime TGU Alabang - Cebu	SBA150N3	PHILIPPINES
MunHean Singapore PTE Ltd.	Marco Polo- 2, Cebu, PHILLIPINE	SBA150N1	PHILIPPINES
MunHean Singapore PTE Ltd.	Abreeza Residences, Davao- Phillipine	SBA125N1	PHILIPPINES
MunHean Singapore PTE Ltd.	Azon Residences - Cebu	SBA175N2	PHILIPPINES
MunHean Singapore PTE Ltd.	Chioson - Cebu	SBA100N2	PHILIPPINES
MunHean Singapore PTE Ltd.	Alturas Mall Interconnections - Cebu	SBA175N2	PHILIPPINES
MunHean Singapore PTE Ltd.	FLB Project, Cebu	SBA150N2	PHILIPPINES
MunHean Singapore PTE Ltd.	ACC - Cebu	SBA100N2	PHILIPPINES
Mun Hean Singapore Pte. Ltd.	Amaia Skies STA Avenida	SBA100N1	PHILIPPINES
Mun Hean Singapore Pte. Ltd.	Aeon Prime & Azon-Philippines	PIB	PHILIPPINES
Mun Hean Singapore Pte. Ltd.	Alon Project-Philippines	SBA 100N1	PHILIPPINES
Mun Hean Singapore Pte. Ltd.	Amaia Skies STA, MESA-Philippines	SBA 100N1	PHILIPPINES
Mun Hean Singapore Pte. Ltd.	Solea Cordova - Cebu,Philippines	SBA125N2	PHILIPPINES
Mun Hean Singapore Pte. Ltd.	Ilustrata Tower - Manila	SBA125N1	PHILIPPINES
Mun Hean Singapore Pte. Ltd.	Avida Vita - manila	SBA230N1 / 150N2 / 80N1	PHILIPPINES
Mun Hean Singapore Pte. Ltd.	Avida Intima - Manila	SBA125N1	PHILIPPINES
Gulf Swg	Mushreef Tower	SBC40N1	QATAR
Orient Star international	B+G+10 One Bedroom Flat Building	SBC70N1	QATAR
Gulf Swg.	2B+G+M+7	SBC40N1	QATAR
Gulf Swg.	B+G+M hotel	SBC40N1	QATAR
Dhafir Switchgear LLC	Salva resort hotel	SBC175N1,125,100,70N1	QATAR
Doha Technical Services	10TYP Res. Building At Freej Abdul Aziz	SBC40N1	QATAR
Orientstar International	AL Kheesa Hyper Market	SBC200N1	QATAR
Orientstar International	AL Rabban Plastic Factory & Stock order	EBC175N1, CBC315 & CBC 400	QATAR
SAT Engineering & Supplies LLC	Residential Building at Al Mansoura,Doha	SBC50N1	QATAR
SAT Engineering & Supplies LLC	Res. Building at Fereej Bin Mahmoud	SBC40N1	QATAR
ETA Doha	Jaidha Commercial development	SBC175N1	QATAR
Doha Technical services	AL Ghanin Appt.	SBC200N1/175N1	QATAR
Doha Technical services	DTS B+G+9	SBC40N1	QATAR
Power Lux ME FZC	Commercial Building Hilal	SBC70,100,125,200N1	QATAR
Doha Technical Services	6Residential Building	SBC50N1	QATAR
Doha Technical Services	Residential Bldng at Munsherah Project	SBC40N1/50N1	QATAR
Doha Technical Services	Al Munthasa office and flat building	SBC40N1	QATAR
Doha Technical Services	DOHA MALL	SBC125N2,200N1 - 40N1,	QATAR
Doha Technical Services	AL Nour Residential Tower	SBC125N1	QATAR
Doha Technical Services	Residential Bldng B+G+7 at Al Saad	SBC40N1,CBC400	QATAR
DTS	Dafna tower Doha	SBC40N1	QATAR
Doha Technical Services	Stock Order	SBC50N1,40N1,CBC400	QATAR
Orient Star Doha	stock+ 2b+G+M+6	SBC50N1/CBC630	QATAR

Reference List - Overseas

CUSTOMER	PROJECT	PRODUCT	COUNTRY
Doha Technical Services	2B+G+52(Sinyar tower)	SBC80/50/40	QATAR
Doha Technical Services	White Square Tower	SBC200N1	QATAR
Doha Technical Services	2B+G+10 Police Tower	SBC70N1	QATAR
Doha Technical Services	Stock Order	SBC40N1	QATAR
Doha Technical Services	Doha Qatar	SBC40N1/50N1	QATAR
Doha Technical Services	Doha Qatar switchgear	SBC40N1	QATAR
Doha Technical Services	Residential & Commercial	SBC100N1/70N1	QATAR
Doha Technical Services	North gate mall doha	SBC40N1/50N1/80N1/125N1/200N1/230N1	QATAR
Doha Technical Services	B + G + 7 Apartment	SBC50N1/70N1	QATAR
Doha Technical Services	Stock Order 0020	SBC50N1	QATAR
Volonter Russia	Self	SBA150N2	RUSSIA
Prom Elektro Avtomatika	Eltek Russia	SBA175N1	RUSSIA
PET Russia	Pet	SBC40N1	RUSSIA
Electroschitkomplekt Co. Ltd	ETM Russia	SBA150N3	RUSSIA
PET Russia	PET	SBA175N1	RUSSIA
PET Russia	Russia	SBA175N1/SBC40N1	RUSSIA
PET Russia	Russia	SBA175/125/100/80/50/40N1, CBA250/200	RUSSIA
Russia SVEL	Russia SVEL	SBA150N2,125N1,100N1,80N1	RUSSIA
LLC Trinidad Russia	ETM	SBA150N3	RUSSIA
PET Russia	N/A	SBC230N2	RUSSIA
PET Russia	N/A	SBA200N3/175N2	RUSSIA
PET Russia	PET Russia	SBA175N1/200N1	RUSSIA
Russia SVEL	Russia SVEL	SBA150N2,125N1,100N1,80N1	RUSSIA
Moselectro Joint-Stock Company	Mini Power Station-Moscow	SBA175N1	RUSSIA
PET LTD - Russia	PET- Russia	SBA100N2	RUSSIA
Moselectro Joint-Stock Company	Cherepovets GRES - Russia	SBC230N1	RUSSIA
Limited Liability Company	Russian Busbar centre-Russia	SBA125N2	Russia
Mun Hean Singapore PTE Ltd.	PS Bank Centre Phase-2	SBC125N2,50N1	SINGAPORE
Mun Hean Singapore PTE Ltd.	H.K.H Hotel	SBA125N2	SINGAPORE
MH Poly-electromechs. Inc	Sky Rise Project	SBA150N2	SINGAPORE
MunHean Singapore	Uptown-21	SBA100N1	SINGAPORE
MunHean Singapore	COBALT HOTEL	SBA60N1	SINGAPORE
MunHean Singapore	DCS Centrio	SBA150N3	SINGAPORE
MunHean Singapore	1016 Residencies	SBA175N1	SINGAPORE
MunHean Singapore	The Links	SBA100N2	SINGAPORE
MunHean Singapore	81-Xavier	SBA175N1,125N2	SINGAPORE
MunHean Singapore	Resort World	SBC200N3	SINGAPORE
MunHean Singapore	Cebu Royal	SBA200N1	SINGAPORE
MunHean Singapore	Istigtal Mosque	SBA100N2	SINGAPORE
MunHean Singapore	11th story Building	SBA125N1	SINGAPORE
MunHean Singapore	Koncord Kondo Project	SBA 100N2	SINGAPORE
MunHean Singapore	Westlink 3 - Tuas - Singapore	SBA125N1	SINGAPORE
MunHean Singapore	Index Project-Singapore	SBA100N1 / 125N1 / 175N1 & LA 12EA	SINGAPORE
Busbar Installations (Pty) Ltd.	UJ University South Africa	SBA100N2,SBA175N1,SBA100N1	SOUTH AFRICA
Busbar Installations Pty. Ltd.	Windhoek Hospital- S,Africa	SBC50N1	SOUTH AFRICA

Reference List - Overseas

CUSTOMER	PROJECT	PRODUCT	COUNTRY
Busbar Installations Pty Ltd.	Exxaro Head Office Refurbishment,SA	SBC100N1	SOUTH AFRICA
Busbar Installations (Pty) Ltd.	Extn of UJ University(EB13001)	SBA100N2	SOUTH AFRICA
PT. MunHean Puma Perkasa	Mandiri Bank - Sumatra Island	SBA100N1/150N1/100N2/150N2	SUMATRA
Enertec Contracting & Trading	Enertec Contracting & Trading	SBC 175N2	SYRIA
Power Lux ME FZC	Elemec Oman	SBC150N2	UAE
Power Lux ME FZC	ARJ Tower	SBC200N1,100,80N1	UAE
AL Zubair Est Trading	Newyork University	SBC60N1,80N1,100N1,150N1,175N1,230N1	UAE
AL Zubair Est Trading	Newyork University	SBC60N1,80N1,100N1,150N1,175N1,230N1	UAE
AL Zubair Est Trading	Rosh Reyhaan Hotel - UAE	SBC230N1	UAE
Powerlux ME FZC	G+7P+35+HC STORY TOWER(Contractor -TIGER) -Sharjah	SBC100N1/150N1/175N1	UAE
AL Zubair Est Trading	Newyork University (NYU)	SBC60N1,80N1,100N1,150N1,175N1,230N1	UAE
Powerlux ME FZC	5 Star Hotel - Dubai - UAE (Contractor -Al Kauther)	SBC200N1, 175N1	UAE
Powerlux ME FZC	G+5P+19 at Al Khan - Sharjah - UAE (Contractor -Al Kauther)	SBC230N1	UAE
Powerlux ME FZC	G+GP+30+1 Floor Villa- SHARJAH , Contractor - Ali Moosa	SBC100N1/230N1	UAE
Powerlux ME FZC	Jamal bin jawhar - (Contractor -TIGER - 2	SBC150N1/100N1	UAE
AL Zubair Est Trading	Newyork University (NYU) - Add.	SBA100N1/175N1/60N1	UAE
Powerlux ME FZC	5 Star Hotel at Dubai	SBC175N1, SBC200N1	UAE
Powerlux ME FZC	G+5P+19 at AL Khan, Sharjah	SBC230N1	UAE
Powerlux ME FZC	2B+G+P+18 Storey AL Yousuf Twin Tower at Jumeirah Village	SBC100N1	UAE
Powerlux ME FZC	Water Supply to ADCCO/GASCO Facilities at Buhasa and Habshan	SBC230N1	UAE
Powerlux ME FZC	Jamal Bin Jawhar,AL Nahda,Sharjah	SBC150N1, SBC100N1,	UAE
Powerlux ME FZC	G+7P+35+HC Storey Tower at Sharjah for DIB	SBC150N1, SBC175N1, SBC100N1,	UAE
Powerlux ME FZC	Jamal Bin Jawher Block B1, Sharjah	SBC100N1, SBC150N1,	UAE
Powerlux ME FZC	G+12 Residential Bldg. at Al Nahda, Dubai	SBC200N1	UAE
Powerlux ME FZC	Comm/Office Development at Port Saeed,Dubai	SBC200N1, SBC125N1, SBC100N1	UAE
Powerlux ME FZC	G+25+HC Dubai Silicon Oasis,Dubai.	SBC 200N1, SBC100N1	UAE
Powerlux ME FZC	Al Ghurair Iron & Steel Factory, Abu Dhabi	SBC150N2, SBC175N2	UAE
Powerlux ME FZC	2B+G+12 Resi Complex, AL Qusais Dubai,	SBC200N1	UAE
Powerlux ME FZC	2B+G+18 Comm /Residential Bldg., Dubai.	SBC200N1	UAE
Powerlux ME FZC	2B+G+14 Hotel Apartment	SBC125N1	UAE
Powerlux ME FZC	B+G+12+R at, Al Nahda 2, Dubai	SBC200N1, SBC125N1	UAE
Powerlux ME FZC	3B+G+3P+16+Roof Sobha Sapphire at Business Bay, Dubai	SBC200N1, SBC100N1	UAE
Powerlux ME FZC	3B+G+19 Crwon Plaza Hotel at Business Bay,Dubai	SBC175N1, SBC100N1	UAE
Powerlux ME FZC	GHQ for Armed Forces, Al Ain	SBC230N1	UAE
Powerlux ME FZC	3B+G+18 Storey Al Wazzan Tower at Jumeirah Village,Dubai	SBC100N1	UAE
Powerlux ME FZC	B+G+3P+31 Tower at Hilal City, Fujeirah	SBC125N2, SBC200N1, SBC100N1	UAE
Powerlux ME FZC	New York University	SBC125N1, SBC175N1	UAE
Powerlux ME FZC	Sadiyat Island	SBC230N1, SBC150N2, SBC175N1	UAE
Rove Group	Yemen	SBC175N2	YEMEN

Some Installation References

Phoenix Hotel Tower



Landmark Plaza



Seibu Tower Project



PS Bank Project, Philippines



Some Installation References

Al Mazaya Tower, Kuwait



Residential Building At Al Qusaia, Dubai



Al Nazar Tower, Kuwait



Avenue 77, Moscow



isobar



Isolated Phase Busducts
(11-36kV up to 30000A)



Segregated / Non-Segregated
Phase Busducts
(415-33kV up to 6500A)

betobar



Low Voltage



Medium Voltage

metabar



Sandwich Busbar Trunking System
(Low- Impedance)
(400-6600A)



Air Insulated
Busbar Trunking System
(125-2000A)



Lighting Trunking System
(25-63A)



● C&S + Etacom Installations

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