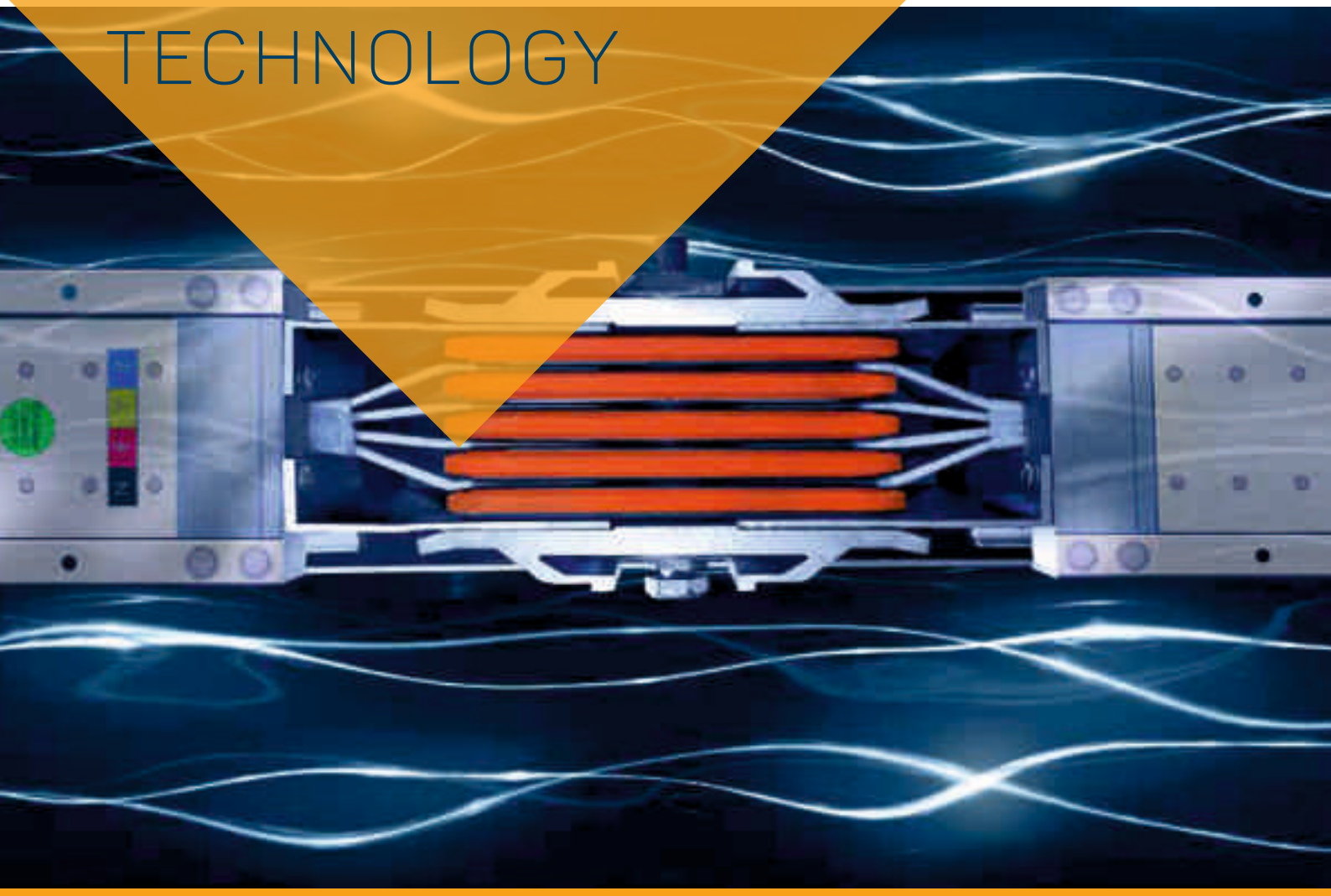
SAFE SOLUTIONS INSPIRING TECHNOLOGY



alfaduct

Busbar Trunking Systems

Generating electricity is one challenge, the other is to have it efficiently and safely transported to the utility point.

ALFADUCT

ARJ HOLDING

From harnessing water and electric power to transforming lives, ARJ Holding has been a name to reckon with since 1964. Reflecting the values of the Group's founder, ARJ Holding believes quality, social responsibility and transparency are the guiding principles for seeking new opportunities together, conducting fair business and succeeding together. Coming a long way since its inception, the Group has successfully scaled up its operations and scope in the last decades to diversify and expand beyond the region.

A multinational powerhouse of over 2,500 employees, ARJ Holding today is one of UAE's prominent business houses, in the construction sector serving government entities and large corporates. The Group aims to be the leader in GCC and beyond with four major focus areas – Trade, Power, Life & Green encompassing a varied portfolio that includes Building and Engineering Services, Manufacturing, Water Management Technologies, Property Development, Renewable Energy Systems, Hospitality, F&B, Health & Wellness, Marketing Communications, Education, Fashion & Retail.

Headquartered in Dubai, UAE and with offices in 20 markets across 5 countries – Lebanon, Oman, Saudi Arabia, Kuwait and India – ARJ Holding is growing from strength to strength, delivering consistent quality and setting new standards in excellence.

ALFADUCT INTRODUCTION

Adhering to highest product quality and aligned to the Group's lasting values of integrity and commitment, ALFA Technologies Pvt. Ltd., a subsidiary of ARJ Holding, is a specialized and dedicated company serving the power distribution market through its ALFADUCT—Busbar Trunking System.

To be distinctive in the service it provides, ALFA Technologies commit to stay with the Client along the entire process until the full functioning of Busbar Trunking Systems. Professional and technical assistance spans across every activity ranging from site survey, design & routing drawing preparation, supply & installation to testing, commissioning and maintenance.

SOUTHERN RAILWAY HOSPITAL
Sandwich Busducts Ratings 4000 A & 1600 A
Main Power Distribution
Transformers to Main Panels (3 Runs)
& DG Synchornization Panel to Main Panel (2 Runs)

Our product range includes Sandwich, Compact Air Insulated & Lighting Trunking solutions to cater to a wide range of Clients from residential blocks to industrial units, facilitated by service that includes:

- Project evaluation and support, design optimization and engineering layout
- Customized manufacturing
- System installation with the best engineering practices
- System testing and commissioning
- Refurbishment, maintenance and support in layout changes

SPECIFICATIONS

The product is designed to comply with the International Standard of IEC 61439-1&6, “specification for low voltage and control gear assemblies”, a particular requirement for busbar trunking systems.

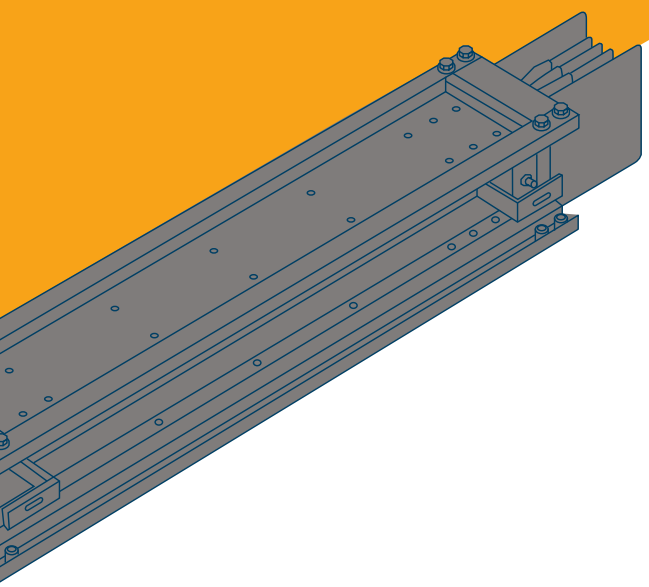
Sandwich Bus Trunking Systems

Conductor:	Copper or Aluminium
Enclosure:	1.6 mm or 2.0 mm GI
Current ratings:	400 A to 6300 A
Elements:	All types of elements to meet site requirements

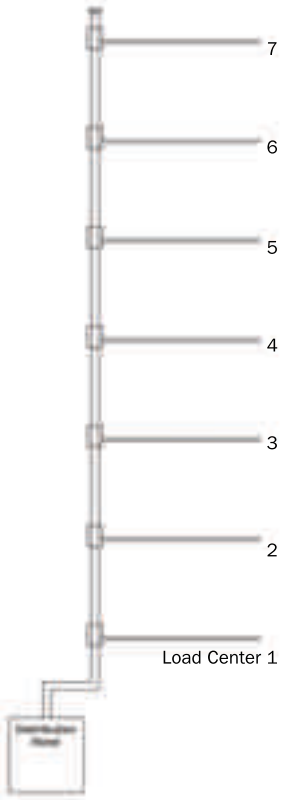
Compact Air Insulated Bus Trunking Systems

Conductor:	Copper or Aluminium
Enclosure:	1.6 mm or 2.0 mm GI
Current ratings:	200 A to 2000 A
Elements:	All types of elements to meet site requirements

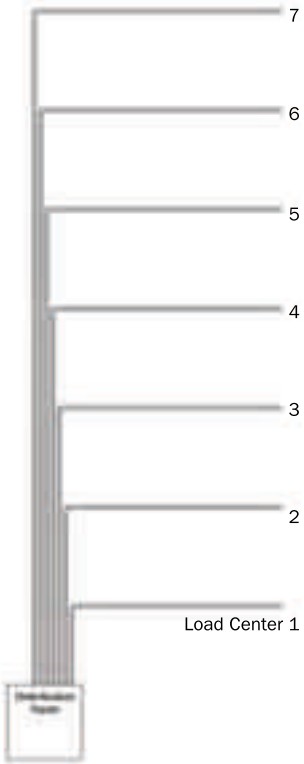
BUSBAR OVER CABLES



ALFADUCT Busbar Trunking Systems are used in building and industrial applications to distribute power to electrical loads safely and efficiently. Due to its many advantages over cabling and conventional bus ducts, Busbar Trunking systems are widely used in commercial and residential buildings, hotels, factories, IT and data center buildings, shopping centers, etc.



ALFADUCT BUS TRUNKING SYSTEM



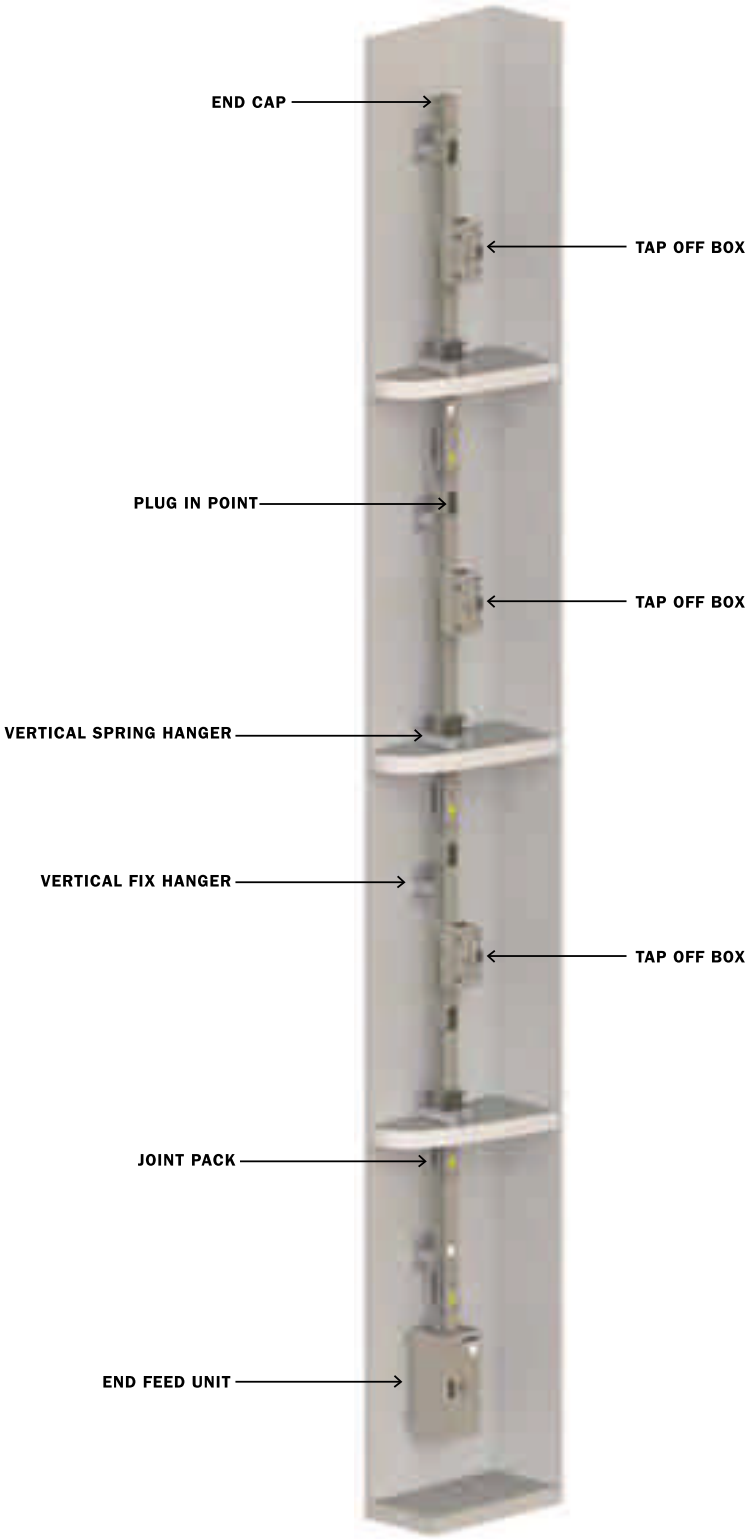
CABLING SYSTEM REQUIRES INDIVIDUAL CABLES TO BE RUN FOR EACH LOAD CENTER

WHY ALFADUCT IS PREFERRED OVER CABLES?

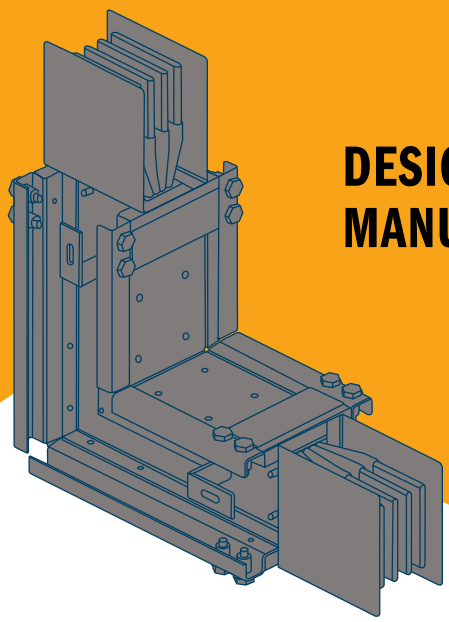
Better mechanical protection and ingress protection through IP ratings
Eliminates many runs of cabling and is aesthetically appealing
Easy to install and maintain
Saves space and is cost-effective for multi-point power distribution
Conductors can be customized according to voltage drop, harmonics, earthing, etc.
Increased energy savings due to reduced losses, lesser voltage drop
Easy fault identification. Modular installation ensures low replacement costs and lesser down time
Higher KA rating
Fire propagation is eliminated due to nature of sandwich construction
Flexibility in repositioning load centers using tap-off points

WHY ALFADUCT IS PREFERRED OVER CONVENTIONAL BUS DUCTS?

- Lower impedance and therefore low power loss
- Compact size
- Moisture ingress and corrosion inhibition
- Superior jointing arrangements and no intrusion on conductor
- Produced through a proven manufacturing process where all parameters are quality controlled
- Certified from a reputed and independent third party
- Aesthetically appealing
- Higher KA rating for a given enclosure thickness
- All through support – Design, installation, testing and commissioning and warranty and after sales



TYPICAL RISING MAIN INSTALLATION



DESIGN AND MANUFACTURING QUALITY

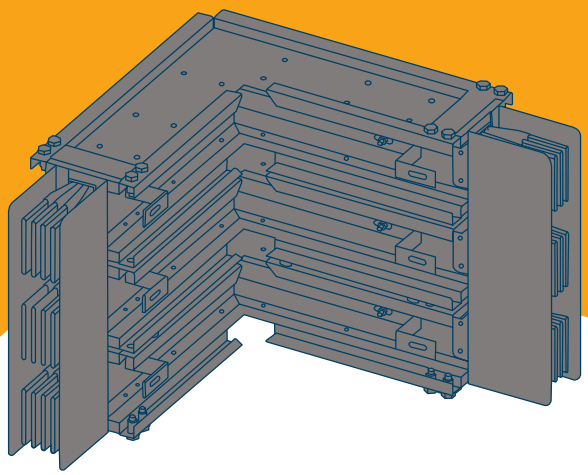
ELECTRODYNAMIC FORCES
yield
fault level clearing
strength
spring diameter
eddy current
current density
skin effect
shear force of riveted joints
IMPEDANCE
fault level
spring constant
Reactance
spring diameter
aluminium grade
voltage imbalance
HEAT DISSIPATION
section modulus
poisson ratio
tensile strength
temperature rise at fault
STRENGTH OF
SUPPORT HANGERS
power loss
short circuit current
AC resistance at operating temp
MAGNETIC FIELD STRENGTH

Proper design of a bus trunking system necessitates a thorough understanding and application of metallurgy & strength of materials, set of physical phenomena associated with the presence and flow of electricity, mechanical forces acting on the system, thermal calculations and general working conditions where this system is applied.

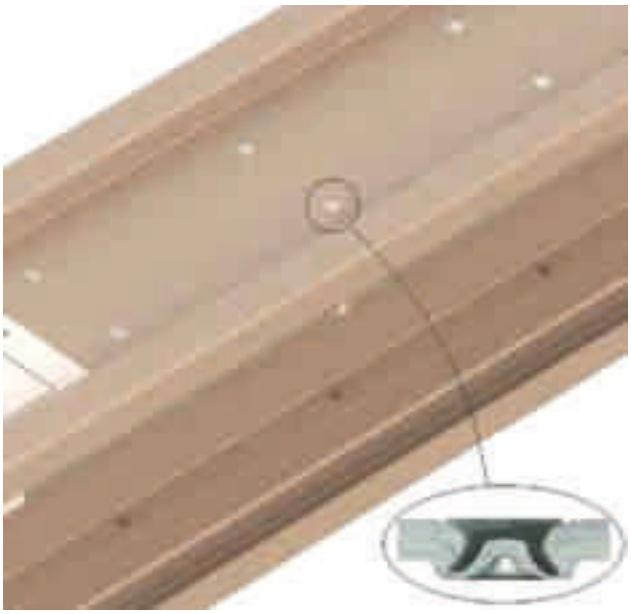
Compliance to International codes which defines the generic and particular test conditions, compliance to local regulation, site conditions study and customization and a quality installation play vital roles in ensuring that the bus trunking system functions as per the design intent.

ALFADUCT products have been developed from very strong engineering fundamentals factoring all the perceivable electrical and mechanical calculations to ensure that nothing is left unaddressed. Applying stringent parameters to raw materials used during manufacturing ensures that the finished product performs satisfactorily over its years of service life.

The validation of the design is done through an independent third party laboratory and ALFADUCT product(s) has passed stringent type test as per IEC 61439.

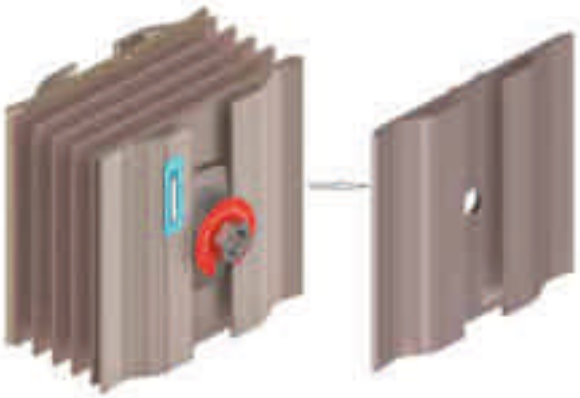


MATERIAL & CONSTRUCTION



ALL RIVETED CONSTRUCTION option (steel alloy, self piercing type) ensures very high shear strength capable of withstanding very high electro dynamic forces. Prevents rusting and reduces moisture ingress.

TAP-OFF BOX loaded on to the main bus duct frame eliminates load on the contact terminals



ALUMINUM-FINNED SIDE PLATES increase heat transfer area by 30%

CLASS F PET INSULATION, Break Down Voltage (BDV) of 40 KV with superior Di electric strength, higher heat dissipation ability, resistance to chemicals and alkali, high glass transition temperature and therefore high service temperature, heat aging and service life, much less hygroscopic, high tensile strength in comparison to either Epoxy insulation or a normal PE type insulation. Material of Insulation complying to UL Flame rating UL94 & is Halogen free

TEMPERATURE RISE indicators on all joint packs for easy monitoring

MECHANICAL AND ELECTRICAL interlock protection-earth bar making and breaking contact first

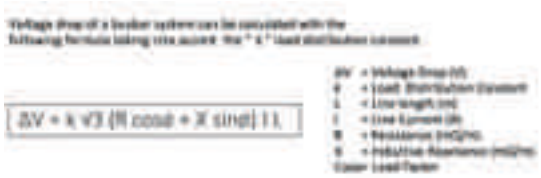
SANDWICH BUS TRUNKING SYSTEM

Ratings and Specifications

- Feeder bus duct
- Distribution bus duct
- Edgewise elbow
- Flatwise elbow
- Edgewise offset elbow
- Flatwise offset elbow
- Combination elbows
- Flatwise tee
- Phase cross over unit
- Expansion unit
- Reducer unit
- End feed unit
- Center feed unit
- Panel flange
- Panel flange with edgewise elbow
- Panel flange with flatwise elbow
- Adapter box
- Rubber bellow
- End cap
- Flexible connector
- Vertical spring hanger
- Vertical rigid hanger
- Joint pack
- Tap off units

TECHNICAL DATA TABLE - SANDWICH COPPER											
CURRENT RATING											
RATING	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
Product Code	ADSC063	ADSC080	ADSC100	ADSC125	ADSC160	ADSC200	ADSC250	ADSC320	ADSC400	ADSC500	ADSC630
Rated Insulation Voltage (Ui)	1000 V, AC										
Rated Operational Voltage (Ue)	Upto 1000 V, AC										
Rated Dielectric Voltage	3.5 KV rms for 60 Secs.										
Rated Impulse Withstand Voltage	12 KV, AC										
Rated Frequency	50/60 Hz										
Housing Material	1.6 / 2.0 mm GI Housing with Epoxy polyester powder coated (RAL 7032)										
RATED SHORT TIME WITHSTAND CURRENT											
1 Second (KA)	40	50	65	80	90	100	100	120	120	150	150
Peak Value (KA)	85	110	140	175	190	220	220	265	265	330	330
CONDUCTOR DIMENSION & CONFIGURATION											
CONDUCTOR C.S.A (mm^2) COPPER (PHASE)											
Bus bar Dimension mm)	40 x 6	50 x 6	70 x 6	90 x 6	125 x 6	150 x 6	200 x 6	125 x 6 (2)	150 x 6 (2)	200 x 6 (2)	150 x 6 (3)
Cross Sectional Area (Sq mm)	240	300	420	540	750	900	1200	1500	1800	2400	2700
Height (mm)	77	87	107	127	162	187	237	330	380	480	573
No. of stack	Single							Double			Triple
IP Rating	IP 54 / IP 55 / IP 65*										
APPROXIMATE WEIGHT OF BUS TRUNKING (Kg / Mtr)											
3 Phase + Integral Earth	14	15	19	25	29	38	43	58	76	86	114
3 Phase + 50% Internal Earth	16	18	23	29	34	44	50	68	88	100	132
3 Phase + 100% Neutral + Integral Earth	18	20	25	33	39	50	57	77	100	114	150
3 Phase + 100% Neutral + 50% Internal Earth	20	22	28	37	44	56	64	87	112	128	168
3 Phase + 200% Neutral + Integral Earth	23	25	32	42	48	63	72	97	126	144	189
3 Phase + 200% Neutral + 50% Integral Earth	25	27	35	46	53	69	79	107	138	158	207
3 Phase + 100% neutral + 100% Isolated Earth	23	25	32	42	42	63	72	97	126	144	189
ELECTRICAL PARAMETERS @50 HZ											
RESISTANCE (mΩ/Mtr)											
AC Resistance @ 20 C (R)	0.0703	0.0604	0.0406	0.0317	0.0231	0.0193	0.0148	0.0116	0.0097	0.0074	0.0049
AC Resistance @ operating conditions (95 Deg C)	0.0911	0.0782	0.0525	0.0410	0.0299	0.0250	0.0191	0.0149	0.0125	0.0096	0.0083
REACTANCE (mΩ/Mtr)											
Reactance (X)	0.0310	0.0260	0.0200	0.0180	0.0130	0.0100	0.0085	0.0065	0.0050	0.0043	0.0030
IMPEDANCE (mΩ/Mtr)											
Impedance (Z)	0.0962	0.0824	0.0562	0.0448	0.0326	0.0269	0.0209	0.0163	0.0135	0.0105	0.0088
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/A 40 Deg Amb)											
Voltage drop @ 0.7 PF	0.1487	0.1271	0.0885	0.0720	0.0523	0.0427	0.0338	0.0262	0.0215	0.0170	0.0137
Voltage drop @ 0.8 PF	0.1584	0.1354	0.0935	0.0755	0.0549	0.0451	0.0354	0.0275	0.0225	0.0178	0.0147
Voltage drop @ 0.9 PF	0.1653	0.1415	0.0970	0.0775	0.0564	0.0466	0.0362	0.0282	0.0234	0.0182	0.0152
Voltage drop @ 1.0 PF	0.1577	0.1354	0.0910	0.0710	0.0518	0.0433	0.0331	0.0258	0.0217	0.0166	0.0144
ELECTRICAL PARAMETERS @60 HZ											
RESISTANCE (mΩ/Mtr)											
AC Resistance @ 20 C (R)	0.0705	0.0606	0.0407	0.0319	0.0233	0.0195	0.0150	0.0116	0.0098	0.0075	0.0050
AC Resistance @ operating conditions (95 Deg C)	0.0912	0.0785	0.0527	0.0413	0.0301	0.0253	0.0194	0.0151	0.0127	0.0097	0.0084
REACTANCE (mΩ/Mtr)											
Reactance (X)	0.0310	0.0260	0.0200	0.0180	0.0130	0.0100	0.0085	0.0065	0.0050	0.0043	0.0030
IMPEDANCE (mΩ/Mtr)											
Impedance (Z)	0.0964	0.0826	0.0563	0.0451	0.0328	0.0272	0.0212	0.0164	0.0136	0.0106	0.0089
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/45 Deg Amb)											
Voltage drop @ 0.7 PF	0.1489	0.1272	0.0886	0.0724	0.0526	0.0430	0.0341	0.0263	0.0217	0.0171	0.0139
Voltage drop @ 0.8 PF	0.1586	0.1357	0.0938	0.0759	0.0553	0.0454	0.0358	0.0277	0.0227	0.0180	0.0147
Voltage drop @ 0.9 PF	0.1656	0.1419	0.0972	0.0780	0.0568	0.0471	0.0367	0.0284	0.0235	0.0184	0.0154
Voltage drop @ 1.0 PF	0.1580	0.1360	0.0912	0.0716	0.0521	0.0438	0.0337	0.0261	0.0220	0.0168	0.0145

*** Due to complexity of site installation, which is beyond the control of manufacturing plant, manufacturer recommend canopy on IP 54/55 to achieve IP65 for outdoor.**



TECHNICAL DATA TABLE - SANDWICH ALUMINIUM												
RATING	400A	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
Product Code	ADSA040	ADSA063	ADSA080	ADSA100	ADSA125	ADSA160	ADSA200	ADSA250	ADSA320	ADSA400	ADSA500	ADSA630
Rated Insulation Voltage (Ui)	1000 V, AC											
Rated Operational Voltage (Ue)	Upto 1000V, AC											
Rated Dielectric Voltage	3.5 KV rms for 60 secs.											
Rated Impulse Withstand Voltage	12 KV, AC											
Rated Frequency	50/60 Hz											
	1.6 / 2.0 mm GI Housing with Epoxy polyester powder coated (RAL 7032)											
RATED SHORT TIME WITHSTAND CURRENT												
1 Second (KA)	25	40	50	65	65	65	100	100	120	150	170	170
Peak Value (KA)	55	85	105	140	140	140	220	220	260	320	370	370
CONDUCTOR C.S.A (mm²) ALUMINIUM (PER PHASE)												
Bus bar Dimension (mm)	40 x 6	60 x 6	80 x 6	100 x 6	125 x 6	175 x 6	200 x 6	150 x 6(2)	175 x 6(2)	200 x 6(2)	175 x 6(3)	250 x 6(3)
Cross Sectional Area (Sq mm)	240	360	480	600	750	1050	1200	1800	2100	2400	3150	4500
Height (mm)	77	97	117	137	162	212	237	380	430	480	648	873
No. of stack	Single							Double			Triple	
IP Rating	IP 54 / IP 55 / IP 65*											
APPROXIMATE WEIGHT OF BUS TRUNKING (Kg / Mtr)												
3 Phase + Integral Earth	9	11	13	14	16	20	22	32	40	44	60	71
3 Phase + 50% Internal Earth	11	13	15	16	19	23	25	37	46	50	66	83
3 Phase + 100% Neutral + Integral Earth	12	15	17	19	21	26	29	43	52	58	78	95
3 Phase + 100% Neutral + 50% Internal Earth	14	17	19	21	24	29	32	48	58	64	87	107
3 Phase + 200% Neutral + Integral Earth	15	18	21	23	27	33	36	53	66	72	99	118
3 Phase + 200% Neutral + 50% Internal Earth	17	20	23	26	29	36	39	59	72	78	108	130
3 Phase + 100% neutral + 100% Isolated Earth	15	18	21	23	27	33	36	53	66	72	99	18
RESISTANCE (mΩ/Mtr)												
AC Resistance @ 20 C (R)	0.1308	0.0875	0.0657	0.0528	0.0424	0.0305	0.0268	0.0177	0.0153	0.0134	0.0102	0.0265
AC Resistance @operating conditions (95 deg C)	0.1665	0.1114	0.0837	0.0672	0.0539	0.0388	0.0341	0.0225	0.0194	0.0170	0.0129	0.0108
REACTANCE (mΩ/Mtr)												
Reactance (X)	0.0310	0.0210	0.0195	0.0160	0.0130	0.0090	0.0085	0.0100	0.0045	0.0043	0.0030	0.0024
IMPEDANCE (mΩ/Mtr)												
Impedance (Z)	0.1694	0.1133	0.0859	0.0691	0.0555	0.0398	0.0351	0.0246	0.0199	0.0176	0.0133	0.0111
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/A 40 Deg Amb)												
Voltage drop @ 0.7 PF	0.2402	0.1610	0.1255	0.1011	0.0815	0.0580	0.0518	0.0397	0.0291	0.0258	0.0192	0.0161
Voltage drop @ 0.8 PF	0.2629	0.1761	0.1362	0.1097	0.0883	0.0631	0.0561	0.0416	0.0316	0.0280	0.0210	0.0175
Voltage drop @ 0.9 PF	0.2830	0.1895	0.1451	0.1168	0.0940	0.0673	0.0595	0.0428	0.0336	0.0298	0.0224	0.0185
Voltage drop @ 1.0 PF	0.2884	0.1929	0.1449	0.1164	0.0934	0.0672	0.0590	0.0390	0.0336	0.0295	0.0223	0.0187
RESISTANCE (mΩ/Mtr)												
AC Resistance @ 20 C (R)	0.1310	0.0876	0.0659	0.0530	0.0425	0.0307	0.0270	0.0178	0.0154	0.0135	0.0102	0.0267
AC Resistance @ operating conditions (95 Deg C)	0.1667	0.1115	0.0838	0.0674	0.0541	0.0391	0.0343	0.0226	0.0195	0.0171	0.0130	0.0109
REACTANCE (mΩ/Mtr)												
Reactance (X)	0.0310	0.0210	0.0195	0.0160	0.0130	0.0090	0.0085	0.0100	0.0045	0.0043	0.0030	0.0024
IMPEDANCE (mΩ/Mtr)												
Impedance (Z)	0.1695	0.1134	0.0861	0.0693	0.0556	0.0401	0.0353	0.0247	0.0201	0.0177	0.0133	0.0112
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/A 45 Deg Amb)												
Voltage drop @ 0.7 PF	0.2404	0.1611	0.1258	0.1015	0.0817	0.0584	0.0521	0.0396	0.0293	0.0261	0.0199	0.0168
Voltage drop @ 0.8 PF	0.2633	0.1763	0.1364	0.1100	0.0885	0.0635	0.0563	0.0417	0.0317	0.0282	0.0215	0.0182
Voltage drop @ 0.9 PF	0.2832	0.1896	0.1454	0.1171	0.0942	0.0676	0.0599	0.0429	0.0339	0.0299	0.0229	0.0192
Voltage drop @ 1.0 PF	0.2887	0.1931	0.1452	0.1167	0.0937	0.0677	0.0594	0.0392	0.0338	0.0297	0.0225	0.0189

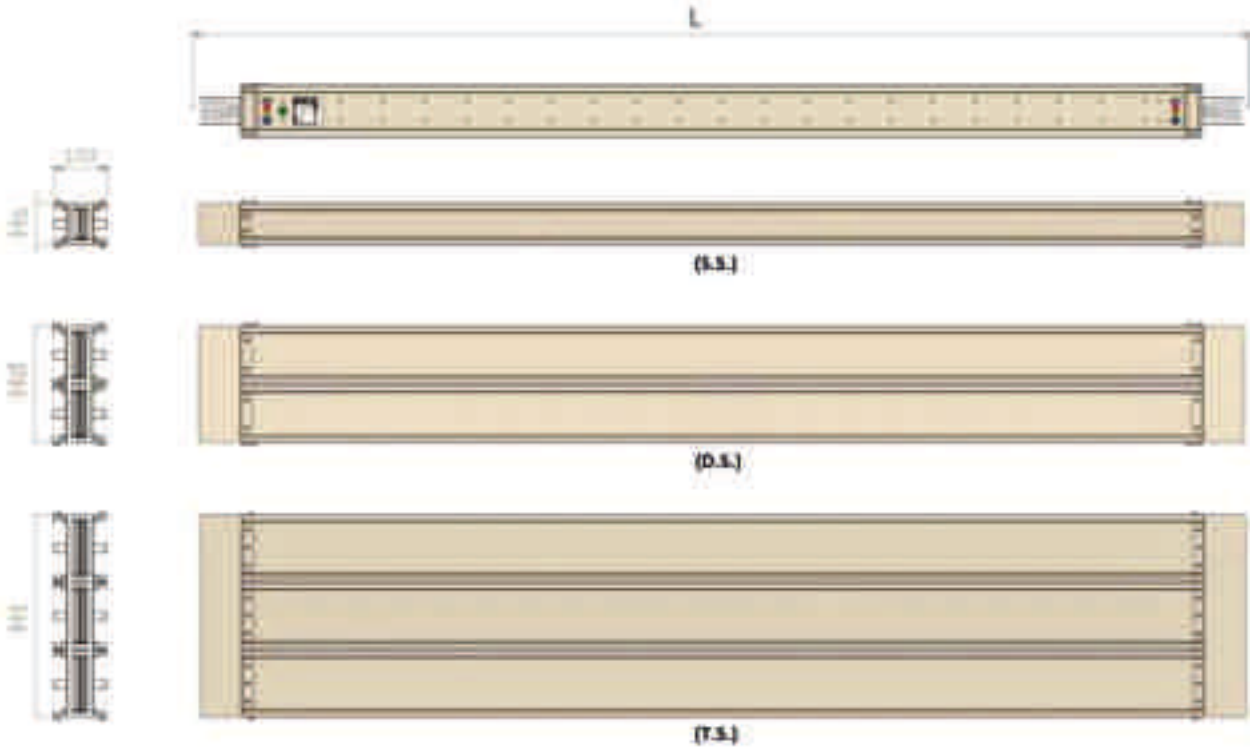
* Due to complexity of site installation, which is beyond the control of manufacturing plant, manufacturer recommend canopy on IP 54/55 to achieve IP65 for outdoor.

Feeder bus duct

Feeder bus duct is used to transfer electric current from one end to another. There are no power tapping points along its length.

BUS DUCT LENGTH (MM)		
	MIN	MAX
L	500	3000

SS	Single Stack
DS	Double Stack
TS	Triple Stack



BUSDUCT HEIGHT (MM)											
	RATING (A)	400	630	800	1000	1250	1600	2000	2500	3200	4000	5000
Hs	Al	77	97	117	137	162	212	237	-	-	-	-
	Cu	-	77	87	107	127	162	187	237	-	-	-
Hd	Al	-	-	-	-	-	-	-	380	430	480	-
	Cu	-	-	-	-	-	-	-	-	330	380	480
Ht	Al	-	-	-	-	-	-	-	-	-	-	648

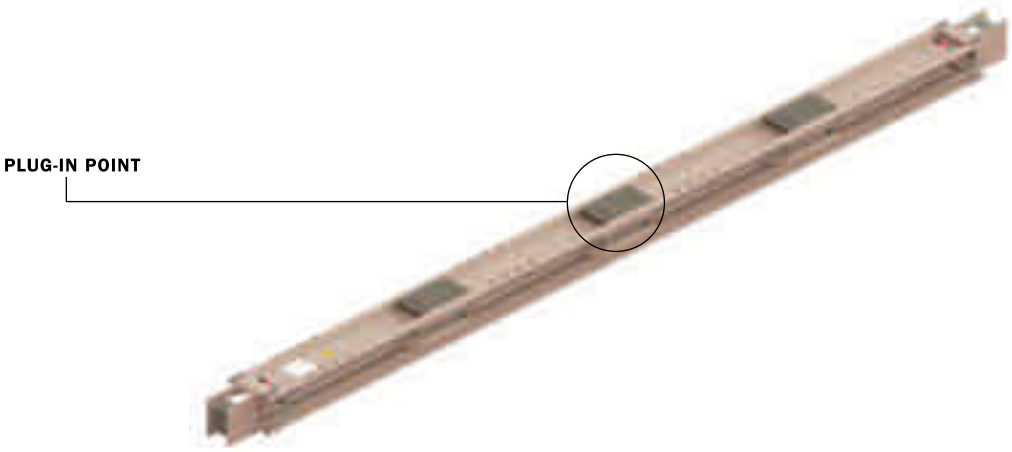
Distribution bus duct

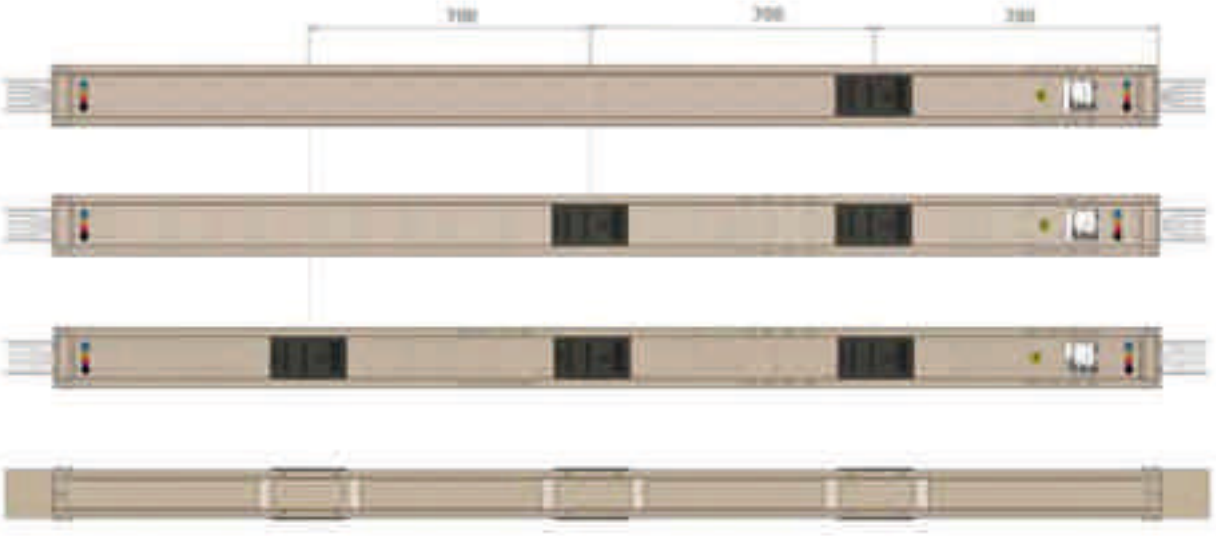
Feeder length with tap off provision(s) are called distribution busduct. Supplied with maximum 3 plug-in points (PIP's) in a standard 3m length on one side. Distribution busduct can be run vertically or horizontally, or a combination of both. Rating, location and number of plug-in points can be decided based on the site requirement

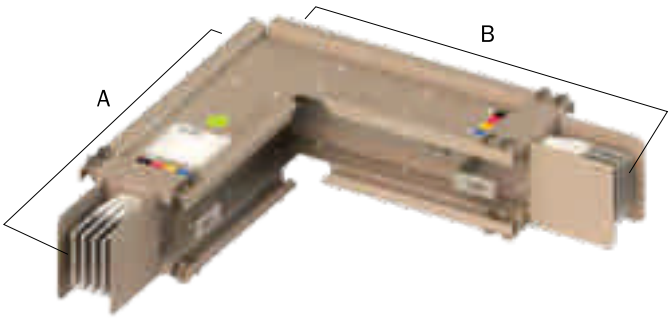
NOTE

Plug in point ratings range from 32A to 800A. On specific request & depending on ratings & site requirement we can provide 3PIP in a standard 3m length on either side with back to back arrangement starting from 630A in Aluminium & 800A in Copper.

DISTRIBUTION LENGTH (MM)		
	MIN	MAX
L	1200	3000



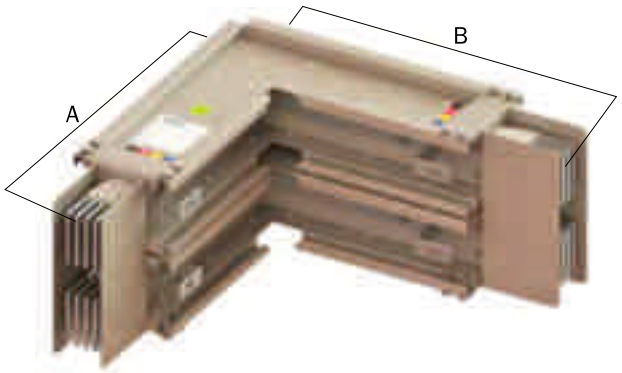




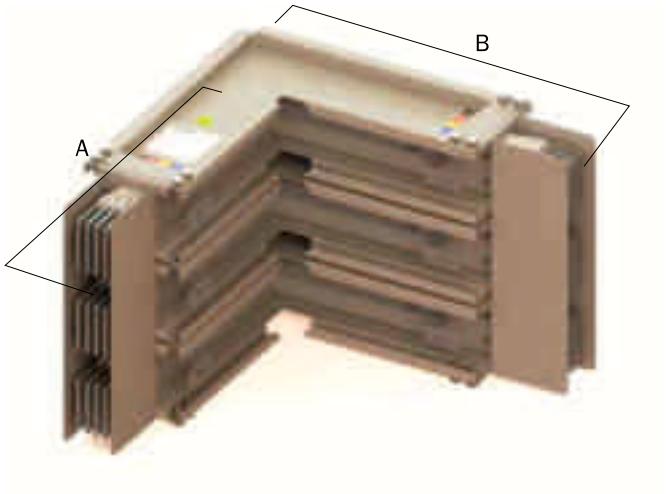
Edgewise elbow

Used for 90° turn in the bus duct routing. Options of edgewise left elbow or edgewise right elbow are custom built depending on project requirement

STANDARD SIZE (MM)	
A	350
B	350

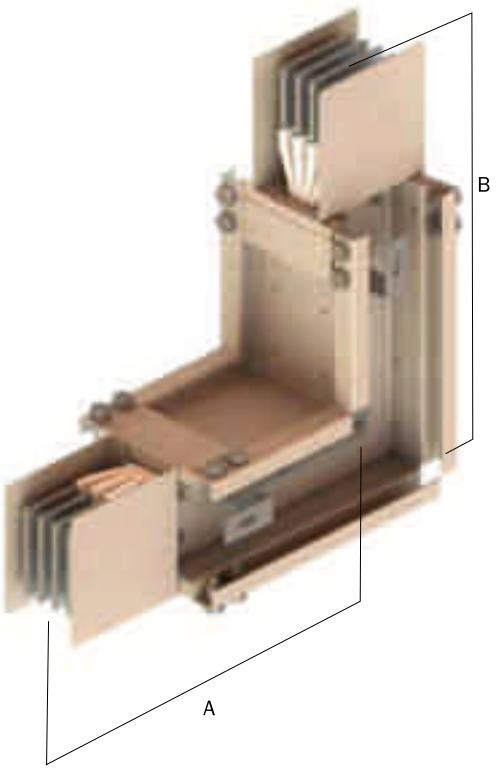


MIN & MAX ARM DIMENSIONS (MM)				
STACK	**A**		**B**	
	MIN	**MAX**	**MIN**	**MAX**
SS	300	600	300	600
DS	300	600	300	600
TS	300	600	300	600



NOTE

S.S. - SINGLE STACK
D.S. - DOUBLE STACK
T.S. - TRIPLE STACK



Flatwise elbow

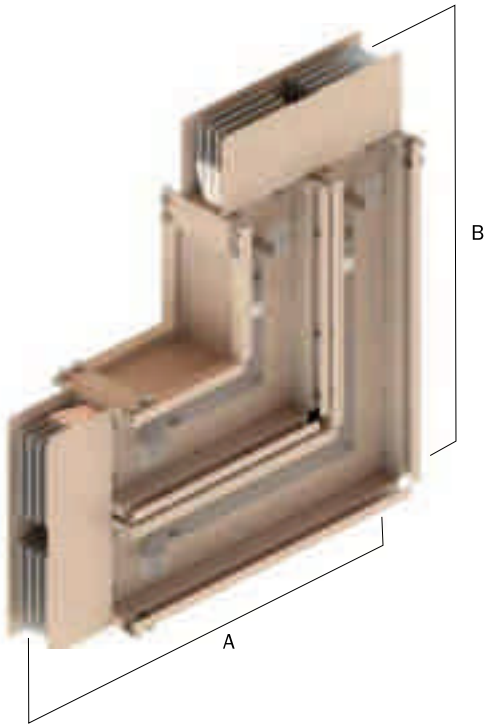
Used for 90° turn in the bus duct routing. Options of flatwise up elbow or flatwise down elbow are custom built depending on project requirement.

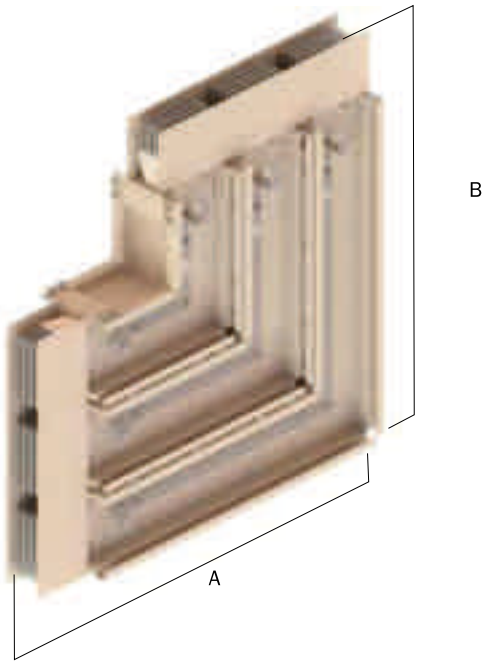
STANDARD SIZE (MM)

STACK	A	B
SS	350	350
DS	500	500
TS	600	600

MIN & MAX ARM DIMENSIONS (MM)

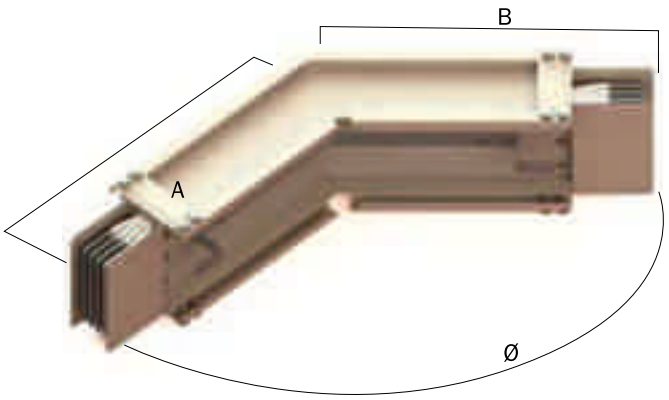
STACK	A		B	
	MIN	MAX	MIN	MAX
SS	300	600	300	600
DS	500	600	500	600
TS	600	600	600	600





Custom angled elbow

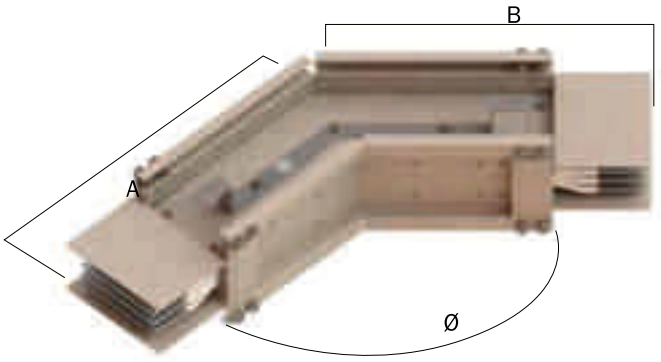
Special angle elbows can be manufactured in both edgewise and flatwise types.



CUSTOM ANGLED EDGEWISE ELBOW

STANDARD SIZE (MM)	
A	350
B	350
Ø	100 ~ 170

MIN & MAX ARM SIZES (MM)	MIN	MAX
A	300	600
B	300	600
Ø	100	170



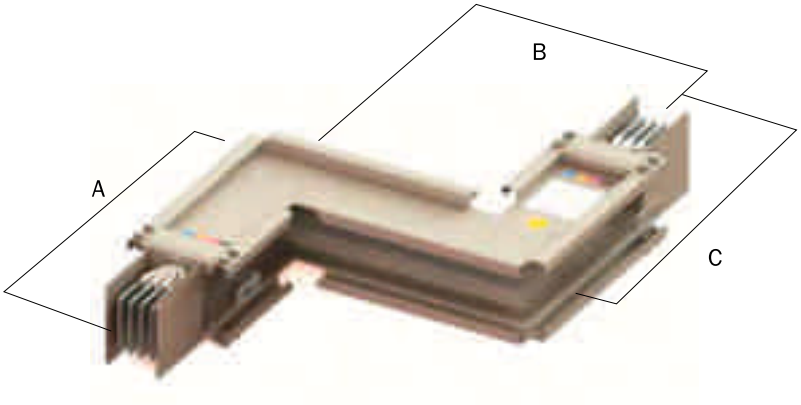
CUSTOM ANGLED FLATWISE ELBOW

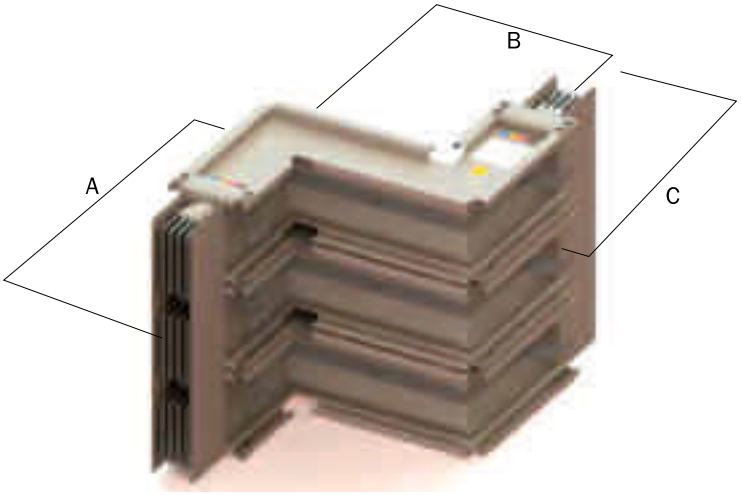
STANDARD SIZE (MM)	A	B
SS	350	350
DS	500	500
TS	600	600
Ø	100 ~ 170	

MIN & MAX ARM DIMENSIONS (MM)				
STACK	**A**		**B**	
	MIN	**MAX**	**MIN**	**MAX**
SS	300	600	300	600
DS	500	600	500	600
TS	600	600	600	600

Edgewise offset elbow

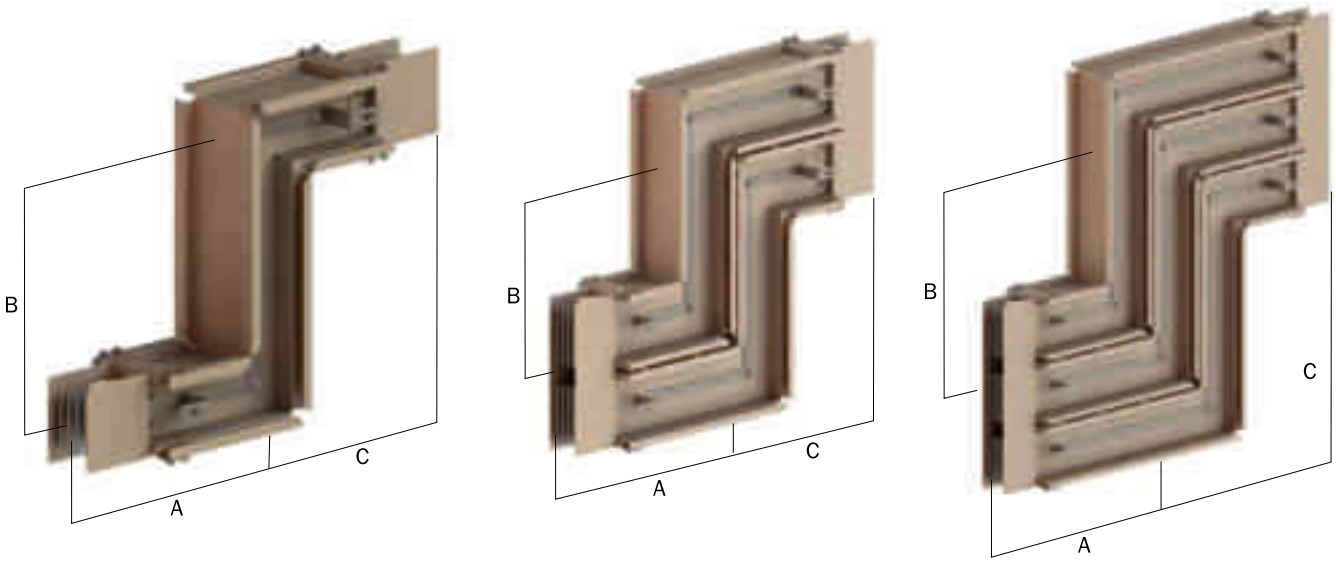
Combination of two edgewise elbows into one single element.





MIN & MAX ARM DIMENSIONS (MM)

STACK	A		B		C	
	MIN	MAX	MIN	MAX	MIN	MAX
SS	300	600	300	600	300	600
DS	500	600	500	600	300	600
TS	600	600	600	600	300	600

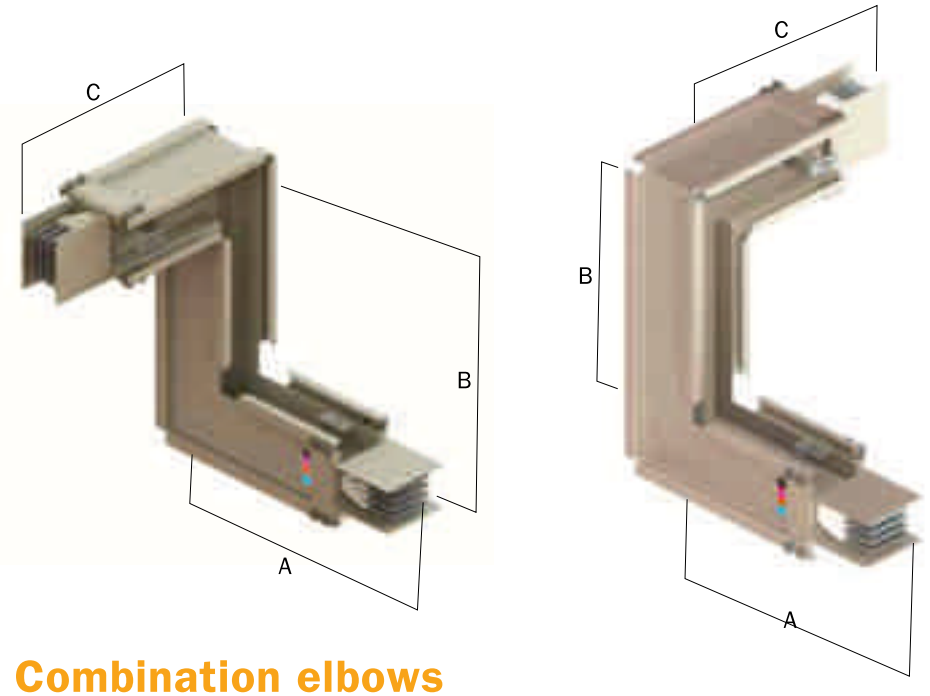


Flatwise offset elbow

Combination of two flatwise elbows into one single element.

STANDARD SIZE (MM)			
STACK	**A**	**B**	**C**
SS	350	350	350
DS	600	500	600
TS	600	650	600

MIN & MAX ARM DIMENSIONS (MM)						
STACK	**A**		**B**		**C**	
	MIN	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**
SS	300	600	300	600	300	600
DS	550	600	500	650	550	600
TS	600	600	600	650	600	600

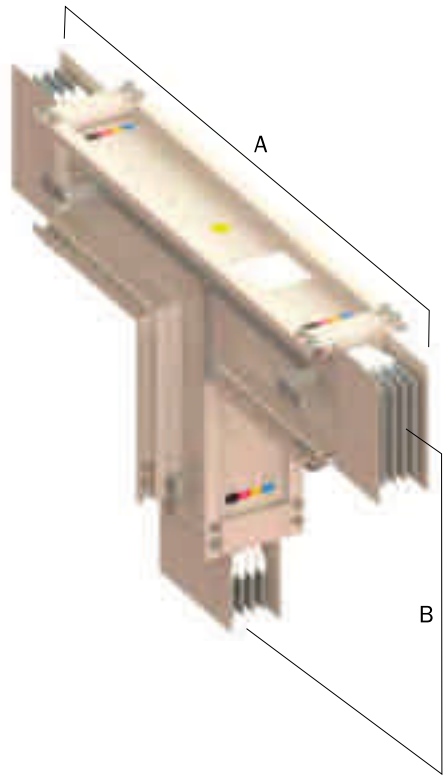


Combination elbows

Combination elbows are formed by combining edgewise and flatwise elbows to form one element to suit routing requirements.

STANDARD SIZE (MM)	
A	350
B	350
C	350

MIN & MAX ARM DIMENSIONS (MM)						
STACK	**A**		**B**		**C**	
	MIN	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**
SS	300	600	350	600	300	600
DS	300	600	450	600	450	600
TS	300	600	600	600	600	600

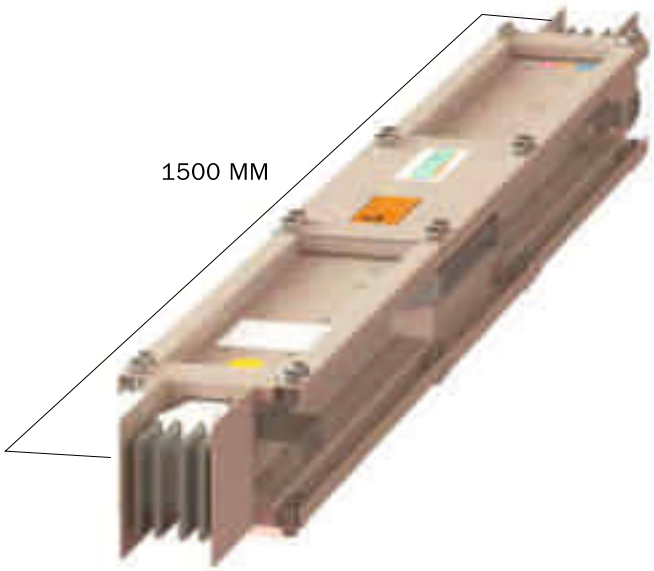


Flatwise tee

Flatwise tee element is required when a branch has to be extended in a direction perpendicular to the existing feeder run.

STANDARD SIZE (MM)	
A	800
B	400

MAX & MIN ARM SIZES (MM)		
	MIN	**MAX**
A	800	1000
B	400	500

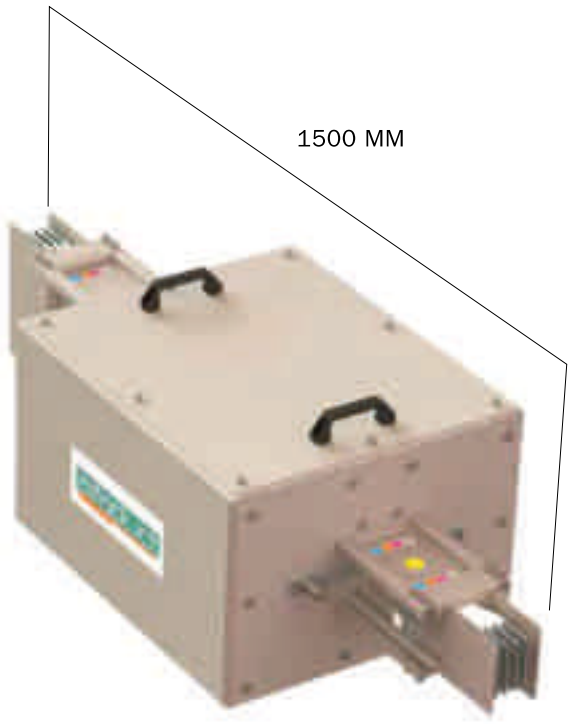


Phase cross over unit

Phase cross over units are used to change the phase orientation as required.

Expansion unit

Expansion units are used at building expansion joints. Recommended at every 40m interval of a long single horizontal run bus duct.



Reducer unit

Reducer units are used whenever a reduction in Ampere rating of bus duct is required along the bus duct routing.

End feed unit

End feed units transfer power from cables at one end to bus ducts at the other end. End feed units come with options of direct type (w/o isolator) or with isolator / switchgear and custom built accessories

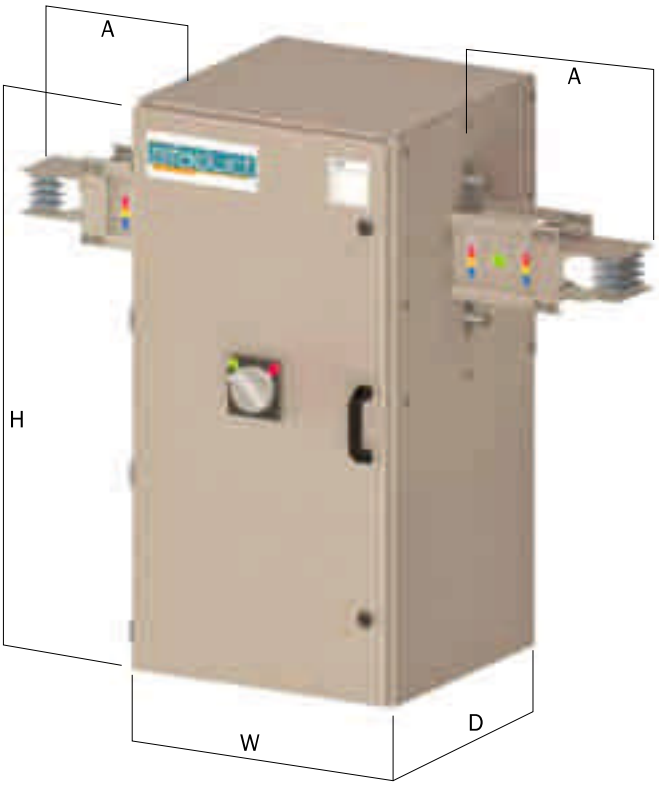
WITH ISOLATOR TYPE

DIRECT TYPE (WITHOUT ISOLATOR)

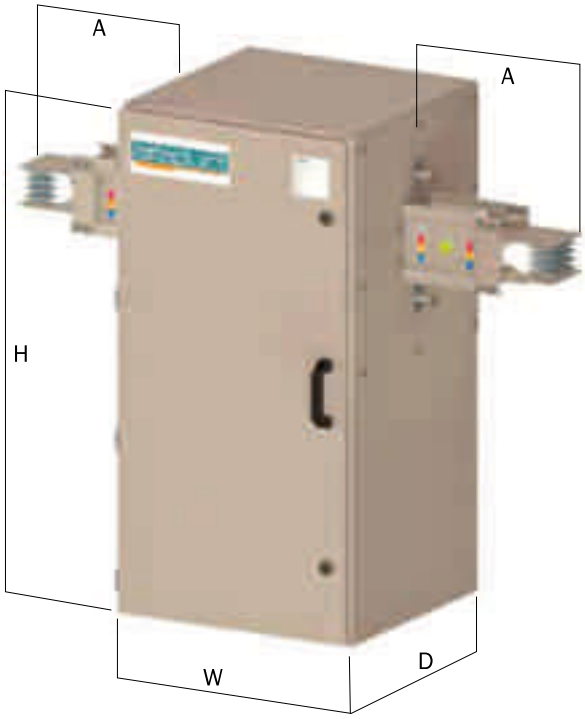
DIMENSIONS (MM)					
RATING	A		D	W	H
AMP	MIN	MAX			
400	350	500	350	400	800
630	350	500	400	400	800
800	350	500	400	400	800
1000	350	500	450	450	800
1250	350	500	500	500	1000
1600	350	500	500	500	1000

Center feed unit

Center feed units transfer power from cables at one end to bus ducts at both sides. Center feed unit comes with options of direct (w/o isolator) or with isolator / switchgear and custom built accessories



WITH ISOLATOR TYPE

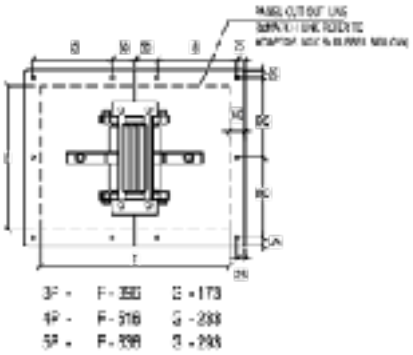


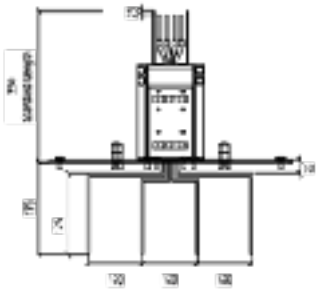
DIRECT TYPE (WITHOUT ISOLATOR)

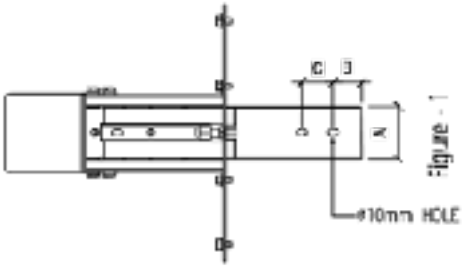
DIMENSIONS (MM)					
RATING	A		D	W	H
AMP	MIN	MAX			
400	350	600	350	350	850
630	350	600	350	400	850
800	350	600	350	400	850
1000	350	600	400	400	1000
1250	350	600	400	450	1000
1600	350	600	500	500	1000

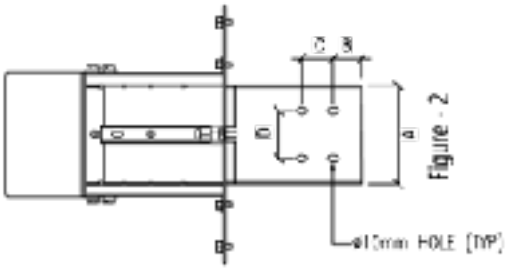
Panel flange single stack

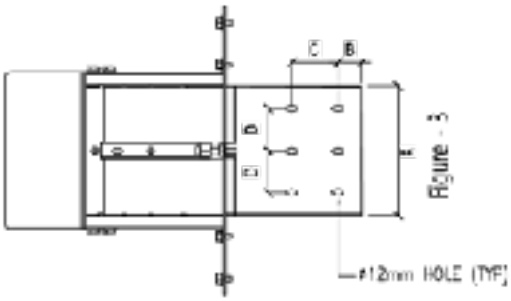
Panel Flanges are used for direct connection with Switchgear panels & Transformers.





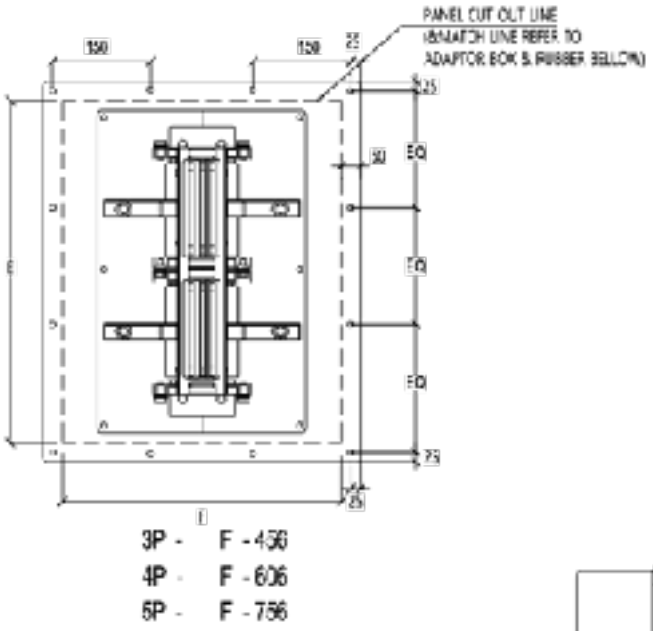


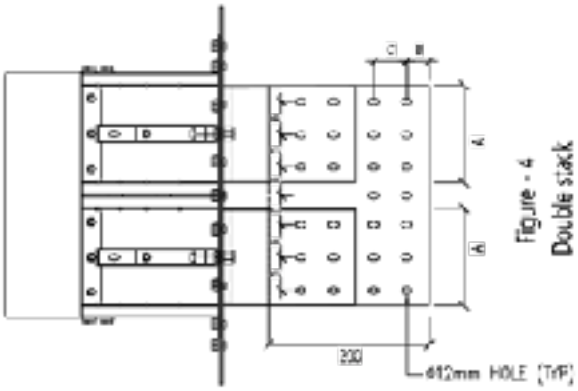


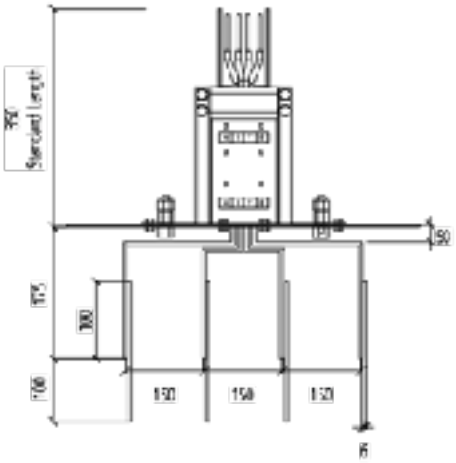


ALUMINUM CONDUCTOR							COPPER CONDUCTOR					
RATING AMP	FIG	A	B	C	D	E	FIG	A	B	C	D	E
400	1	40	13.5	23	-	180	-	-	-	-	-	-
630	1	60	13.5	23	-	200	1	40	13.5	23	-	180
800	2	80	13.5	23	25	220	2	50	13.5	23	25	200
1000	2	100	13.5	23	40	240	2	70	13.5	23	40	220
1250	2	125	15	40	50	265	2	90	15	40	50	240
1600	3	175	25	50	40	315	3	125	25	50	40	265
2000	3	200	25	50	50	340	3	150	25	50	50	290
2500	-	-	-	-	-	-	3	200	25	50	50	340

*ALL DIMENSIONS IN MM







Panel flange double stack

ALUMINUM CONDUCTOR							COPPER CONDUCTOR					
RATING AMP	FIG	A	B	C	D	E	FIG	A	B	C	D	E
2500	4	150	25	50	50	673	-	-	-	-	-	-
3200	4	175	25	50	40	723	4	125	25	50	40	623
4000	4	200	25	50	50	773	4	150	25	50	50	673
5000	-	-	-	-	-	-	4	200	25	50	50	773

*ALL DIMENSIONS IN MM

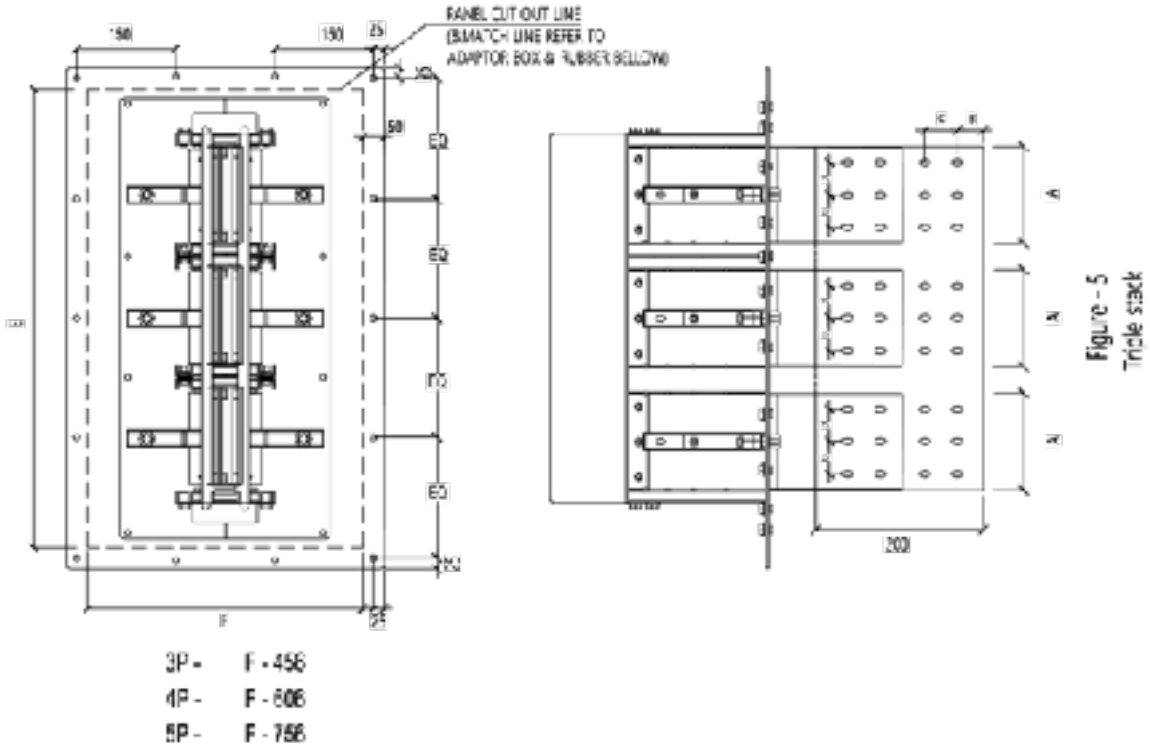
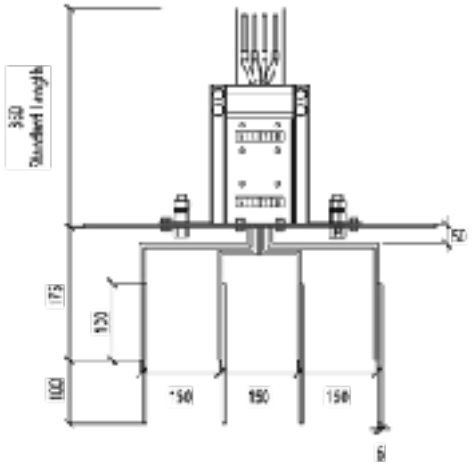


Figure - 5
Triple stack

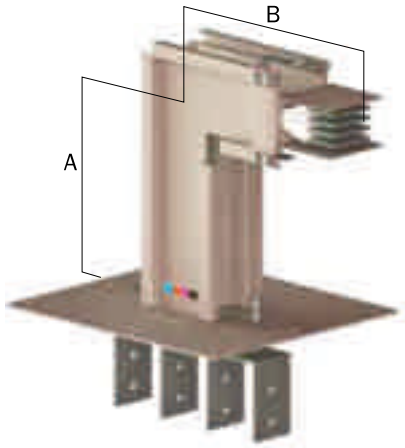


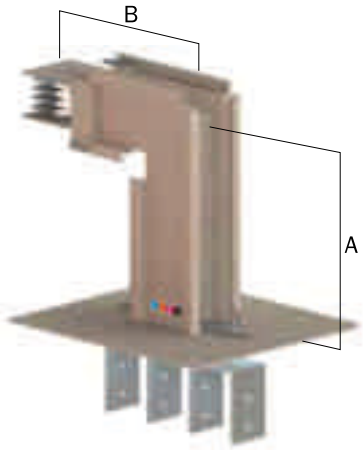
Panel flange triple stack

ALUMINUM CONDUCTOR							COPPER CONDUCTOR					
RATING AMP	FIG	A	B	C	D	E	FIG	A	B	C	D	E
5000	5	175	25	50	50	941	-	-	-	-	-	-

*ALL DIMENSIONS IN MM

Panel flange with edgewise elbow

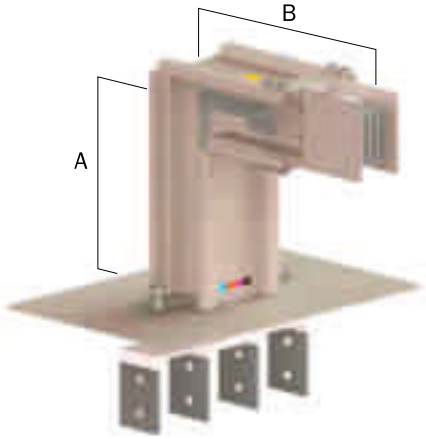


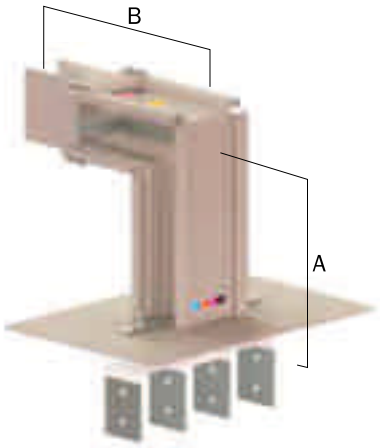


DIMENSIONS (MM)

STACK	STANDARD		MAX & MIN DIMENSIONS			
			A		B	
	A	B	MIN	MAX	MIN	MAX
SS	350	350	300	600	300	600
DS	350	350	300	600	300	600
TS	350	350	300	600	300	600

Panel flange with flatwise elbow

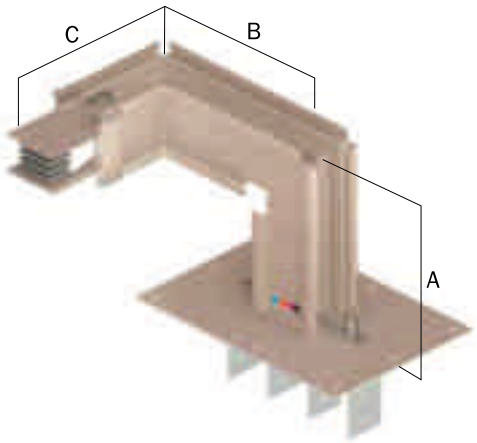


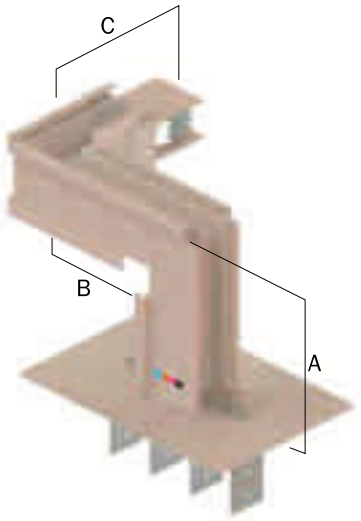


DIMENSIONS (MM)

STACK	STANDARD		MAX & MIN DIMENSIONS			
			A		B	
	A	B	MIN	MAX	MIN	MAX
SS	350	350	300	600	300	600
DS	500	500	500	600	500	600
TS	600	600	600	600	600	600

Panel flange with edge & flatwise elbow

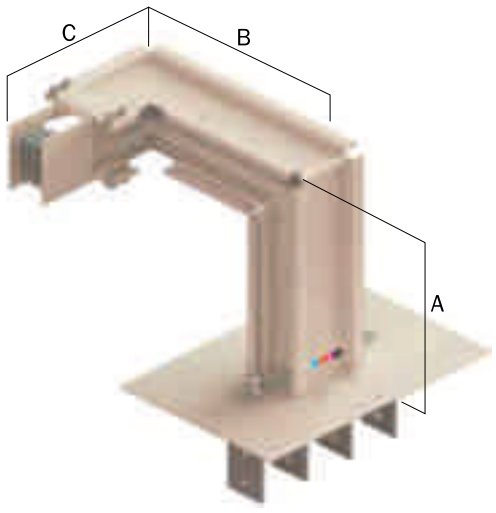


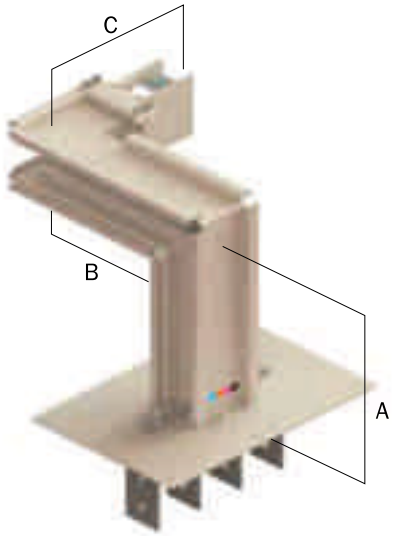


DIMENSIONS (MM)

STACK	STANDARD			MAX & MIN DIMENSIONS					
	A	B	C	A		B		C	
				MIN	MAX	MIN	MAX	MIN	MAX
SS	350	350	350	300	600	350	600	350	600
DS	350	500	500	300	600	450	600	450	600
TS	350	600	600	300	600	600	600	600	600

Panel flange with flat & flatwise elbow



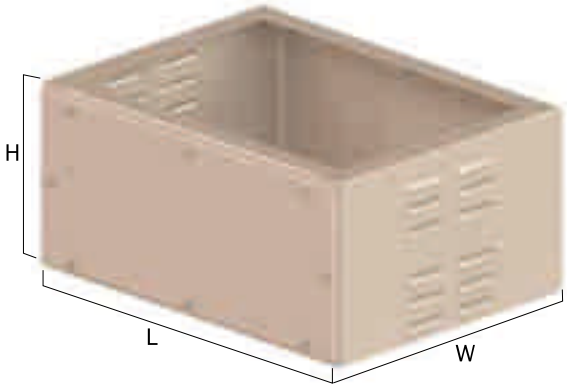


DIMENSIONS (MM)

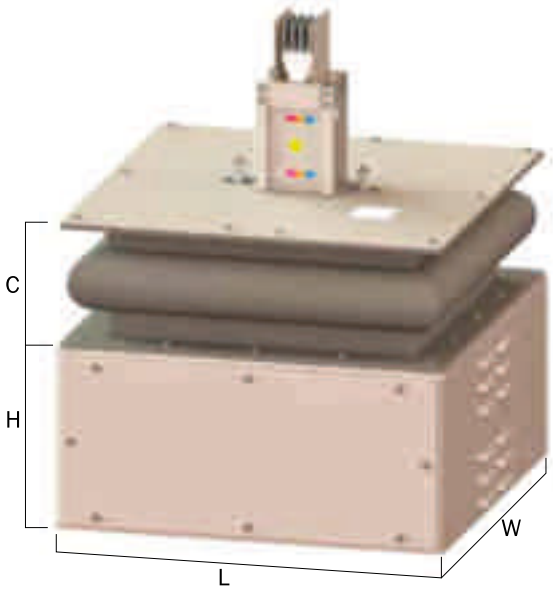
STACK	STANDARD			MAX & MIN DIMENSIONS					
	A	B	C	A		B		C	
				MIN	MAX	MIN	MAX	MIN	MAX
SS	350	350	350	300	600	300	600	300	600
DS	500	500	350	500	600	450	600	300	600
TS	600	600	350	600	600	600	600	300	600

Adapter box

Housing with removable panel to access connections between panel flange terminals and switchgear / transformer terminals

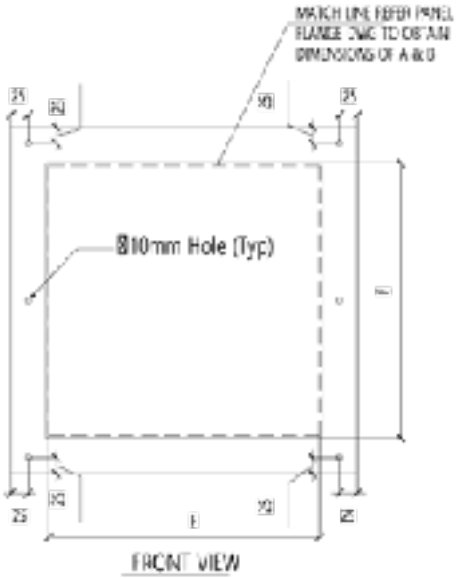


STANDARD DIMENSIONS (MM)			
L	**W**	**H**	
		MIN	**MAX**
Based on BBT Rating selected	Based on BBT Rating selected	300	400



Rubber bellow

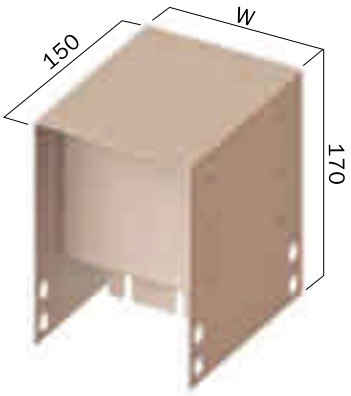
Required to be fixed between DG adapter box and end flange to avoid impact of vibration from gensets.



STANDARD DIMENSIONS (MM)			
L	**W**	**C**	
		MIN	**MAX**
Based on BBT Rating selected	Based on BBT Rating selected	100	150

End cap

Used to close the end of a bus duct route.



Flexible connector

Used to connect panel flange terminals to transformers, generators, switchgear terminals. Flexibles are available in both copper & aluminium

TYPE 1

TYPE 2

TYPE 3

Vertical spring hanger

One set of spring hanger must be fixed at every floor slab crossing on a rising main

Vertical rigid hanger

One set of rigid hanger must be fixed at center of every 3m vertical riser or one per floor.

Joint pack

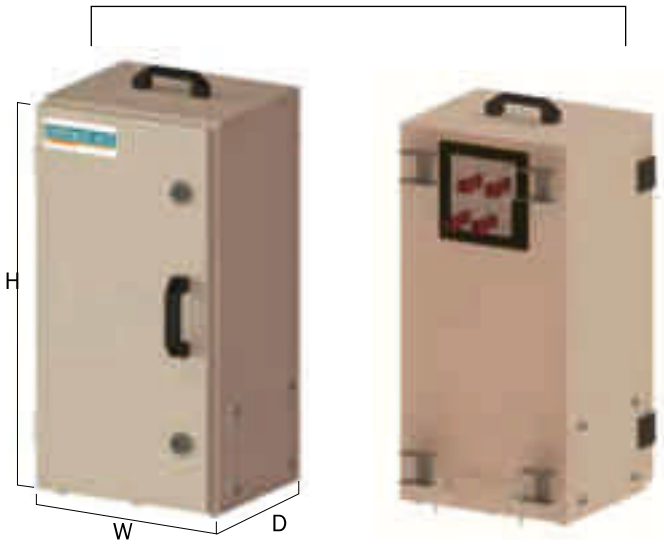
- Mono block design to facilitate assembly of joints in a single block without disturbing the adjacent sections
- Shear of nuts with belleville washers for proper torque and force distribution on the joints.
- A red indicator on shear off nut breaks off after acheiving the desired torque. A foolproof indication to ensure that joints are tightned to desired torque.
- Temperature rise indication stickers for easy identification of hot spots.
- Imported contact grease for improved contact surface area.
- Aluminum serrated profile for improved heat dissipation.

Tap off units

- Efficiently taps power from main bus trunking system
- Enclosure fabricated with 2.0 mm galvanized steel and powder coated.
- Spring loaded silver plated plug-in contacts
- Mechanical & electrical interlocking mechanism to prevent accidental opening of the door and prevent plug- out or plug-in to the bus trunking when the device is in 'ON' position.
- The live parts inside the tap off box are guarded by transparent visible panel which prevents accidental physical touch.

TYPE 1

TYPE 2,3,4



TYPE 5

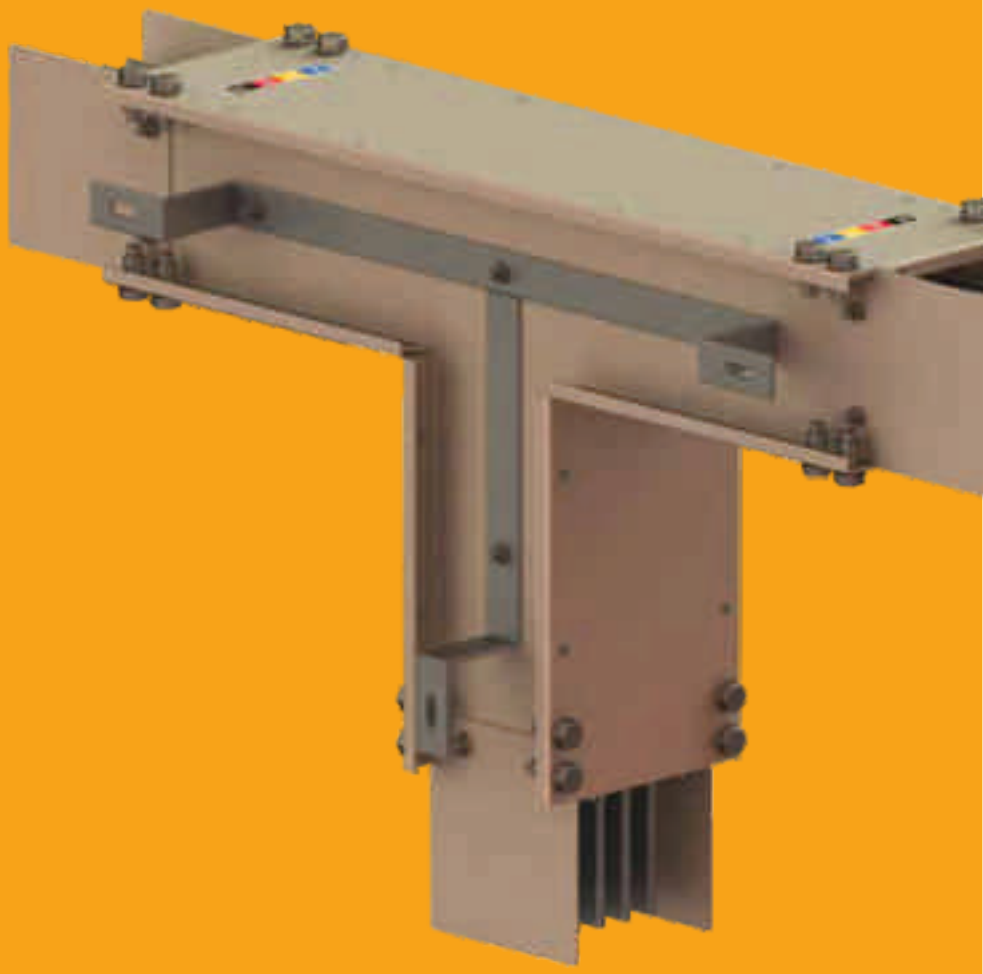
.S.NO	PARAMETER FOR 4 BAR	TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5
1	MCB / Fuse / Socket provision	16A - 63A	NA	NA	NA	NA
2	MCCB + rotary handle provision	NA	32A - 125A	160A - 200A	250A - 400A	630A
3	Box dimension (W x H x D) mm	200 X 300 125	250 X 500 220	250 X 550 250	300 X 600 250	270 400 X 900
4	Recommended CU cable size for max current 3 phase	25sq.mm	70sq.mm	120sq.mm	2RX150 sq.mm	2Rx300 sq.mm

NOTE: ABOVE BOX DIMENSIONS ARE FOR TERMINATION OF COPPER CABLE AS PER SIZES MENTIONED IN THE ABOVE TABLE.
CUSTOM BUILT ADAPTOR BOXES OF DIFFERENT SIZES CAN BE PROVIDED ON REQUEST

COMPACT AIR INSULATED BUS TRUNKING SYSTEMS

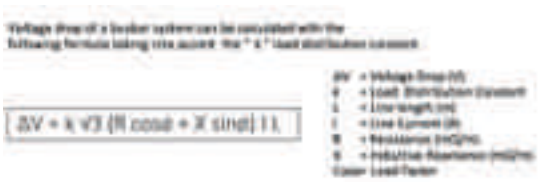
Ratings and Specifications

- Feeder bus duct
- Distribution bus duct
- Edgewise Elbow
- Flatwise Elbow
- Edgewise Offset Elbow
- Flatwise Offset Elbow
- Combination Elbow
- Flatwise Tee
- Phase cross over unit
- Expansion unit
- Reducer unit
- End feed unit
- Center feed unit
- Panel flange
- Panel flange with edgewise elbow
- Panel flange with flatwise elbow
- Adaptor box
- Rubber below
- End cap
- Flexible connector
- Vertical spring hanger
- Vertical rigid hanger
- Horizontal bracket (support)
- Joint pack
- Tap off unit



TECHNICAL DATA TABLE - AIR INSULATED COPPER									
CURRENT RATING									
RATING	315A	400A	500A	630A	800A	1000A	1250A	1600A	2000A
Product Code	ADAC031	ADAC040	ADAC050	ADAC063	ADAC080	ADAC100	ADAC125	ADAC160	ADAC200
Rated Insulation Voltage (Ui)	1000 V, AC								
Rated Operational Voltage (Ue)	Upto 1000 V, AC								
Rated Dielectric Voltage	3.5 KV rms for 60 Secs.								
Rated Impulse Withstand Voltage	12 KV, AC								
Rated Frequency	50/60 Hz								
Housing Material	1.6 / 2.0 mm GI Housing with Epoxy polyester powder coated (RAL 7032)								
RATED SHORT TIME WITHSTAND CURRENT									
1 Second (KA)	20	30	35	50	50	50	58	65	65
Peak Value (KA)	38	58	70	105	105	105	120	130	130
CONDUCTOR DIMENSION & CONFIGURATION									
CONDUCTOR C.S.A (mm²) COPPER (PHASE)									
Bus bar Dimension (mm)	20 x 6	30 x 6	40 x 6	50 x 6	70 x 6	80 x 6	50 x 6 (2)	70 x 6 (2)	80 x 6 (2)
Cross Sectional Area (sq mm)	120	180	240	300	420	480	600	840	960
Height (mm)	55	65	75	85	105	115	176	216	236
No. of stack	Single						Double		
IP Rating	IP 54 / IP 55 / IP 65*								
APPROXIMATE WEIGHT OF BUS TRUNKING (Kg / Mtr)									
3 Phase + Integral Earth	10	12	13	15	19	23	30	38	46
3 Phase + 50% Internal Earth	11	13	16	18	22	26	36	44	52
3 Phase + 100% Neutral + Integral Earth	13	15	18	20	25	30	40	50	60
3 Phase + 100% Neutral + 50% Internal Earth	14	17	20	23	28	34	46	56	68
3 Phase + 200% Neutral + Integral Earth	16	19	22	25	32	38	50	64	76
3 Phase + 200% Neutral + 50% Integral Earth	18	21	24	28	35	42	56	70	84
3 Phase + 100% neutral + 100% Isolated Earth	16	19	22	25	32	38	50	64	76
ELECTRICAL PARAMETERS @50 HZ									
RESISTANCE (mΩ/Mtr)									
AC Resistance @ 20 C (R)	0.1401	0.0937	0.0703	0.0604	0.0406	0.0356	0.0302	0.0203	0.0178
AC Resistance @ operating conditions (95 Deg C)	0.1814	0.1213	0.0911	0.0782	0.0525	0.0461	0.0391	0.0263	0.0230
REACTANCE (mΩ/Mtr)									
Reactance (X)	0.0650	0.0575	0.0460	0.0350	0.0260	0.0240	0.0175	0.0130	0.0120
IMPEDANCE (mΩ/Mtr)									
Impedance (Z)	0.1927	0.1342	0.1020	0.0857	0.0586	0.0520	0.0428	0.0293	0.0260
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/A 40 Deg Amb)									
Voltage drop @ 0.7 PF	0.3003	0.2182	0.1673	0.1381	0.0959	0.0854	0.0691	0.0479	0.0428
Voltage drop @ 0.8 PF	0.3189	0.2278	0.1740	0.1447	0.0998	0.0888	0.0723	0.0499	0.0444
Voltage drop @ 0.9 PF	0.3317	0.2326	0.1767	0.1484	0.1015	0.0900	0.0741	0.0507	0.0449
Voltage drop @ 1.0 PF	0.3141	0.2100	0.1577	0.1354	0.0910	0.0798	0.0677	0.0455	0.0399
ELECTRICAL PARAMETERS @60 HZ									
RESISTANCE (mΩ/Mtr)									
AC Resistance @ 20 C (R)	0.1402	0.0938	0.0705	0.0606	0.0407	0.0357	0.0303	0.0203	0.0179
AC Resistance @ operating conditions (95 Deg C)	0.1816	0.1214	0.0912	0.0785	0.0527	0.0463	0.0392	0.0263	0.0231
REACTANCE (mΩ/Mtr)									
Reactance (X)	0.0650	0.0575	0.0460	0.0350	0.0260	0.0240	0.0175	0.0130	0.0120
IMPEDANCE (mΩ/Mtr)									
Impedance (Z)	0.1928	0.1343	0.1022	0.0859	0.0587	0.0521	0.0429	0.0294	0.0261
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/40 Deg Amb)									
Voltage drop @ 0.7 PF	0.3005	0.2184	0.1676	0.1384	0.0961	0.0858	0.0693	0.0480	0.0429
Voltage drop @ 0.8 PF	0.3191	0.2280	0.1742	0.1451	0.1000	0.0890	0.0725	0.0500	0.0445
Voltage drop @ 0.9 PF	0.3320	0.2328	0.1769	0.1488	0.1017	0.0902	0.0743	0.0509	0.0450
Voltage drop @ 1.0 PF	0.3144	0.2103	0.1580	0.1360	0.0912	0.0801	0.0679	0.0456	0.0401

* Due to complexity of site installation, which is beyond the control of manufacturing plant, manufacturer recommend canopy on IP 54/55 to achieve IP65 for outdoor.



TECHNICAL DATA TABLE - AIR INSULATED ALUMINIUM									
CURRENT RATING									
RATING	200A	250A	315A	400A	500A	630A	800A	1000A	1250A
Product Code	ADAA020	ADAA025	ADAA031	ADAA040	ADAA050	ADAA063	ADAA080	ADAA100	ADAA125
Rated Insulation Voltage (Ui)	1000 V, AC								
Rated Operational Voltage (Ue)	Upto 1000V, AC								
Rated Dielectric Voltage	3.5 KV rms for 60 secs.								
Rated Impulse Withstand Voltage	12 KV, AC								
Rated Frequency	50/60 Hz								
Housing Material	1.6 / 2.0 mm GI Housing with Epoxy polyester powder coated (RAL 7032)								
RATED SHORT TIME WITHSTAND CURRENT									
1 Second (KA)	10	15	25	30	35	50	50	50	50
Peak Value (KA)	18	30	50	62	75	100	100	100	100
CONDUCTOR DIMENSION & CONFIGURATION									
CONDUCTOR C.S.A (mm²) ALUMINIUM (PER PHASE)									
Bus bar Dimension (mm)	20 x 6	30 x 6	40 x 6	50 x 6	70 x 6	80 x 6	50 x 6 (2)	70 x 6 (2)	80 x 6 (2)
Cross Sectional Area (sq mm)	120	180	240	300	420	480	600	840	960
Height	55	65	75	85	105	115	176	216	236
No. of stack	Single						Double		
IP Rating	IP 54 / IP 55 / IP 65*								
APPROXIMATE WEIGHT OF BUS TRUNKING (Kg / Mtr)									
3 Phase + Integral Earth	7	8	9	10	11	13	20	22	26
3 Phase + 50% Internal Earth	9	10	10	11	13	15	22	26	30
3 Phase + 100% Neutral + Integral Earth	10	11	12	13	15	17	26	30	34
3 Phase + 100% Neutral + 50% Internal Earth	11	12	13	15	17	19	30	34	38
3 Phase + 200% Neutral + Integral Earth	12	14	15	16	19	21	32	38	42
3 Phase + 200% Neutral + 50% Internal Earth	14	15	16	18	21	23	36	42	46
3 Phase + 100% neutral + 100% Isolated Earth	12	14	15	16	19	21	32	38	42
ELECTRICAL PARAMETERS @50 HZ									
RESISTANCE (mΩ/Mtr)									
AC Resistance @ 20 C (R)	0.2613	0.1744	0.1309	0.1048	0.0750	0.0658	0.0524	0.0375	0.0329
AC Resistance @ operating conditions (95 Deg C)	0.3342	0.2218	0.1665	0.1334	0.0955	0.0837	0.0667	0.0477	0.0418
REACTANCE (mΩ/Mtr)									
Reactance (X)	0.0650	0.0575	0.0460	0.0350	0.0260	0.0240	0.0175	0.0130	0.0120
IMPEDANCE (mΩ/Mtr)									
Impedance (Z)	0.3387	0.2292	0.1727	0.1379	0.0990	0.0870	0.0689	0.0495	0.0435
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/A 40 Deg Amb)									
Voltage drop @ 0.7 P.F	0.4834	0.3401	0.2589	0.2050	0.1479	0.1311	0.1025	0.0740	0.0656
Voltage drop @ 0.8 P.F	0.5281	0.3672	0.2785	0.2211	0.1593	0.1408	0.1106	0.0797	0.0704
Voltage drop @ 0.9 P.F	0.5672	0.3892	0.2942	0.2345	0.1684	0.1486	0.1171	0.0843	0.0743
Voltage drop @ 1.0 P.F	0.5758	0.3842	0.2884	0.2310	0.1654	0.1449	0.1155	0.0827	0.0724
ELECTRICAL PARAMETERS @60 HZ									
RESISTANCE (mΩ/Mtr)									
AC Resistance @ 20° C (R)	0.2614	0.1745	0.1310	0.1050	0.0752	0.0659	0.0525	0.0376	0.0329
AC Resistance @ operating conditions (95 Deg C)	0.3326	0.2221	0.1667	0.1337	0.0957	0.0838	0.0688	0.0478	0.0419
REACTANCE (mΩ/Mtr)									
Reactance (X)	0.0650	0.0575	0.0460	0.0350	0.0260	0.0240	0.0175	0.0130	0.0120
IMPEDANCE (mΩ/Mtr)									
Impedance (Z)	0.3389	0.2294	0.1729	0.1381	0.0991	0.0872	0.0710	0.0496	0.0436
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/A 40 Deg Amb)									
Voltage drop @ 0.7 P.F	0.4835	0.3404	0.2591	0.2054	0.1483	0.1313	0.1027	0.0741	0.0657
Voltage drop @ 0.8 P.F	0.5284	0.3674	0.2788	0.2215	0.1596	0.1411	0.1108	0.0798	0.0705
Voltage drop @ 0.9 P.F	0.5674	0.3896	0.2946	0.2348	0.1687	0.1489	0.1173	0.0844	0.0743
Voltage drop @ 1.0 P.F	0.5761	0.3846	0.2887	0.2316	0.1657	0.1452	0.1157	0.0828	0.0726

*** Due to complexity of site installation, which is beyond the control of manufacturing plant, manufacturer recommend canopy on IP 54/55 to achieve IP65 for outdoor.**

Feeder bus duct

Feeder length can be manufactured up to maximum length of 3000 mm and minimum length of 500 mm.

BUSDUCT LENGTH (MM)		
	MIN	MAX
L	500	3000

BUSDUCT HEIGHT (MM)										
	RATING (A)	200	315	400	500	630	800	1000	1250	1600	2000
Single Stack	Al	65	75	85	95	105	125	-	-	-	-
	Cu	-	65	-	75	85	95	115	135	-	-
Double Stack	Al	-	-	-	-	-	-	196	236	-	-
	Cu	-	-	-	-	-	-	-	-	196	236

Joint pack

- Mono block design to facilitate assembly of joints without disturbing the adjacent sections
- Shear of nuts with belleville washers for proper torque and force distribution on the joints
- Temperature rise indication stickers for easy identification of hot spots
- Imported contact grease for improved contact surface area
- Aluminium serrated profile for improved heat dissipation

Horizontal bracket

Used for supporting horizontal run of bus duct

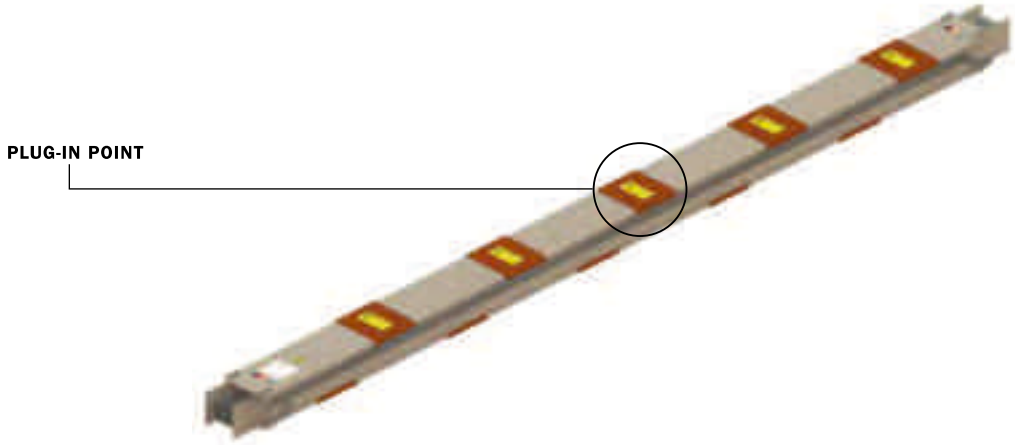
Distribution bus duct

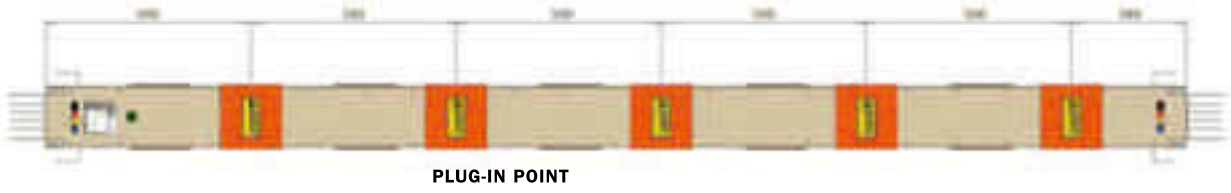
Feeder lengths with tap off slots are called distribution bus ducts. Supplied with maximum 5 plug-in points (PIP's) in a standard 3m Length on either side with Zig Zag arrangement. Distribution bus ducts can be run vertically or horizontally, or a combination of both. Rating, location and number of plug-in points can be decided based on the site requirement.

NOTE

Plug in point rating ranges from 32A to 800A.

PLUGIN FEEDER LENGTH (MM)		
	MIN	MAX
L	1200	3000





Edgewise elbow

Edgewise Left elbow or edgewise right elbow is used for a 90° turn in the Busduct route where busbar runs on its edge.

STANDARD SIZE (MM)	
A	350
B	350

MIN & MAX ARM DIMENSIONS (MM)

STACK	A		B	
	MIN	MAX	MIN	MAX
SS	300	600	300	600
DS	300	600	300	600

Flatwise elbow

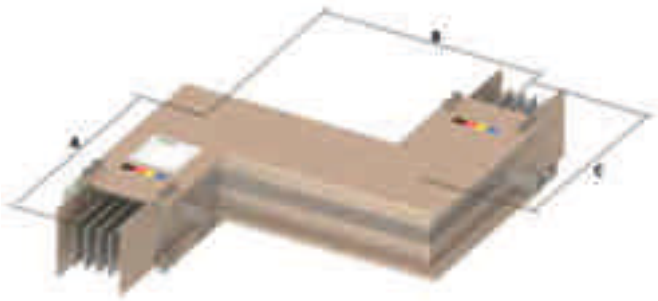
Flatwise left elbow or flatwise right elbow is used for a 90° turn in the Busduct route where busbar runs on its flat side.

STANDARD SIZE (MM)

STACK	A	B
SS	350	350
DS	500	500

MIN & MAX ARM DIMENSIONS (MM)

STACK	A		B	
	MIN	MAX	MIN	MAX
SS	300	600	300	600
DS	350	600	350	600



Edgewise offset elbow

Edgewise offset elbow is combination of two edgewise elbows into one single element.

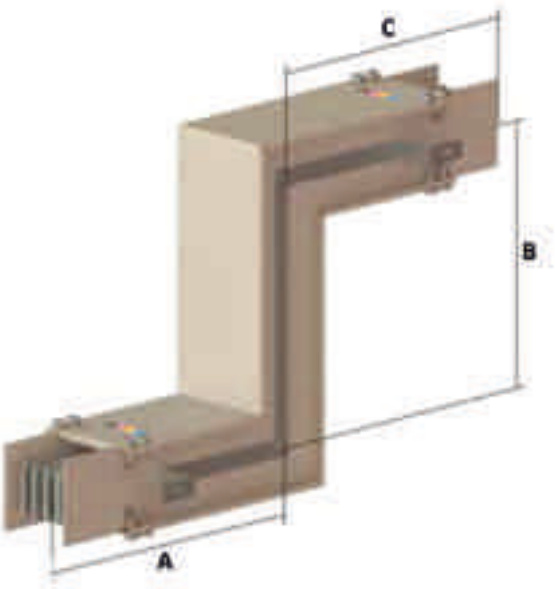
STANDARD SIZE (MM)	
A	350
B	500
C	600

MIN & MAX DIMENSIONS (MM)

STACK	A		B		C	
	MIN	MAX	MIN	MAX	MIN	MAX
SS	300	600	300	600	300	600
DS	300	600	300	600	300	600
TS	300	600	300	600	300	600

NOTE

S.S. - SINGLE STACK
D.S. - DOUBLE STACK
T.S. - TRIPLE STACK

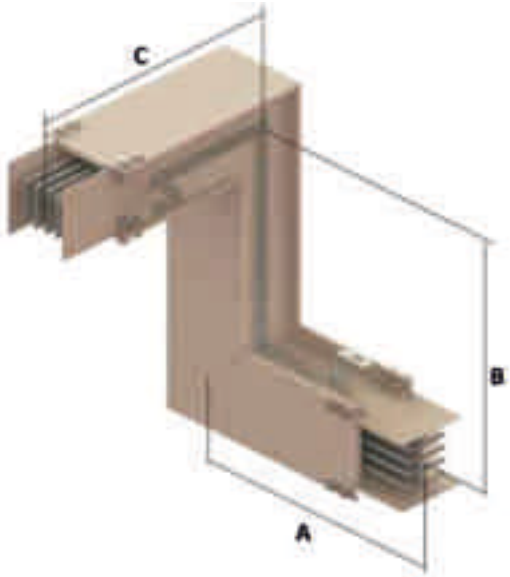


Flatwise offset elbow

Flatwise offset elbow is a combination of two flatwise elbows into one single element.

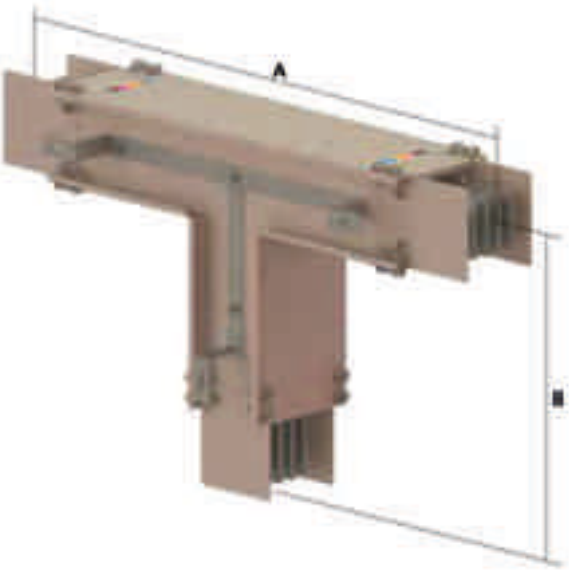
STANDARD SIZE (MM)			
STACK	**A**	**B**	**C**
SS	350	350	350
DS	400	350	400

MIN & MAX ARM DIMENSIONS (MM)						
STACK	**A**		**B**		**C**	
	MIN	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**
SS	300	600	300	600	300	600
DS	400	600	350	650	400	600



Combination elbows

Combination elbows are formed by combining edgewise and flatwise elbows in different combinations to form one element to suit routing requirements.



Flatwise tee

Flatwise tee element is required when a branch has to be extended in a direction perpendicular to the existing feeder run.

STANDARD SIZE (MM)	
A	800
B	400

MIN & MAX DIMENSIONS (MM)		
STACK	**MIN**	**MAX**
SS	800	1000
DS	400	500

FACTORIES

alfaduct
Busbar Trunking Systems

PRODUCTS COMPLIANT TO IEC 61439

ISO CERTIFIED

PRODUCTS CERTIFIED BY CPRI

MFG FACILITY IN GUJARAT

- Class F Insulation / 40 KV BDV
- Special profile AL side plates at joints
- Temperature rise indicators on joints
- Tinned fish plates
- Universal clamps for mounting TOB's
- Options of 1.6 / 2.0 mm GI painted encl
- Automated cyclic final testing station
- ERP driven processes from start to finish

SECTOR HIGHLIGHTS

- 24 Hrs operation
- Machinery additions post handover
- Upgrades /change in equipment loads
- Long service life
- Changes in factory layout
- Overhead trunking with plug in points
- Specific care for Welding application
- SITC requirement

SANDWICH & AIR INSULATED BUS BAR TRUNKING

SECTOR CREDENTIALS

COMMERCIAL

PRODUCTS COMPLIANT TO IEC 61439

ISO CERTIFIED

PRODUCTS CERTIFIED BY CPRI

MFG FACILITY IN GUJARAT

- Class F Insulation / 40 KV BDV
- Special profile AL side plates at joints
- Temperature rise indicators on joints
- Tinned fish plates
- Universal clamps for mounting TOB's
- Options of 1.6 / 2.0 mm GI painted encl
- Automated cyclic final testing station
- ERP driven processes from start to finish

SECTOR HIGHLIGHTS

- 24 Hrs operation
- Long service life
- Rising main with tap off units
- Transformer / DG / UPS routes
- SITC requirement

SANDWICH & AIR INSULATED BUS BAR TRUNKING

SECTOR CREDENTIALS

INSTITUTION GOVT BUILDINGS

alfaduct Busbar Trunking Systems

PRODUCTS COMPLIANT TO IEC 61439

ISO CERTIFIED

PRODUCTS CERTIFIED BY CPRI

MFG FACILITY IN GUJARAT

- Class F Insulation / 40 KV BDV
- Special profile AL side plates at joints
- Temperature rise indicators on joints
- Tinned fish plates
- Universal clamps for mounting TOB's
- Options of 1.6 / 2.0 mm GI painted encl
- Automated cyclic final testing station
- ERP driven processes from start to finish

SECTOR HIGHLIGHTS

- Long service life
- Rising Mains with tap off units
- Indoor and outdoor application
- Transformer / DG routes
- SITC requirement

SANDWICH & AIR INSULATED BUS BAR TRUNKING

SECTOR CREDENTIALS

alfaduct
Busbar Trunking Systems

PRODUCTS COMPLIANT TO IEC 61439

ISO CERTIFIED

PRODUCTS CERTIFIED BY CPRI

MFG FACILITY IN GUJARAT

- Class F Insulation / 40 KV BDV
- Special profile AL side plates at joints
- Temperature rise indicators on joints
- Tinned fish plates
- Universal clamps for mounting TOB's
- Options of 1.6 / 2.0 mm GI painted encl
- Automated cyclic final testing station
- ERP driven processes from start to finish

SECTOR HIGHLIGHTS

- 24 Hrs operation
- Long service life
- Bus duct and rising main with tap off units
- Transformer / DG routes
- SITC requirement

SANDWICH & AIR INSULATED BUS BAR TRUNKING

SECTOR CREDENTIALS

ARJ PROPERTIES
Radisson BLU
Hotel Southern Comfort
AISHWARYA MALL
R.E.D
THE AGORA MALL JUMEIRAH
Inorbit
mall of mysore
QUALITY INN SAFARI
VIRGINIA
GRT
VIVIRA MALL

PHARMA HEALTH CARE

alfaduct Busbar Trunking Systems

PRODUCTS COMPLIANT TO IEC 61439

ISO CERTIFIED

PRODUCTS CERTIFIED BY CPRI

MFG FACILITY IN GUJARAT

- Class F Insulation / 40 KV BDV
- Special profile AL side plates at joints
- Temperature rise indicators on joints
- Tinned fish plates
- Universal clamps for mounting TOB's
- Options of 1.6 / 2.0 mm GI painted encl
- Automated cyclic final testing station
- ERP driven processes from start to finish

SECTOR HIGHLIGHTS

- 24 Hrs operation
- Machinery additions post handover
- Upgrades /change in equipment loads
- Long service life
- Changes in factory layout
- Overhead trunking with plug in points
- Transformer / DG / Equipment loads
- SITC requirement

SANDWICH & AIR INSULATED BUS BAR TRUNKING

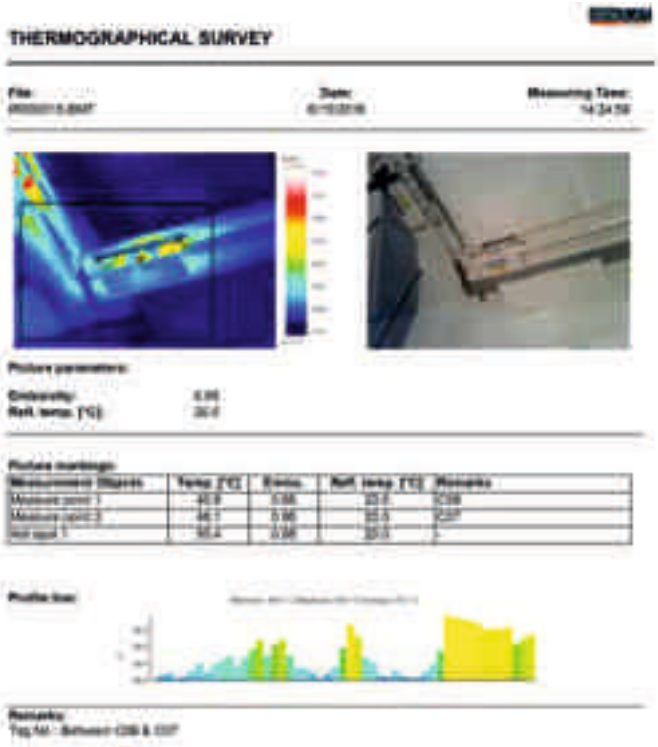
SECTOR CREDENTIALS

essilor · AMI ORGANICS LIMITED · CMC HealthCare · AARTI INDUSTRIES · natural REMEDIES · ANTHEA GROUP · AARTI PHARMALABS · LifeCell · HATSUN · Ansell · Gulbrandsen · MVR · SNHRC

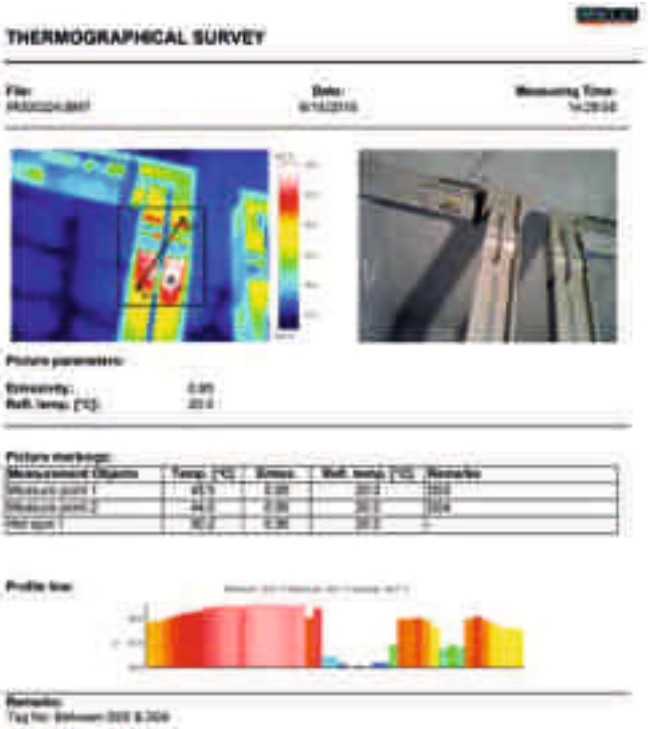
Thermographic survey

Thermographic survey can be conducted on the installed busducts to assess the surface temperature of the busbars and at joints. The survey can be conducted with all components in its normal operating conditions and electrical loads. A report will be submitted to customer consisting of thermographic images of joints with temperature profiles and readings in relation to the limits specified as per standard and recommendations for preventive maintenance

typical thermograpic survey report shown below:



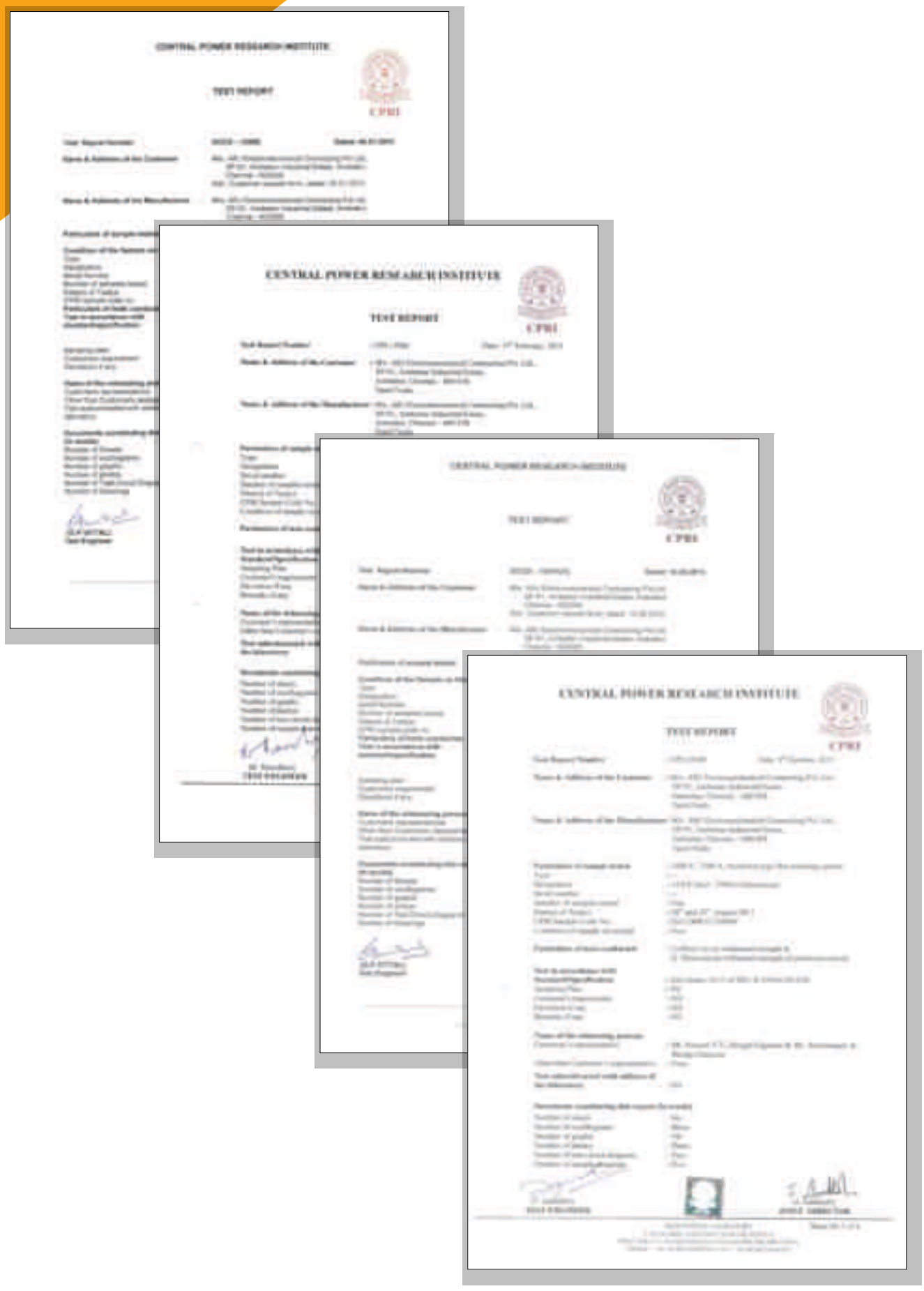
THERMOGRAPHICAL SURVEY



THERMOGRAPHICAL SURVEY

CERTIFICATES

CERTIFICATES



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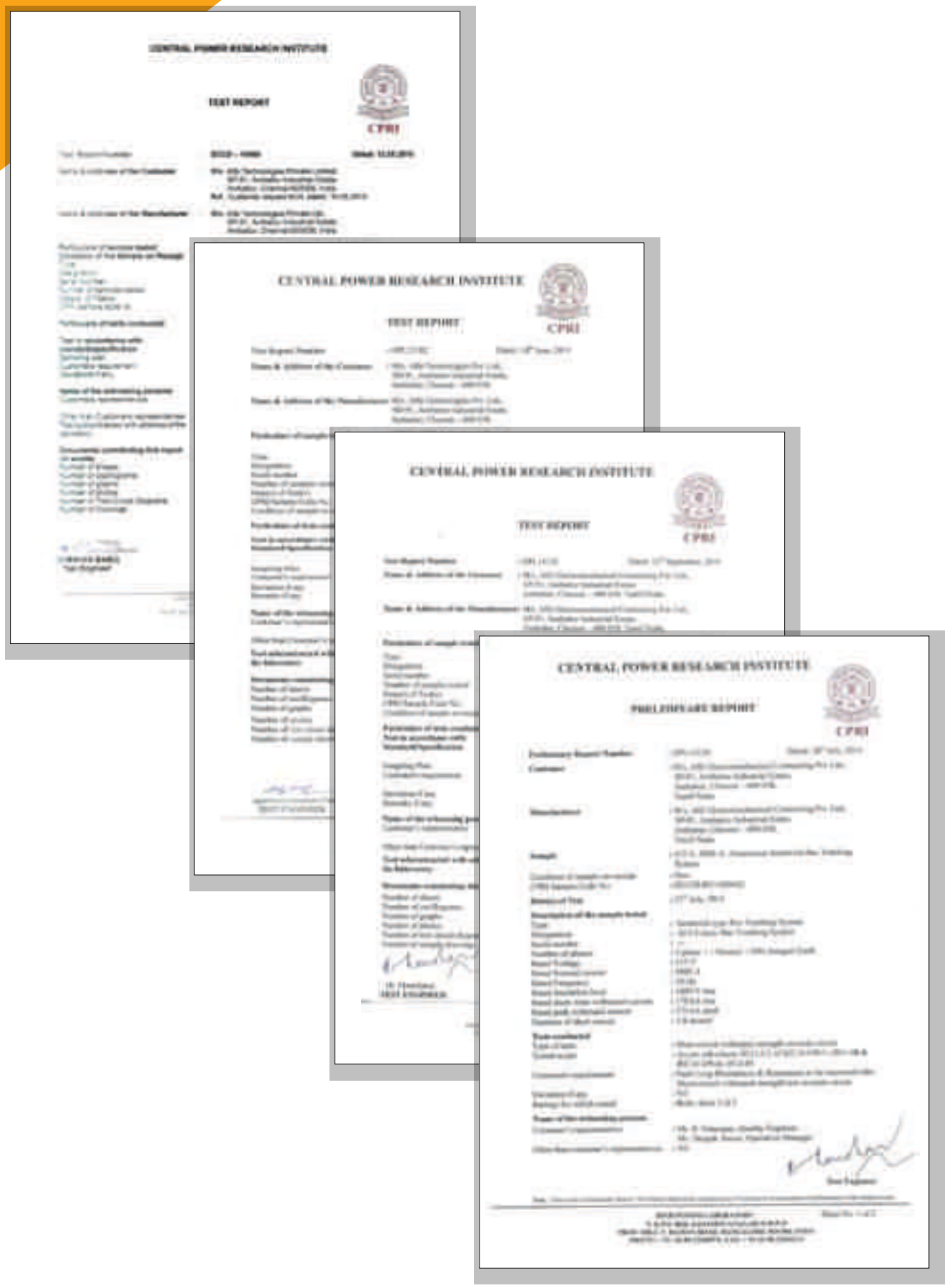


MANUFACTURING FACILITY

A well laid out manufacturing facility housing state-of-the-art machinery functioning with smart engineering commands and with modern production processes, gives ALFADUCT an advantageous edge for customized orders and quick deliveries.

OUR PARTNERS

CONSULTANTS

CLIENTS

UNIPRES		Radisson	
HAL Hindustan Aeronautics Limited	CBRE	ESI Hospitals	IGATE
JBM Group	MADURAI RAJAJI GOVT HOSPITALS	Arihant	asian SEALING PRODUCTS
	BILL FORGE Your Proactive Partner		AARTI INDUSTRIES LIMITED
PURAVANKARA	POTHYS Anlopam of Silks	Suja SHOEI スージャ・ショウエー	PV POWER TECH
SIDCO	GABRIEL	PWD	ShreepatiGroup
IDBI BANK	ILJIN	INDOSPACE	kishkinta
CHOZHA		MHE Mando-Hella Electronics Corp.	Travancore Medicity
GRT HOTELS & RESORTS	Hotel Southern Comfort	Reynolds	DMW

CONTRACTORS

VOLTAS LIMITED		RAI POWER	LeapFrog
KSIPL	HTI ENGINEERING PVT. LTD.	STERLING & WILSON	ETA ENGINEERING
AAPT INDIA			Crown Electricals
		MOA ENGINEERING PVT LTD	
		Ganesh Electricals	
meil	SV ELECTRICALS	PSK GROUP	RKM
		SABARI LEON ELECTRICALS Pvt.Ltd.	Shankar Electricals
SRPA	SPE	sterling	Hz
HI-TECH	Micron Electricals	EVR Electricals Pvt Ltd	SEC
	Gelcab	akash ENTERPRISES	D.S.K. ELECTRICALS

TESTIMONIALS

M/s Alfa Technologies Pvt. Ltd. have supplied the ALFADUCT 3200A Sandwich design busbar systems for our project of Hindustan Aeronautics Limited, Bangalore. We are very much satisfied with the product performance.

RAI INDUSTRIAL POWER PVT. LTD.

M/s ARJ Electromechanical Contracting Pvt. Ltd. have supplied ALFADUCT Sandwich Design Busbar Trunking of 4500A Aluminium conductor for our project M/s Aisin Automotive Karnataka Pvt. Ltd in Karnataka. The same has been successfully installed, tested and commissioned. We wish them success.

THE POWER ENGINEERING CO.

The ALFADUCT Sandwich Design Busbar Trunking for our IGate Global Solutions Centre in Bangalore has been successfully installed, tested and commissioned and we are very much satisfied with the supply of bus trunking, project execution and service support.

SHANKAR ELECTRICALS

The ALFADUCT Sandwich design busbar was supplied for our project of Tamil Nadu Secretariat at Chennai. We are very much satisfied with the product performance.

M/S P.S.K. ENGINEERING CONSTRUCTION & CO.

M/s Alfa Technologies Pvt. Ltd. have supplied ALFADUCT Sandwich bus duct of 1250A Aluminium conductor for our project M/s Mando Automotive, Chennai. The Busduct system is working successfully for the last two years. We wish them success.

ARJUNA ENGINEERING PVT. LTD.

We have checked the technical specification of products and we will start specifying the product name in our further projects.

D.R. BERLARE ELECTRICAL AND MEP CONSULTANT

This is to inform that M/s Alfa Technologies Pvt. Ltd. has supplied variable Ampere ratings Sandwich design busbar systems for our Project of Tamil Nadu Secretariat at Chennai. We have no hesitation in recommending ALFADUCT products for your suitable use. We also wish them success in their future endeavour.

OFFICE OF THE P.W.D.

PROJECTS

JBM, Sanand
India

Client: JBM Sanand
Type: Industrial

Purva Swanlake
India

Client: Puravankara
Type: Residential

Rippon Building Annexe
India

Client: PWD
Type: Government Building

SIDCO
India

Client: SIDCO
Type: Commercial

Mando Automotive
India

Client: Mando Automotive
Type: Industrial

Southern Railway
India

Client: Southern Railway
Type: Commercial

Radisson Hotel
India

Client: Radisson Hotel
Type: Hotel

Purva Gainz
India

Client: Puravankara
Type: Commercial

Aisin Automotive
India

Client: Aisin Automotive
Type: Industrial

I Gate
India

Client: I Gate
Type: IT Service

BSA University
India

Client: BSA University
Type: Educational Institution

Secretariat
India

Client: PWD
Type: Government Building

Motherplast
India

Client: Motherplast
Type: Industrial

RED Mall
India

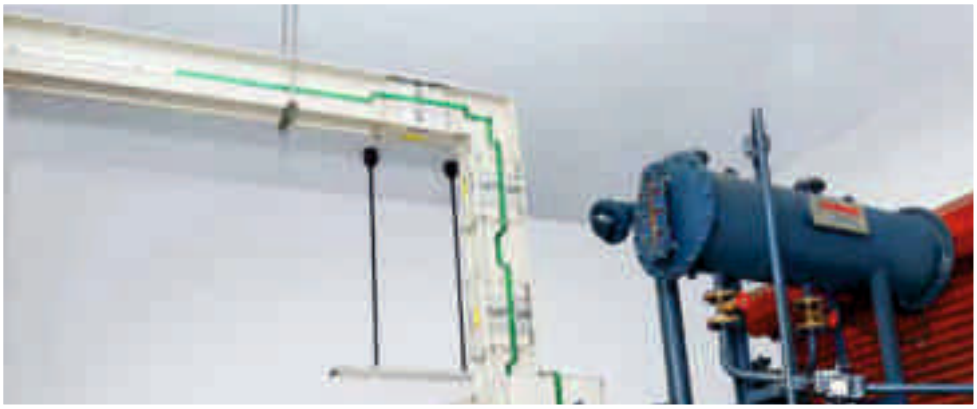
Client: RED Mall
Type: Shopping Centre

Tamarai Techpark
India

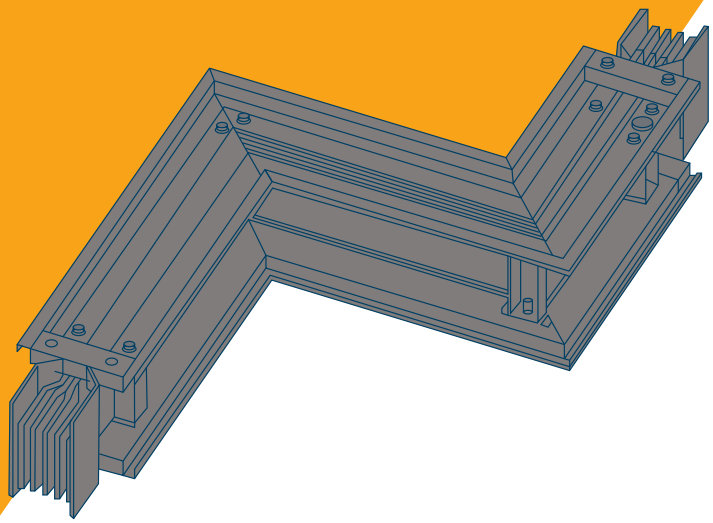
Client: Tamarai Techpark
Type: Commercial

PROJECTS DETAILS


SUB PANEL - 4



AFTER SALES & CLIENT SUPPORT



Committed to a continued alliance with our clients, our services extend beyond sales to address your queries and concerns. Our dedicated support team treats your queries with the highest priority and actions the prompt response required.

SALES/DESIGN
Our team provides technical expertise for any design, information or product-related query.

SERVICE CALL
In the event of non-engineered alterations or other unforeseen events that might require product maintenance, our team will reach you at the earliest to bring the system back to normal operations swiftly.

MODIFICATION CALL
There can be a need to alter or modify the Power Distribution System post installation due to changes in layout. Should you require such modifications, you can trust us to carry it out without much wastage of existing routes and with minimum operational interferences and downtime.

CLIENT SUPPORT

We realize that the application of Busbar Trunking product requires an integrated and coherent acceptance between consultant, contractor and manufacturer. That is why we have a dedicated Client Support team consisting of trained technical staff with a solid grip on product knowledge and a deep understanding of consultant and contractor requirements to formulate customized solutions focusing on the following factors:

Electrical load requirements
Nature of load
Suitability of the product
Site compatibility
Layout design
Cost factor
Flexibility

This offers our clients an integrated support system and helps them make quick and efficient decisions without having to go through several rounds of time-consuming meetings on technical and non-technical matters.

The application of Busbar Trunking product requires an integrated and coherent acceptance between consultant, contractor and manufacturer.

DISCLAIMER

The information contained within this catalog and the details are intended to provide information about products available from Alfa Technologies Pvt. Ltd.
All reasonable efforts have been made to esure the accuracy of the information.
However, Alfa Technologies Pvt. Ltd. does not warrant the accuracy and reserves the right to make changes to the products and its functions at any time without notice.

alfaduct
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