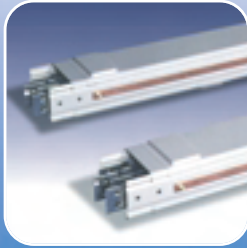
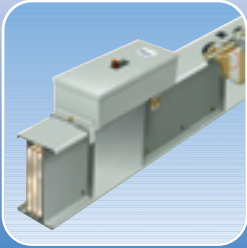


LSC BUS DUCT

LS Cable Bus Duct System



LSC Bus Duct SYSTEM

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 - 2.2.1 GROUNDING
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ASTA

CERTIFICATE OF SHORT-CIRCUIT RATING

Laboratory Ref. No: 2491.0885.5.450 Certificate No. 16035

APPARATUS: Two low-voltage three-phase indoor busbar trunking systems (2000 A and 4000 A)

DESIGNATION: 2000 A BUS DUCT
4000 A BUS DUCT

MANUFACTURER: LS Cable Ltd.
555, Hoggae-dong, Dongan-gu
Anyang-si, Gyeonggi-do, 431-831
Korea

TESTED BY: Institut „Prüfamt für elektrische Hochleistungstechnik“ GmbH
Landsberger Allee 375A
12681 Berlin, Germany

DATE(S) OF TESTS: 22 to 24 November 2005

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in this certificate has been subjected to the series of proving tests in accordance with:

IEC 60439-2: 2004-03, Sub-clauses 8.2.1, 8.2.2, 8.2.3 and 8.2.4.2

The results are shown in the record of Proving Tests and the oscillograms attached hereto. The values obtained and the general performance are considered to comply with the above Standard(s) and to justify the ratings assigned by the manufacturer as stated below.

For ratings assigned by the manufacturer and proved by test see Page 1.

the record of Proving Tests applies only to the apparatus tested. The responsibility for conformity of any apparatus having the same designations with that tested rests with the Manufacturer.

This Certificate comprises 49 pages, 6 diagrams, 18 oscillograms, 6 photographs, 7 drawings and no other sheets.

Only integral reproduction of this Certificate, or reproduction of this page accompanied by any printed or electronic means, is permitted without the written permission from ASTA SEAB Certification Services, Millen House, Corporation Street, Rugby, CV21 2RN United Kingdom.



R. Borchert
ASTA Observer
R. Borchert
C. M. ...
DIRECTOR
19th January 2006

Laboratory Reference No: 2491.0885.5.450

ASTA

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RATINGS ASSIGNED BY THE MANUFACTURER AND PROVED BY TEST:

Temperature-rise limits (Sub-clause 8.2.1)

Main busbar of the 2000 A BUS DUCT $3 \times 175 \times 6 \text{ mm}^2$: 2000 A
(Stranded copper HDK/C)

Main busbar of the 4000 A BUS DUCT $3 \times 2 \times 200 \times 6 \text{ mm}^2$: 4000 A
(Stranded copper HDK/C)

Dielectric properties (Sub-clause 8.2.2)

$U_1 = 690 \text{ V}$: Verified

$U_{max} = 6 \text{ kV}$: Verified

Short-circuit withstand strength (Sub-clause 8.2.3)

Rated peak and short time withstand current (Sub-clause 8.2.3.1.2)

Main busbar of the 2000 A BUS DUCT $3 \times 175 \times 6 \text{ mm}^2$: 2-phase 60 kA for 1 s, 132 kA peak
(Stranded copper HDK/C) : 3-phase 39 kA for 3 s, 81.9 kA peak

Main busbar of the 4000 A BUS DUCT $3 \times 2 \times 200 \times 6 \text{ mm}^2$: 2-phase 100 kA for 1 s, 220 kA peak
(Stranded copper HDK/C) : 3-phase 80 kA for 3 s, 140 kA peak

Effectiveness of the protective circuit (Sub-clause 8.2.4)

Short-circuit strength of the protective circuit (Sub-clause 8.2.4.1)

PE/N of the 2000 A BUS DUCT $1 \times 175 \times 6 \text{ mm}^2$: 1-phase 36 kA for 1 s, 75.6 kA peak
(Stranded copper HDK/C) : 1-phase 23.4 kA for 3 s, 49.1 kA peak

PE/N of the 4000 A BUS DUCT $2 \times 200 \times 6 \text{ mm}^2$: 1-phase 60 kA for 1 s, 132 kA peak
(Stranded copper HDK/C) : 1-phase 39 kA for 3 s, 81.9 kA peak

Date(s) of Test: 22 to 24 November 2005

R. Borchert
R. BORCHERT
ASTA Observer

1. INTRODUCTION

- 1.1 GENERAL SPECIFICATIONS
- 1.2 OUTSTANDING FEATURE OF LSC BUS DUCT
- 1.3 CATALOGING

BUS DUCT which has non-corrosive conductor covered by non-flammable insulator inside of steel housing for protection is an electrical distribution system made rapid progress and growth recently as the most optimized option with flexibility and lower losses for massive power delivery in high rise commercial building and industrial plant.

1.1 General Specifications

BUS DUCT, A Power Distribution System of High Stability & Easy Maintenance

When electrical power became widely used in industry, a need was created for a rational energy carrying and distribution system to supply the machineries with electricity. Basically, LSC Bus Duct has been designed, manufactured, and provided in the following conditions.

Suitable to Mass-Current

LSC Bus Duct system which can carry massive power upto 6000A with lower losses is used as distribution system for main line according to needs of high-rise building and factory plant through the features of flexibility, safety, reliability, economical efficiency and improved demerits of cable epochally.

LSC Bus Duct system is simplified so that load may be freely diverged, extending, moving, replacing and maintenance of the load easily.

Meanwhile, this has a fine view harmonized with modern architectural sense.

Service Conditions

Ambient temperature : $-15^{\circ}\text{C}\sim 40^{\circ}\text{C}$
Relative Humidity : 95% or below
Installation Attitude : Maximum 1000M above sea level

Standards

KSC 8450: Bus ways
JISC 8364: BUS DUCT
IEC 60439-1&2: Bus ways
BSEN 60439: Bus ways

Bus Bar

Copper bus bar has conductivity of 99% or more, or Aluminum bus bar has conductivity of 61% or more.

Plating between contact sections of conductors are;

Cu conductor : Tin-Plated
Al conductor : Silver-Plated

This plating improves the contact resistance and prevents electrical corrosion.

Temperature Rise Property

Temperature rise shall be within 55°C in the joint part of conductor and 40°C or less in the external surface of duct, under an ambient temperature of 40°C or less.

Insulation

Multi-Layer polyester films of class B(130°C) shall be applied into thickness 0.5mm on conductor.

BMC forms which is polyester reinforced by glass fiber shall be applied as a spacer between conductors of joint part or conductor and duct.

FR-Insulation

Multi-Layer of Fire Resistant Insulator(1200°C) shall be applied on conductor.

1.2 Outstanding Feature of LSC Bus Duct

● Benefits of LSC Bus Duct over wire and conduit

LSC Bus Duct System can improve installation area and cost with the compact size in a big jump.

Labor Savings

LSC Bus Duct installation is faster when compared to other method of low voltage power distribution. While material costs may be slightly higher, the labors required to install LSC Bus Duct is often much lower.

This results in an overall reduction in total installation cost.

Compact Size

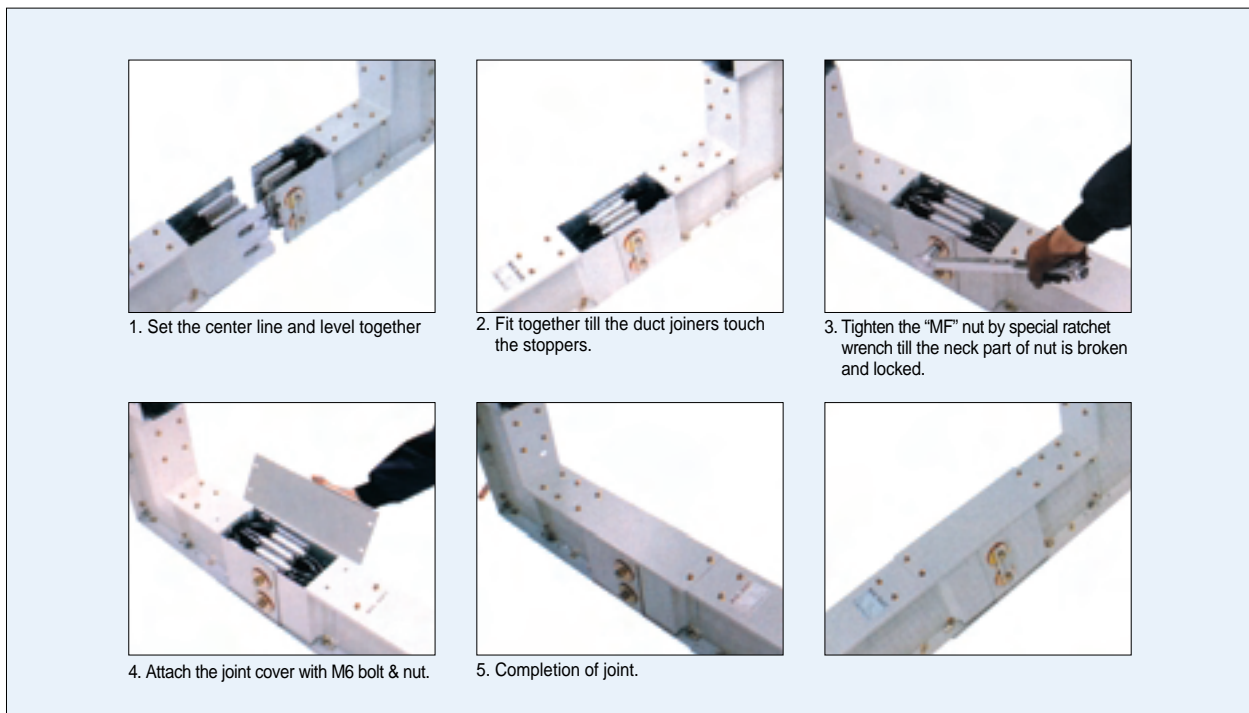
LSC Bus Duct requires less space than wire and conduit.

Lower Voltage Drop

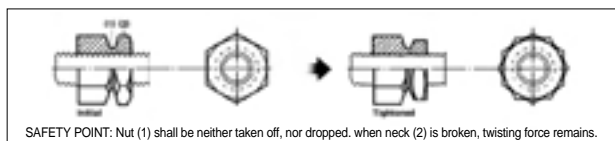
Because of its extremely low reactance, LSC Bus Duct voltage drop is low. This efficient design allow power to be delivered in an installation with the highest efficiency possible. This makes LSC Bus Duct ideal for efficient power distribution in commercial or industrial facilities.

Easy to Install

LSC Bus Duct incorporates the "one joint bolt type". For connection work, bolt fastening forces were unified into the torque of 1200kg.cm.



Better Transmission Efficiency.
Future Expansion Flexibility.
High Short-Circuit Ratings.
Harmonized View.



1.3 Cataloging

LSC BUS DUCT CODING

Table 6

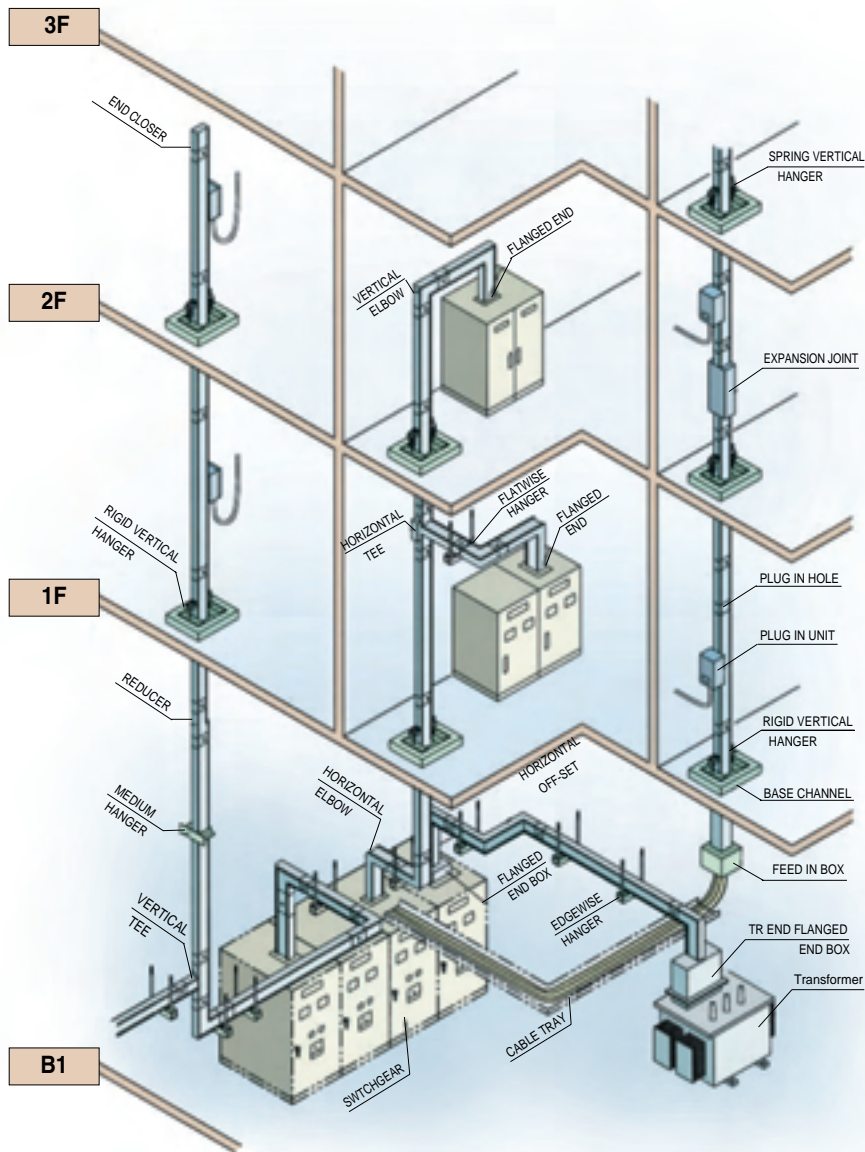
VOLTAGE RANGE	SHAPE STRUCTURE	CURRENTS RANGE	FIRE RESISTANCE	BRANCH LIMITS	GROUNDING	LSC BUS DUCT TYPE	I P Grade (41,54,65)						
BELOW 600V	COMPACT TYPE	600A-6000A	GENERAL TYPE	I-SERIES TO 400A WITHOUT POWER SHUTDOWN	GENERAL	IG TYPE	IG41 IG54 IG65						
					PE EARTH	IP TYPE	IP41 IP54 IP65						
					HALF EARTH	IH TYPE	IH41 IH54 IH65						
					FULL EARTH	IF TYPE	IF41 IF54 IF65						
				8-SERIES TO 800A WITHOUT POWER SHUTDOWN	GENERAL	8G TYPE	8G41 8G54 8G65						
					PE EARTH	8P TYPE	8P41 8P54 8P65						
					HALF EARTH	8H TYPE	8H41 8H54 8H65						
					FULL EARTH	8F TYPE	8F41 8F54 8F65						
				FIRE RESISTANCE TYPE	600A-6000A	FIRE RESISTANCE TYPE	F-SERIES TO 400A WITHOUT POWER SHUTDOWN	GENERAL	FG TYPE	FG41 FG54 FG65			
								PE EARTH	FP TYPE	FP41 FP54 FP65			
								HALF EARTH	FH TYPE	FH41 FH54 FH65			
								FULL EARTH	FF TYPE	FF41 FF54 FF65			
	Y-SERIES TO 800A WITHOUT POWER SHUTDOWN	GENERAL	YG TYPE				YG41 YG54 YG65						
		PE EARTH	YP TYPE				YP41 YP54 YP65						
		HALF EARTH	YH TYPE				YH41 YH54 YH65						
		FULL EARTH	YF TYPE				YF41 YF54 YF65						
	AIR INSULATED TYPE	200A-400A	GENERAL TYPE				M-SERIES	PE EARTH	Mini	MP41 MP54 MP65			
										100A-200A	B-SERIES	Baby	BP41 BP54 BP65
													BELOW 100A
		600A-4000A					A-SERIES	Low Voltage	AP41 AP54 AP65				
				OVER 600V	H-SERIES	High Voltage			HP41 HP54 HP65				



⚠ EACH TYPE OF BUS DUCT CAN BE SUPPLIED as IP DEGREE IP41-IP66

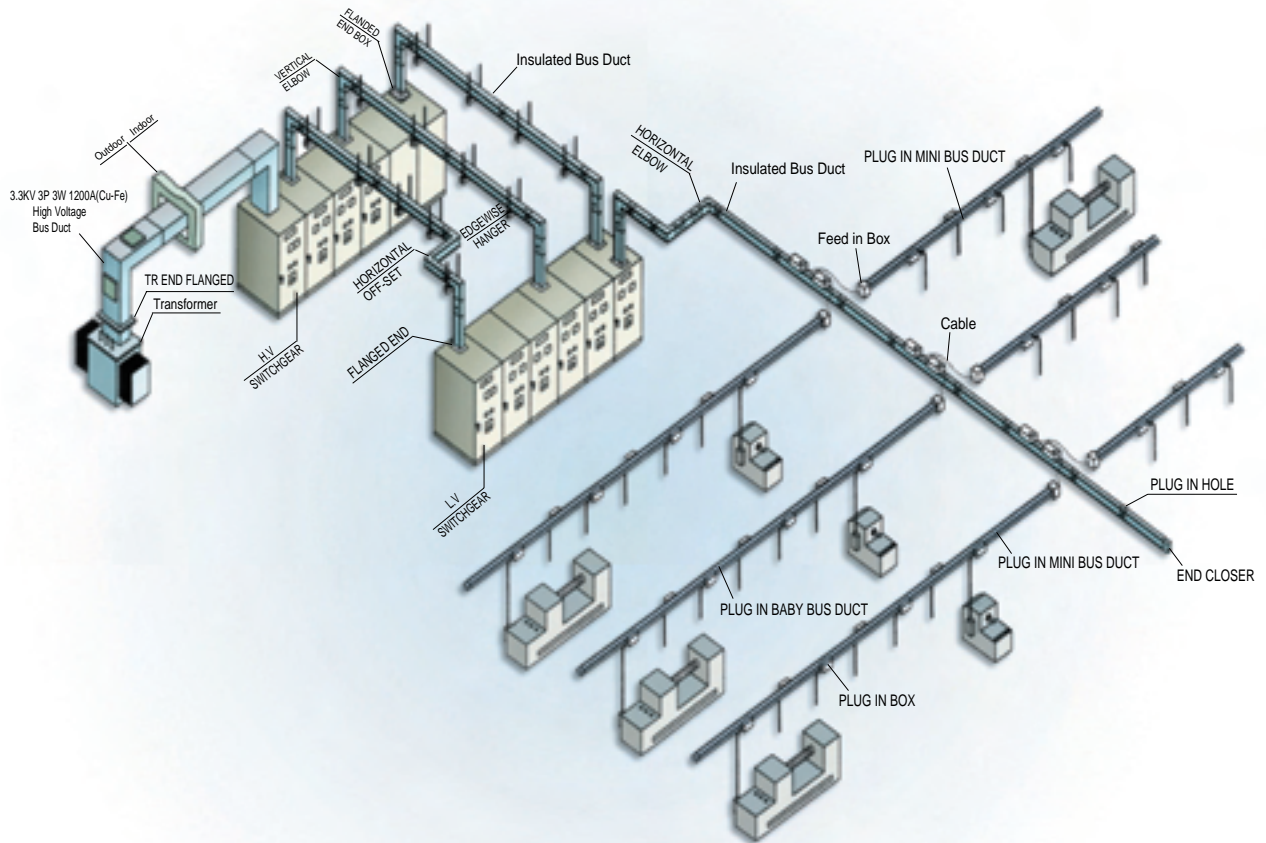
BUS DUCT SYSTEM

Building



BUS DUCT SYSTEM

Factory



2. HIGH POWER DISTRIBUTION (600A~6000A)

2.1 GENERAL SPECIFICATIONS

2.1.1 I-SERIES BUS DUCT

2.1.2 8-SERIES BUS DUCT

2.1.3 F-SERIES

2.1.4 Y-SERIES

2.2 GROUNDING & IP DEGREE

2.2.1 GROUNDING

2.2.2 IP DEGREE

2.3 PART DIMENSIONS

2.3.1 SECTIONAL DIMENSIONS

2.3.2 FLANGED END DIMENSIONS

2.3.3 PHYSICAL DATA FOR FITTINGS

2.4 BRANCH METHOD

2.5 TECHNICAL DATA

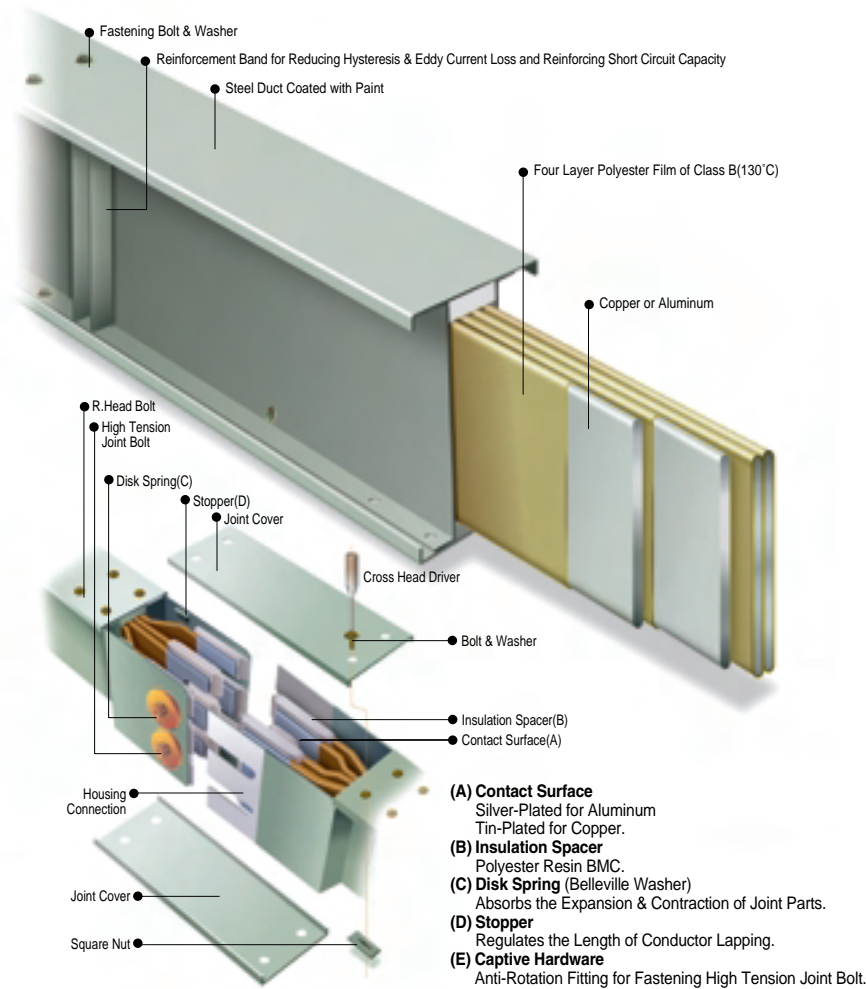
2.6 MAINTENANCE

2.1 General Specifications

2.1.1 I-Series Bus Duct

I-Series (Insulated Bus Duct) is a totally enclosed non-ventilated and sandwich type bus duct system for 110, 220, 380, 440 and 600V power distribution.

This is designed for indoor and drip-proof use and available from 600 to 6000A. The load branch of this I-Series are by plug-in unit upto 400A and by Tap-off unit over 400A. There are one bar, two bars and three bars per phase according to Ampacity.



“I”- Series Bus Duct have Four Types according to Grounding Conductor.

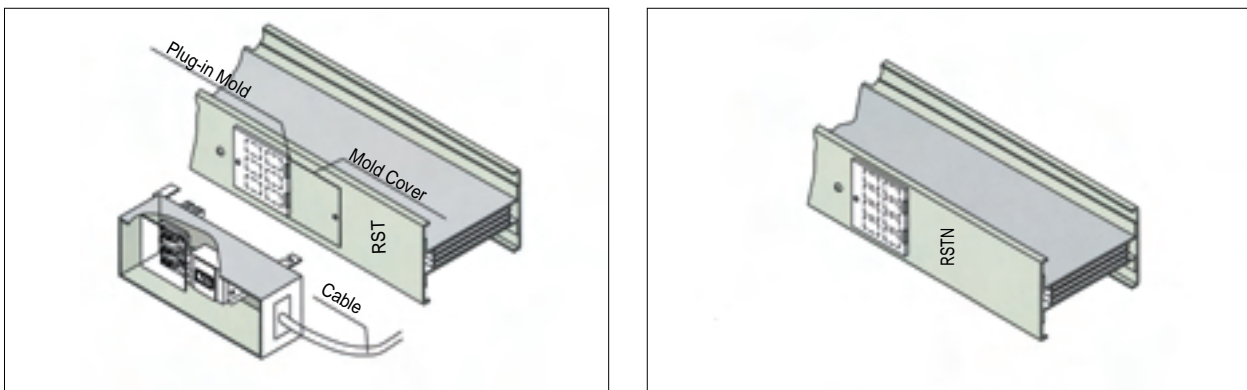
Table 10

OPTION TYPE	OPTION 1	OPTION 2	OPTION 3	OPTION 4
Grounding Option	Code : IG TYPE	Code : IP TYPE	Code : IH TYPE	Code : IF TYPE
IP Grade Option	Code : IG41 TYPE	Code : IP41 TYPE	Code : IH41 TYPE	Code : IF41 TYPE
	Code : IG54 TYPE	Code : IP54 TYPE	Code : IH54 TYPE	Code : IF54 TYPE
	Code : IG65 TYPE	Code : IP65 TYPE	Code : IH65 TYPE	Code : IF65 TYPE
Description	Integral housing system	Integral housing & External Earth bus bar system	Integral Half Earth bus bar system	Integral Full Earth bus bar system

2.1.2 8-Series

“8”-Series(Plug-in 800A Bus Duct) has same all characteristics as I-Series. However 8-Series is specially designed for larger branch plug-in Amperes. The maximum branch of this 8-series is by plug-in upto 800A and by Tap off over 800A. So, this type is very useful for factory.

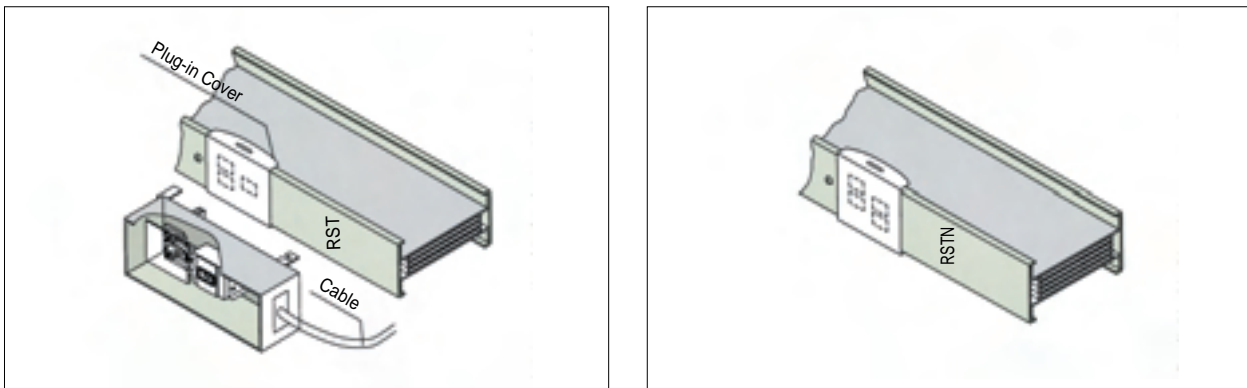
8-Series have double branch capacity. Max Plug in Ampere is 800A



D-PLUG IN TYPE

Fig. 11.1

I-Series have single branch capacity. Max Plug in Ampere is 400A



S-PLUG IN TYPE

Fig. 11.2

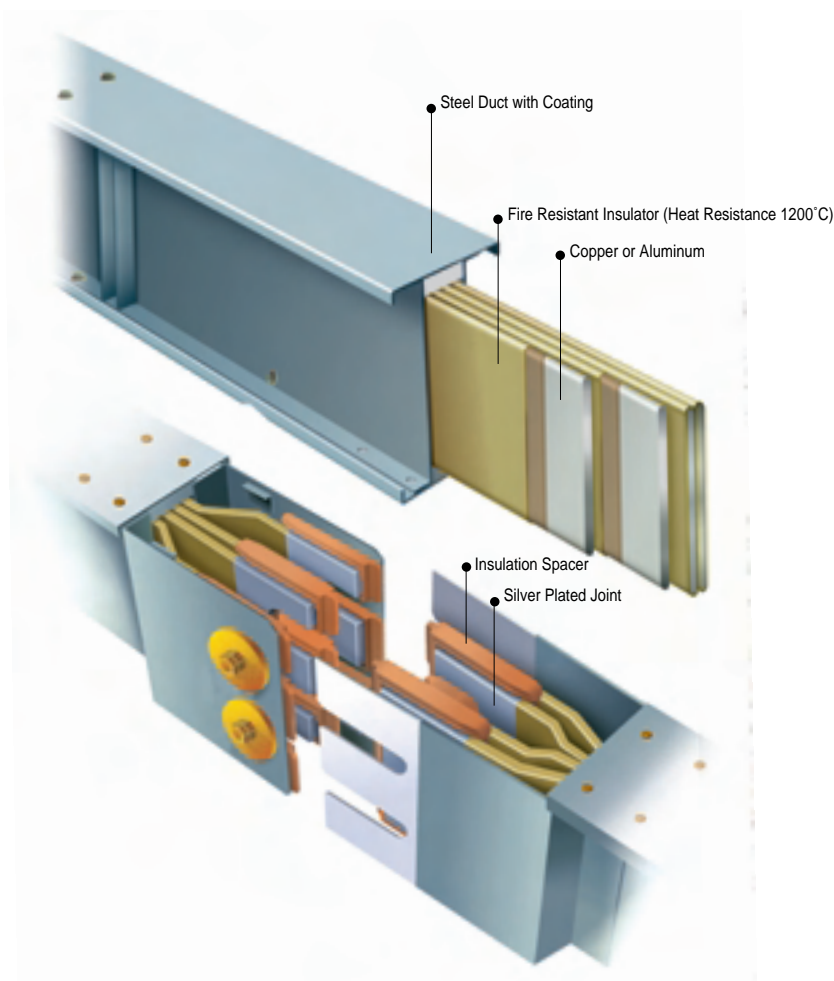
“8”-Series Bus Duct have Four Types according to Grounding Conductor.

Table 11

OPTION TYPE	OPTION 1	OPTION 2	OPTION 3	OPTION 4
Grounding Option	Code : 8G TYPE	Code : 8P TYPE	Code : 8H TYPE	Code : 8F TYPE
IP Grade Option	Code : 8G41 TYPE	Code : 8P41 TYPE	Code : 8H41 TYPE	Code : 8F41 TYPE
	Code : 8G54 TYPE	Code : 8P54 TYPE	Code : 8H54 TYPE	Code : 8F54 TYPE
	Code : 8G65 TYPE	Code : 8P65 TYPE	Code : 8H65 TYPE	Code : 8F65 TYPE
Description	Integral housing system	Integral housing & External Earth bus bar system	Integral Half Earth bus bar system	Integral Full Earth bus bar system

2.1.3 F-Series Bus Duct

F-Series(Fire Resistant Bus Duct) complies with IEC 60331 (Fire Resistant, 750°C/180min). This LSC FR Bus Duct provides a integrity & reliability when fire occurred. Fire Resistant Insulator (heat resistance 1200°C) shall be applied on conductor. All mechanical & electrical characteristics are same as I-Series.



“F”-Series Bus Duct have Four Types according to Grounding Conductor.

Table 12

OPTION TYPE	OPTION 1	OPTION 2	OPTION 3	OPTION 4
Grounding Option	Code : FG TYPE	Code : FP TYPE	Code : FH TYPE	Code : FF TYPE
IP Grade Option	Code : FG41 TYPE	Code : FP41 TYPE	Code : FH41 TYPE	Code : FF41 TYPE
	Code : FG54 TYPE	Code : FP54 TYPE	Code : FH54 TYPE	Code : FF54 TYPE
	Code : FG65 TYPE	Code : FP65 TYPE	Code : FH65 TYPE	Code : FF65 TYPE
Description	Integral housing system	Integral housing & External Earth bus bar system	Integral Half Earth bus bar system	Integral Full Earth bus bar system

● 2.1.4 Y-Series Bus Duct

“Y”-Series(Plug-in 800A & FR Bus Duct) have combined functions of the “F”-Series and “8”-Series. This “Y”-Series Bus Duct are fire resistant and have plug-in 800A hole.

“Y”-Series Bus Duct have Four Types according to Grounding Conductor.

Table 13

OPTION TYPE	OPTION 1	OPTION 2	OPTION 3	OPTION 4
Grounding Option	Code : YG TYPE	Code : YP TYPE	Code : YH TYPE	Code : YF TYPE
IP Grade Option	Code : YG41 TYPE	Code : YP41 TYPE	Code : YH41 TYPE	Code : YF41 TYPE
	Code : YG54 TYPE	Code : YP54 TYPE	Code : YH54 TYPE	Code : YF54 TYPE
	Code : YG65 TYPE	Code : YP65 TYPE	Code : YH65 TYPE	Code : YF65 TYPE
Description	Integral housing system	Integral housing & External Earth bus bar system	Integral Half Earth bus bar system	Integral Full Earth bus bar system

We construct the Digital Infrastructure in every corner of the world.



2.2 GRONDING & IP DEGREE

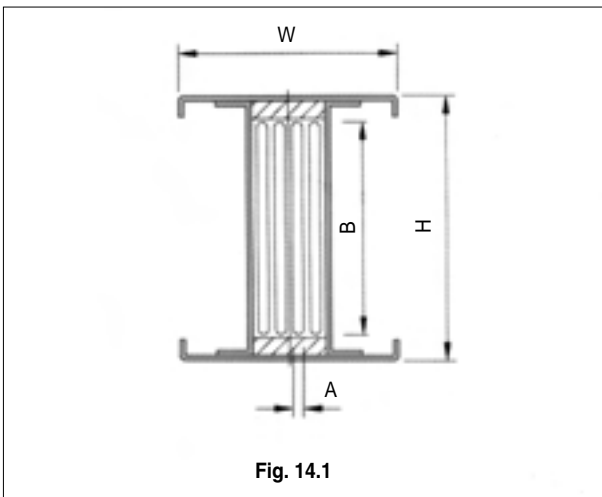
2.2.1 GROUNDING

“G-Type”, “P-Type”-Integral housing & External PE Bus

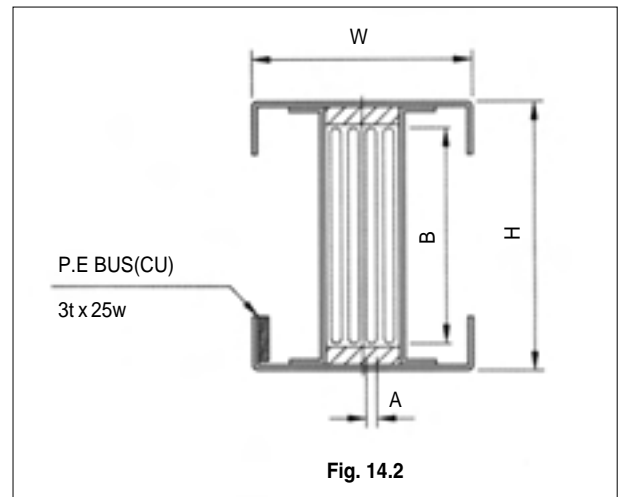
G-type is built with an Integral housing grounding system and provide an integral housing continuous current capacity ground path.

P-type is built with an Integral housing grounding and external Earth bus system and provide an integral housing and external continuous current capacity ground path.

G-TYPE



P-TYPE

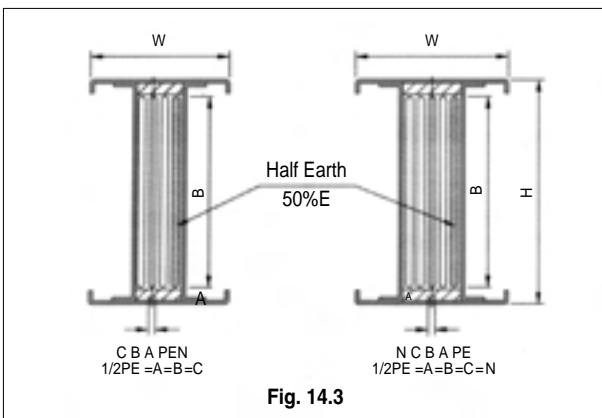


“H-Type”, “F-Type”-Internal Bus Bar

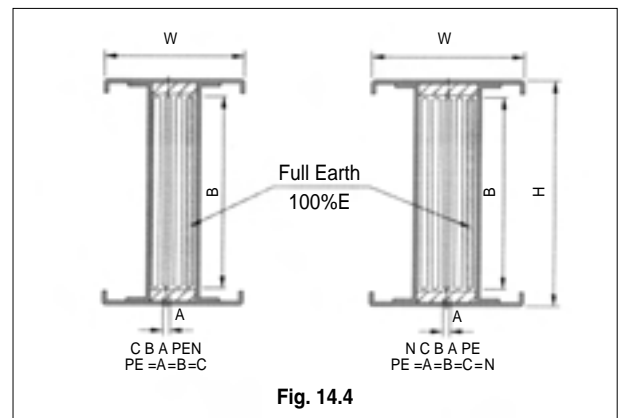
H-type is built with an internal bus bar system and provide an integral 50% continuous current capacity ground path.

F-type is built with an internal bus bar system and provide an integral 100% continuous current capacity ground path.

H-TYPE



F-TYPE



吊 For dimensions and weights information, Please contact us.

2.2.2 IP DEGREE

LSC Bus Duct provides optimum performance in the most demanding applications. Through superior design and applied materials technology, it assures uptime and reliability, even in severe-duty weather environments.

Protection Degree IP41/IP42

With a degree of protection IP41/IP42, this Bus Duct System is ideal for in-door uses.

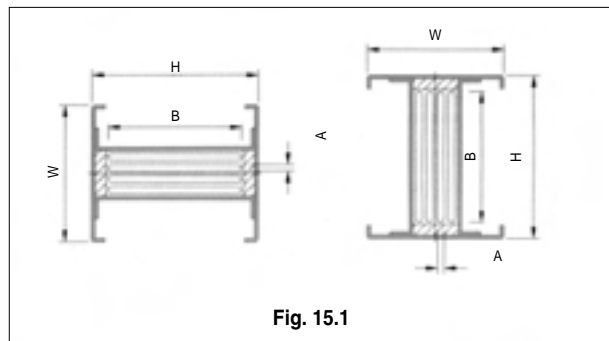


Fig. 15.1

Protection Degree IP54/IP55

Feeder, plug-in and tap-off Bus Duct are available with either drip-proof or splash-proof construction. Generally for feeders, additional duct structure will be treated over one for indoor as below figures. So, weight will be added that much. Material used is steel plate on principle. but is adaptable according to user's request.

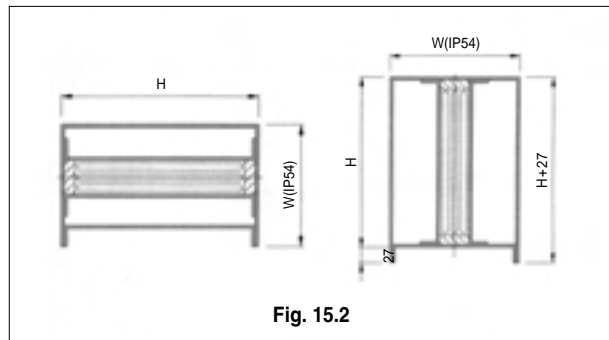


Fig. 15.2

Protection Degree IP65/IP66

With a degree of protection IP65/IP66, this Bus Duct System is ideal for outdoor uses and wherever exist corrosive atmospheres.

Stainless steel housing is optional.

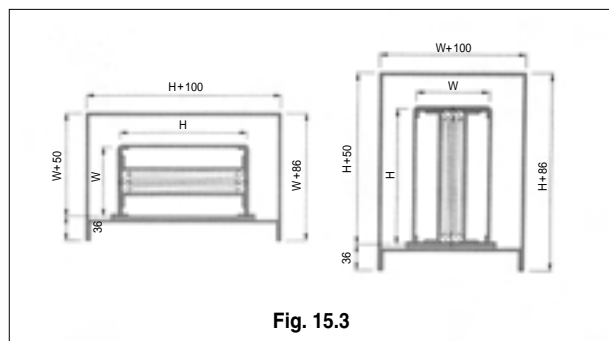


Fig. 15.3

Construction options

Table 15

IEC Degree of Protection	Available Bus Duct	Construction Type
IP41/IP42	Feeder, Plug-in, Riser	Indoor
IP54/IP55	Feeder, Plug-in, Riser	Spray-proof/Splash-proof
IP65/IP66	Feeder	Outdoor

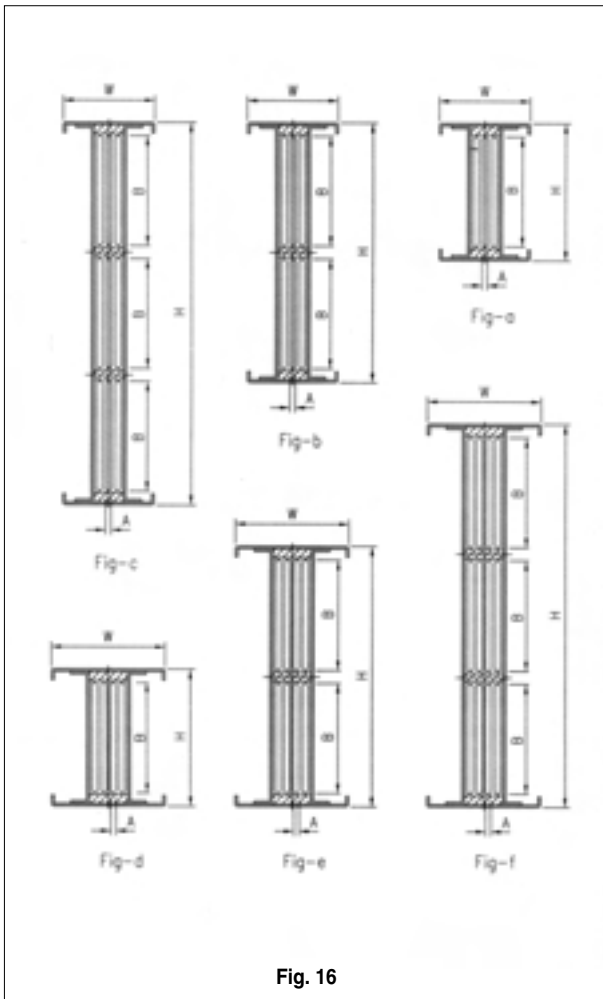
吊 For dimensions and weights information, Please contact us.

2.3 PART DIMENSIONS

2.3.1 SECTIONAL DIMENSIONS

2.3.1.1 "G"-Type : Integral Housing Applying

1 'I-Series' & 'F-Series' Dimensions.



With Aluminum Conductors

Table 16.1

Rating in Amps	Dimensions(mm)					Weight (kg/m)		Fig.
	A	B	W		H	3W	4W	
			3W	4W				
600	6	55	100	125	115	11	13	a.d
800	6	75	100	125	135	13	15	a.d
1,000	6	100	100	125	160	15	18	a.d
1,200	10	100	110	140	160	19	23	a.d
1,500	10	125	110	140	185	22	27	a.d
1,600	10	150	110	140	210	25	31	a.d
2,000	10	175	110	140	235	28	34	a.d
2,500	10	230	110	140	290	35	43	a.d
3,000	10	150x2	110	140	385	46	56	b.e
3,500	10	175x2	110	140	435	52	64	b.e
4,000	10	200x2	110	140	485	58	72	b.e
4,500	10	230x2	110	140	545	73	88	b.e
5,000	10	175x3	110	140	635	83	100	c.f
6,000	10	200x3	110	140	710	93	112	c.f

With Copper Conductors

Table 16.2

Rating in Amps	Dimensions(mm)					Weight (kg/m)		Fig.
	A	B	W		H	3W	4W	
			3W	4W				
600	6	55	100	125	115	18	22	a.d
800	6	55	100	125	115	18	22	a.d
1,000	6	75	100	125	135	21	27	a.d
1,200	6	100	100	125	160	27	33	a.d
1,500	6	125	100	125	185	32	40	a.d
1,600	6	150	100	125	210	37	47	a.d
2,000	6	175	100	125	235	42	53	a.d
2,500	6	125x2	100	125	335	58	73	b.e
3,000	6	150x2	100	125	385	70	88	b.e
3,500	6	175x2	100	125	435	80	101	b.e
4,000	6	200x2	100	125	485	93	119	b.e
4,500	6	150x3	100	125	560	109	136	c.f
5,000	6	175x3	100	125	635	125	157	c.f
6,000	6	200x3	100	125	710	141	178	c.f

Dimensions : Millimeters

NOTE: Feeder standard lengths is 3000mm Min. 500mm

2 '8-Series' & 'Y-Series' Dimensions.

Table 16.3

W-Dimensions		
PHASE	3W	4W
Width	180	230

NOTE: Conductor size are same. Additional duct & Plug-in BMC structure will be treated over one for 'G-type'. so weight will be added that much. For more information contact us.

2.3.1.2 "P"-Type : External PE Bus Applying

1 'I-Series' & 'F-Series' Dimensions.

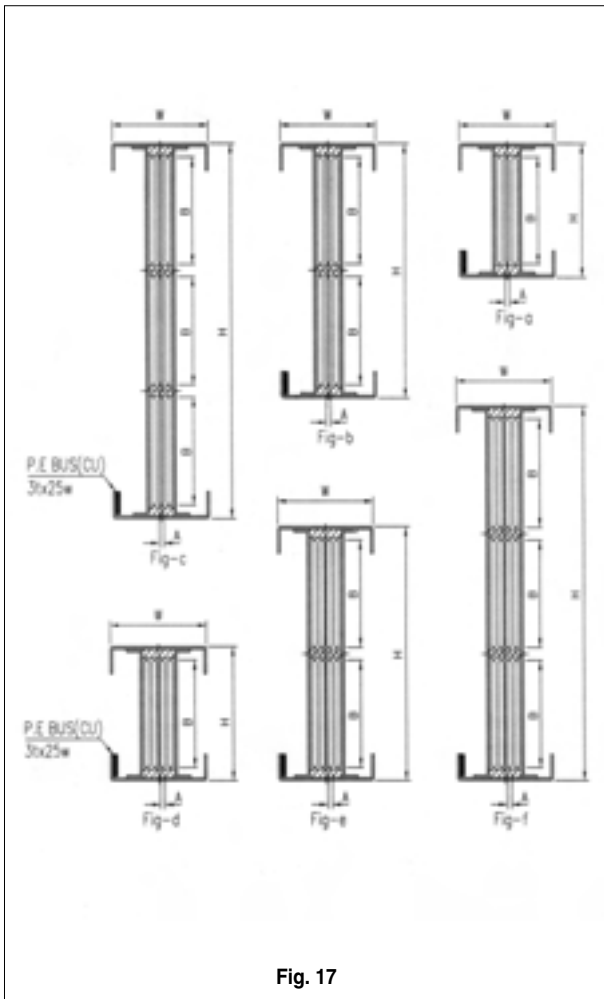


Fig. 17

With Aluminum Conductors

Table 17.1

Rating in Amps	Dimensions(mm)					Weight (kg/m)		Fig.
	A	B	W		H	3W	4W	
			3W	4W				
600	6	55	110	140	115	14	16	a.d
800	6	75	110	140	135	17	18	a.d
1,000	6	100	110	140	160	18	21	a.d
1,200	10	100	125	170	160	22	26	a.d
1,500	10	125	125	170	185	25	30	a.d
1,600	10	150	125	170	210	28	34	a.d
2,000	10	175	125	170	235	31	37	a.d
2,500	10	230	125	170	290	38	46	a.d
3,000	10	150x2	125	170	385	49	59	b.e
3,500	10	175x2	125	170	435	55	67	b.e
4,000	10	200x2	125	170	485	61	75	b.e
4,500	10	230x2	125	170	545	76	91	b.e
5,000	10	175x3	125	170	635	86	103	c.f
6,000	10	200x3	125	170	710	96	115	c.f

With Copper Conductors

Table 17.2

Rating in Amps	Dimensions(mm)					Weight (kg/m)		Fig.
	A	B	W		H	3W	4W	
			3W	4W				
600	6	55	110	140	115	21	25	a.d
800	6	55	110	140	115	21	25	a.d
1,000	6	75	110	140	135	24	30	a.d
1,200	6	100	110	140	160	30	36	a.d
1,500	6	125	110	140	185	35	43	a.d
1,600	6	150	110	140	210	40	50	a.d
2,000	6	175	110	140	235	45	56	a.d
2,500	6	125x2	110	140	335	61	76	b.e
3,000	6	150x2	110	140	385	73	91	b.e
3,500	6	175x2	110	140	435	83	104	b.e
4,000	6	200x2	110	140	485	96	122	b.e
4,500	6	150x3	110	140	560	112	139	c.f
5,000	6	175x3	110	140	635	128	160	c.f
6,000	6	200x3	110	140	710	144	181	c.f

Dimensions : Millimeters

NOTE: Feeder standard lengths is 3000mm Min. 500mm

2 '8-Series' & 'Y-Series' Dimensions.

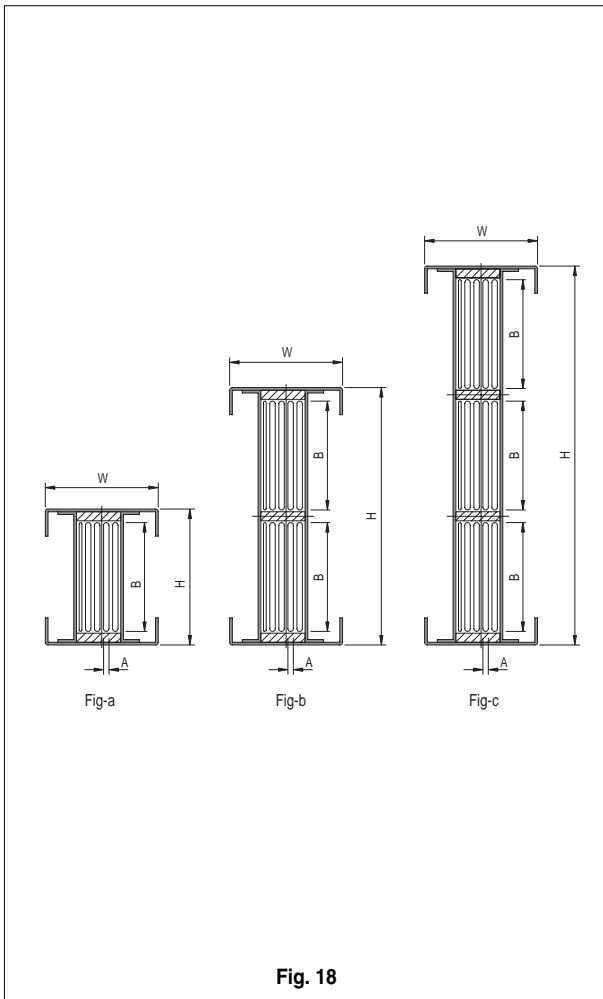
Table 17.3

W-Dimensions		
PHASE	3W	4W
Width	180	230

NOTE: Conductor size are same. Additional duct & Plug-in BMC structure will be treated over one for 'G-type', so weight will be added that much. For more information contact us.

2.3.1.3 “H”-Type : Integral Half Earth (50%)

1 ‘I-Series’ & ‘F-Series’ Dimensions.



With Aluminum Conductors

Table 18.1

Rating in Amps	Dimensions(mm)				Weight (kg/m)	Fig.
	A	B	W	H		
600	6	55	140	115	16	a.
800	6	75	140	135	17	a.
1,000	6	100	140	160	21	a.
1,200	10	100	170	160	26	a.
1,500	10	125	170	185	31	a.
1,600	10	150	170	210	35	a.
2,000	10	175	170	235	38	a.
2,500	10	230	170	290	47	a.
3,000	10	150x2	170	385	61	b.
3,500	10	175x2	170	435	69	b.
4,000	10	200x2	170	485	78	b.
4,500	10	230x2	170	545	88	b.
5,000	10	175x3	170	635	106	c.
6,000	10	200x3	170	710	119	c.

With Copper Conductors

Table 18.2

Rating in Amps	Dimensions(mm)				Weight (kg/m)	Fig.
	A	B	W	H		
600	6	55	140	115	26	a.
800	6	55	140	115	26	a.
1,000	6	75	140	135	31	a.
1,200	6	100	140	160	38	a.
1,500	6	125	140	185	45	a.
1,600	6	150	140	210	53	a.
2,000	6	175	140	235	59	a.
2,500	6	125x2	140	335	81	b.
3,000	6	150x2	140	385	97	b.
3,500	6	175x2	140	435	111	b.
4,000	6	200x2	140	485	130	b.
4,500	6	150x3	140	560	147	c.
5,000	6	175x3	140	635	170	c.
6,000	6	200x3	140	710	192	c.

Dimensions : Millimeters

NOTE: Feeder standard lengths is 3000mm Min. 500mm

2 ‘8-Series’ & ‘Y-Series’ Dimensions.

Table 18.3

W-Dimensions	
PHASE	5W
Width	230

NOTE: Conductor size are same. Additional duct & Plug-in BMC structure will be treated over one for ‘G-type’. so weight will be added that much. For more information contact us.

2.3.1.4 “F”-Type : Integral Full Earth (100%)

1 ‘I-Series’ & ‘F-Series’ Dimensions.

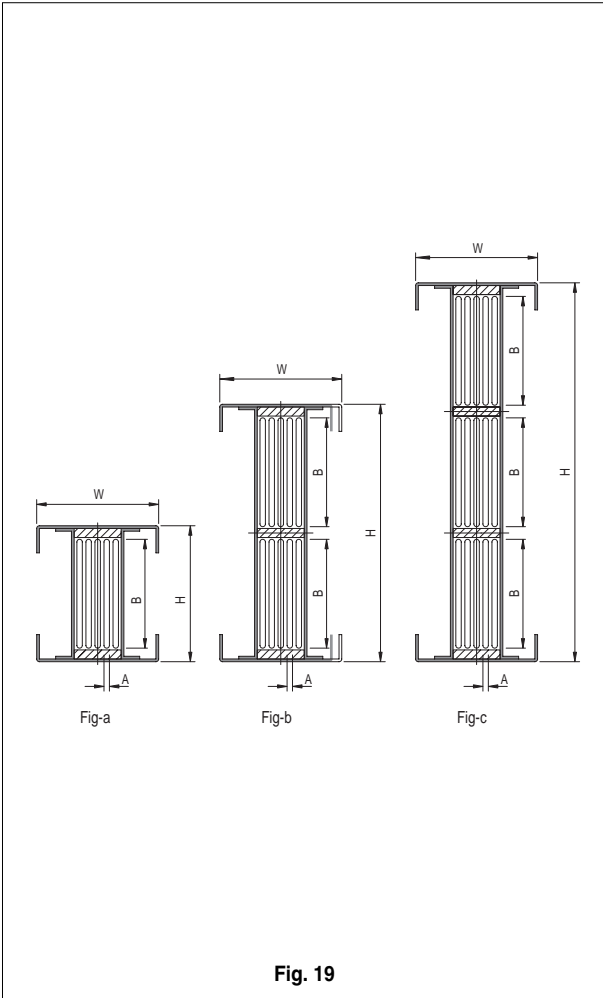


Fig. 19

With Aluminum Conductors

Table 19.1

Rating in Amps	Dimensions(mm)				Weight (kg/m)	Fig.
	A	B	W	H		
			5W			
600	6	55	180	115	17	a.
800	6	75	180	135	19	a.
1,000	6	100	180	160	23	a.
1,200	10	100	180	160	29	a.
1,500	10	125	180	185	34	a.
1,600	10	150	180	210	39	a.
2,000	10	175	180	235	42	a.
2,500	10	230	180	290	53	a.
3,000	10	150x2	180	385	68	b.
3,500	10	175x2	180	435	77	b.
4,000	10	200x2	180	485	86	b.
4,500	10	230x2	180	545	98	b.
5,000	10	175x3	180	635	118	c.
6,000	10	200x3	180	710	132	c.

With Copper Conductors

Table 19.2

Rating in Amps	Dimensions(mm)				Weight (kg/m)	Fig.
	A	B	W	H		
			5W			
600	6	55	180	115	28	a.
800	6	55	180	115	28	a.
1,000	6	75	180	135	35	a.
1,200	6	100	180	160	42	a.
1,500	6	125	180	185	50	a.
1,600	6	150	180	210	59	a.
2,000	6	175	180	235	66	a.
2,500	6	125x2	180	335	90	b.
3,000	6	150x2	180	385	108	b.
3,500	6	175x2	180	435	123	b.
4,000	6	200x2	180	485	144	b.
4,500	6	150x3	180	560	164	c.
5,000	6	175x3	180	635	189	c.
6,000	6	200x3	180	710	214	c.

Dimensions : Millimeters

NOTE: Feeder standard lengths is 3000mm Min. 500mm

2 ‘8-Series’ And ‘Y-Series’ Dimensions.

Table 19.3

W-Dimensions	
PHASE	5W
Width	230

NOTE: Conductor size are same. Additional duct & Plug-in BMC structure will be treated over one for 'G-type'. so weight will be added that much. For more information contact us.

2.3.2 FLANGED END DIMENSIONS

Flanged End

Flanged end is a part connected to transformer or panel. Elbow-type is also available.

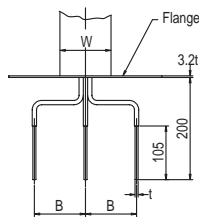


Fig. 20.1 FLANGED END

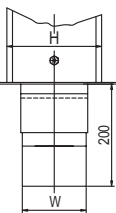
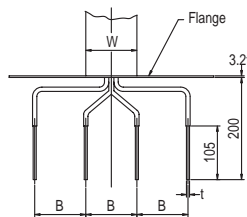


Fig. 20.2

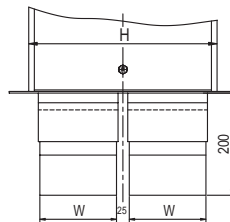


Fig. 20.3

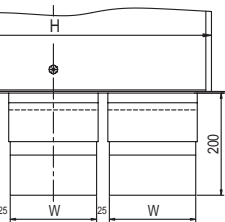
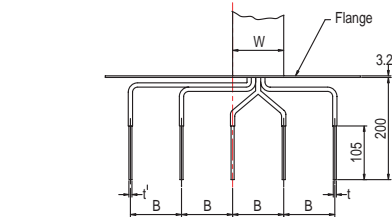


Fig. 20.4

BUS BAR HOLE PATTERN (1 STACK, 2 STACKS, 3 STACKS ARE SAME, ALL HOLES ARE RECTANGULAR)

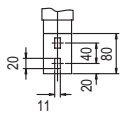


Fig. 20.5

BAR WIDTH 55mm

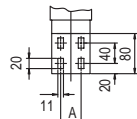


Fig. 20.6

BAR WIDTH 75-100mm

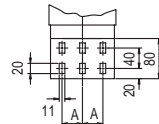


Fig. 20.7

BAR WIDTH 125-150mm

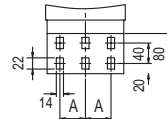


Fig. 20.8

BAR WIDTH 175-200mm

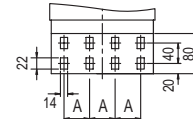


Fig. 20.9

BAR WIDTH 230-280mm

Table 20.1

Rating in Amps(A)	Dimensions(mm)						Fig.
	t	t'	W	A	B		
600	6	3 or 6	55	-	100	20.2-20.5	
800	6	3 or 6	75	40	100	20.2-20.6	
1,000	6	3 or 6	100	50	100	20.2-20.6	
1,200	10	5 or 10	100	50	100	20.2-20.6	
1,500	10	5 or 10	125	40	100	20.2-20.7	
1,600	10	5 or 10	150	50	100	20.2-20.7	
2,000	10	5 or 10	175	60	100	20.2-20.8	
2,500	10	5 or 10	230	60	100	20.2-20.9	
3,000	10	5 or 10	150x2	50	130	20.3-20.9	
3,500	10	5 or 10	175x2	60	130	20.3-20.7	
4,000	10	5 or 10	200x2	70	130	20.3-20.8	
4,500	10	5 or 10	230x2	60	130	20.3-20.9	
5,000	10	5 or 10	175x3	60	130	20.4-20.8	
6,000	10	5 or 10	200x3	70	130	20.4-20.8	

Table 20.2

Rating in Amps(A)	Dimensions(mm)						Fig.
	t	t'	W	A	B		
600	6	3 or 6	55	-	100	20.2-20.5	
800	6	3 or 6	55	-	100	20.2-20.5	
1,000	6	3 or 6	75	40	100	20.2-20.6	
1,200	6	3 or 6	100	50	100	20.2-20.6	
1,500	6	3 or 6	125	40	100	20.2-20.7	
1,600	6	3 or 6	150	50	100	20.2-20.7	
2,000	6	3 or 6	175	60	100	20.2-20.8	
2,500	6	3 or 6	125x2	40	130	20.3-20.7	
3,000	6	3 or 6	150x2	50	130	20.3-20.7	
3,500	6	3 or 6	175x2	60	130	20.3-20.8	
4,000	6	3 or 6	200x2	70	130	20.3-20.8	
4,500	6	3 or 6	150x3	50	130	20.4-20.7	
5,000	6	3 or 6	175x3	60	130	20.4-20.8	
6,000	6	3 or 6	200x3	70	130	20.4-20.8	

Flanged End Box

Flanged end box is a part connected to transformer or panel. Elbow-type is also available.

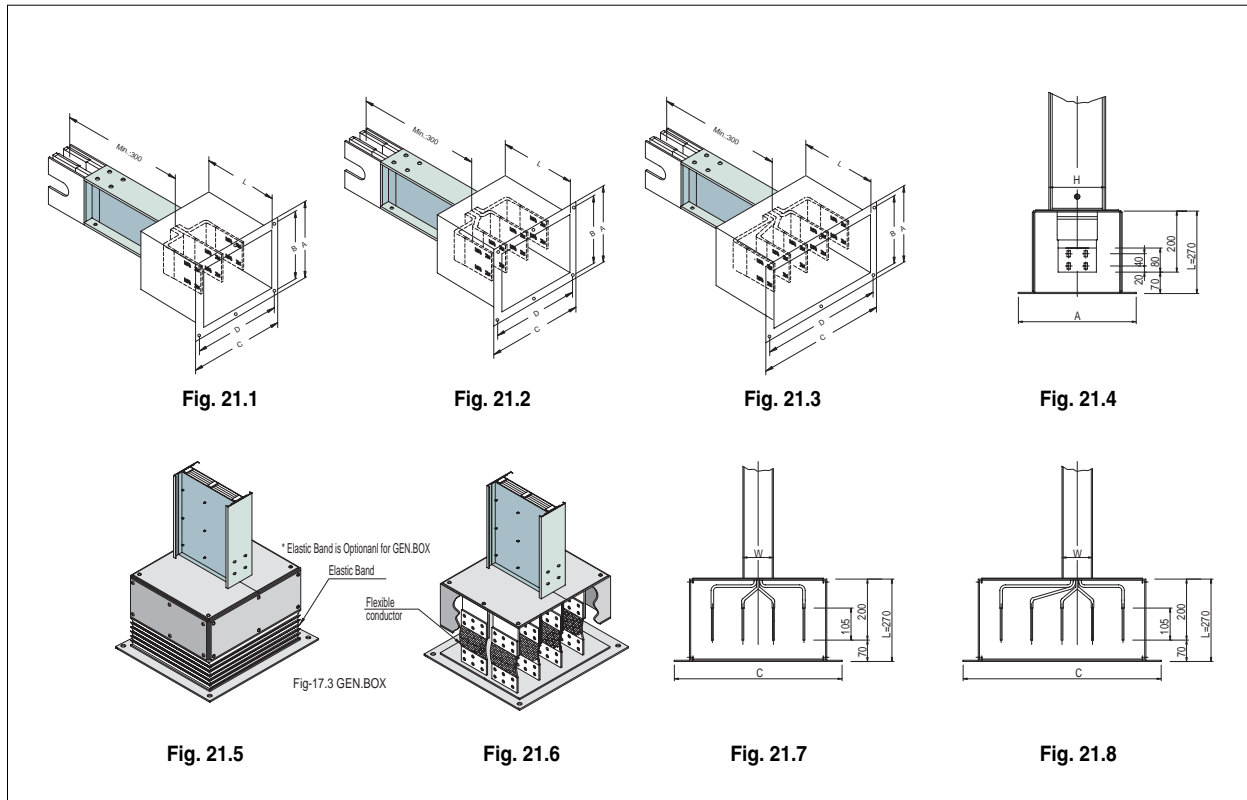


Table 21

Rating in Amps(A)	No. OF STACKS	Dimensions(mm)															
		3 W (mm)					4 W (mm)					5 W (mm)					
		A	B	C	D	L	A	B	C	D	L	A	B	C	D	L	
ALUMINUM	600~1200	1	310	260	450	200x2	270	310	260	550	250x2	270	310	260	650	300x2	270
	1500~2000	1	385	335	450	200x2	270	385	335	550	250x2	270	385	335	650	300x2	270
	2500	1	440	390	450	200x2	270	440	390	550	250x2	270	440	390	650	300x2	270
	3000	2	535	243x2	510	230x2	270	535	243x2	640	295x2	270	535	243x2	770	360x2	270
	3500~4000	2	635	293x2	510	230x2	270	635	293x2	640	295x2	270	635	293x2	770	360x2	270
	4500	2	695	323x2	510	230x2	270	695	323x2	640	295x2	270	695	323x2	770	360x2	270
	5000	3	785	245x3	510	230x2	270	785	245x3	640	295x2	270	785	245x3	770	360x2	270
	6000	3	860	270x3	510	230x2	270	860	270x3	640	295x2	270	860	270x3	770	360x2	270
COPPER	600~1200	1	310	260	450	200x2	270	310	260	550	250x2	270	310	260	650	300x2	270
	1500~2000	1	385	335	450	200x2	270	385	335	550	250x2	270	385	335	650	300x2	270
	2500	2	485	218x2	510	230x2	270	485	218x2	640	295x2	270	485	218x2	770	360x2	270
	3000	2	535	243x2	510	230x2	270	535	243x2	640	295x2	270	535	243x2	770	360x2	270
	3500~4000	2	635	293x2	510	230x2	270	635	293x2	640	295x2	270	635	293x2	770	360x2	270
	4500	3	710	220x3	510	230x2	270	710	220x3	640	295x2	270	710	220x3	770	360x2	270
	5000	3	785	245x3	510	230x2	270	785	245x3	640	295x2	270	785	245x3	770	360x2	270
	6000	3	860	270x3	510	230x2	270	860	270x3	640	295x2	270	860	270x3	770	360x2	270

吊 Note: refer to page 20 for flanged end and busbar hole pattern

Cutout and drilling pattern for flanged end

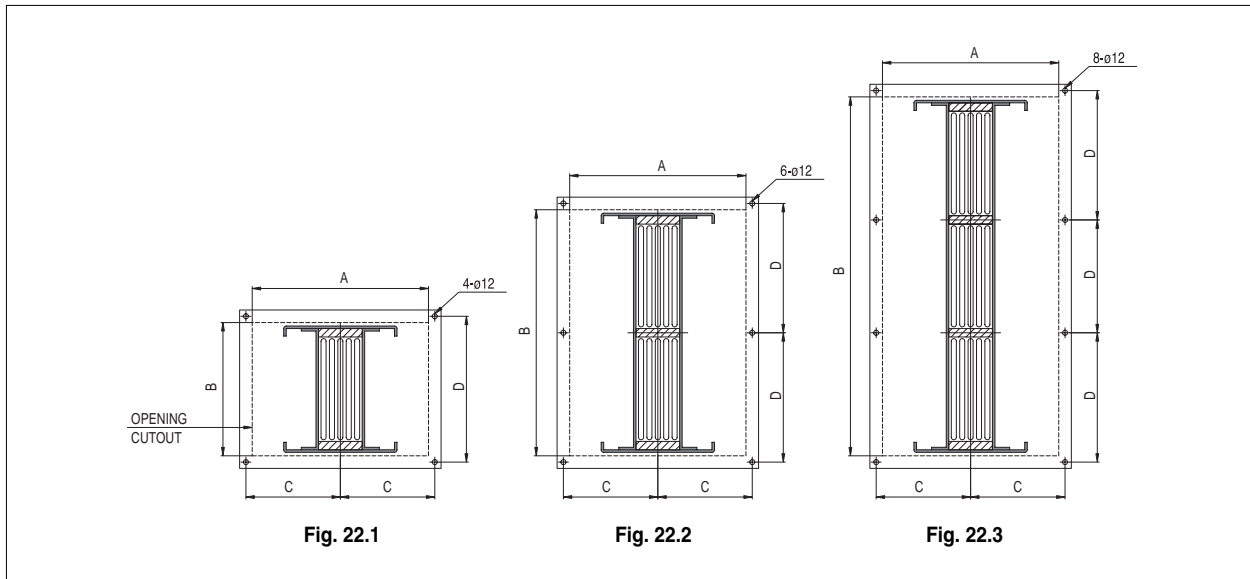


Table 22

	Rating in Amps (A)	Dimensions(mm)						Fig.	
		A		B	C				D
		3-W	4-W		3-W	4-W	5-W		
ALUMINUM	600	240	340	115	135	185	235	145	22.1
	800	240	340	135	135	185	235	165	22.1
	1000	240	340	160	135	185	235	190	22.1
	1200	240	340	160	135	185	235	190	22.1
	1500	240	340	185	135	185	235	215	22.1
	1600	240	340	210	135	185	235	240	22.1
	2000	240	340	235	135	185	235	265	22.1
	2500	240	340	290	135	185	235	320	22.1
	3000	300	430	385	165	230	295	208	22.2
	3500	300	430	435	165	230	295	233	22.2
	4000	300	430	485	165	230	295	258	22.2
	4500	300	430	545	165	230	295	288	22.2
COPPER	5000	300	430	635	165	230	295	222	22.3
	6000	300	430	710	165	230	295	247	22.3
	600	240	340	115	135	185	235	145	22.1
	800	240	340	115	135	185	235	145	22.1
	1000	240	340	135	135	185	235	165	22.1
	1200	240	340	160	135	185	235	190	22.1
	1500	240	340	185	135	185	235	215	22.1
	1600	240	340	210	135	185	235	240	22.1
	2000	240	340	235	135	185	235	265	22.1
	2500	240	430	335	165	230	295	183	22.2
3000	300	430	385	165	230	295	208	22.2	
3500	300	430	435	165	230	295	238	22.2	
4000	300	430	485	165	230	295	258	22.2	
4500	300	430	560	165	230	295	197	22.3	
5000	300	430	635	165	230	295	222	22.3	
6000	300	430	710	165	230	295	247	22.3	

2.3.3 Physical Data for Fittings

Fittings

LSC Bus Duct has complete ranges which fit to all the lay-out conditions. The other special parts than 90° angle are also available.

Designation methods related to turning are specified in Fig.x on the basis of source side and load side. Off set and combination elbow will be applied only when standard elbow is not applied.

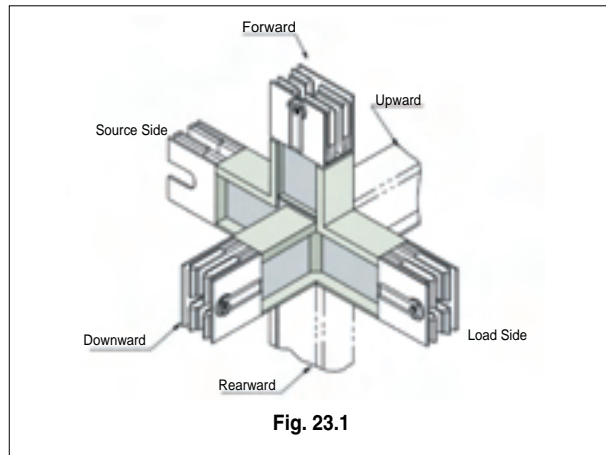
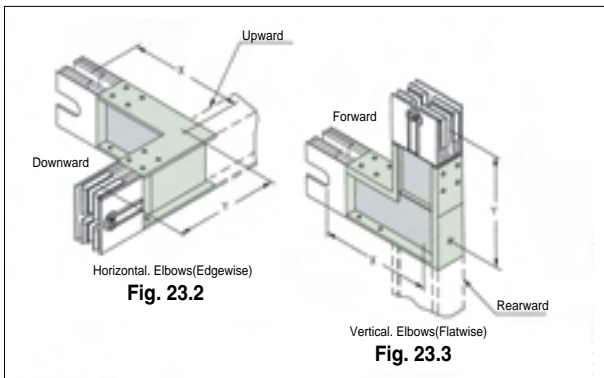


Fig. 23.1

Elbow-Fittings



Horizontal. Elbows(Edgewise)

Fig. 23.2

Vertical. Elbows(Flatwise)

Fig. 23.3

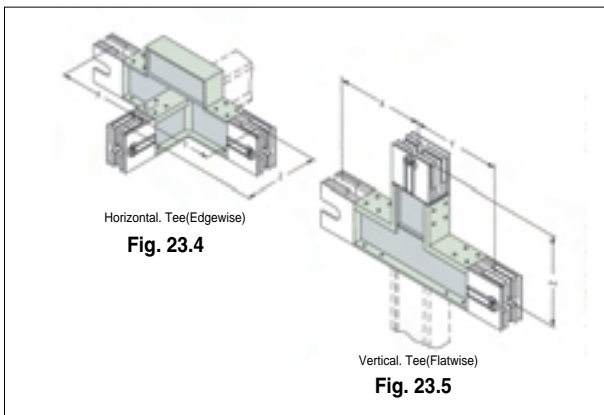
Dimensions : mm

Table 23.1

	AMP. Rating(A)	Hor. Elbow		Ver. Elbow	
		X	Y	X	Y
Standard	600~2500	500	500	500	500
	3000~4000	500	500	600	600
	4500~6000	500	500	700	700
Max.	600~2500	1000	1000	2000	2000
	3000~4000	1000	1000	2000	2000
	4500~6000	1000	1000	2000	2000
Min.	600~2500	300	300	400	400
	3000~4000	300	300	500	500
	4500~6000	300	300	600	600

* Angel Elbows are available 75°~179° turning.

Tee-Fittings



Horizontal. Tee(Edgewise)

Fig. 23.4

Vertical. Tee(Flatwise)

Fig. 23.5

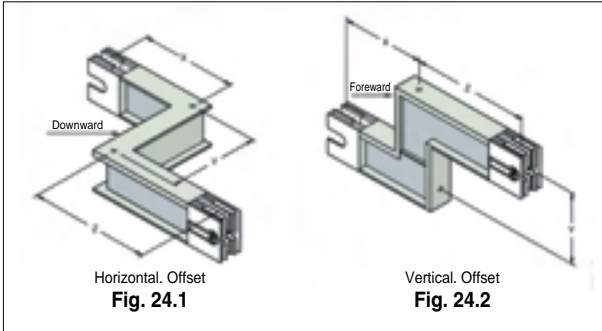
Dimensions : mm

Table 23.2

	AMP. Rating(A)	Hor. Tee			Ver. Tee		
		X	Y	Z	X	Y	Z
Standard	600~2500	500	500	500	500	500	500
	3000~4000	600	600	600	600	600	600
	4500(AL)	600	600	600	700	700	700
	4500~6000	-	-	-	700	700	700
Max.	600~2500	1000	1000	1000	1000	1000	1000
	3000~4000	1000	1000	1000	1000	1000	1000
	4500(AL)	1000	1000	1000	1000	1000	1000
	4500~6000	-	-	-	1000	1000	1000
Min.	600~2500	500	500	300	400	400	400
	3000~4000	600	600	300	500	500	500
	4500(AL)	600	600	300	600	600	600
	4500~6000	-	-	-	600	600	600

Offset

Fittings



Horizontal. Offset
Fig. 24.1

Vertical. Offset
Fig. 24.2

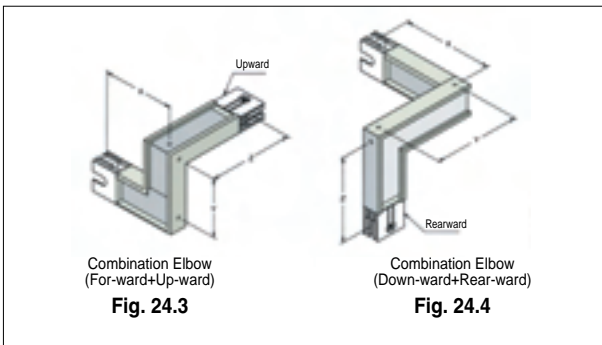
Dimensions : mm

Table 24.1

	AMP. Rating(A)	Hor. Offset			Ver. Offset		
		X	Y	Z	X	Y	Z
Standard	600~2500	500	500	500	500	500	500
	3000~4000	500	500	500	600	600	600
	4500~6000	500	500	500	700	700	700
Max.	600~2500	1000	500	1000	1000	1000	1000
	3000~4000	1000	500	1000	1000	1000	1000
	4500~6000	1000	500	1000	1000	1000	1000
Min.	600~2500	300	250	300	400	500	400
	3000~4000	300	250	300	400	500	400
	4500~6000	300	250	300	600	500	600

Combination Elbow

Fittings



Combination Elbow
(For-ward+Up-ward)
Fig. 24.3

Combination Elbow
(Down-ward+Rear-ward)
Fig. 24.4

*Note: All the direction is available.

1. For-ward + Up-ward
2. For-ward + Down-ward
3. Rear-ward + Up-ward
4. Rear-ward + Down-ward
5. Down-ward + Rear-ward
6. Down-ward + For-ward
7. Up-ward + Rear-ward
8. Up-ward + For-ward

Refer Elbow fittings for Dimensions.

Reducer

This Fitting is used to economical engineering system. Another ratings are produced per customer's request.

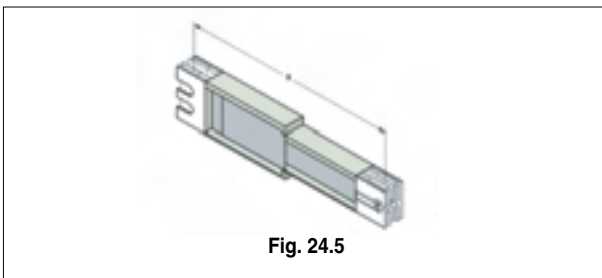


Fig. 24.5

Dimensions : mm

Table 24.2

AMP. Rating(A)		AMP. Rating(A)
Primary	Secondary	X
1000	600~800	Standard : 1000 Min : 700 Max : 2000
1500	800~1200	
2000	1200~1600	
2500	1500~2000	
3000	2000~2500	
4000	3000~2500	

Expansion

This Fitting is designed to absorb 25mm longitudinal expansion. In straight run it is recommended to install this section every 40 meters.

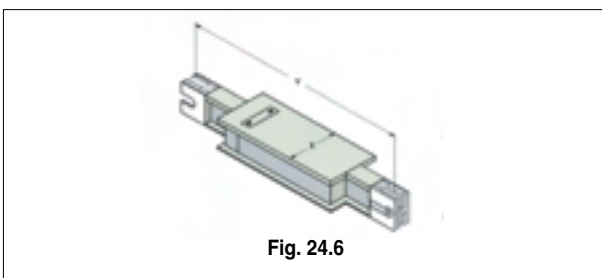


Fig. 24.6

Dimensions : mm

Table 24.3

POLE	AMP. Rating(A)	AMP. Rating(A)	
		X	Y
3	600~2000	280	1500
	2500~6000	300	
4	600~2000	340	
	2500~6000	370	

Feed-in box

Feed-in box is a part used for connection to cable by diverging at the end of Bus Duct.

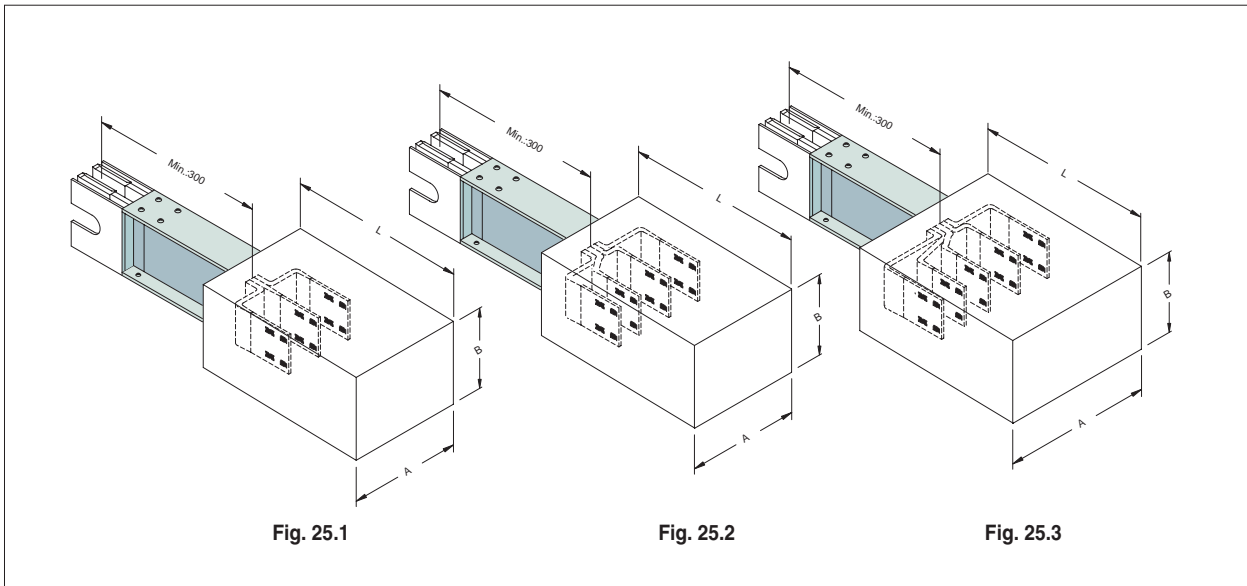


Table 25

	AMPERE RATINGS (A)	No. OF STACKS	Dimensions(mm)								
			3 W(mm)			4 W(mm)			5 W(mm)		
			A	B	L	A	B	L	A	B	L
ALUMINUM	600	1	350	200	400	450	200	400	500	200	400
	800	1	350	220	400	450	220	400	500	220	400
	1000~1200	1	350	250	400	450	250	400	500	250	400
	1500	1	350	300	400	450	300	400	500	300	400
	1600	1	350	320	400	450	320	400	500	320	400
	2000	1	350	350	400	450	350	400	500	350	400
	2500	1	350	400	400	450	400	400	500	400	400
	3000	2	450	500	450	550	500	450	600	500	450
	3500	2	450	550	450	550	550	450	600	550	450
	4000	2	450	600	450	550	600	450	600	600	450
	4500	2	450	650	500	600	650	500	650	650	500
	5000	3	500	700	500	600	700	500	650	700	500
COPPER	6000	3	500	800	500	600	800	500	650	800	500
	600~800	1	350	200	400	450	200	400	500	200	400
	1000	1	350	220	400	450	220	400	500	220	400
	1200	1	350	250	400	450	250	400	500	250	400
	1500	1	350	300	400	450	300	400	500	300	400
	1600	1	350	320	400	450	320	400	500	320	400
	2000	1	350	350	400	450	350	400	500	350	400
	2500~3000	2	450	500	450	550	500	450	600	500	450
	3500	2	450	550	450	550	550	450	600	550	450
	4000	2	450	600	450	550	600	450	600	600	450
	4500	3	500	650	500	600	650	500	650	650	500
	5000	3	500	700	500	600	700	500	650	700	500
6000	3	500	800	500	600	800	500	650	800	500	

Center Feed-in Box

Center Feed-in box is a part used for connection to cable by diverging at the middle of Bus Duct.

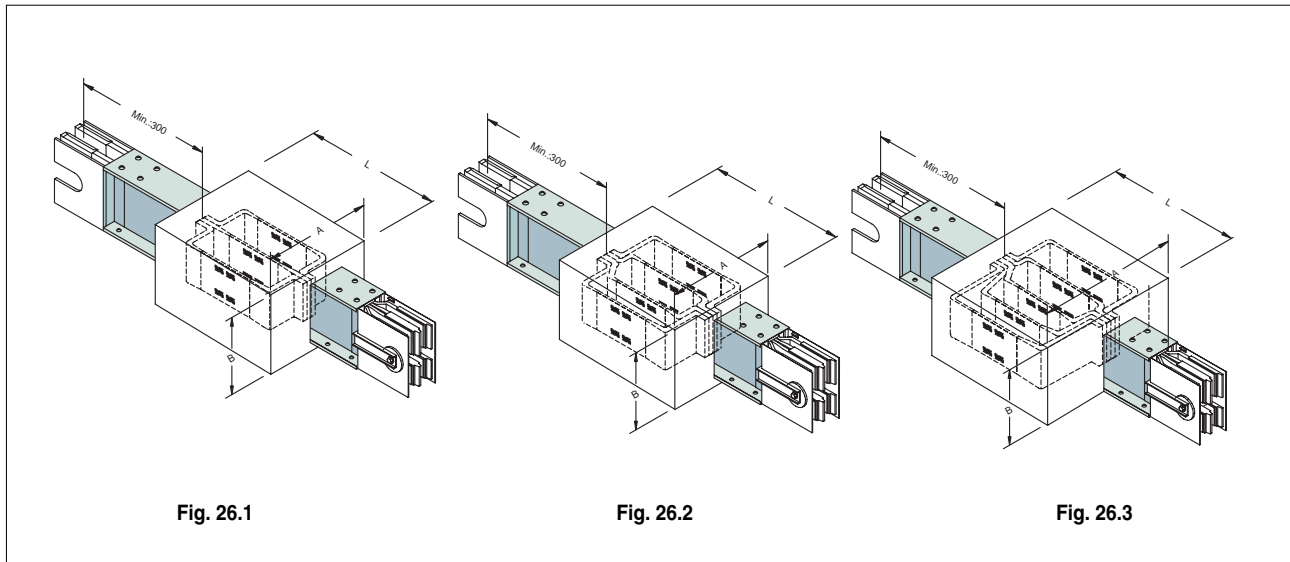
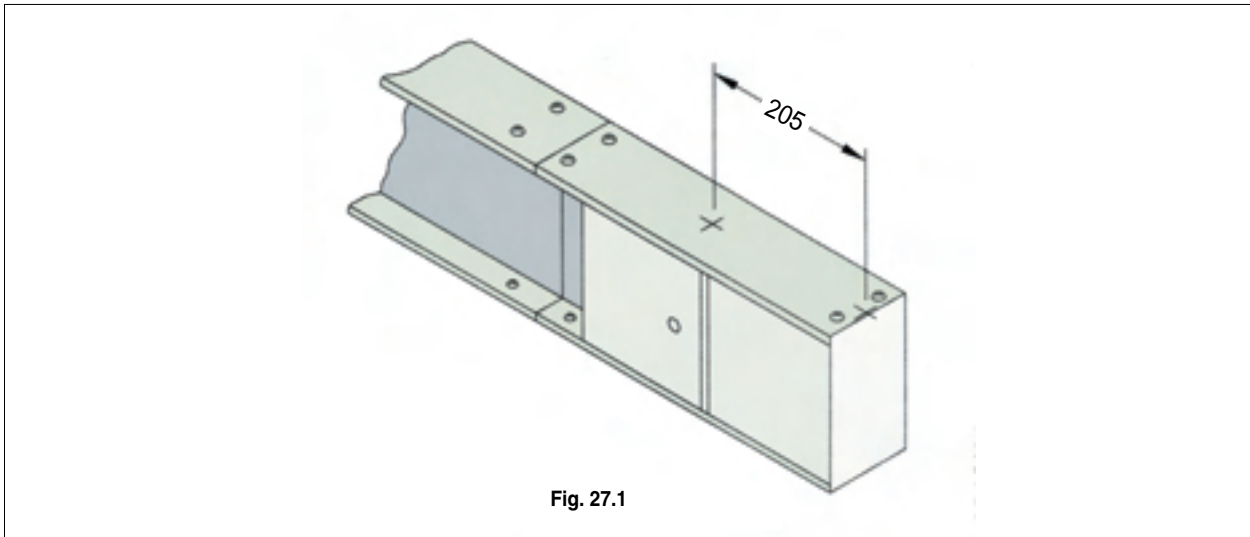


Table 26

	AMPERE RATINGS (A)	No. OF STACKS	Dimensions(mm)								
			3 W(mm)			4 W(mm)			5 W(mm)		
			A	B	L	A	B	L	A	B	L
ALUMINUM	600	1	350	200	400	450	200	400	500	200	400
	800	1	350	220	400	450	220	400	500	220	400
	1000~1200	1	350	250	400	450	250	400	500	250	400
	1500	1	350	300	400	450	300	400	500	300	400
	1600	1	350	320	400	450	320	400	500	320	400
	2000	1	350	350	400	450	350	400	500	350	400
	2500	1	350	400	400	450	400	400	600	400	400
	3000	2	450	500	450	550	500	450	600	500	450
	3500	2	450	550	450	550	550	450	600	550	450
	4000	2	450	600	450	550	600	450	600	600	450
	4500	2	450	650	500	600	650	500	650	650	500
	5000	3	500	700	500	600	700	500	650	700	500
6000	3	500	800	500	600	800	500	650	800	500	
COPPER	600~800	1	350	200	400	450	200	400	500	200	400
	1000	1	350	220	400	450	220	400	500	220	400
	1200	1	350	250	400	450	250	400	500	250	400
	1500	1	350	300	400	450	300	400	500	300	400
	1600	1	350	320	400	450	320	400	500	320	400
	2000	1	350	350	400	450	350	400	500	350	400
	2500~3000	2	450	500	450	550	500	450	600	500	450
	3500	2	450	550	450	550	550	450	600	550	450
	4000	2	450	600	450	550	600	450	600	600	450
	4500	2	500	650	500	600	650	500	650	650	500
	5000	3	500	700	500	600	700	500	650	700	500
	6000	3	500	800	500	600	800	500	650	800	500

End closer

End closer is a part used for finishing BUS DUCT line, and the connection is unnecessary. To extend the line, simply remove this part and install it in addition.



Switchboard / Switch-gear stub.

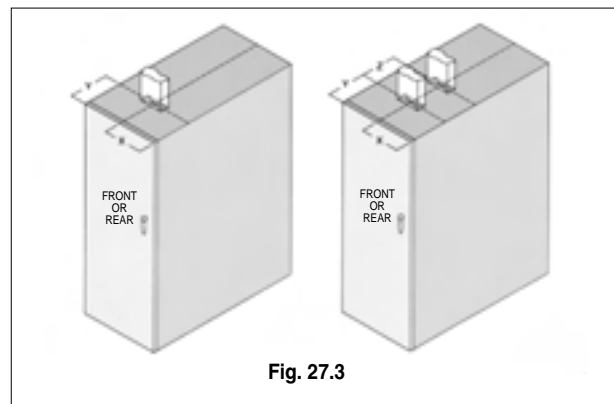
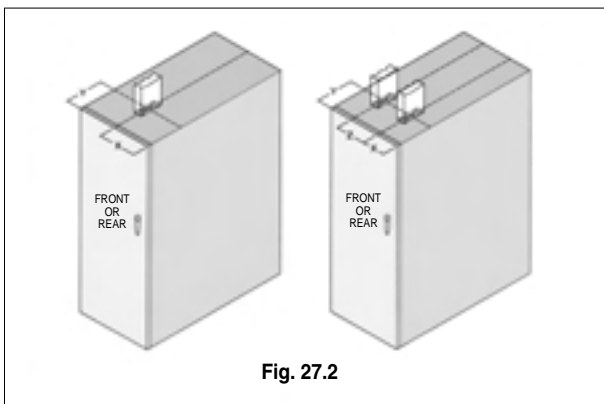
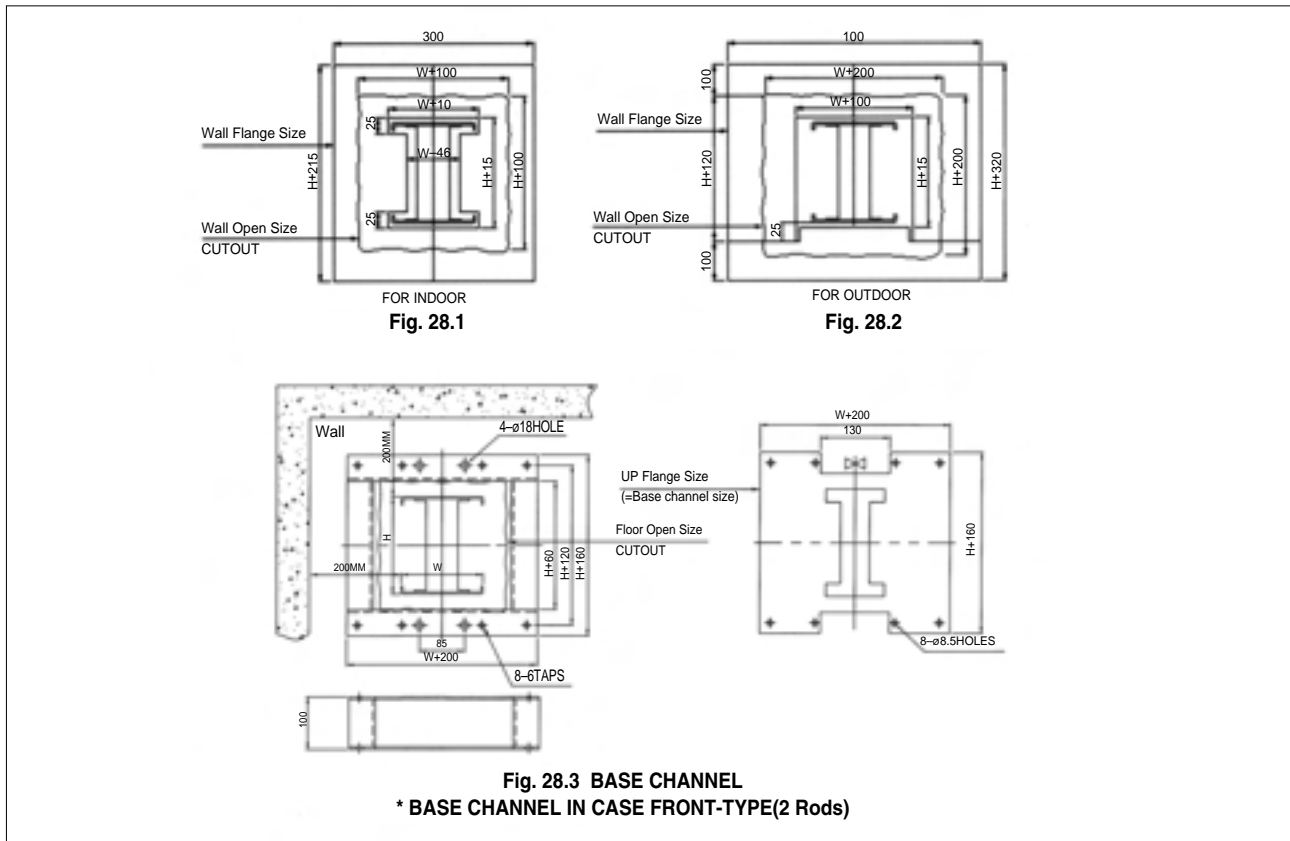


Table 27

AMPERE RATINGS (A)	MIN. STUB DIMENSIONS(mm)									
	FIG. 17.1					FIG. 17.2				
	SINGLE RUN		DOUBLE RUN			SINGLE RUN		DOUBLE RUN		
	X	Y	X	Y	Z	X	Y	X	Y	Z
600~2000	300	300	300	300	400	250	330	250	300	400
2500~3500	350	350	350	350	500	300	350	300	350	500
4000~4500	400	400	400	400	550	350	400	350	400	550
5000~6000	500	500	500	500	550	400	500	400	500	550

Wall Flange & BASE CHANNEL

Flange is a part used for prevention of empty space in wall, ceiling, and floor opening. The dimensions of wall opening(cutouts) shall be larger an much as 50mm than external dimensions of BUS DUCT.



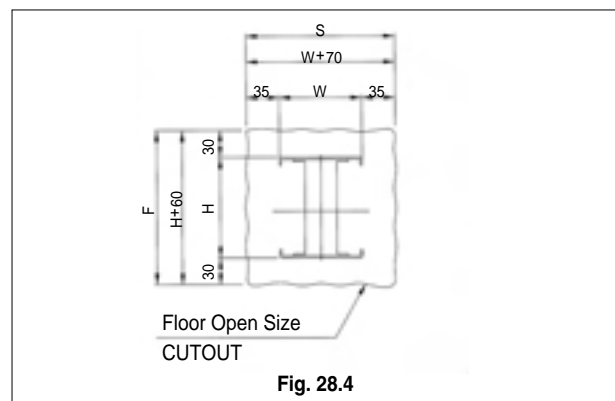
Floor Openings

1. Front type

The 'F'-dimension of Floor opening(cutouts) shall be larger on much as 30mm than external dimensions of BUS DUCT in case Front type of hanger. The 'S'-dimension of Floor opening(cutouts) shall be min $W+60$

2. Side type

The 'S'-dimensions of Floor opening(cutouts) shall be larger on much as 35mm than external dimensions of BUS DUCT in case side type of hanger. The 'F'-dimension of Floor opening(cutouts) shall be min $H+60$



Minimum clearances for heat dissipation

Minimum clearances between bus duct and wall, ceiling or beam are shown in Fig. 29.1.

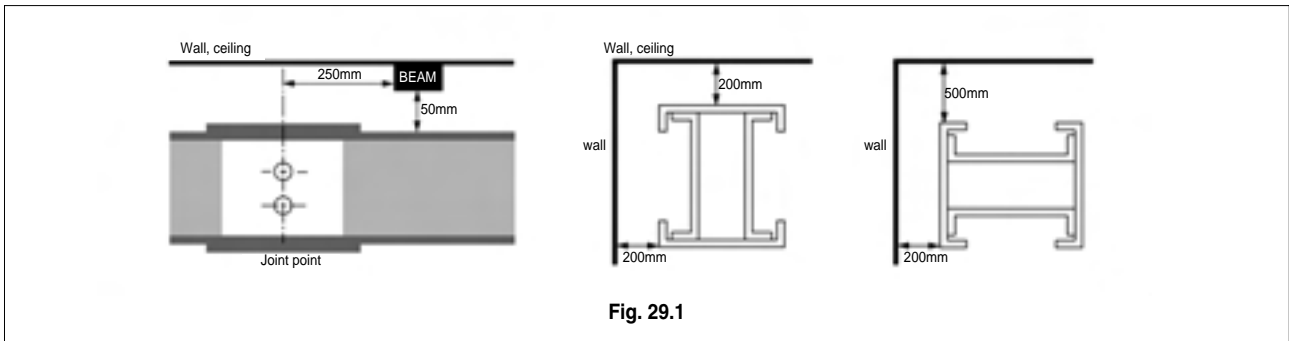


Fig. 29.1

Minimum distances of bus duct

Minimum distances between parallel-installed bus duct in several cases are shown below figures.

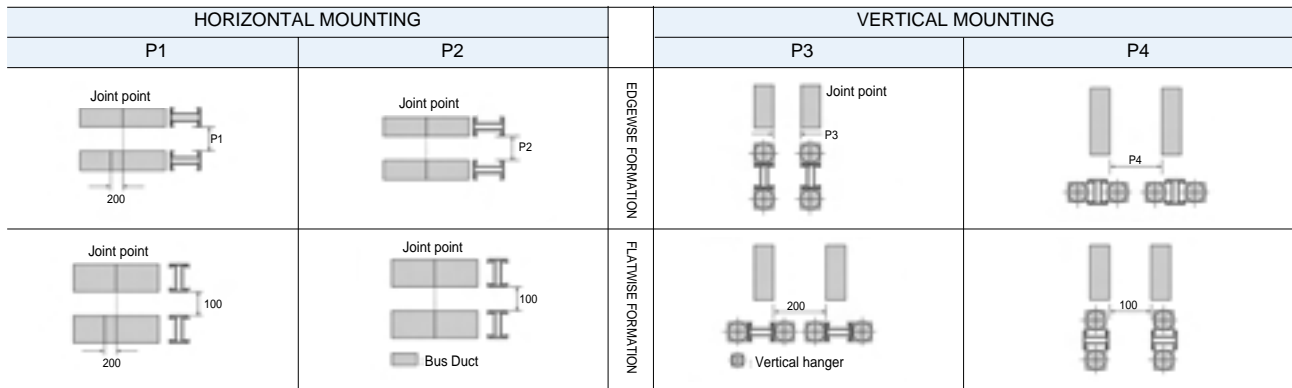


Fig. 29.2

Table 29

	3-W AND 3-W	3-W AND 4-W	4-W AND 4-W
P1	110	135	130
P2	150	175	180
P3	190	215	230
P4	270	275	270

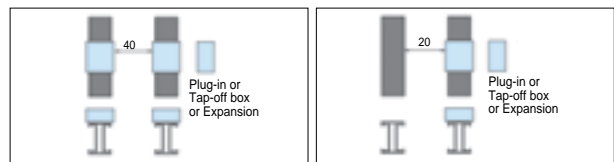


Fig. 29.3

Vertical Mounting Hanger

Spring hanger is provided to support bus duct from each floor. The quantity of springs(rod) provided is depend on Bus Duct weight. When the height between stories exceeds 4-5m, a middle support is required. Openings for attachment are in line on the floor flange, and able to adjust simply.

The rigid hanger is the same as the spring hanger, but hasn't any spring, it is used at both ends and middle of line.

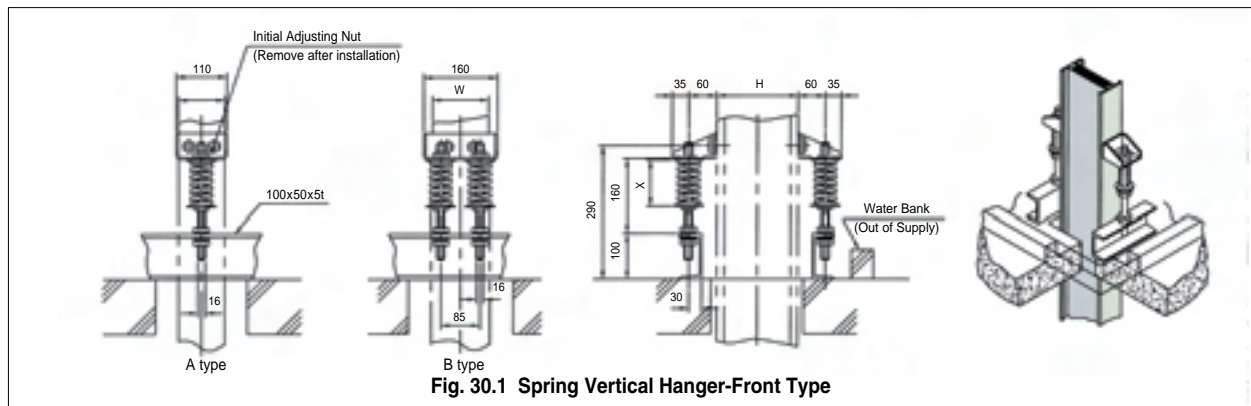


Fig. 30.1 Spring Vertical Hanger-Front Type

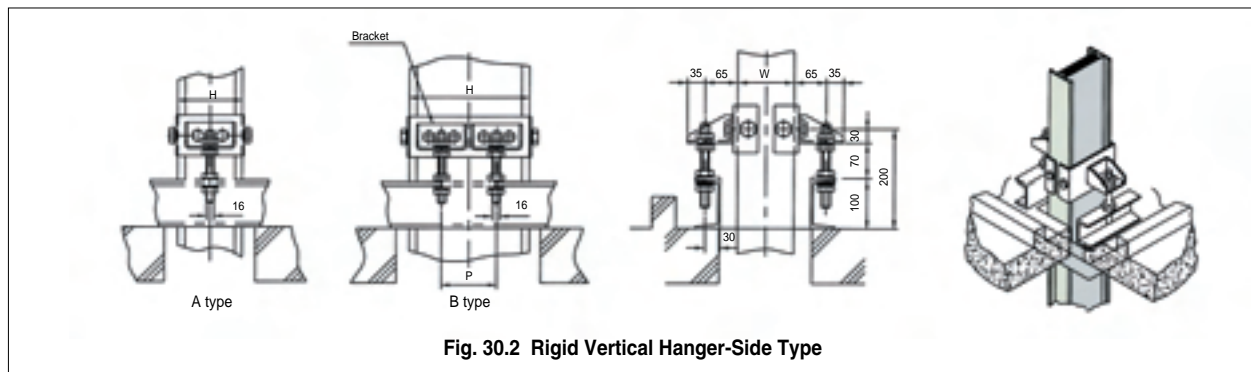


Fig. 30.2 Rigid Vertical Hanger-Side Type

Application of A or B Type (Average floor height : 3.5~4.5M)

Table 30.1

Aluminum Conductor	3W 600A – 3W 1,600A 4W 600A – 4W 1,200A	A Type (1 Rod)
Copper Conductor	3W 600A – 3W 1,000A 4W 600 – 4W 800A	
Aluminum Conductor	3W 2,000A – 3W 3,000A 4W 1,500A – 4W 2,500A	B Type (2 Rods)
Copper Conductor	3W 1,200A – 3W 2,500A 4W 1,000 – 4W 2,500A	

Notes: 1. Dimension P is common both to Aluminum and copper conductors.

2. Dimension X is adjusted at factory.

3. See pp16-19 for H&W Dimensions.

4. C Type(3 Rod) can be supplied for high amps or high floor

Dimensions P for Side type (B type)

Table 30.2

Rating in Amps	P(mm)
1,000	85
1,200	85
1,500	85
1,600	85
2,000	110
2,500	140
3,000	160

Horizontal Mounting Hanger

Support one for every 1.5 meter in principle. Designed for 12mm diameter drop rods.

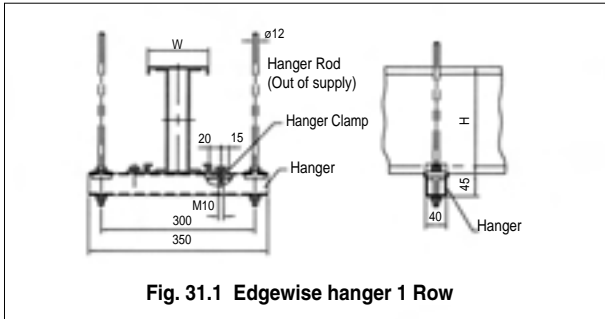


Fig. 31.1 Edgewise hanger 1 Row

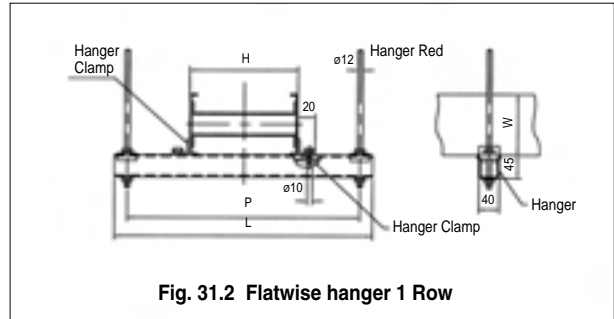


Fig. 31.2 Flatwise hanger 1 Row

Table 31

Rating in Amps (A)	Dimensions (mm)	
	L	P
600~1,200	350	300
1,500~2,500	500	450
3,000~3,500	650	600
4,000~4,500	750	700
5,000~6,500	850	800

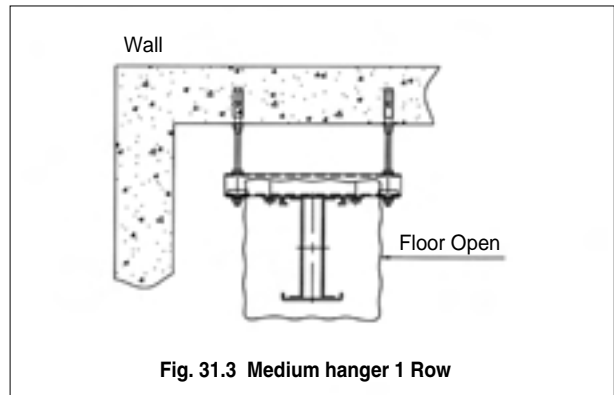


Fig. 31.3 Medium hanger 1 Row

- * Install when the height between stories exceeds 4.5m.
- * Install when the story has a expansion.

* Multi Mounting Hanging Example.

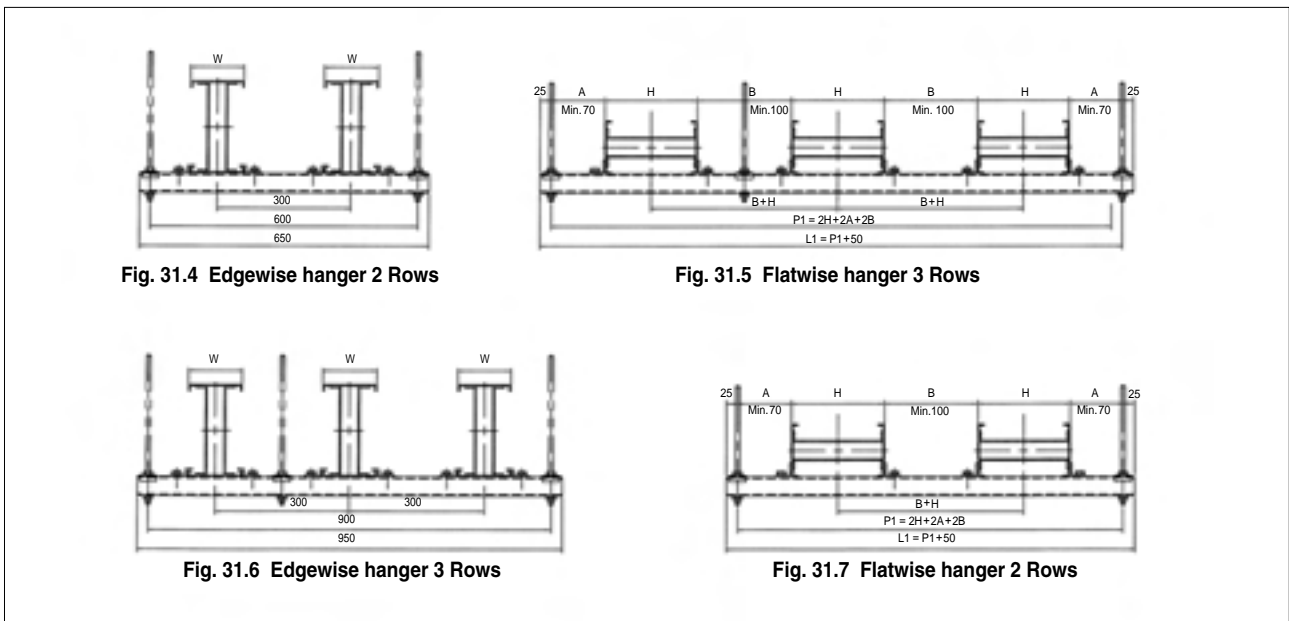


Fig. 31.4 Edgewise hanger 2 Rows

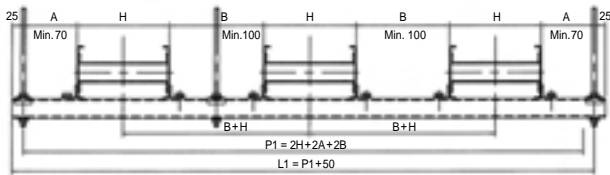


Fig. 31.5 Flatwise hanger 3 Rows

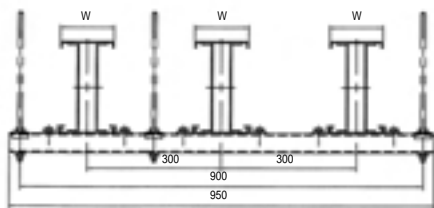


Fig. 31.6 Edgewise hanger 3 Rows

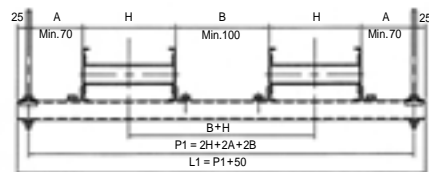


Fig. 31.7 Flatwise hanger 2 Rows

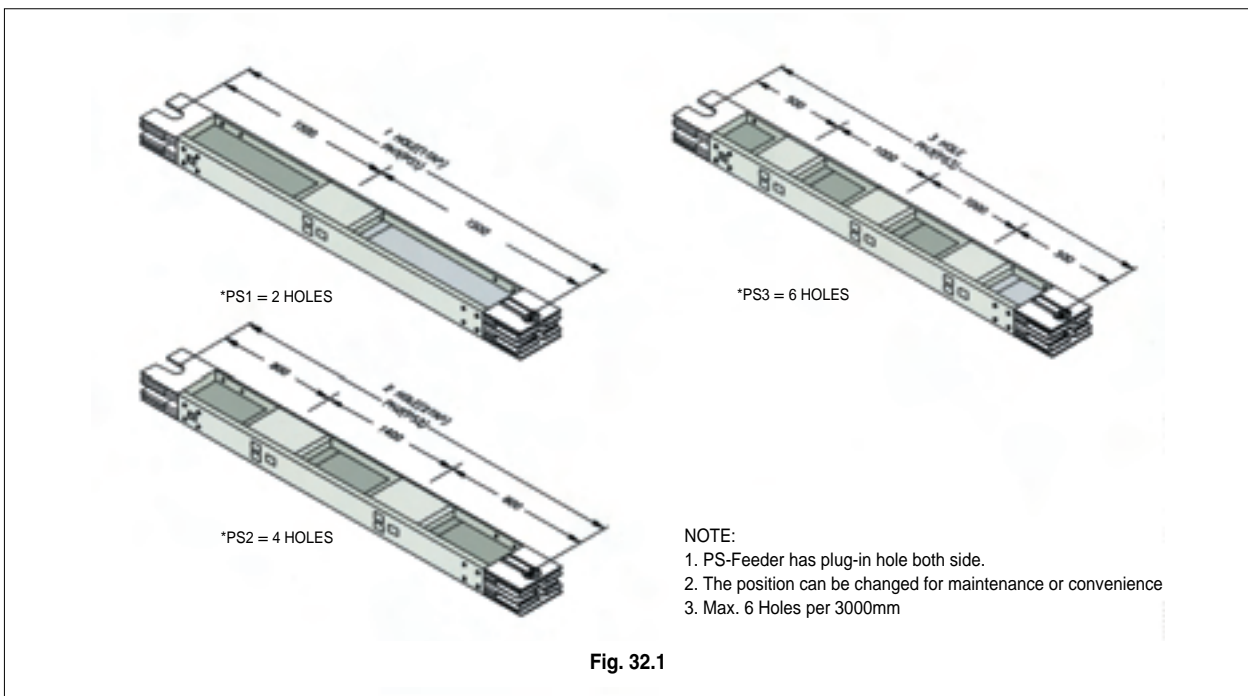
2.4 BRANCH METHOD

BRANCH METHOD

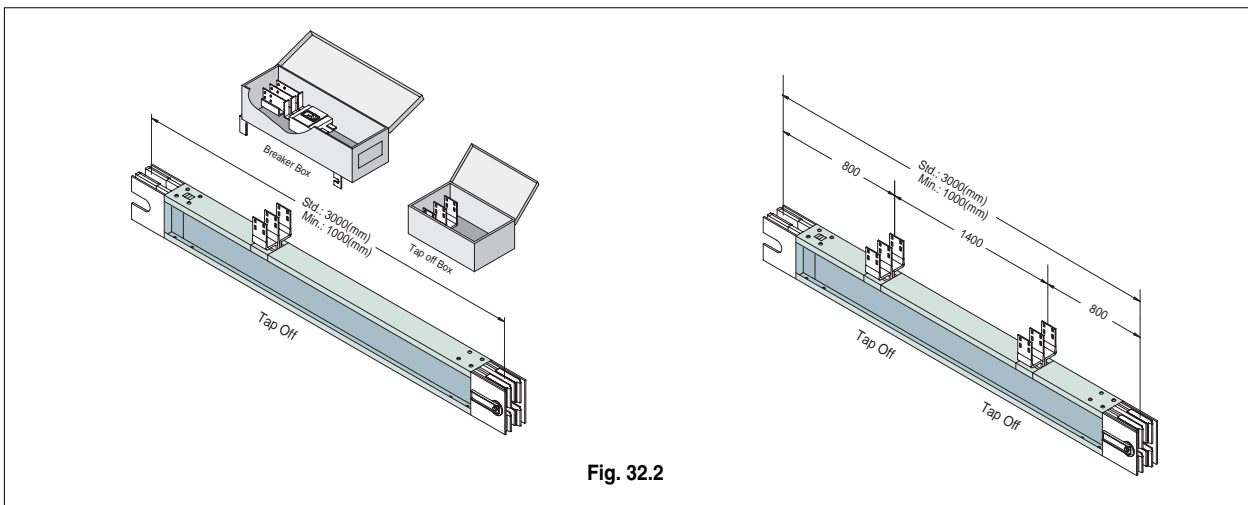
The lengths of plug-in, tap-off and feeder and the positions of plug-in hole and tap-off will be provided in order to be convenient for maintenance of user. All the standard lengths of plug-in, tap-off, and feeder are 3000mm. And those of plug-in and tap-off on 1000mm to 1500mm in 500mm increments.

For plug-in feeder, the rated current diverged is up to 400A(S-Plug in type) or 800A(D-Plug in type) per phase, and for tap-off feeder it is upto 1200A.

Plug-in Feeder standards.



Tap-off Feeder standards.



NOTE: 1. 2 tap-off per 3000mm are recommended. 2. Max branch Ampere is 1200A

● PLUG-IN BOX & TAP OFF BOX

One of the characteristic of bus duct system is easy to install and maintenance of current branch, even when the load is extended and shifted.

✿ If there are spare holes or tap-offs on the bus duct line runs the branch units can be attached on the bus duct at any location that the load is added.

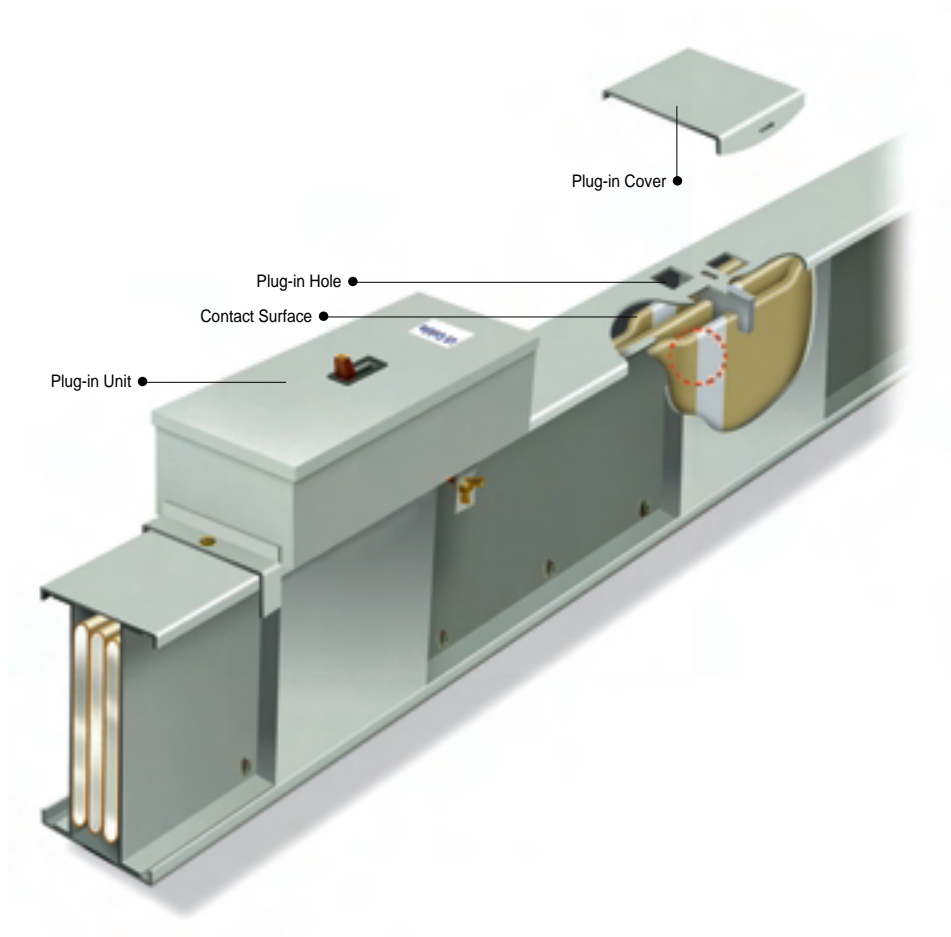
✿ CT, TD and auxiliary devices can be included in branch units or breaker, that can perceive the status of the system.

✿ In case of plug-in unit, it is very easy to install, clip type brush is inserted into busbar.

In adoption the right type of branch units,

- Load type and number that current is branched (include extension of installations)
- Rating of and short-circuit current
- Adapted electrical system
- Installation environments
- Bus duct type

must be considered carefully.



● Here is a guide of selection right type of LSC Plug-in Units

Determine the rating, location and quantity of branch units and calculate the short circuit currents. Electric power devices are very different according to the system that is used (building, IDC, factory...), so the type, rating is must be designed carefully and short circuit currents is calculated which is ultimate anticipate short circuit available at source. LSC BUS DUCT system is suitable for various electric system and shows outstanding feature.

Determine circuit breaker type(mccb. fuse..)

LSC branch unit can adopt various type of mccb, so it's no differents what type of circuit breaker is used within branch of LSC BUS DUCT.

MCCB



MCCB, in which a circuit breaker and trip device are assembled in a mold case, can manually open and close the electric circuit.

- MCCB can automatically cut off electric power in case of overload and short circuit.
- MCCB has a variety of rated current frame from small to large capacities(30AF~1200AF).
- MCCB has four(4) type of breaking capacities economical type(ABE), standard type(ABS), high interrupting type(ABH) and current limiting type(ABL). this feater allows easy application of design with an appropriate breaking capacity.
- Applied standards KSC-8321, IEC-60947.

Table 34

MCCB RATINGS							
MODEL	FRAME (AF)	POLES	TRIP RANGE (AT)	INTERUPTING RATINGS RMS SYMMETRICAL (KA)			
				220V	380V	460V	600V
ABS	50	3, 4	5, 10, 15, 20, 30, 40, 50	25	14	10	5
	100	3, 4	15, 20, 30, 40, 50, 60, 75, 100	50	25	25	10
	225	3, 4	100, 125, 150, 175, 200,225	50	25	25	10
	400	3, 4	250, 300, 350, 400	50	42	35	22
	600	3, 4	500, 600	100	65	50	25
	800	3, 4	700, 800	100	65	50	25
	1000	3, 4	1000	100	65	65	45
ABH	50	3, 4	15, 20, 30, 40, 50	50	25	25	10
	100	3, 4	15, 20, 30, 40, 50, 60, 75, 100	65	35	35	18
	225	3, 4	125, 150, 175, 200, 225	65	35	35	18
	400	3, 4	250, 300, 350, 400	85	65	50	25
ABL	50	3, 4	15, 20, 30, 40, 50	100	65	65	35
	100	3, 4	125, 150, 175, 200, 225	125	65	65	35
	225	3, 4	250, 300, 350, 400	125	100	85	30
	400	3, 4	250, 300, 350, 400	125	100	85	30
	600	3, 4	500, 600	125	100	85	30
	800	3, 4	700, 800	125	100	85	30
	1000	3, 4	1000	125	85	85	65
1200	3, 4	1200	125	85	85	65	

Note: Other brands of MCCB are on request.

FUSE



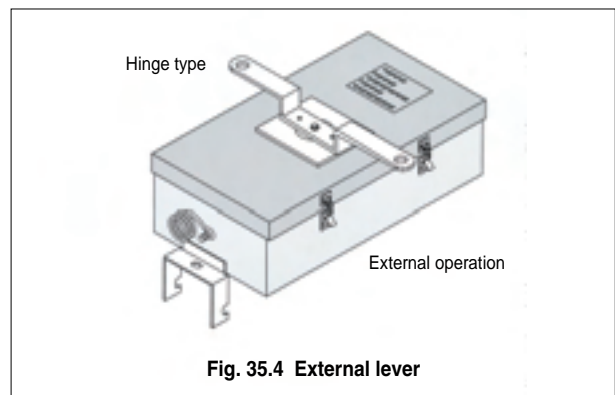
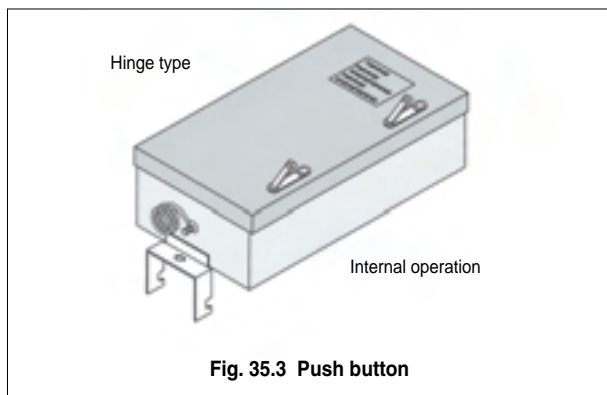
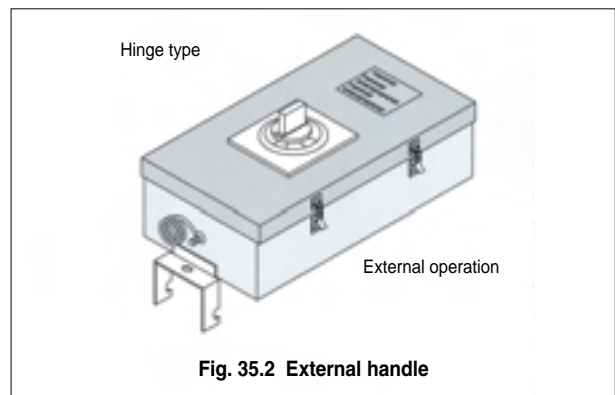
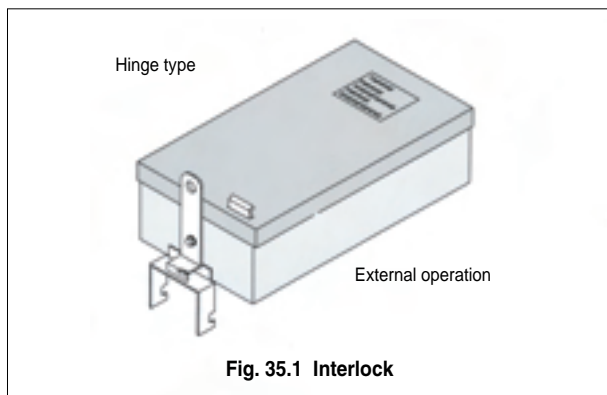
- FUSE, in which a circuit breaker is assembled by fuse link, holder carrier and base, can manually or electrically open and close the electric circuit.
- Fuse has outstanding features in breaking capacity, discrimination and stability compare to MCCB.
- FDS, fuse type switch built in plug in or tap off bow in various type, capacities and manufacturer.
- Applied standards IEC 269.

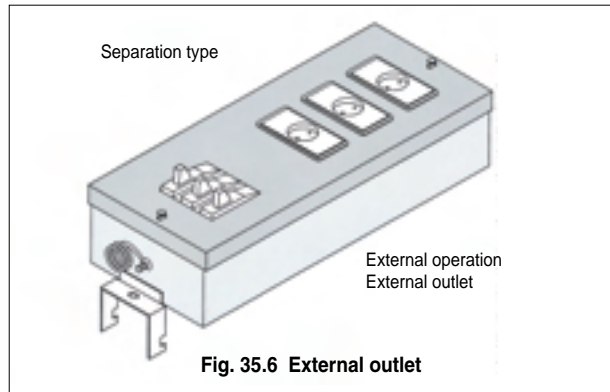
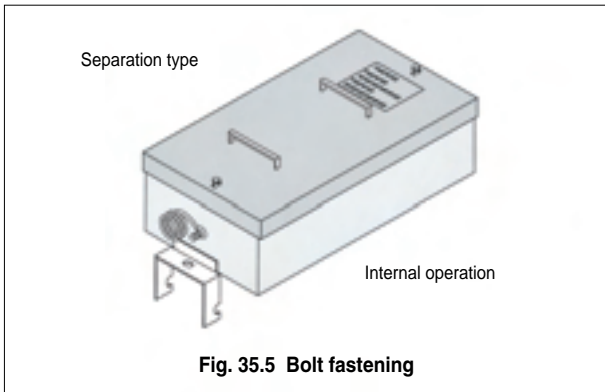
Determine additional attachments etc.

CT, TD, concent and auxiliary devices can be included in branch unit or breaker, that can perceive the electric status to the system. The user must conform the exact type of branch unit.

Determine operation method: external door type.

The door of branch unit can be made various type according to customer's demand. Here is type of branch unit's door shape.

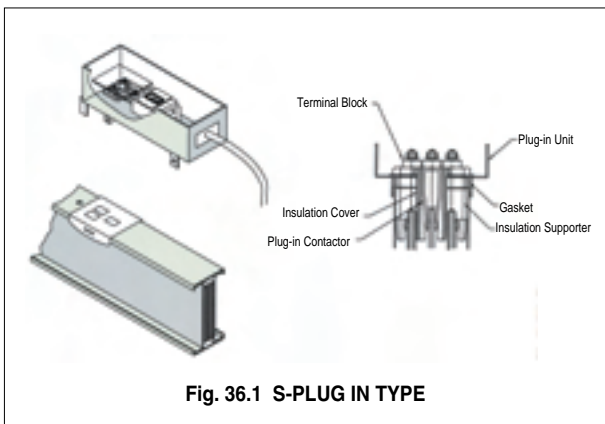




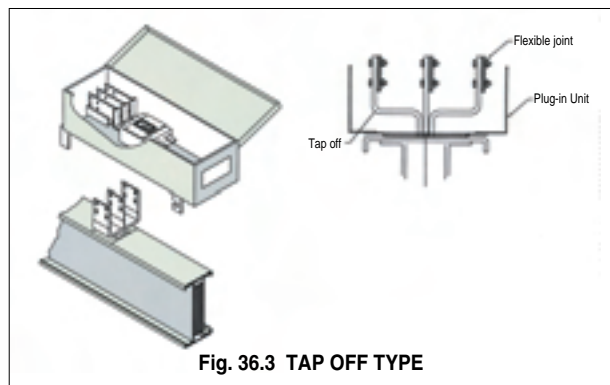
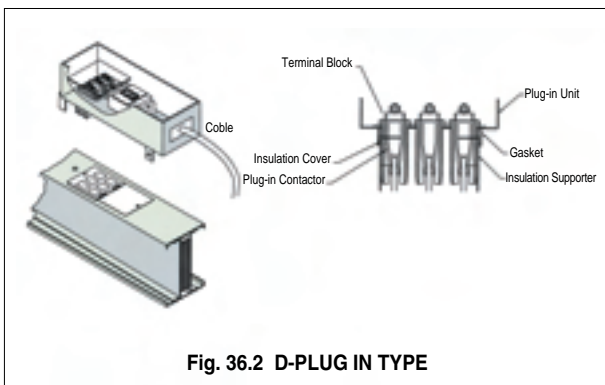
Branch unit must match with the bus duct and rating

There are many type of bus duct in LSC, so the bus duct unit is determined by not only breaking device but also the bus duct type that is inserted.

Table 36



	CURRENTS RANGE	FIRE RESISTANCE	BUS DUCT	BRANCH AMP	BRANCH TYPE
HIGH POWER DISTRIBUTION BRANCH TYPE	600A~6000A	GENERAL TYPE	I-SERIES	30~400A	S PLUG IN TYPE
				600~1200A	TAP OFF TYPE
			8-SERIES	30~800A	D PLUG IN TYPE
				1000~1200A	TAP OFF TYPE
		FIRE RESISTANCE TYPE	F-SERIES	30~400A	S PLUG IN TYPE
				600~1200A	TAP OFF TYPE
Y-SERIES	30~800A	D PLUG IN TYPE			
	1000~1200A	TAP OFF TYPE			



When the type of bus duct and branch unit is not matched, the branch unit is not inserted in bus duct so besides the type of breaking device, below Bus Duct type must be checked.

Bus duct type: _____
(ex: I-series, F-series.....)

Bus duct pole, capacity and conductor material: _____W _____A (CU, AL)

Grounding type: (GE, PE, HE, FE)

IP Grade: (IP41, IP54, IP65)

Branch unit size

Branch unit can be made various size and also cable can be pulled out any direction(rear, side, top) the below are LSC standards.

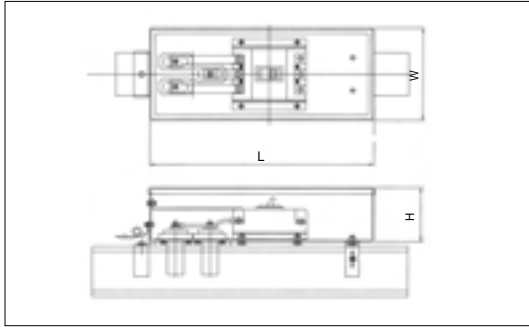


Fig. 37.1 S-PLUG IN TYPE

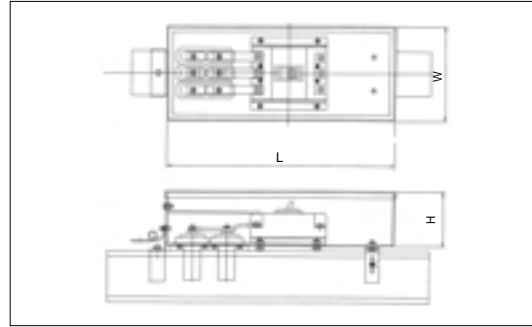


Fig. 37.2 D-PLUG IN TYPE

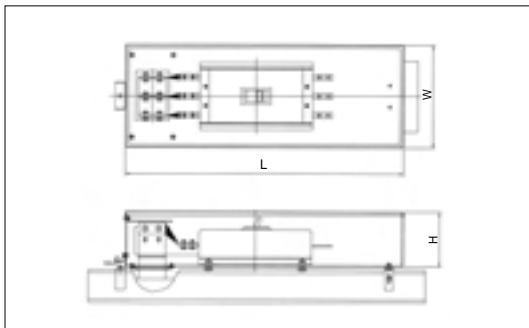


Fig. 37.3 TAP OFF TYPE

Note: The box size will be changed according to the side or top pulling direction. Table-37 show below pulling box size.

Table 37

MODEL	FRAME	L	W		H	REMARK
			3W	4W		
ABS ABH, ABL	50, 60 100	370	220	220	200	"I", "F"- SERIES
ABS ABH, ABL	200	400	220	220	200	
ABS ABH, ABL	400	750	240	280	200	
ABS ABH, ABL	50, 60 100	400	280	280	200	"8", "Y"- SERIES
ABS ABH, ABL	200	500	280	280	200	
ABS ABH, ABL	400	750	340	400	200	
ABS ABH, ABL	600 800	800	340	400	200	
ABS ABH, ABL	600 800	800	340	400	230	I, "F"-SERIES
ABS ABH, ABL	1000 1200	1000	340	400	230	SAME SIZE

Flexible conductor

Flexible conductor is made of braided copper wire, and the connection section is silver-plated for excellent contacting property. This is mainly used for expansion joint of BUS DUCT or the connection of BUS DUCT with transformer or panel.

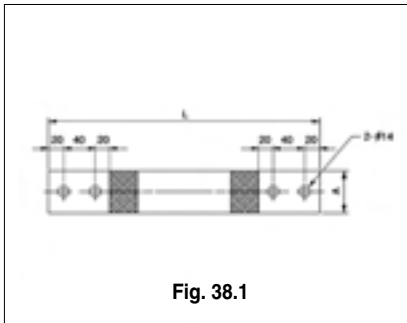


Fig. 38.1

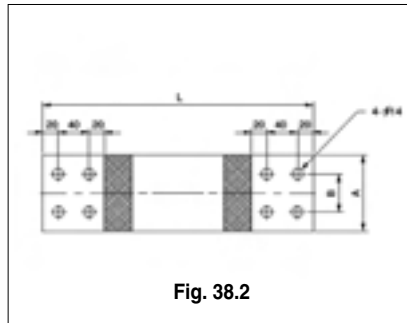


Fig. 38.2

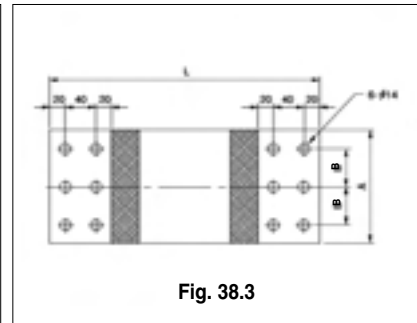


Fig. 38.3

Table 38

AMPS	"A" (mm)		"B" (mm)	Fig
	FOR AL, BUS BAR	FOR CU, BUS BAR		
600	55	55	—	37.1
800	—	55	40	37.1
800	75	—	40	37.2
1000	100	—	50	37.2
1000	—	75	40	37.2
1200	100	100	50	37.2
1500	125	125	40	37.3
1600	150	150	50	37.3
2000	175	175	60	37.3
2500	230	—	60	37.3
2500	—	2x125	40	37.3
3000	2x140	—	50	37.3
3000	—	2x150	50	37.3
3500	2x175	2x175	60	37.3
4000	2x200	2x200	70	37.3
4500	—	3x150	50	37.3
5000	3x175	3x175	60	37.3
6000	3x200	3x200	70	37.3

2.5 TECHNICAL DATA

Impedance

The values of impedance of aluminum and copper conductors for 3-phase alternating current are as follows.

Table 39.1 (unit : 10^{-5} /M)

RATED LOAD AMPS(A)	BAR SIZES (mm)	3 50Hz			3 60Hz			Rdc	
		Rac	X	Z	Rac	X	Z		
ALUMINIUM	600	(1) 6x55	11.32	2.95	11.61	11.36	3.10	11.78	11.13
	800	(1) 6x75	8.37	2.02	8.61	8.45	2.43	8.79	8.17
	1000	(1) 6x100	6.37	1.59	6.57	6.43	1.91	6.71	6.12
	1200	(1) 10x100	3.96	2.05	4.46	4.05	2.45	4.73	3.67
	1500	(1) 10x125	3.26	1.70	3.68	3.34	2.04	3.91	2.94
	1600	(1) 10x150	2.78	1.45	3.14	2.85	1.74	3.34	2.45
	2000	(1) 10x175	2.43	1.27	2.74	2.50	1.52	2.93	2.10
	2500	(1) 10x230	1.93	0.99	2.17	1.98	1.18	2.30	1.60
	3000	(2) 10x150	1.39	0.75	1.58	1.43	0.90	1.69	1.22
	3500	(2) 10x175	1.22	0.65	1.38	1.25	0.79	1.48	1.05
	4000	(2) 10x200	1.09	0.58	1.23	1.12	0.69	1.32	0.92
	4500	(2) 10x230	0.96	0.51	1.09	0.99	0.61	1.16	0.80
	5000	(3) 10x175	0.81	0.45	0.93	0.83	0.54	0.99	0.70
	6000	(3) 10x200	0.73	0.39	0.83	0.75	0.48	0.89	0.62

Table 39.2 (unit : 10^{-5} /M)

RATED LOAD AMPS(A)	BAR SIZES (mm)	3 50Hz			3 60Hz			Rdc	
		Rac	X	Z	Rac	X	Z		
COPPER	600	(1) 6x55	7.10	2.59	7.56	7.17	3.10	7.81	6.87
	800	(1) 6x55	7.10	2.59	7.56	7.17	3.10	7.81	6.87
	1000	(1) 6x75	5.29	2.02	5.56	5.35	2.43	5.88	5.04
	1200	(1) 6x100	4.06	1.59	4.36	4.15	1.91	4.57	3.78
	1500	(1) 6x125	3.34	1.31	3.59	3.42	1.57	3.76	3.02
	1600	(1) 6x150	2.85	1.11	3.06	2.92	1.33	3.21	2.52
	2000	(1) 6x175	2.49	0.96	2.67	2.56	1.16	2.81	2.16
	2500	(2) 6x125	1.83	0.68	1.95	1.89	0.82	2.06	1.51
	3000	(2) 6x150	1.42	0.57	1.53	1.46	0.68	1.61	1.26
	3500	(2) 6x175	1.25	0.49	1.34	1.28	0.59	1.41	1.08
	4000	(2) 6x200	1.11	0.43	1.19	1.14	0.52	1.25	0.94
	4500	(2) 6x230	0.95	0.39	1.03	0.97	0.47	1.08	0.84
	5000	(3) 6x175	0.83	0.34	0.90	0.85	0.40	0.94	0.72
	6000	(3) 6x200	0.74	0.30	0.80	0.76	0.33	0.83	0.63

Temperature of conductor is at 95°C

Voltage drop

For 3-phase alternating current, the values of voltage drop per 100 meter are as follows.

Table 40.1 (unit : volt/100m)

RATED LOAD AMPS(A)	BAR SIZES (mm)	VOLTAGE DROP-3 50Hz						VOLTAGE DROP-3 60Hz						
		POWER FACTOR						POWER FACTOR						
		1.00	.95	.90	.85	.80	.75	1.00	.95	.90	.85	.80	.75	
ALUMINUM	600	(1) 6x55	11.76	12.01	11.76	11.41	11.02	10.60	11.80	12.22	12.03	11.73	11.38	10.99
	800	(1) 6x75	11.60	11.90	11.76	11.34	10.97	10.56	11.70	12.17	12.00	11.72	11.38	11.00
	1000	(1) 6x100	11.03	11.34	11.12	10.82	10.47	10.09	11.13	11.61	11.46	11.20	10.89	10.53
	1200	(1) 10x100	8.24	9.15	9.26	9.24	9.14	8.99	8.42	9.59	9.80	9.84	9.79	9.69
	1500	(1) 10x125	8.46	9.41	9.54	9.52	9.42	9.26	8.67	9.89	10.11	10.16	10.12	10.01
	1600	(1) 10x150	7.71	8.57	8.69	8.67	8.58	8.44	7.91	9.02	9.22	9.26	9.22	9.12
	2000	(1) 10x175	8.43	9.38	9.50	9.47	9.37	9.22	8.66	9.87	10.08	10.13	10.08	9.97
	2500	(1) 10x230	8.34	9.26	9.37	9.34	9.24	9.08	8.59	9.76	9.97	10.00	9.95	9.83
	3000	(2) 10x150	7.22	8.08	8.20	8.20	8.12	8	7.41	8.51	8.72	8.73	8.75	8.66
	3500	(2) 10x175	7.38	8.24	8.37	8.36	8.28	8.15	7.58	8.68	8.89	8.95	8.91	8.83
	4000	(2) 10x200	7.52	8.39	8.51	8.50	8.42	8.29	7.73	8.85	9.05	9.10	9.07	8.98
	4500	(2) 10x230	7.51	8.37	8.48	8.46	8.38	8.24	7.73	8.83	9.03	9.07	9.03	8.93
	5000	(3) 10x175	7.02	7.89	8.02	8.02	7.96	7.85	7.22	8.32	8.53	8.60	8.58	8.51
6000	(3) 10x200	7.59	8.47	8.59	8.58	8.50	8.37	7.79	8.96	9.19	9.25	9.23	9.15	

Table 40.2 (unit : volt/100m)

RATED LOAD AMPS(A)	BAR SIZES (mm)	VOLTAGE DROP-3 50Hz						VOLTAGE DROP-3 60Hz						
		POWER FACTOR						POWER FACTOR						
		1.00	.95	.90	.85	.80	.75	1.00	.95	.90	.85	.80	.75	
COPPER	600	(1) 6x55	6.88	7.37	7.36	7.26	7.11	6.93	6.94	7.60	7.65	7.60	7.49	7.34
	800	(1) 6x55	9.84	10.47	10.42	10.25	10.02	9.75	9.93	10.78	10.81	10.71	10.52	10.29
	1000	(1) 6x75	9.17	9.80	9.78	9.64	9.43	9.19	9.27	10.12	10.18	10.09	9.94	9.73
	1200	(1) 6x100	8.44	9.05	9.04	8.92	8.47	8.52	8.63	9.43	9.49	9.42	9.28	9.09
	1500	(1) 6x125	8.67	9.30	9.28	9.16	8.97	8.75	8.87	9.70	9.76	9.69	9.55	9.35
	1600	(1) 6x150	7.89	8.45	8.44	8.32	8.15	7.95	8.08	8.83	8.89	8.82	8.68	8.51
	2000	(1) 6x175	8.62	9.23	9.22	9.09	8.90	8.67	8.85	9.66	9.71	9.63	9.48	9.29
	2500	(2) 6x125	7.94	8.47	8.44	8.31	8.13	7.92	8.18	8.88	8.91	8.82	8.67	8.48
	3000	(2) 6x150	7.39	7.95	7.94	7.84	7.69	7.50	7.58	8.31	8.31	8.31	8.20	8.04
	3500	(2) 6x175	7.55	8.10	8.09	7.99	7.83	7.64	7.75	8.48	8.54	8.47	8.35	8.18
	4000	(2) 6x200	7.69	8.24	8.23	8.12	7.95	7.75	7.90	8.63	8.68	8.62	8.49	8.31
	4500	(3) 6x150	7.39	7.97	7.98	7.89	7.74	7.56	7.58	8.34	8.41	8.36	8.25	8.10
	5000	(3) 6x175	7.19	7.74	7.74	7.64	7.50	7.32	7.38	8.10	8.16	8.11	8.00	7.85
6000	(3) 6x200	7.69	8.28	8.28	8.18	8.02	7.83	7.90	8.57	8.60	8.52	8.38	8.19	

Temperature of conductor is at 95°C

Short-circuit characteristics

The short-circuit characteristics shown below are based on KS C 8450 and JIS C 8364.

When required, can be designed and supplied a bus duct having a larger capacity, for example, a reinforced type shown below.

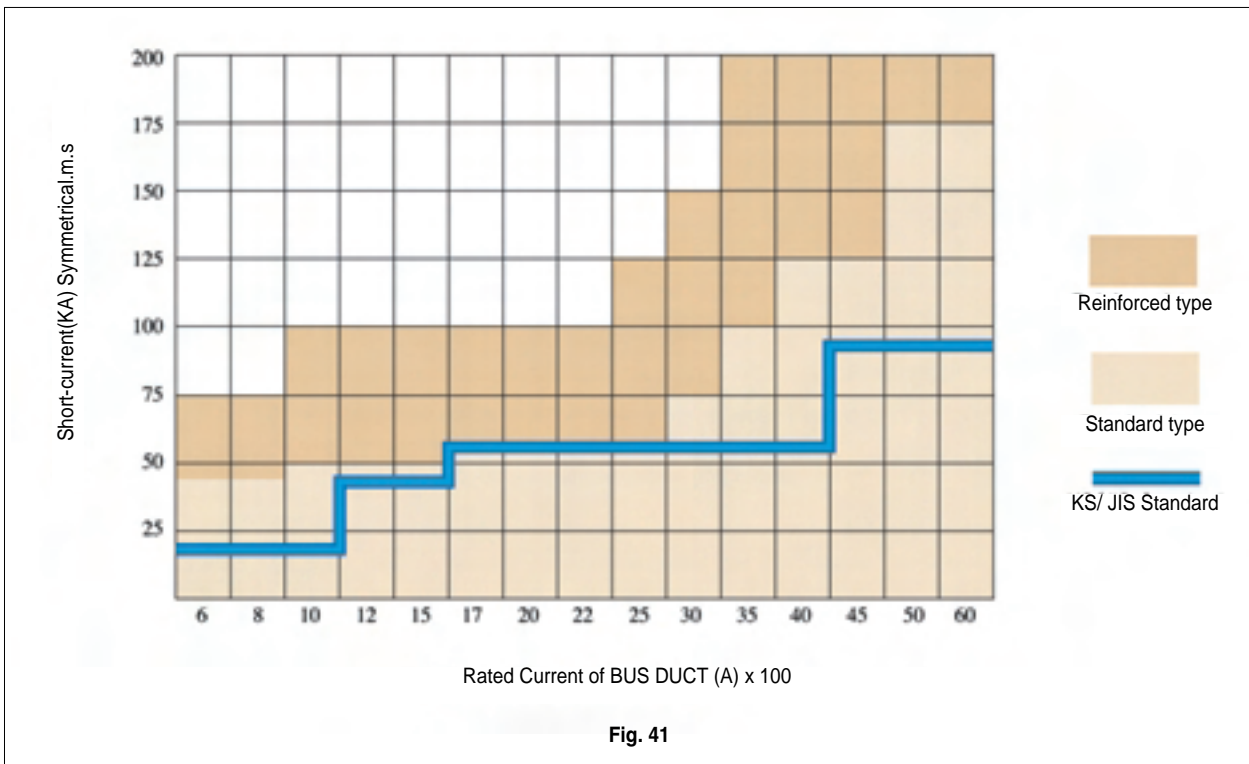


Fig. 41

Table 41

RATED CURRENT(A)	KS/JIS SPEC(KA)	MAKER'S STANDARD(KA)	REINFORCED TYPE(KA)
600	22	40	75
800	22	40	75
1000	22	50	100
1200	42	50	100
1500	42	50	100
1600	60	60	100
2000	60	60	100
2500	60	75	125
3000	60	75	150
3500	60	100	200
4000	60	125	200
4500	90	125	200
5000	90	175	200
6000	90	175	200

KS: Korean standard, JIS: Japanese standard

Temperature rise characteristics

If bus duct is energized by the rated current in ambient temperature of 40°C or less, the connection section of conductor will be 55°C or less, and outside the duct will be 40°C or less.

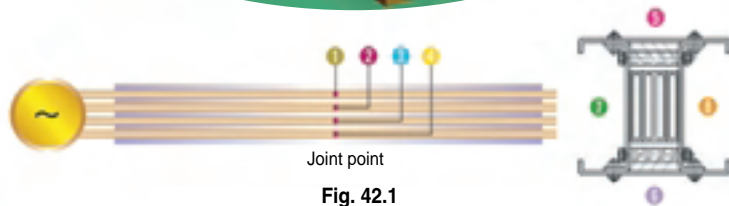


Fig. 42.1

The following graph is a result of temperature-rise test for Al-Fe 4W 3000A.

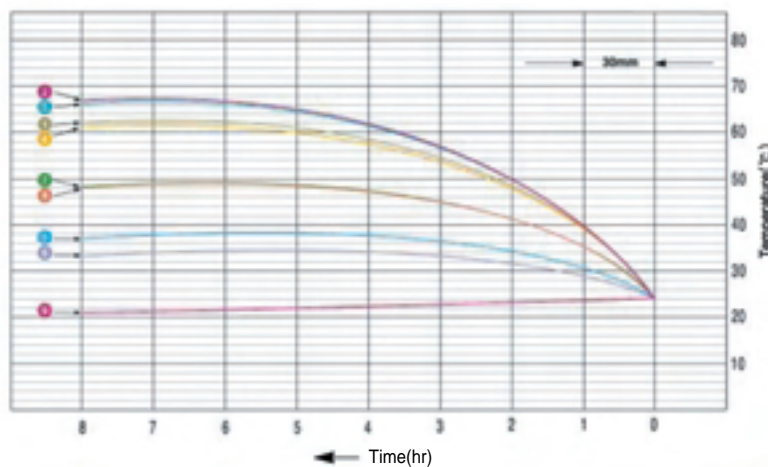


Fig. 42.2

Table 42

Description	SPOT								
	1	2	3	4	5	6	7	8	9
	busbar joint	busbar joint	busbar joint	busbar joint	housing	housing	housing	housing	room temperature

2.6 MAINTENANCE

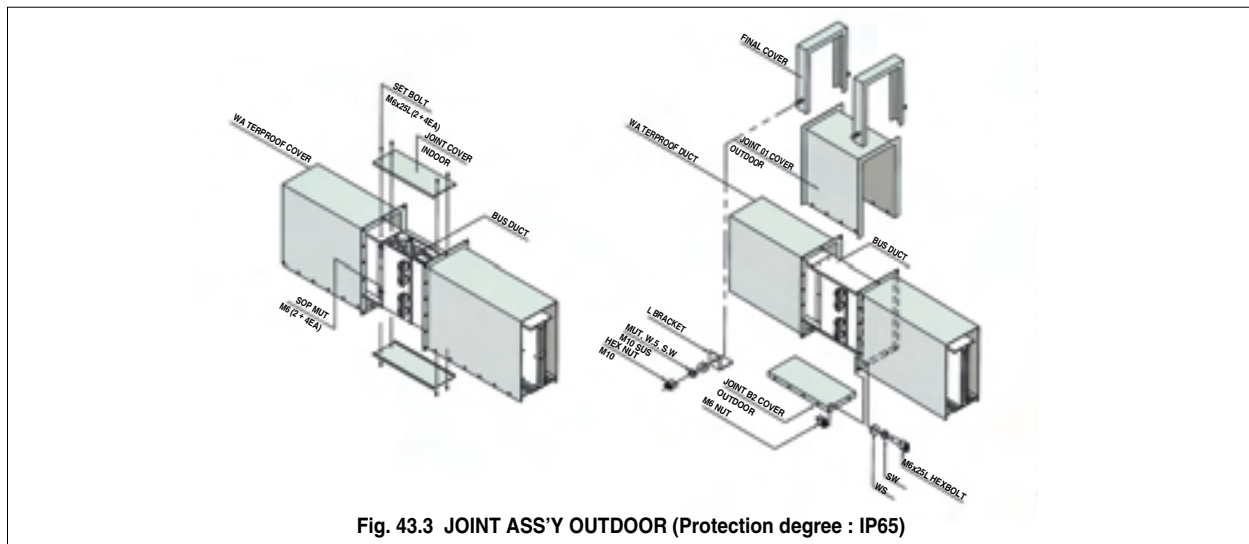
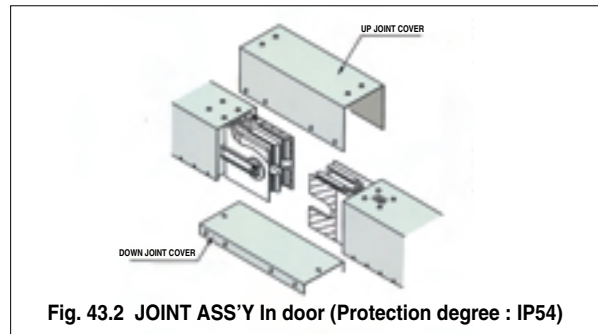
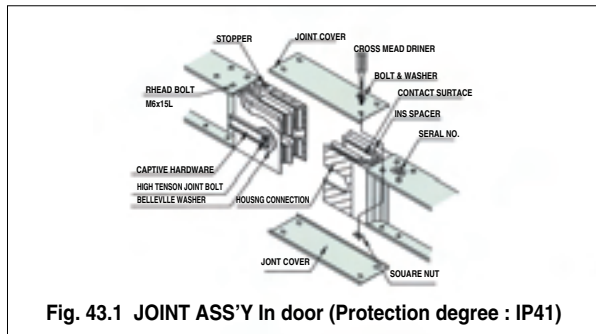
Regular maintenance is required to maintain the best performance for the expected span of life through prevention of any unexpected accidents in BUS DUCT line.

CHECKING PERIOD

After energizing, check once between a half year and a year. At this time, especially, verify that jointing bolt tightened, and if loosened, tighten it normally. After that, perform regular checking once per year.

Table 43

SECTION	ITEM	ACTION TO TAKE
Connection section Diverging section Machinery combining section	<ol style="list-style-type: none"> 1. Isn't bolt loosened? 2. Isn't there any trace of overheating? 3. Isn't there any trace of water penetrated? 4. Aren't there discoloration, deformation, damage, or brokenness of bolt, nut, disc spring, insulating spacer? 5. Is the grounding wire connected? 	<ol style="list-style-type: none"> 1. Tighten it into specified torque. 2. Contact with the maker and take proper actions. 3. Clean up it and take action so that water may not fall in. 4. Contact with the maker and take proper actions. 5. Immediately connect it.
The whole line	<ol style="list-style-type: none"> 1. Aren't there deformation, bending, and damage, etc. of BUS DUCT? 2. Isn't there any problem in support section of parallel and vertical part? 3. Aren't there any danger such as water, moisture, high temperature, corrosive gas, serious vibration, dust, etc.? 4. Is the insulation resistance normal? 5. Isn't there dis-painted or corroded part? 	<ol style="list-style-type: none"> 1. Contact with the maker to take action. 2. Repair it in order to operate normally. 3. Remove dangerous factors. 4. Contact with the maker to take close examination and action. 5. Perform repair, painting, and cleaning.



 Please confirm the following information in the case of order or a technologic inquiry

Purpose	Quotation () Confirming ()	Application	System design () Producing instruction () Completion data ()
Project details		Delivery details	
Project Name		Drawing	
Contractor/Buyer		Materials	
Consignee/Distributor		Installation	
Installation company		Powering	

BUS DUCT SPECIFICATION AND SCOPE

Type	Insulation (), Fire resistance (), PI 800 (), Mini (), Baby (), Bare conductor ()				
Conductor	Cu (), Al ()	Voltage	V	Ampere	Amp
Plating method	Silver plate (), Silver coating (), Tin coating ()				
Grounding method	Standard (), PE (/Size : x), Inter5W (50%, 100%), Others ()				
Duct quality	SPCC (), SGP(), SUS (), CU (), AL ()	IP material	SGP(), SUS (), SPC ()		
Color	5Y7/1 (), 7.5BG6/1.5 (), Others ()	IP grade	IP41(), IP54(), IP65 ()		
Wiring	3P3W (), 3P4W (), 1P3W (), 1P2W (), ()P()W, Refer to the drawing ()				
Flange type	Standard (), Non standard (), End (), Box (), Generator Zebra Box ()				
Supplying scope	Flexible (), Connection bus bar (), Hanger (), Vertical parts accessories (), Others ()				

INSTALLATION SPECIFICATION AND SCOPE

Installation method	Edgewise (), Flatwise (), Mixed (), Riser ()				
Vertical part hanger	Front (), Side (), Medium (), Support (), Fire barrier (Economic type, Quality type)				
Installation site	Indoor (), Outdoor (), Mixed (), Installation level (BOB=FL + mm)				
Line constitution	PNL(M/T) + PNL()	Oil TR+PNL()	PNL+Riser ()	Valance measurement	Y (), N ()
Box in/out direction	Up (), Down (), Up/Dwon (), Cable Box (), Installation level (FL+ mm)				

PLUG IN UNIT SPECIFICATION AND SCOPE

Plug in unit type	ABS (), ABH (), ABL (), ABE (), FDS (), MCCB ()				
Magnetic number	3P (), 4P (), 2P ()	Door operation	Standard (), Bolting (), Handle (), Lever ()		
Switch ampere	Voltage (V), 22KA (), 42KA (), 85KA (), 100KA (), Others ()				

PRE QUALIFIED DOCUMENT FOR SYSTEM DESIGN

- | | |
|--|----------------|
| 1. Bus duct basic lay out drawing | : Y (), N () |
| 2. TR and Panel specification | : Y (), N () |
| 3. Bus duct installation part construction drawing | : Y (), N () |
| 4. Utility | : Y (), N () |

3. MEDIUM POWER DISTRIBUTION (100A~400A)

- 3.1 M-SERIES (MINI BUS DUCT)
- 3.2 B-SERIES (BABY BUS DUCT)

3.1 M-Series (MINI Bus Duct)

● THE LSC MINI BUS DUCT IS A PRACTICAL PRODUCT DESIGNED TO MEET TODAY'S NEEDS.

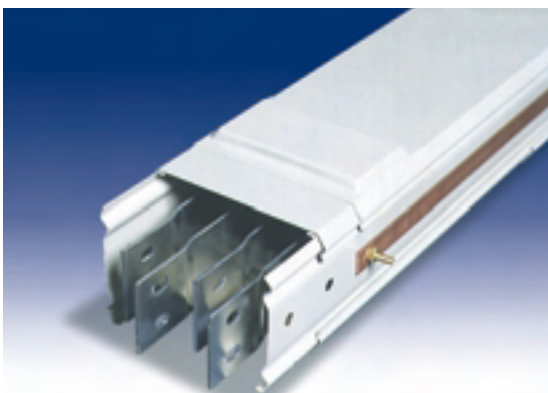


R&D Programs at factories and research centers are designed to respond to the flow of production activities and ever changing requirements. Likewise, a power distribution system for a variety of facility and equipment should be readily and economically adaptable to changes in their locations.

The LSC Mini Bus Duct is a wiring system quickly adaptable to such changes. It is both convenient and practical.



1. Connections can be made in any location with the convenient 10 plug-in receptacles 3-meter length.
2. Easily adapts to accommodate a change in machine layout as there are numerous, regularly spaced receptacles. The relocation and addition of new wiring is simple to do as the Bus Duct is constructed in unit from.
3. Electric safety and reliability are high as a copper ground bar run alongside the full length of the Bus Duct.
4. The Bus Duct is small and lightweight for easy installation.



Conductors : High conductivity copper bars.

Contact Surfaces : Tin-plated to maintain low contact resistance.

Bus Bar Supports : Insulation spacer of polyester resin FRP with high dielectric and mechanical strength.

Duct (=Housing=Enclosure) : Steel with copper ground bar.

Colors : Epoxy powder painting upon customer request.

Ratings : 600V below, 300A~400A.

FEEDER AND CROSS-SECTION

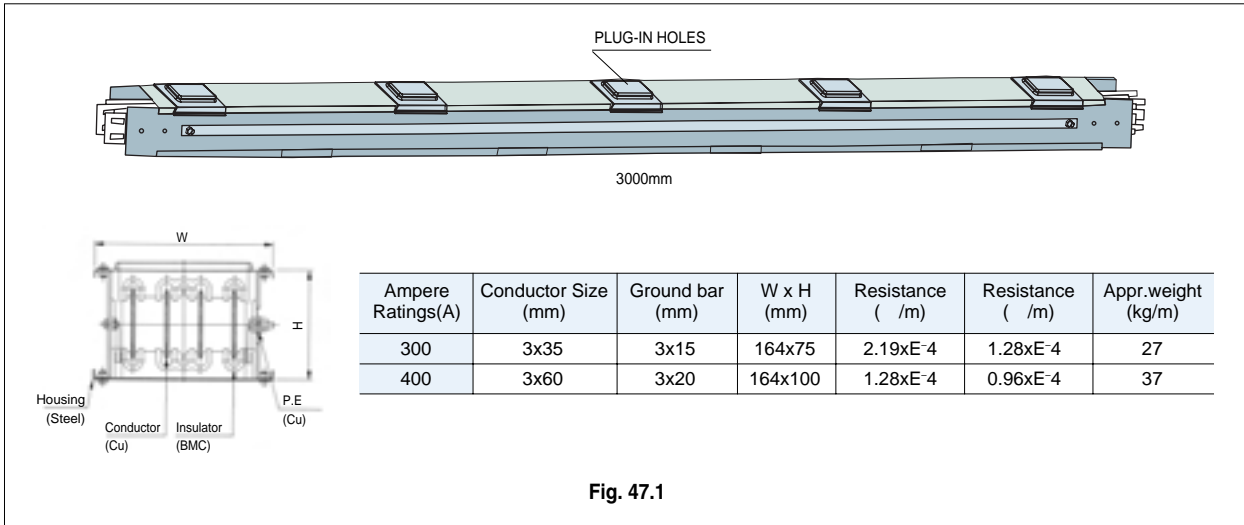


Fig. 47.1

STANDARD CONSTRUCTION

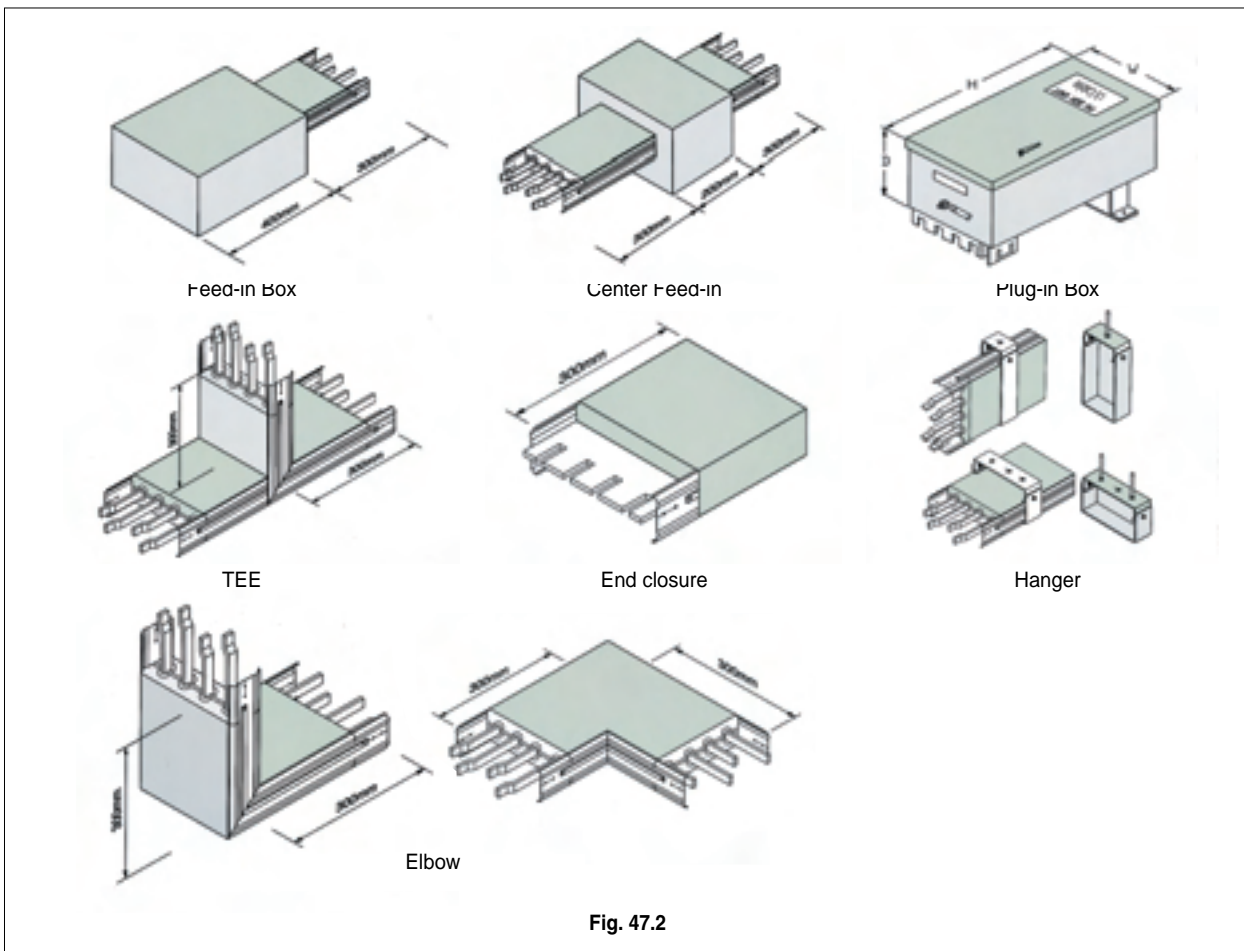
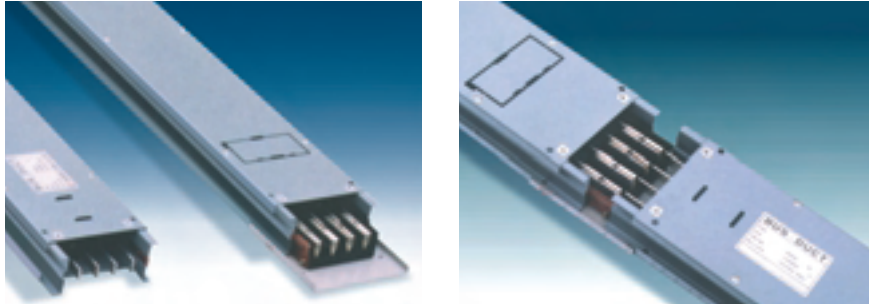


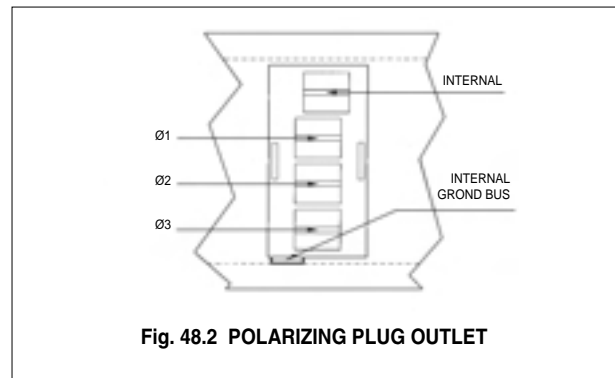
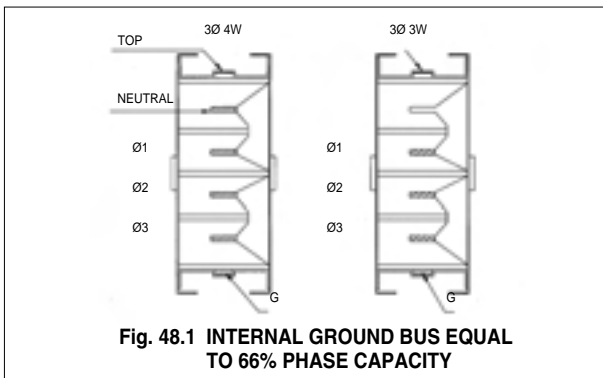
Fig. 47.2

3.2 B-Series (BABY Bus Duct)

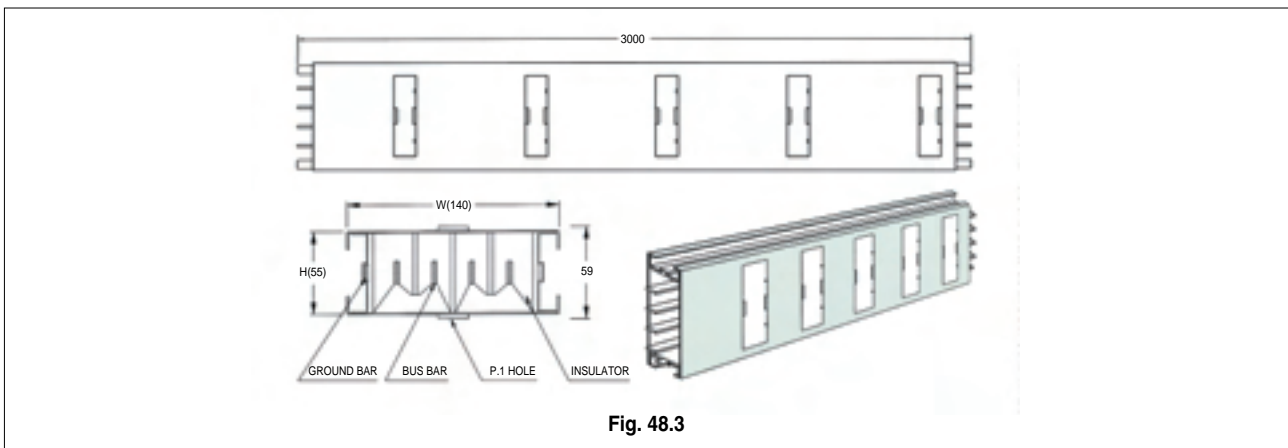
● LSC BABY BUS DUCT IS THE ANSWER FOR MANY DIVERSIFIED APPLICATIONS



1. Connections is possible at location, having 10 plug receptacles within a length of 3 meters.
2. Power supply can be connected at any point as the plug-in method is used for the cable feed-in box.
3. Adaptable to any change in lay-out and can be routed any place-ceiling, wall, trench, etc.
4. Can be installed easily and quickly at low cost because of it's socket-type connections.
5. Electric safety and reliability are high as a copper ground bar runs alongside the full length of the Bus Duct.
6. Easily connection or disconnection with wiring and power leakage disconnectors and an output receptacle.

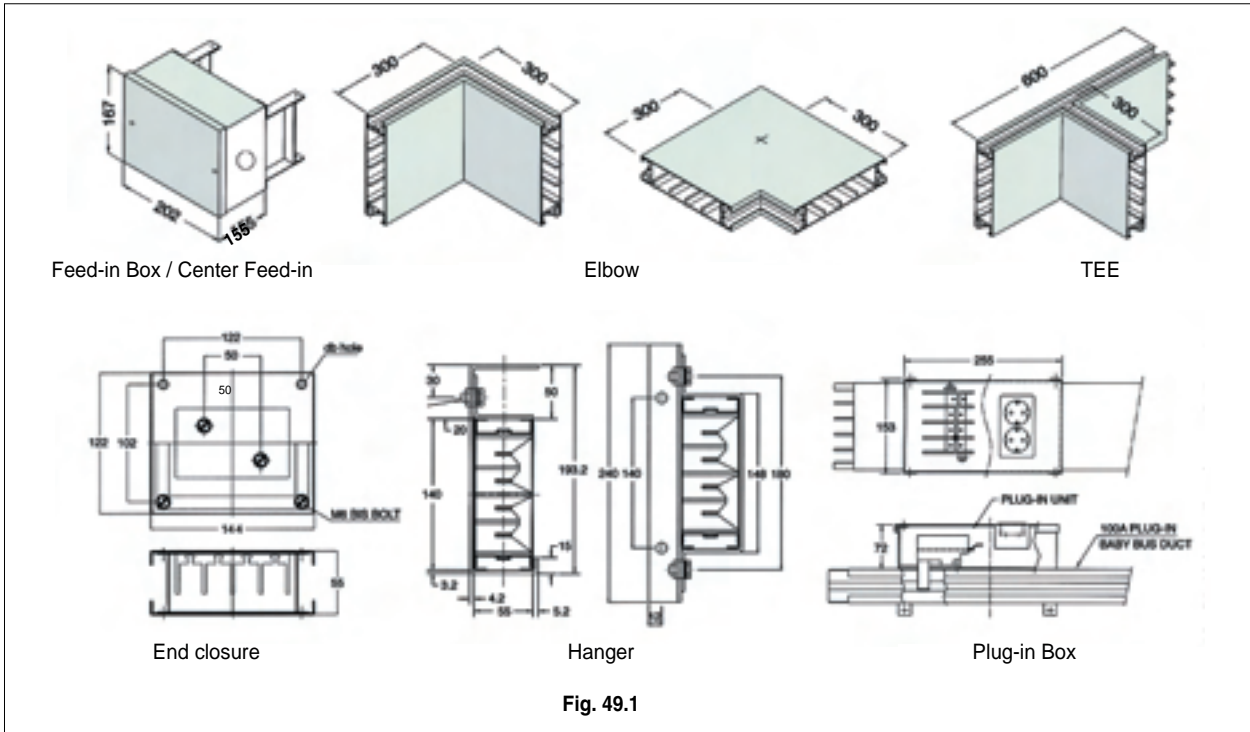


FEEDER AND CROSS-SECTION

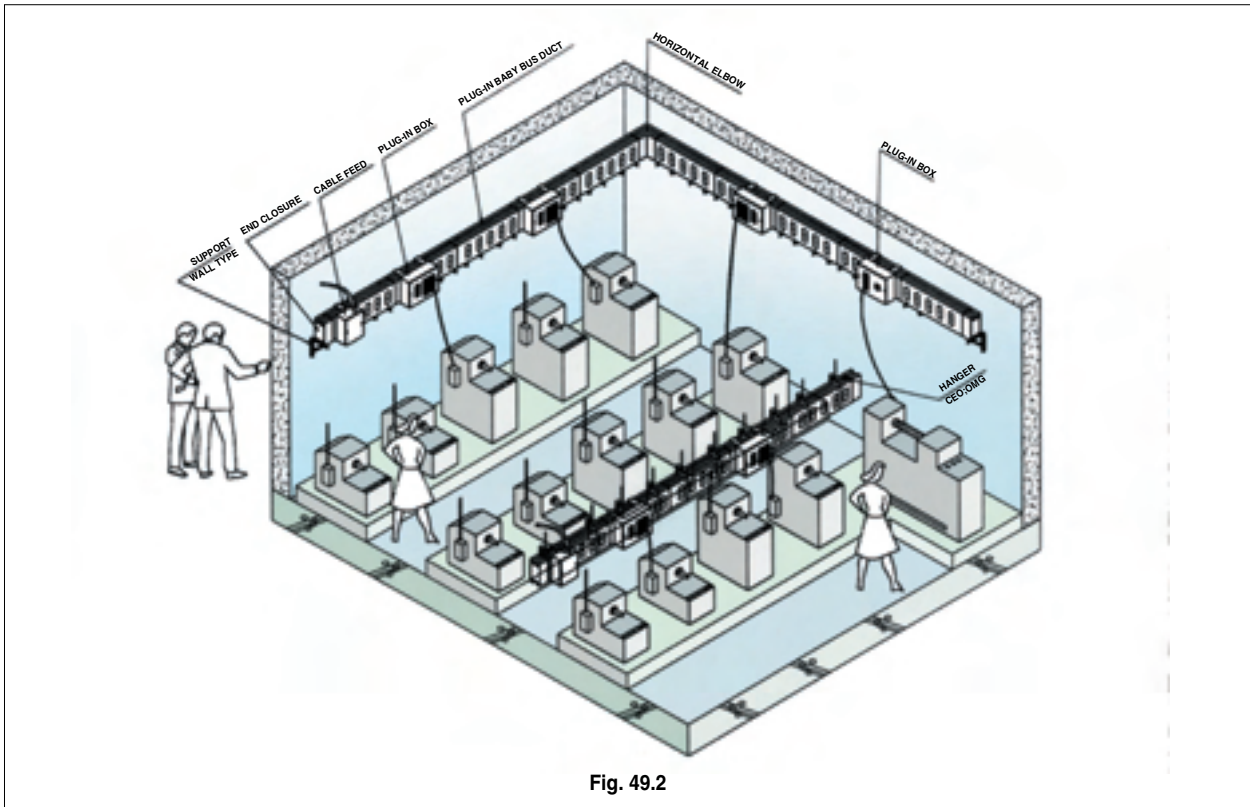


Ampere Ratings(A)	Conductor Size(mm)	Ground bar(mm)	W x H(mm)	Lenght(m)	Approx.weights(kg/m)
100	3x15	3x10	140x55	1~3	6~7

STANDARD CONSTRUCTION



BABY BUS DUCT LAYOUT



**● Please confirm the following information
in the case of order or a technologic inquiry**

M-Series

1. Applicable standard :
2. Rated voltage : 100~600V
3. Rated current : 300~400A
4. Wiring system : () Phase, ()Wire
5. Current Rating of plug-in box :
6. Conductor material : Copper
7. Place of installation : Indoor, Outdoor,
Indoor+Outdoor
8. Color : 7.5BG 6/1.5 5Y7/1 N7.5 etc
9. Drawing of basic layout
10. Single line diagram
11. Something Important

B-Series

1. Applicable standard :
2. Rated voltage : 100~600V
3. Rated current : 100A~200A
4. Wiring system : () Phase, ()Wire
5. Current Rating of plug-in box :
6. Conductor material : Copper
7. Place of installation : Indoor, Outdoor,
Indoor+Outdoor
8. Color : 7.5BG 6/1.5 5Y7/1 N7.5 etc
9. Drawing of basic layout
10. Single line diagram
11. Something Important

MEMO

4. AIR INSULATED BUS DUCT

- 4.1 A-SERIES (LOW VOLTAGE)
- 4.2 H-SERIES (HIGH VOLTAGE)

4.1 A-Series (Low Voltage)

A-Series (Air Insulated Bus Duct)

Bus Duct System rated 600A~4000A. There is One bar, Two bar and Three bar per phase according to capacity.

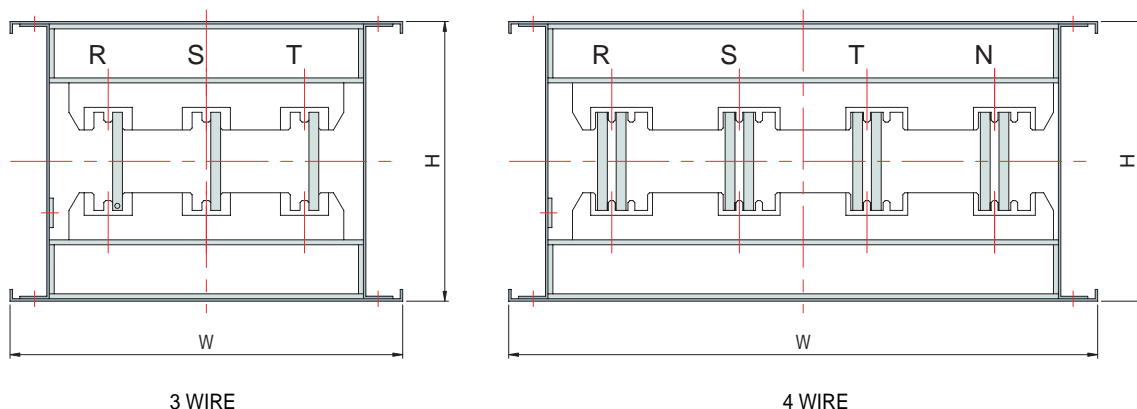


Fig. 52.1

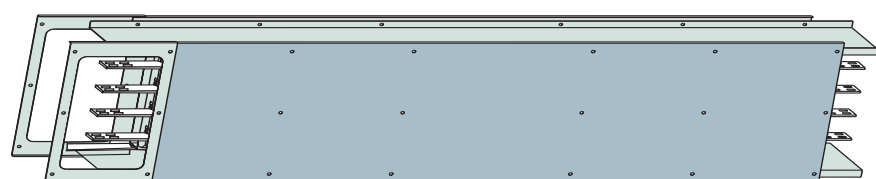


Fig. 52.2

“A”-Series Bus Duct Type Table.

Table 52

AC Ampere Rating	3 - W PE			4 - W PE		
	“W” Width (mm)	“H” Height (mm)	App. Weight (mm)	“W” Width (mm)	“H” Height (mm)	App. Weight (mm)
COPPER	600	400	250	400	250	55
	800	400	260	400	260	58
	1000	400	275	400	275	61
	1200	400	350	400	350	69
	1500	400	350	400	350	76
	1600	400	350	400	350	83
	2000	400	400	90	400	103
	2500	500	350	109	500	127
	3000	500	375	123	500	145
	3500	700	400	138	700	164
	4000	700	400	178	700	218

4.2 H-Series (High Voltage)

● LSC HIGH VOLTAGE BUS DUCT GIVE JOY AND SATISFACTION TO CUSTOMERS!



THE ELECTRICAL WORLD OF THE FUTURE – High Voltage, Large Capacity!

- Need of large capacity in small area
- Wanted safety and harmony with circumstances
- Need of large short circuit capacity
- Savings in installation cost
- Wanted high quality and well-known product

So LSC, the best bus duct maker, should give joy and satisfaction to customers!



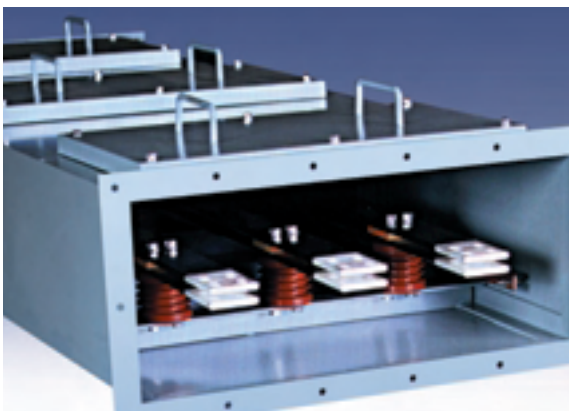
LSC High Voltage BUS DUCT

Systems take in a wide range of possibilities, up to 35KV and 4000A

This is metal-enclosed non-segregated phase bus systems.

Bus bars are supported by epoxy insulator with high dielectric and mechanical strength.

Epoxy coating over copper bars provides high dielectric strength, excellent chemical resistance, durable mechanical characteristics and high thermal emissivity. Enclosure is also made of galvanized steel together with non-magnetic stainless steel to minimize the electric losses.



Conductors : High conductivity copper bars coated with epoxy.

Contact Surfaces : Silver-plated to maintain low contact resistance.

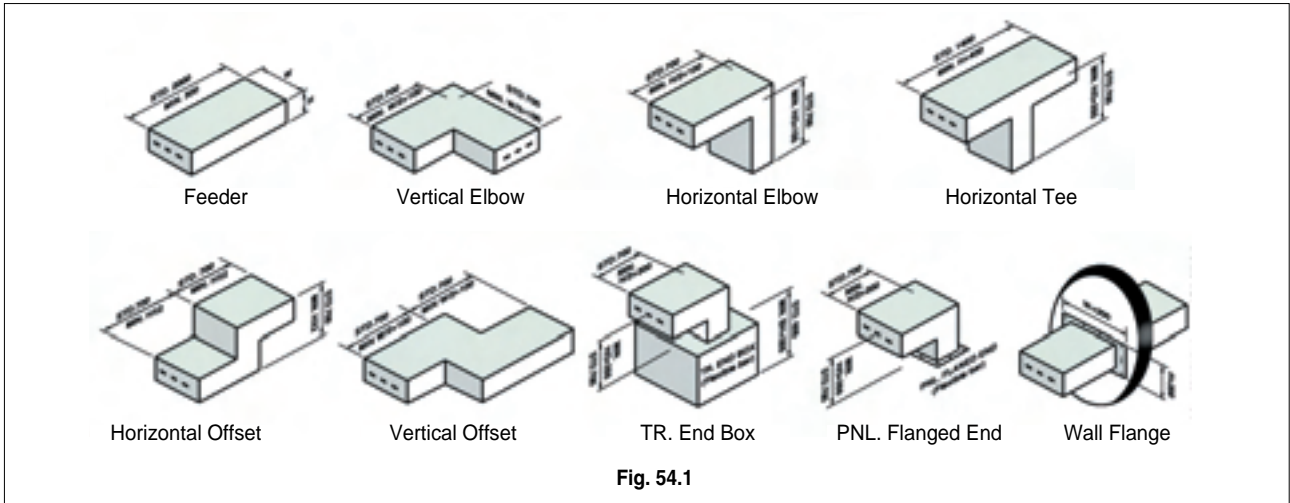
Bus Bar Supports : Epoxy insulator

Enclosure(Duct) : Ventilated steel together with non-magnetic stainless steel (Indoor). Non-ventilated(Outdoor)

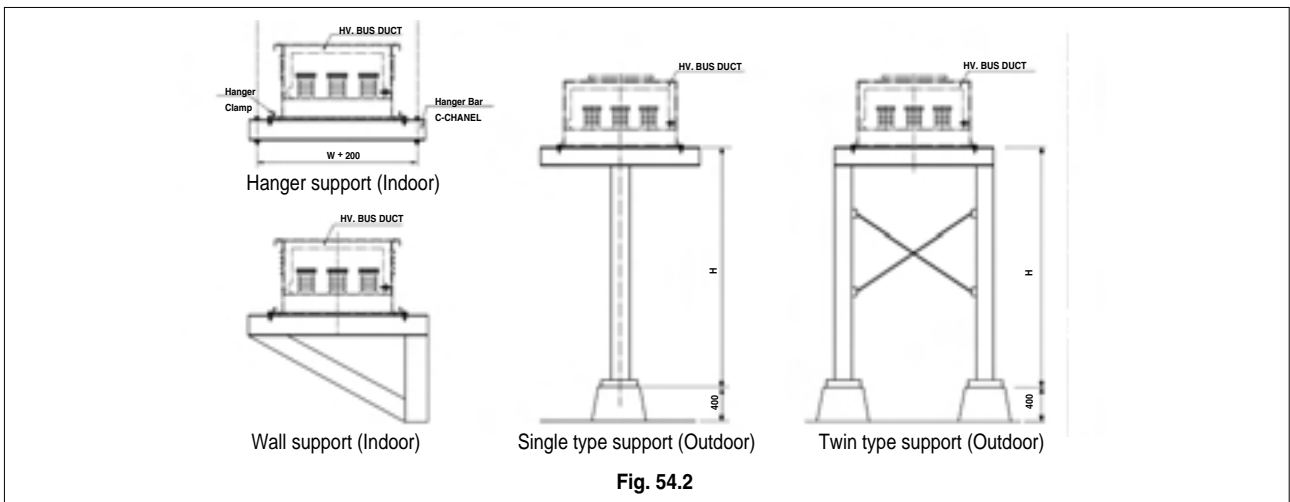
Colors : Epoxy powder painting with purchaser's choice.

Ratings : 3.3KV thru 35KV, 600A thru 4000A.

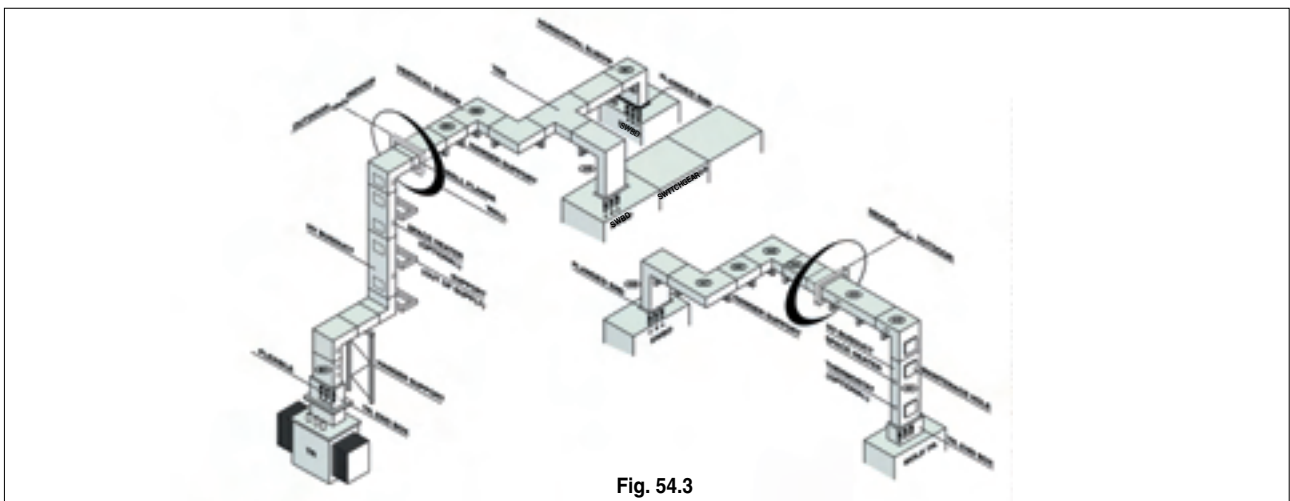
MINIMUM CONSTRUCTION MEASUREMENTS



STRUCTURAL SUPPORTS



HV BUS DUCT LAYOUT



**Please confirm the following information
in the case of order or a technologic inquiry**

H-Series

1. Applicable standard :
2. Rated voltage : 3.3KV 6.6KV 7.2KV 11.5KV
13.8KV 15KV 22.9KV 24KV 35KV
3. Rated current : 400A~4000A
4. Wiring system : () Phase, ()Wire
5. Short-Circuit Capacity : 1.6KV 4KV 8KV 12.5KV
16KV 20KV 25KV
31.5KV 40KV 50KV etc
6. Conductor material : Copper
7. Place of installation : Indoor, Outdoor,
Indoor+Outdoor
8. Color : 7.5BG 6/1.5 5Y7/1 N7.5 etc
9. Drawing of basic layout
10. Single line diagram
11. Something Important

A-Series

1. Applicable standard :
2. Rated voltage : 100~600V
3. Rated current : 600~4000A
4. Wiring system : () Phase, ()Wire
5. Conductor material : Copper
6. Place of installation : Indoor, Outdoor,
Indoor+Outdoor
7. Color : 7.5BG 6/1.5 5Y7/1 N7.5 etc
8. Drawing of basic layout
9. Single line diagram
10. Something Important

MEMO





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