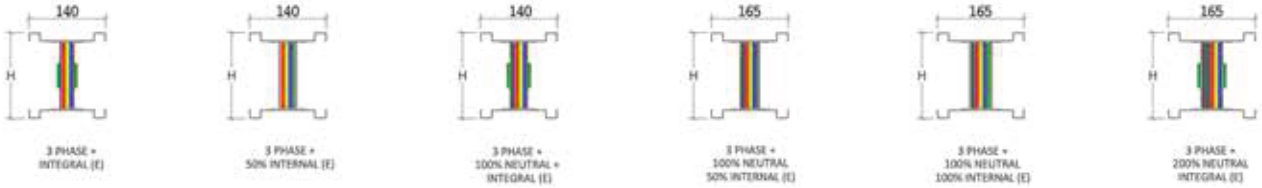


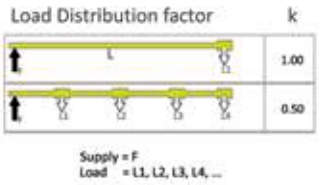
TECHNICAL DATA TABLE - SANDWICH COPPER											
CURRENT RATING											
RATING	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
Product Code	ADSC063	ADSC080	ADSC100	ADSC125	ADSC160	ADSC200	ADSC250	ADSC320	ADSC400	ADSC500	ADSC630
Rated Insulation Voltage (Ui)	1000 V, AC										
Rated 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 (mm²) 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

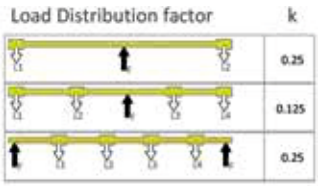
*** Due to complexity of site installation, which is beyond the control of manufacturing plant, manufacturer recommend canopy on IP 54/55 to achieve IP65 for outdoor.**

Voltage drop of a busbar system can be calculated with the following formula taking into accont the " k " load distribution constant.

$$\Delta V = k \sqrt{3} (R \cos\phi + X \sin\phi) I L$$

ΔV = Voltage Drop (V)
k = Load Distribution Constant
L = Line length (m)
I = Line Current (A)
R = Resistance (mΩ/m)
X = Inductive Reactance (mΩ/m)
Cosø= Load Factor





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.