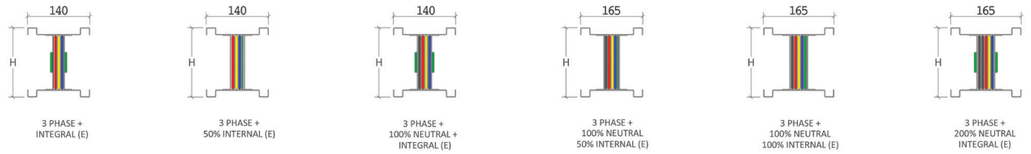


TECHNICAL DATA TABLE - SANDWICH COPPER										
CURRENT RATING										
RATING	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A
Product Code	ADSC063	ADSC080	ADSC100	ADSC125	ADSC160	ADSC200	ADSC250	ADSC320	ADSC400	ADSC500
Rated Insulation Voltage (Ui)	1000 V, AC									
Rated Operational Voltage (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
Peak Value (KA)	85	110	140	175	190	220	220	265	265	330
CONDUCTOR DIMENSION & CONFIGURATION										
CONDUCTOR C.S.A PER PHASE (mm²)										
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	125x6(2)	150x6(2)	200x6(2)
Cross Sectional Area (Sq mm)	240	300	420	540	750	900	1200	1500	1800	2400
Height (mm)	77	87	107	127	162	187	237	330	380	480
No. of stack	Single							Double		
IP Rating	IP 54 / IP 55 / IP 65*									
APPROXIMATE WEIGHT OF BUS TRUNKING (Kg / Mtr)										
3 Phase + Integral Earth	11	13	16	18	23	27	34	46	54	68
3 Phase + 50% Internal Earth	12	14	17	21	27	32	40	54	63	80
3 Phase + 100% Neutral + Integral Earth	13	15	18	22	28	33	42	56	66	84
3 Phase + 100% Neutral + 50% Internal Earth	14	16	21	25	32	37	48	63	74	95
3 Phase + 200% Neutral + Integral Earth	15	17	22	26	34	40	51	67	79	101
3 Phase + 200% Neutral + 50% Integral Earth	16	19	24	28	37	44	56	74	86	111
3 Phase + 100% neutral + 100% Isolated Earth	15	17	22	26	34	40	51	67	79	101
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
AC Resistance @ operating conditions (95 Deg C)	0.0910	0.0782	0.0525	0.0410	0.0299	0.0250	0.0191	0.0149	0.0125	0.0096
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
IMPEDANCE (mΩ/Mtr)										
Impedance (Z)	0.0961	0.0824	0.0562	0.0448	0.0326	0.0269	0.0209	0.0163	0.0135	0.0105
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/A 40 Deg Amb)										
Voltage drop @ 0.7 PF	0.1487	0.1270	0.0884	0.0720	0.0523	0.0427	0.0337	0.0261	0.0213	0.0170
Voltage drop @ 0.8 PF	0.1583	0.1354	0.0935	0.0755	0.0549	0.0450	0.0353	0.0274	0.0225	0.0178
Voltage drop @ 0.9 PF	0.1653	0.1415	0.0969	0.0775	0.0564	0.0465	0.0362	0.0281	0.0233	0.0182
Voltage drop @ 1.0 PF	0.1576	0.1354	0.0909	0.0710	0.0518	0.0433	0.0331	0.0258	0.0217	0.0166
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
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
REACTANCE (mΩ/Mtr)										
Reactance (X)	0.0310	0.0260	0.0200	0.0180	0.0130	0.0100	0.0085	0.0065	0.0050	0.0030
IMPEDANCE (mΩ/Mtr)										
Impedance (Z)	0.0963	0.0827	0.0564	0.0451	0.0328	0.0272	0.0212	0.0164	0.0136	0.0106
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/40 Deg Amb)										
Voltage drop @ 0.7 PF	0.1489	0.1273	0.0886	0.0723	0.0526	0.0430	0.0340	0.0263	0.0216	0.0171
Voltage drop @ 0.8 PF	0.1586	0.1358	0.0938	0.0759	0.0552	0.0454	0.0357	0.0277	0.0228	0.0179
Voltage drop @ 0.9 PF	0.1656	0.1420	0.0972	0.0780	0.0567	0.0470	0.0367	0.0284	0.0236	0.0184
Voltage drop @ 1.0 PF	0.1580	0.1360	0.0913	0.0715	0.0521	0.0438	0.0336	0.0262	0.0220	0.0168

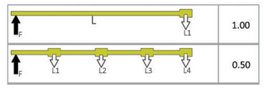
* Due to complexity of site installation, which is beyond the control of manufacturing plant, manufacturer recommend canopy on IP 54/55 to achieve IP65 for outdoor.

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

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

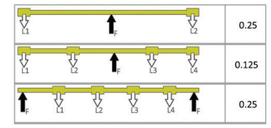
ΔV = Voltage Drop (V)
k = Load Distribution Constant
L = Line length (m)
I = Line Current (A)
R = Resistance (mΩ/m)
X = Inductive Reactance (mΩ/m)
Cosø= Load Factor

Load Distribution factor k



Supply = F
Load = L1, L2, L3, L4, ...

Load Distribution factor k



TECHNICAL DATA TABLE - SANDWICH ALUMINIUM											
CURRENT RATING											
RATING	400A	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A
Product Code	ADSA040	ADSA063	ADSA080	ADSA100	ADSA125	ADSA160	ADSA200	ADSA250	ADSA320	ADSA400	ADSA500
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
Peak Value (KA)	55	85	105	140	140	140	220	220	260	320	370
CONDUCTOR DIMENSION & CONFIGURATION											
CONDUCTOR C.S.A PER PHASE (mm²)											
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)
Cross Sectional Area (Sq mm)	240	360	480	600	750	1050	1200	1800	2100	2400	3150
Height (mm)	77	97	117	137	162	212	237	380	430	480	648
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	8	9	11	12	13	17	18	30	33	36	49
3 Phase + 50% Internal Earth	9	11	12	13	15	19	21	34	38	41	56
3 Phase + 100% Neutral + Integral Earth	9	11	12	13	15	19	21	34	38	42	57
3 Phase + 100% Neutral + 50% Internal Earth	9	11	13	15	17	21	23	37	42	46	63
3 Phase + 200% Neutral + Integral Earth	9	11	13	15	17	22	24	38	43	47	64
3 Phase + 200% Neutral + 50% Internal Earth	10	12	14	16	19	24	26	42	47	52	70
3 Phase + 100% neutral + 100% Isolated Earth	9	11	13	15	17	22	24	38	43	47	64
ELECTRICAL PARAMETERS @50 HZ											
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
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
REACTANCE (mΩ/Mtr)											
Reactance (X)	0.0310	0.0210	0.0195	0.0160	0.0130	0.0090	0.0085	0.0100	0.0045	0.0042	0.0030
IMPEDANCE (mΩ/Mtr)											
Impedance (Z)	0.1694	0.1134	0.0859	0.0691	0.0554	0.0398	0.0351	0.0246	0.0199	0.0175	0.0132
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/A 40 Deg Amb)											
Voltage drop @ 0.7 PF	0.2402	0.1610	0.1256	0.1013	0.0814	0.0582	0.0519	0.0396	0.0291	0.0258	0.0194
Voltage drop @ 0.8 PF	0.2629	0.1762	0.1362	0.1097	0.0882	0.0631	0.0561	0.0416	0.0316	0.0279	0.0210
Voltage drop @ 0.9 PF	0.2829	0.1895	0.1452	0.1168	0.0938	0.0673	0.0596	0.0426	0.0336	0.0297	0.0224
Voltage drop @ 1.0 PF	0.2884	0.1929	0.1450	0.1164	0.0934	0.0672	0.0591	0.0390	0.0336	0.0294	0.0223
ELECTRICAL PARAMETERS @60 HZ											
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
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
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	0.0034
IMPEDANCE (mΩ/Mtr)											
Impedance (Z)	0.1696	0.1135	0.0860	0.0693	0.0556	0.0401	0.0353	0.0247	0.0200	0.0176	0.0134
COMPOSITE VOLTAGE DROP PER METER AT FULL LOAD (mV/Mtr/A 40 Deg Amb)											
Voltage drop @ 0.7 PF	0.2405	0.1612	0.1257	0.1015	0.0817	0.0585	0.0521	0.0398	0.0292	0.0261	0.0200
Voltage drop @ 0.8 PF	0.2632	0.1763	0.1364	0.1100	0.0885	0.0635	0.0564	0.0417	0.0317	0.0282	0.0215
Voltage drop @ 0.9 PF	0.2833	0.1897	0.1453	0.1171	0.0941	0.0677	0.0599	0.0428	0.0338	0.0299	0.0228
Voltage drop @ 1.0 PF	0.2887	0.1931	0.1451	0.1167	0.0937	0.0677	0.0594	0.0391	0.0338	0.0296	0.0225

* 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.