

HEAVY DUTY: 500-2000 AMPS

SAFE-LINE V: TECHNICAL DATA

FACTOR "K"						
	Ta \ Duty	100%	80%	60%	40%	20%
		Standard cover	35°C	1.000	1.118	1.291
40°C	0.905		1.011	1.168	1.430	2.023
45°C	0.798		1.892	1.030	1.261	1.784
55°C	0.674		0.754	0.870	1.066	1.508
High Temperature Cover	65°C	0.775	0.866	1.000	1.225	1.732
	75°C	0.707	0.791	0.913	1.118	1.581
	85°C	0.632	0.707	0.816	1.000	1.414

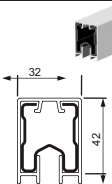

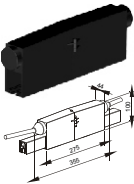
$I = \text{nominal current} \times K$

The maximum permissible continuous current rating of the conductor bar depends on the duty factor of the cranes and the maximum ambient temperature T_a . It can be established using the formula.

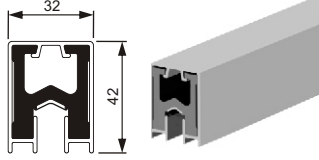
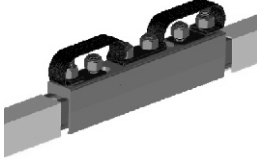
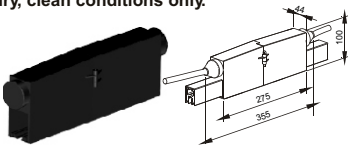
CONDUCTOR BAR COVER	STANDARD
Material	PVC
Dielectric strength	A80KV/cm
Surface resistivity	1011Ω
Volume resistivity	>1015Ω/cm
Maximum operating temperature	80°C
Minimum operating temperature	-30°C
Flame-test	Self extinguishing
Oxygen index	54%
Specific density	1.5 g/cm ²

CONDUCTOR BAR	ALUMINIUM/ STAINLESS STEEL			COPPER				
	500A	800A	1000A	500A	800A	1000A	1250A	2000A
Normal current	500A	800A	1000A	500A	800A	1000A	1250A	2000A
Cross sectional area (mm ²)	252	430	528	116	196	240	286	540
Maximum system voltage (AC) (contact safeline for other voltages) (DC) (contact safeline for other voltages)	600V			600V				
Resistance R (for DC) at 35°C (Ω/m) Impedance Z (for AC) at 35°C (Ω/m)	0.000097 0.000157	0.000074 0.000144	0.000051 0.000137	0.000104 0.000106	0.000057 0.000136	0.000033 0.000127	0.000022 0.000094	0.000011 0.000061
Maximum allowable ambient temperature for 100% duty cycle	35°C	35°C	35°C	35°C	35°C	35°C	35°C	35°C
Bar length (mm)	4500	4500	4500	4500	4500	4500	4500	4500
Support pitch Standard	2250mm	2250mm	2250mm	2250mm	2250mm	2250mm	2250mm	2250mm
Minium pitch centers Sandard Lateral	80mm 100mm	80mm 100mm	80mm 100mm	80mm 100mm	80mm 100mm	80mm 100mm	80mm 100mm	80mm 100mm
Expansion sections: not required runs less than	200m	200m	200m	200m	200m	200m	200m	200m
Minimum bending radius (Horizontal Only)	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m

SAFE-LINE V: COPPER

	COPPER	500 Amp	800 Amp	1000 Amp	1250 Amp	2000 Amp
		Part #	Part #	Part #	Part #	Part #
	Phase Rail, Standard Heat Cover	INVC-500O	INVC-800O	INVC-1000O	INVC-1250O	INVC-2000O
	Earth Rail, Standard Heat Cover	INVC-500G	INVC-800G	INVC-1000G	INVC-1250G	INVC-2000G
	Phase Rail, Medium Heat Cover	-	-	-	-	-
	Earth Rail, Medium Heat Cover	-	-	-	-	-
	Weight (kg)	2.41	2.41	2.41	2.86	3.89
	Phase Expansion, Standard Heat Cover	INVC-EJ500O	INVC-EJ800O	INVC-EJ1000O	INVC-EJ1250O	INVC-EJ2000O
	Earth Expansion, Standard Heat Cover	INVC-EJ500G	INVC-EJ800G	INVC-EJ1000G	INVC-EJ1250G	INVC-EJ2000G
	Phase Expansion, Medium Heat Cover	-	-	-	-	-
	Earth Expansion, Medium Heat Cover	-	-	-	-	-
	Weight (kg)	3.54	3.54	3.54	3.97	5.03
	Joint Assembly - Copper	INVC-BJ500	INVC-BJ800	INVC-BJ1000	INVC-BJ1250	INVC-BJ2000
	Joint Cover	INV-JC	INV-JC	INV-JC	INV-JC	INV-JC
	Power Feed Assembly	INVC-BJF500	INVC-BJF800	INVC-BJF1000	INVC-BJF1250	INVC-BJF2000
	Power Feed Cover	INV-LFC	INV-LFC	INV-LFC	INV-LFC	INV-LFC
	Weight (kg)	2.71	2.71	2.71	3.16	4.19

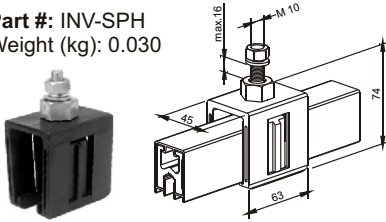
SAFE-LINE V: ALUMINIUM

	ALUMINIUM	500 Amp	800 Amp	1000 Amp
		Part #	Part #	Part #
Insulated Conductor Bar-length 4.5m 	Phase Rail, Standard Heat Cover	INVA-500O	INVA-800O	INVA-1000O
	Earth Rail, Standard Heat Cover	INVA-500G	INVA-800G	INVA-1000G
	Phase Rail, Medium Heat Cover	-	-	-
	Earth Rail, Medium Heat Cover	-	-	-
	Weight (kg)	2.67	3.12	4.38
Insulated Expansion Section-length 4.5m 	Phase Expansion, Standard Heat Cover	INVA-EJ500O	INVA-EJ800O	INVA-EJ1000O
	Earth Expansion, Standard Heat Cover	INVA-EJ500G	INVA-EJ800G	INVA-EJ1000G
	Phase Expansion, Medium Heat Cover	-	-	-
	Earth Expansion, Medium Heat Cover	-	-	-
	Weight (kg)	3.81	4.27	5.53
Isolation Section-length 4.5m. For use in dry, clean conditions only. 	Joint Assembly - Aluminium	INVA-BJ500	INVA-BJ800	INVA-BJ1000
	Joint Cover	INV-JC	INV-JC	INV-JC
	Power Feed Assembly	INVA-BJF500	INVA-BJF800	INVA-BJF1000
	Power Feed Cover	INV-LFC	INV-LFC	INV-LFC
	Weight (kg)	2.97	3.42	4.68

SAFE-LINE V: COMPONENTS COMMON TO ALL SYSTEMS

Hanger - 1 Pole

Part #: INV-SPH
Weight (kg): 0.030



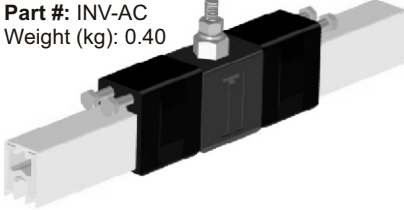
Hanger - 1 Pole

Part #: INV-SPH-I
Weight (kg): 0.12
 with
Insulator



Anchor Clamp

Part #: INV-AC
Weight (kg): 0.40



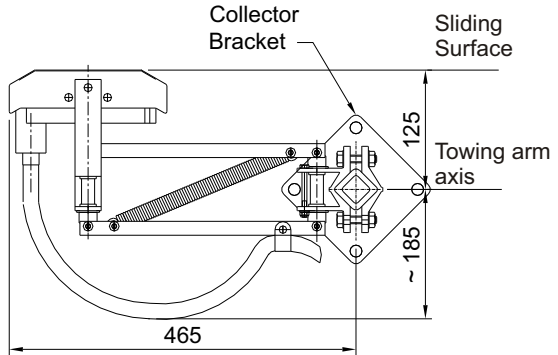
End Cover

Part #: INV-EC
Weight (kg): 0.80



Collector - 250A

Part #'s: INV-CC250
Weight (kg): 0.392



Collector - 2x250A

Part #: INV-CC250-2
Weight (kg): 0.800

