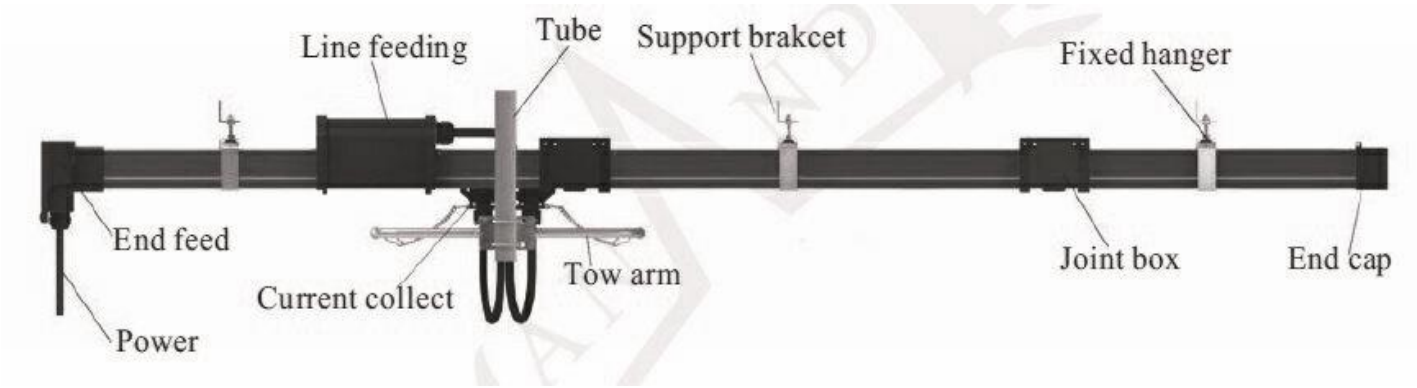
Anand Systems Engineering Pvt . Ltd.

CHANGING THE WAY YOU THINK ABOUT MOBILE ELECTRIFICATION

MANUFACTURER OF ALL ELECTRICAL CONTROL GEARS FOR EOT CRANE



Enclosed Conductor Systems (Range – 40Amp to 200Amp

General

The enclosed conductor line SLE is a hazard protected conductor systems for indoor and outdoor installations. It is protected to IP23 standards. The conductor line in a rigid gray PVC housing with different copper cross sections for rated currents of 40Amp to 200Amp. The current collector running in ball bearing are guided by the housing. The main is transferred by spring-stored carbon brushes. A compact design, corrosion resistance and easy installation are the main characteristics.

Application

For mobile power consumers like cranes, monorails, electrical hoists, conveyor systems, machines tools, automated storage, retrieval systems, lighting systems Etc.

Housing

Grey color, plastic housing, 4 Mtr standard section. The ground conductors is identified by international color code. Phase reversing prevented by design of the collector and housing.
Higher number of conductors possible by combination of several enclosed conductor line.

Collectors

The current collectors are made of re-inforced polyester fiberglass, for high strength and light weight. Spring loaded carbon brushes maintain uniform contact. Connecting cables and hinged or flexible towing arms included double collectors for transfer applications and higher amperage

Hangers

Maximum support distance of the conductor is 2 Mtr.

Coupling

Through plastic joint covers.

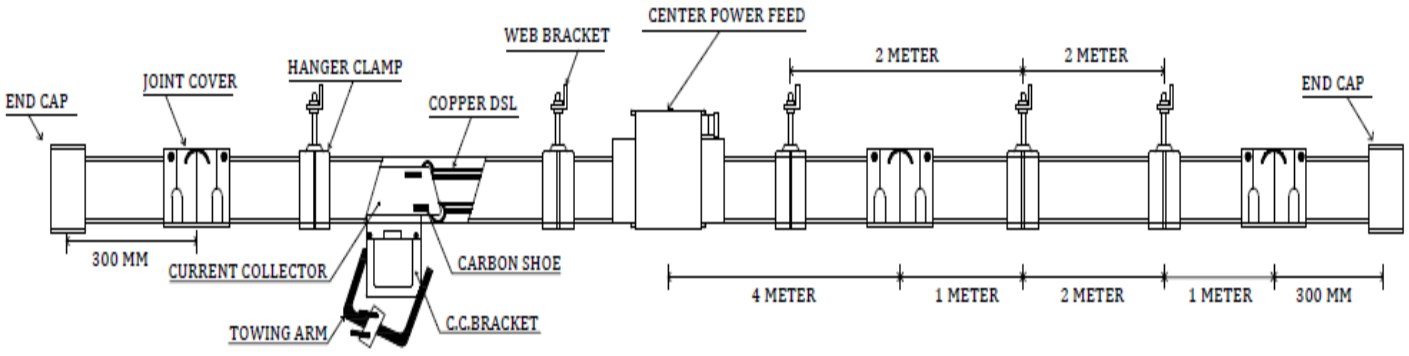
Feed Sets

Line feeds or end feeds.

End Caps

The open ends of the enclosed conductor are closed by end caps.

Please Note – for user in galvanizing and pickling plants, under aggressive conditions and low voltage applications we would appreciate receiving detailed information, especially for the environmental conditions.



System Arrangement Drawing

Technical data

Electrical properties:		Mechanical properties:	
Max.current	240A	Flexible strength	75N/mm^2±10%
Max.voltage	660V	Tensile strength	40N/mm^2±10%
Dielectric strength	30-40KV/mm	Temperature range:	
Spec.resistance	5 x 10^{15}0hm xcm	Standard Housing	-20C up to +70C
Surface resistivity	10^{13}0hm xcm	High Temp. Housing	-10C up to +115C
Leakage resistance	CTI600-2.7	Low Temp. Housing	-40C up to +80C
Combustibility:			
Flame retardant	B1		
Self extinguishing	Class B1-no flaming particles,self-extinguishing		

Resistance to chemicals: +45°C

Gasoline	Sulphuric acid 50 %
Mineral Oil	Caustic Soda25% and 50%
Grease	Hydro-chloric acid, concentrated

Consider the voltage drop calculation to maintain the limits established by the motor manufacturers!

Formulas:

AC: $\Delta U = \sqrt{3} \times I \times l \times Z$

DC: $\Delta U_1 = 2l \times I \times R$

$$\Delta U_2 = \frac{\Delta U_1 \cdot 100}{V}$$

Effective length:

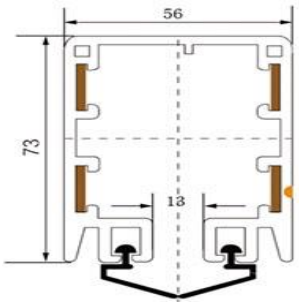
$l = L$ power feed located at the end of the system
$l = L/2$ power feed located at the center of the system
$l = L/4$ power feed located at both ends of the system
$l = L/6$ power feed located at L/6 from each end of the system

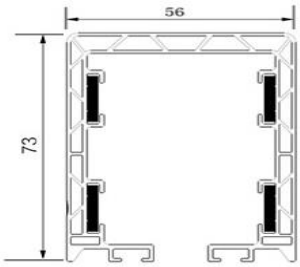
ΔU_1 = Voltage drop [A]
ΔU_2 = Voltage drop [%]
I = Ampere load [A]
R = Resistance [Ohm/1000 m]
l = Power feed length [m]
L = System length [m]
Z = Impedance [Ohm/1000 m]
V = Voltage rating [V]

The total ampere load is determined from the nominal rated current of all motors working simultaneously on the same feed section of your electrification system. A diversity factor of 0,5-0,9 can be considered.

The conductor size and/or number of feed points should be increased or booster cables should be used in parallel in case the drop is exceeding the limitations.

TECHNICAL DATA SHEET





CONDUCTOR BAR	COPPER							
Nominal Current	40A	60A	80A	100A	120A	140A	160	200A
Cross Sectional Area								
DC Resistance Ω/M + 35 ° C	0.0019	0.0011	0.0008	0.0007	0.000549	0.0003	0.0003	0.0002
Impedence Ω/M + 35 ° C	0.0021	0.0012	0.0009	0.0007	0.000568	0.0004	0.0003	0.0002
Support Pitch Standard	1500MM							
Lateral	1500MM							
Protection Class (Finger Safe)	IP21							
Conductor Joint	Bolted Type and Jointless							
CONDUCTOR BAR COVER								
Standard Insulation	PVC							
Dielectric Strength	180 kv/cm							
Maximum System Working Temperature	80° C							
Flame Test	Self Extinguishing							
Colour	GREY/GREEN							
INSTALLATION								
Hanger Clamps	1pole							
Power Feeding	At joint or at any location							
Installation suitable for	Indoor / outdoor							

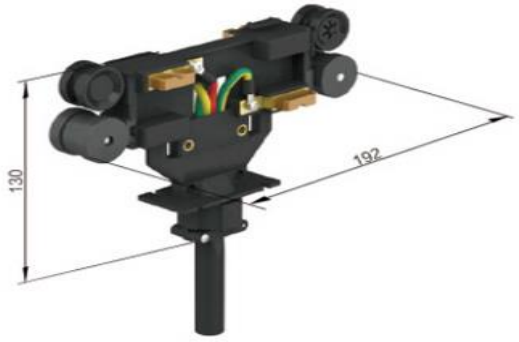
Note :-

1] Each bar Length is 4Mtr.

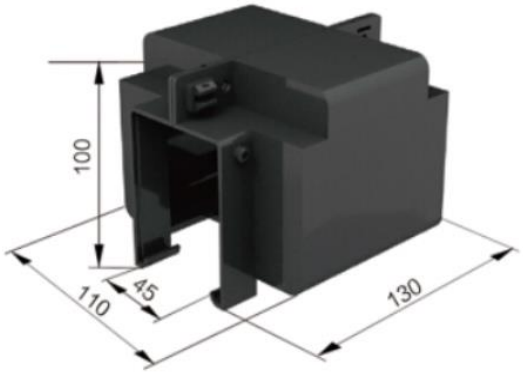
2] Maximum Systems Volage is 500V Ac / 600V Dc

3] High Voltage with Stand For 1 Min Flashover Test is 2.5KV / 7.5KV

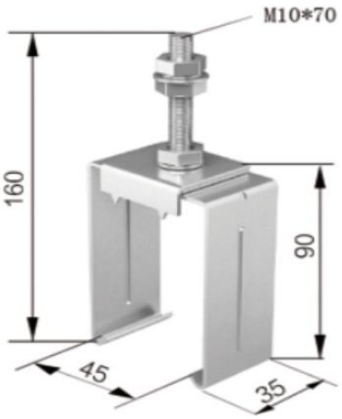
ACCESSORIES FOR ENCLOSED TYPE DSL



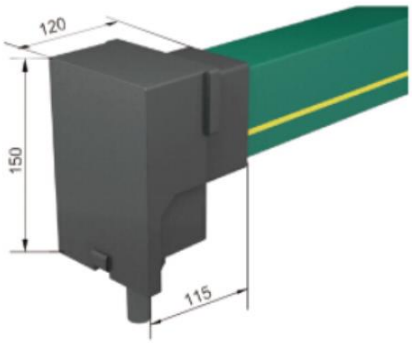
CURRENT COLLECTOR



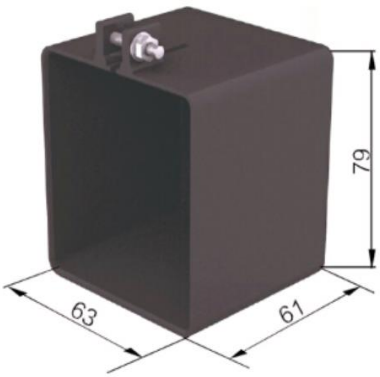
JOINT COVER



HANGER CLAMP



END POWER FEED



END COVER

CENTER POWER FEED

Contact Details

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