SafeTrack 2
SHROUDED CONDUCTORS
VOLTAGE DROP CALCULATIONS

Shrouded Conductor System For Cranes / Hoist
Electric Trollies/ Material Handlings Equipments

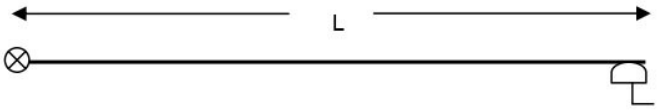
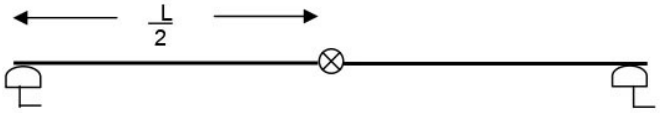
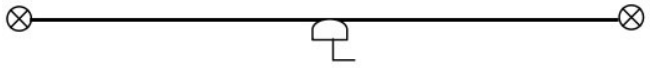
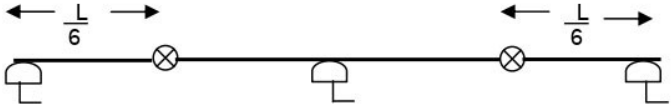
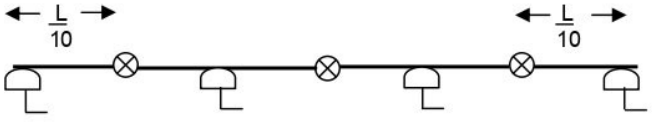
VOLTAGE DROP

A.C $V_d = \sqrt{3} \cdot l \cdot I_{total} \cdot Z_{ac}$

D.C $V_d = 2 \cdot l \cdot I_{total} \cdot R_{dc}$

V_d	=	Voltage Drop in Volts
I_{total}	=	Total Current in Amps
Z_{ac}	=	Impedence in Ohms/Mtr
R_{dc}	=	Resistance in Ohms/Mtr
l	=	Effective Length in Mtrs
L	=	System length in Mtrs
⊗	=	Power Feed
	=	Collector

CONDUCTOR	60A	100A	125A	160A	250A	400A	200A	315A
Material	Galvanised Steel			Copper			Aluminium/SS	
Impedence milli Ohms/M +35 °C	3.55	2.86	1.92	0.36	0.30	0.22	0.32	0.29
DC Resistance milli Ohms/M +35 °C	3.52	2.84	1.92	0.35	0.27	0.18	030	0.26

Power Feed Position ⊗	Schematic Diagram . Collector Symbol Indicates Position Of Maximum Voltage Drop	Effective Length l for voltage drop calculation
End Feed		l = L
Centre Feed		l = L/2
Two Power Feed at both ends		l = L/4
Two Power Feeds at L/6 from each end of system		l = L/6
Three power feeds at L/10 from each end and one at centre		l = L/10

GR Cranes & Elevators
Address: Village Tibba, Dehlon Road, Sahnewal
Ludhiana - 141120, Punjab (INDIA)
Phone: +91-98140-85890
Email: info@grcranes.com