Cable Calculation for Three Phase Supply

Must be filled in beforehand	
Must be added to during Calculation	
Results to be used in conjunction with design	

Ze	Design Voltage	Power in Watts	Pf.	Length of Run
0.12	400	7500	0.7	100

Type of Protection				Characteristics of Cable			Correction Factors (Cf)	
	Type	Rating	Zs					
BSEN60989	C	16	4.8	Size	1.5	mm	Ca	1
BSEN60947				Volt Drop	25	ma	Ci	1
BS 88-2.1				R1 + R2	24.2	m.ohms/Mtr	Cg	1
BS3036							Cr	1

Calculation

$Ib = W/V$ $\qquad$ Ib = **15.47 AMPS**

$In = Ib$ $\qquad$ In = **16 AMPS**

$It = In/Cf$ $\qquad$ It = **16 AMPS**

Voltage Drop $\quad = \quad \dfrac{mv/a/mtr*1*Ib}{1000}$ or **38.66 Volts**

Length Allowed $= \quad \dfrac{16*1000}{mv/a/mtr*Ib}$ **23.80 Metres**

$Zs \qquad = \quad Ze + \dfrac{(R1+R2)*1.2}{1000}$ **2.90 Ohms**

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