

CABLE SPLICING GUIDE

(Duracast joint kit)

Cable Size(mm) 2-4 core	duracast reference	length	Diameter	Min Cable Diameter	Max Cable Diameter
1.5	P0	185	32	6	20
2.5	P0	185	32	6	20
4	P0	185	32	6	20
6	P1	240	38	9	30
10	P1	240	38	9	30
16	P2	270	44	17	34
25	P2	270	44	17	34
35	P2.5	310	60	22	42
50	P2.5	310	60	22	42
70	P3	400	68	28	52
95	P3.5	432	86	32	56
120	P3.5	432	86	32	56
150	P4	550	100	36	65
185	P4	550	100	36	65
240	P5	660	140	48	80

CONVERSIONS

1 HP =	746 Watts
1 kW =	1.341 HP
1 metre =	39.37 "
1 " =	25.4 mm
1 kg =	2.2 lb
1 lb =	0.4545 kg

3-PHASE FORMULAE

- (1) Voltage drop = $1.72 \times I \times R$
 Where I = Line current per phase
 R = Resistance of one core only
 NB: For large 3-core cables carrying high alternating currents, the increased AC resistance due to skin effect must be allowed for

(2) kW = kVA x Power Factor

$$kW = \frac{\text{LINE AMPS} \times \text{LINE VOLTS} \times 1.73 \times \text{POWER FACTOR}}{1000}$$

$$KW = \frac{\text{HORSE POWER} \times 746}{1000 \times \text{EFFICIENCY}}$$

(3) kVA = $\frac{KW}{\text{POWER FACTOR } \theta}$

$$KVA = \frac{\text{LINE AMPS} \times \text{LINE VOLTS} \times 1.732}{1000}$$

$$KVA = \frac{\text{HORSE POWER} \times 746}{1000 \times \text{EFFICIENCY} \times \text{POWER FACTOR}}$$

(4) LINE AMPS = $\frac{KW \times 1000}{\text{LINE VOLTS} \times 1.72 \times \text{POWER FACTOR}}$

$$\text{LINE AMPS} = \frac{kVA \times 1000}{\text{LINE VOLTS} \times 1.732}$$

$$\text{LINE AMPS} = \frac{KW \times 1000}{\text{LINE VOLTS} \times 1.72 \times \text{POWER FACTOR} \times \text{EFFICIENCY}}$$

kW = KiloWatt kVA = KiloVolt Amps Power Factor = Cos θ

RATE CURRENTS OF PVC

INSULATED COPPER CONDUCTORS

Rate area of conductor mm ²	Safe current carrying capacity (A)
0.5	5
0.75	8
1.0	10
1.5	15
2.5	20
4.0	27