

Separation Requirements

For performance, the minimum separation distances on trays for a TE Connectivity Warranty on Commercial and Industrial installations are as follows. They do not apply to skirting ducts, power poles or umbilical supports where separate compartments are provided.

Separation of Data/Comms Cable from Unscreened Power Circuits

**Steel Tray or Mesh –
With No Barrier** or with a
Non-steel Divider

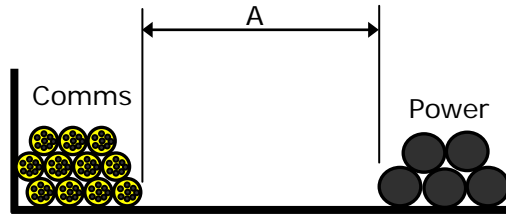
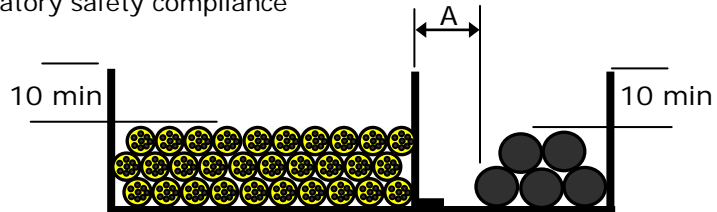


Table 1

		Acceptable Separation Distance, A in mm					
No. Of 20 A Power# Circuits @ 240 Vac		1-9	10-15	16-30	31-45	46-60	>60
Free Space ¹ No EMC Barrier	UTP	60	100	200	300	400	600
	F/UTP	30 / 50*	50	100	150	200	300
	S/FTP	6 / 50*	10 / 50*	20 / 50*	30 / 50*	40 / 50*	60

* 50mm min for AS/ACIF S009 mandatory safety compliance

**Steel Tray or Mesh–
With Earthed Steel Barrier,**
Solid or Perforated,
Or Separate Steel Trays,
Bonded & Earthed



Cables to be 10mm below sides or barrier

Table 2

		Acceptable Separation Distance, A in mm					
No. of 20 A Power# Circuits @ 240 Vac		1-9	10-15	16-30	31-45	46-60	>60
Containment ² Steel Mesh or ≤1mm tk ³ Steel tray	UTP	45	75	150	225	300	450
	F/UTP	23	38	76	114	152	228
	S/FTP	5	8	16	24	32	48
Containment 1.5mm tk ⁴ Steel tray, No lid. No Mesh	UTP	30	50	100	150	200	300
	F/UTP	15	25	50	75	100	150
	S/FTP	3	5	10	15	20	30
Containment ≥1.5 tk ⁵ Steel with lid. No Mesh	UTP	0	0	0	0	0	0
	F/UTP	0	0	0	0	0	0
	S/FTP	0	0	0	0	0	0

Notes; Separations are based on ISO/IEC 14763-2 (2011)

- 1 Plastic, aluminium and other non-steel containment are the same as Free Space separation (without any electromagnetic containment barrier)
 - 2 Containment is the barrier around the LV power cables or the communications cables
 - 3 For steel mesh tray and for steel barrier <1mm thick and >20% perforations
 - 4 For 1 mm thick and <20% perforated metal sheet and for steel conduits <1.5mm thick
 - 5 For solid steel containment >1.5mm thick tray, barrier & lid, or >1.5mm thick steel conduit
- # a) 3-phase LV cables (415V ac) are treated as 3 off 1-phase cables
 b) For Power Cables carrying deformed wave-shape or unknown power supply or connected to non-C-Tick equipment, the recommended separation is 3 times the value in the table
 c) Power circuits >20A shall be treated as multiples of 20Amp circuits.
 e.g. 1 x 32A circuit = 1.6 x 20A circuits, and 10 x 32A circuits = 16 x 20A circuits.

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