



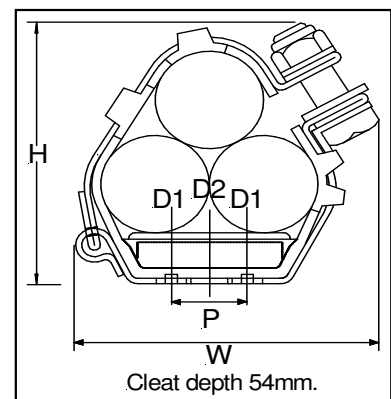
Emperor Data Sheet (Trefoil)

Emperor Cable Cleats are available for trefoil and single cable applications where the highest levels of short circuit withstand are required. The unique patented design allows rapid installation. The frame, manufactured from 316L stainless steel (BS EN 10088:1995), offers the ultimate protection against the harshest environmental conditions. The frame is tightened and locked using a combination of M12 Set Screw, Nyloc Nut and washer in A4 Stainless Steel (BS3692:2001), Screw head Retainer in 'Zero-Halogen, Low Smoke & Fume' (LSF) Nylon (MDS02 Data Sheet)* and Emperor LSF Polymeric Washer (MDS01 Data Sheet)*. To protect and cushion the cables during short circuit conditions, the cleat is supplied with an integral LSF Polymeric liner and base pads (MDS01 Data Sheet)*.

Recommended fixing methods include using either two 10mm bolts or a single 12mm bolt (available as extras), although other bolt sizes can be accommodated.

* Material Data Sheets MDS01 & MDS02 are available upon request.

Emperor Cable Cleat (Trefoil)



Selection table for Trefoil Cable Application.

Part No.	Cable Range		Dimensions					Weight g
	Min Dia mm	Max Dia. mm	W mm	H mm	P mm	D1 mm	D2 mm	
ER23-28	23	28	96	83	25	10.2	12.2	425
ER27-32	27	32	97	88	25	10.2	12.2	440
ER30-35	30	35	99	91	25	10.2	12.2	445
ER33-38	33	38	103	95	25	10.2	12.2	460
ER36-42	36	42	124	100	50	10.2	12.2	600
ER40-46	40	46	125	106	50	10.2	12.2	605
ER44-50	44	50	130	117	50	10.2	12.2	630
ER48-55	48	55	132	121	50	10.2	12.2	640
ER51-58	51	58	136	128	50	10.2	12.2	650
ER55-62	55	62	160	135	75	10.2	12.2	810
ER59-66	59	66	163	143	75	10.2	12.2	825
ER63-70	63	70	166	151	75	10.2	12.2	850
ER67-74	67	74	169	158	75	10.2	12.2	850
ER71-78	71	78	172	165	75	10.2	12.2	890
ER74-82	74	82	177	171	75	10.2	12.2	890
ER77-85	77	85	183	177	75	10.2	12.2	905
ER82-88	82	88	191	187	75	10.2	12.2	805
ER88-96	88	96	207	203	75	10.2	12.2	850
ER96-103	96	103	221	218	75	10.2	12.2	940
ER103-111	103	111	237	235	75	10.2	12.2	950
ER111-119	111	119	253	250	75	10.2	12.2	1010
ER119-128	119	128	265	275	75	10.2	12.2	1220

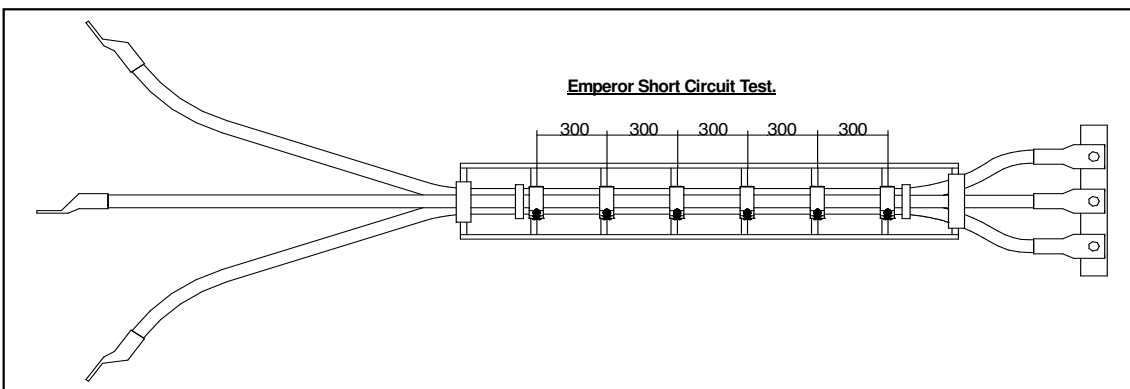
Testing Information

Emperor Cleats have been tested in line with the European Standard of 'Cable Cleats for Electrical Installations' BS EN 50368:2003. Typical results are detailed below:

Properties	BS EN 50368:2003 Classification Clause	Units / Classification	Emperor Trefoil Cable Application Test Data
Cleat Type	6.1, 6.1.3	Composite	-
Impact Resistance	6.2, 6.2.5, 9.3	Very Heavy Classification (>6.7kg @ 300mm)	Pass
Resistance to Electromechanical Force	6.3, 6.3.2.2, 9.4	kA @ 300mm Centres *(Category 2)	178 (Peak) 80 (RMS)
Temperature for Permanent Application	6.4	°C	-40 to 60
Needle Flame Test	6.5, 10.0	Application Time (seconds)	>120
Lateral Load Test	9.1.1, 9.2	Newtons (N)	Refer to Ellis Patents for further details.
Axial Movement Test	9.1.1, 9.5	Newtons (N)	470

* Capable of withstanding two short-circuits without adjustment of the cleats and/or intermediate restraints between short circuits. Additional short circuit information is available on request.

Figure 1: Short Circuit Test Rig.



The example shown relates to BS EN 50368:2003 tests only. Other configurations / cleat spacings can be accommodated dependant on the fault level applicable. Please refer to Ellis Patents for further information.