



A-1 ELECTRICALS

Power Cable Accessories

- Compression Copper/Aluminium Cable Lugs & Connectors
- Shear Head Mechanical Cable Lugs & Connectors
- Industrial Brass Cable Glands & Accessories
- Aluminium & PVC/Nylon Cable Cleats
- Accessories for Cable Terminations & Joints
- Transmission, Distribution & Tailor Made Metal Components





Welcome to A-1 Electricals Product Catalogue

Electrical Connecting System

What you will find inside a full package of A-1 Electricals product information. The catalogue covers general purpose electrical connecting system details for cable accessories. Our dedicated sales and service team will be happy to address your needs.

Quality

A-1 Electricals is committed to a policy of continuous improvement and developments. Quality management systems ensure that, at all stages of manufacturing process, from incoming raw material, to final assembly, rigorous tests are carried out to ensure the finished products, meet or surpass the design and performance requirements.

Vision

To be the leading global manufacturer and marketer of electrical connecting systems and related products to the electrical market through excellence in customer service and by identifying and recommending the products that are entirely fit for purpose and provide a life time trouble free service.

Product Range

- Compression copper and aluminium cable lugs, connectors and terminals
- Shear head bolt mechanical cable lugs and connectors
- Industrial brass cable glands & accessories
- Brass wiping glands and top hat aluminium/steel glands
- Aluminium and PVC/Nylon cable cleats
- Accessories for cable terminations and joints
- Transmission and distribution components
- Custom made metal components as per customer's drawing and requirements



A-1 ELECTRICALS

A-1 Electricals - The leader in electrical products for Industrial,
Commercial and Hazardous application



Aluminium & PVC Cable Cleats

for Armoured and Unarmoured Cables





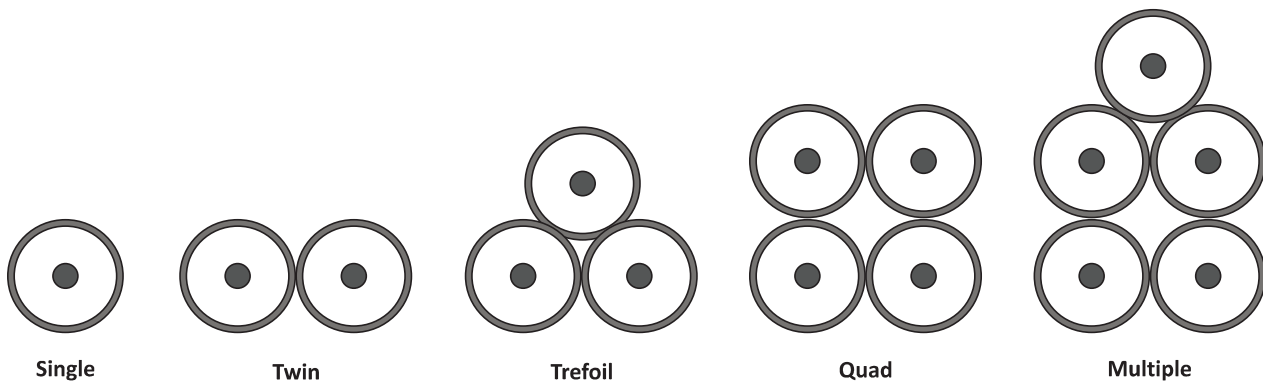
Cable Cleats

Cable cleat is a device designed to provide securing of cables when installed at intervals along the length of cables. Cable cleats can be constructed from metallic or non-metallic material. A cable cleat is provided with a means of attachment to a mounting surface but does not rely on the mounting surface for the retention of the cables.

Cable Cleat Specification:

More recent standards have been introduced BS EN 50368 in 2003 and latest IEC 61914 in 2009. All these new recent standards are performance based which provides manufacturers the opportunity of meeting its requirements by degrees of performance.

Cable formation:



Cable cleats are designed to ensure the retention and support of cables and conductors, reducing the load that the cable may be exposed to under its own weight. By ensuring the cables are fixed, retained and supported correctly this protects all of the cable terminations by reducing the mechanical load exerted on them. A-1 Electricals cable cleats are designed and tested so that in the event of short circuit fault conditions, they will contain the cables without causing damage; enabling the circuit to be restored once the fault has been rectified.

Cleat Spacing: Distance between cleat centers.

Many factors govern the maximum distance between cleat centres for safe correct installations. The correct way is to calculate the maximum distance based on the Force that each cleat can withstand, using the formula :

$$F = 0.17 \times i_p^2 / S$$

Where:

- F = maximum force on the cable conductor in trefoil formation for a three phase short circuit (N/m)
- i_p = the peak short circuit current (kA)
- S = the cable diameter (mm)



Cable Cleat Spacing

Single Cables Spacings of supports for cable in accessible positions

Overall diameter of cable*	Maximum spacing of cable fixings							
	Non-armoured thermosetting, thermoplastic or lead sheathed cables and non-armoured fire resisting cables				Single wire Armoured cables including fire resistant armoured cable		Mineral insulated copper sheathed or aluminium sheathed cables	
	Generally		In caravans					
	Horizontal ⁺	Vertical ⁺	Horizontal ⁺	Vertical ⁺	Horizontal ⁺	Vertical ⁺	Horizontal ⁺	Vertical ⁺
mm	2	3	4	5	6	7	8	9
Not exceeding 9	250	400	250	400	-	-	600	800
Exceeding 9 and not exceeding 15	300	400	250	400	350	450	900	1200
Exceeding 15 and not exceeding 20	350	450	250	400	400	550	1500	2000
Exceeding 20 and not exceeding 40	400	550	250	400	450	600	-	-
Exceeding 40 and not exceeding 50	600	800	-	-	900	1100	-	-
Exceeding 50 and not exceeding 60	750	1000	-	-	950	1100	-	-
Exceeding 60 and not exceeding 70	900	1200	-	-	1000	1200	-	-
Exceeding 70 and above	1000	1400	-	-	1200	1400	-	-

Notes:

- Fire resistant fixing should be used for fire resistant cables.
- For flat cables taken as the dimension of the major axis.
- The spacing's shown above apply to multi core cables.
- The spacing of fixings on single core cables in a.c. installations must take account of the magnitude of forces generated under fault conditions.
- + The spacing's stated for horizontal runs may be applied also to runs at an angle of more than 30° from the vertical. For runs at an angle of 30° or less from the vertical, the vertical spacing's are applicable.

Trefoil cleat spacing:

Trefoil cleats that are required to withstand the high forces generated by high short circuit current will often be spaced to very regular intervals - typically matching the commonly available cable ladder (i.e. 300 / 225 mm).

As a regular rule in order to create and maintain satisfactory trefoil installation spacing of 900mm is preferred.



Aluminium Two Bolt Cable Cleat

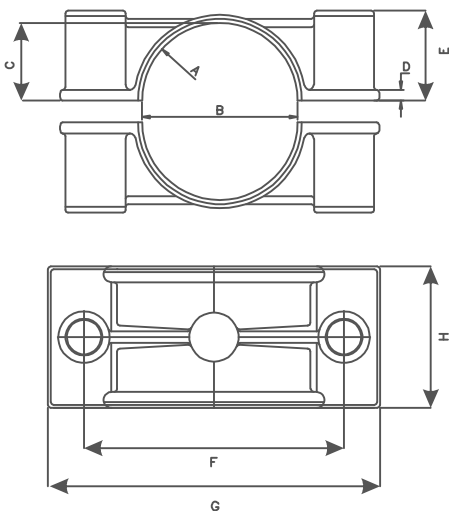
Single Cable

- Manufactured from Aluminium Alloy
- Suitable for cable dia 30 to 150mm
- For LV/MV/HV cables
- Epoxy coated
- Two piece, two bolt fixing desing
- Can be double stacked on common fixings
- Rubber linear optionally available



Cable diameter		B	C	D	E	F	G	H	P/N
A min	A max								
30	40	40.2	21.0	4.0	23.6	75.5	95.0	45.0	ATC 30-40
40	50	50.2	20.2	4.0	30.0	84.5	110.0	45.0	ATC 40-50
51	57	57.1	32.0	6.5	33.5	84.3	114.5	49.0	ATC 51-57
57	64	64.4	28.8	4.0	37.8	94.0	122.0	48.0	ATC 57-64
64	70	70.5	32.2	4.0	40.0	98.0	124.0	46.0	ATC 64-70
70	76	76.5	35.2	4.0	44.8	110.7	136.0	48.0	ATC 70-76
76	83	83.5	38.2	6.0	48.0	117.7	143.0	52.0	ATC 76-83
83	89	89.5	41.0	5.0	48.8	124.2	149.2	60.0	ATC 83-89
89	95	95.5	44.8	5.0	52.8	130.5	158.2	59.0	ATC 89-95
95	101	101.5	47.8	5.0	55.3	126.1	154.0	65.0	ATC 95-101
101	108	108.0	57.0	6.0	59.0	136.5	165.0	65.0	ATC 101-108
108	114	114.1	60.0	6.0	62.0	142.0	171.0	65.0	ATC 108-114
115	125	125.5	58.0	6.0	63.5	150.0	175.0	85.0	ATC 115-125
125	135	136.1	62.8	6.0	70.2	166.0	194.0	85.0	ATC 125-135
135	150	150.5	75.0	6.0	81.0	174.0	206.0	76.0	ATC 135-150

Confirming to IEC 61914



All dimensions are in mm
Standard tolerance applies



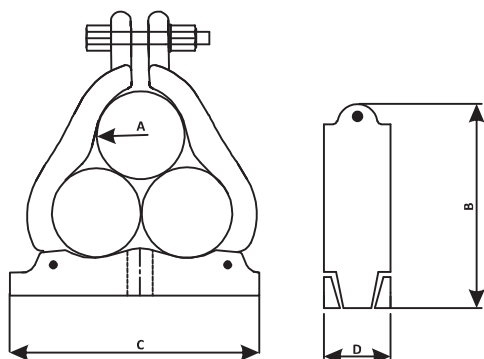
Aluminium Single Hole Fixing Trefoil Cable Cleat

For Trefoil Cable Formation

- Manufactured from Aluminium Alloy
- Suitable for cable dia 15 to 76mm
- For LV/MV cables
- Epoxy coated
- Single & two hole fixing design



Cable diameter		B	Single hole	D	P/N
A min	A max				
15.0	18.0	78.0	103.0	34.0	ATFC 15-18
18.0	22.0	87.0	115.0	34.0	ATFC 18-22
22.0	24.0	91.0	120.0	34.0	ATFC 22-24
24.0	25.0	97.0	123.0	37.0	ATFC 24-25
25.0	27.0	98.0	85.0	37.0	ATFC 25-27
27.0	28.0	100.0	84.0	37.0	ATFC 27-28
28.0	30.0	104.0	84.0	37.0	ATFC 28-30
30.0	32.0	105.0	86.0	37.0	ATFC 30-32
32.0	34.0	105.0	89.0	38.0	ATFC 32-34
34.0	35.0	112.0	97.0	38.0	ATFC 34-35
35.0	36.0	111.0	96.0	37.0	ATFC 35-36
36.0	38.0	117.0	98.0	37.0	ATFC 36-38
38.0	40.0	117.0	100.0	37.0	ATFC 38-40
40.0	41.0	122.0	109.0	37.0	ATFC 40-41
41.0	43.0	125.0	110.0	38.0	ATFC 41-43
43.0	44.0	129.0	108.0	37.0	ATFC 43-44
44.0	46.0	129.0	109.0	38.0	ATFC 44-46
46.0	48.0	133.0	117.0	38.0	ATFC 46-48
48.0	49.0	137.0	124.0	38.0	ATFC 48-49
49.0	51.0	140.0	119.0	38.0	ATFC 49-51
51.0	53.0	138.0	121.0	37.0	ATFC 51-53
53.0	54.0	145.0	129.0	38.0	ATFC 53-54
54.0	55.5	152.0	139.0	43.0	ATFC 54-55
55.5	57.0	160.0	137.0	44.0	ATFC 55-57
57.0	59.0	158.0	137.0	37.0	ATFC 57-59
59.0	60.0	165.0	147.0	44.0	ATFC 59-60
60.0	62.0	168.0	150.0	44.0	ATFC 60-62
62.0	63.5	171.0	157.0	44.0	ATFC 62-63
63.5	65.0	173.0	155.0	44.0	ATFC 63-65
65.0	66.5	174.0	155.0	44.0	ATFC 65-66
66.5	68.0	182.0	157.0	44.0	ATFC 66-68
68.0	70.0	184.0	158.0	44.0	ATFC 68-70
70.0	71.5	186.0	170.0	44.0	ATFC 70-71
71.5	73.0	187.0	170.0	44.0	ATFC 71-73
73.0	74.0	187.0	168.0	44.0	ATFC 73-74
74.5	76.0	190.0	166.0	44.0	ATFC 74-76



Confirming to IEC 61914

For two hole fixing dimension contact us for details

All dimensions are in mm
Standard tolerance applies



Aluminium Trefoil Cable Cleat

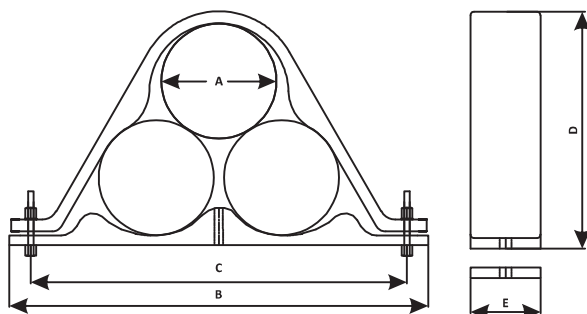
For Trefoil Cable Formation

- Manufactured from Aluminium Alloy
- Suitable for cable dia 15 to 155mm
- For LV/MV/HV cables
- Epoxy coated
- Rubber linear optionally available



Cable diameter		B	C	D	E	P/N
A min	A max					
15.0	30.0	108.0	80.0	45.0	30.0	ATFC(SP) 15-30
30.0	45.0	151.0	120.0	66.0	30.0	ATFC(SP) 30-45
45.0	60.0	184.0	151.0	85.0	40.0	ATFC(SP) 45-60
60.0	75.0	226.0	193.0	114.0	40.0	ATFC(SP) 60-75
75.0	90.0	267.0	235.0	142.0	40.0	ATFC(SP) 75-90
90.0	107.0	319.0	282.0	171.0	50.0	ATFC(SP) 90-107
107.0	129.0	390.0	352.0	203.0	57.0	ATFC(SP) 107-129
129.0	155.0	455.0	397.0	244.0	57.0	ATFC(SP) 129-155

Confirming to IEC 61914



All dimensions are in mm
Standard tolerance applies



Aluminium Claw Cable Cleat

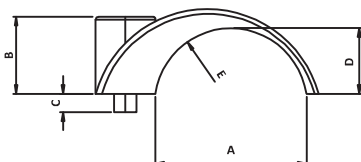
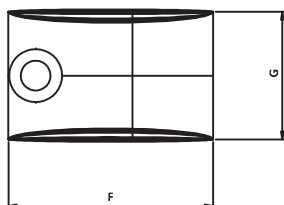
For Single Cable



- Manufactured from Aluminium Alloy
- Suitable for cable dia 10 to 51mm
- Epoxy coated
- Two piece, one bolt fixing desing
- Can be stacked to a maximum of three on one fixing
- Rubber linear optionally available

Cable diameter		B	C	D	E	F	G	P/N
A min	A max							
10.0	13.0	6.5	3.0	5.0	6.3	40.0	46.8	ACC 10-13
13.0	16.0	9.0	3.0	6.5	8.3	40.0	46.8	ACC 13-16
16.0	19.0	10.0	3.5	8.3	9.3	42.0	46.8	ACC 16-19
19.0	22.0	11.3	3.5	11.0	9.7	46.0	46.8	ACC 19-22
22.0	25.0	12.7	4.3	12.5	11.3	50.0	46.8	ACC 22-25
25.0	32.0	16.3	4.3	16.2	12.5	56.0	46.8	ACC 25-32
32.0	38.0	19.6	6.0	16.0	19.3	62.0	47.0	ACC 32-38
38.0	44.0	23.0	6.0	19.0	22.3	69.0	47.0	ACC 38-44
44.0	51.0	26.0	6.2	22.0	25.3	75.0	47.0	ACC 44-51

Confirming to IEC 61914



All dimensions are in mm
Standard tolerance applies

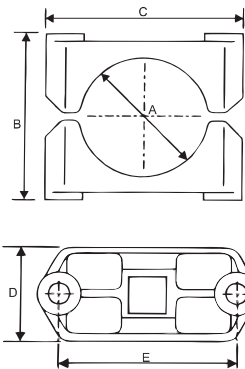


PVC/Nylon Two Bolt Cable Cleat

For Single Cable



- Manufactured from high density Nylon 66
- Suitable for cable dia 50 to 94mm
- Sunlight and weather resistant
- Two piece, two bolt fixing design
- Can be stacked on a common fixings



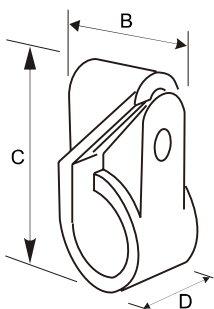
Cable diameter		B	C	D	E	P/N
A min	A max					
50.0	58.0	89.0	102.0	45.0	80.0	ATC(P) 50-58
56.0	64.0	93.0	102.0	45.0	80.0	ATC(P) 56-64
62.0	70.0	98.0	114.0	45.0	92.0	ATC(P) 62-70
68.0	76.0	104.0	114.0	50.0	92.0	ATC(P) 68-76
74.0	82.0	110.0	126.0	50.0	104.0	ATC(P) 74-82
80.0	88.0	118.0	126.0	50.0	104.0	ATC(P) 80-88
86.0	94.0	121.0	126.0	60.0	114.0	ATC(P) 86-94

PVC/Nylon Single Bolt Cable Cleat

For Single Cable



- Manufactured from high density Nylon 66
- Suitable for cable dia 10.5 to 51.1mm
- Sunlight and weather resistant
- Single piece, one bolt fixing design
- Can be double stacked on a single fixings



Cable diameter		B		C	D	P/N
A min	A max	min	max			
10.5	14.5	15.0	18.0	32.0	12.0	ACC(P) 10.5-14.5
12.2	16.7	17.0	22.0	36.0	14.0	ACC(P) 12.2-16.7
14.6	19.8	21.0	26.0	43.0	16.0	ACC(P) 14.6-19.8
17.7	24.0	25.0	31.0	51.0	18.0	ACC(P) 17.7-24.0
21.7	28.5	30.0	37.0	57.0	20.0	ACC(P) 21.7-28.5
26.2	34.2	35.0	43.0	65.0	22.0	ACC(P) 26.2-34.2
31.9	41.6	42.0	52.0	78.0	25.0	ACC(P) 31.9-41.6
39.3	51.1	50.0	62.0	91.0	26.0	ACC(P) 39.3-51.1

All dimensions are in mm
Standard tolerance applies



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