

### PATENT 758160

Aluminium Alloy Trefoil Cleat Is A Registered Trade Mark

- Hinged side for easy cable installation
- Withstand short circuit currents of up to 30kA rms
- Supplied complete with top bolt

#### SINGLE BOLT

- 376AC Type
- 376AE Type epoxy coated

#### TWO BOLT

- 376AB Type
- 376AD Type epoxy coated



## Cleating For Cables In Trefoil

### General

THE FUNCTION OF TREFOIL CABLE CLEATS IS TO SECURE CABLES IN FORMATION TO SUPPORTS. FOLLOWING EITHER A SHORT CIRCUIT FAULT OR AN EXCURSION UP TO A HIGH TEMPERATURE WITHIN THEIR DESIGN LIMITS THEY WILL CONTINUE TO FULFIL THIS ROLE. HOWEVER, AN EXAMINATION OF THE INSTALLATION WOULD BE PRUDENT IN THESE CIRCUMSTANCES TO ENSURE THAT ANY SIGNIFICANTLY DAMAGED CLEATS ARE REPLACED AND THE DESIRED LEVEL OF SYSTEM SECURITY MAINTAINED.

### Short Circuit Current

WHEN A SHORT CIRCUIT FAULT OCCURS IN A THREE PHASE SYSTEM, THERE IS AT FIRST A PERIOD OF EXTREME ASYMMETRY WHICH IS FOLLOWED BY A STEADIER GENERALLY MORE SYMMETRICAL STATE. THE DEGREE OF ASYMMETRY BEING DEPENDENT BOTH UPON WHEN IN THE CYCLE IT IS INITIATED AND ALSO THE NATURE OF THE FAULT, EG, 3 PHASE TO EARTH. BY CONVENTION, THE 'PEAK' IS THE MAXIMUM VALUE ACHIEVED IN THE EARLY ASYMMETRICAL PERIOD AND GIVES A MEASURE OF THE HIGHEST INSTANTANEOUS FORCE BETWEEN CABLES, WHEREAS THE 'RMS' VALUE IS OBTAINED FROM THE LATER STEADIER STATE AND IS RELATED TO THE FORCE BETWEEN CABLES SUSTAINED FOR MOST OF THE DURATION OF THE FAULT.

### Operating Temperature

ALL THE TREFOIL CLEATS LISTED IN THE TABLE ARE CAPABLE OF OPERATING CONTINUOUSLY WITHIN THE RANGE -60°C TO +100°C. SOME ARE ALSO ABLE TO TOLERATE AN EXCURSION UP TO 1000°C FOR UP TO 2 HOURS. HOWEVER, ALTHOUGH THEY WOULD STILL BE CONTAINING AND LOCATING THE CABLES, THEY SHOULD BE EXAMINED AS THEY MAY HAVE SUSTAINED DAMAGE THAT WOULD MAKE THEIR REPLACEMENT ADVISABLE.

Short circuit current	Operating Temperature Range	Fixings	Ref Nos. of Suitable Cleats Environment	
kA	°C		Indoor, dry, normal or outdoor, normal, unpolluted areas or hostile conditions	
30 rms 76 peak	-60 to +100	One Bolt	376AC01-33	376AE01-33
		Two Bolt	376AB1-33	376AD01-33

London Engineers Pattern Co LTD

65 Reginald Road

Bexhill, Sussex TN39 3PQ

Telephone - 01424 211049

Email - [sales@londonengineers.com](mailto:sales@londonengineers.com)



Reference Numbers				Dimensions							Approx. Weight	
Single-bolt		Two-bolt		a		B		Single Bolt	Two Bolt		Single Bolt	Two Bolt
Plain Finish	Epoxy Coated	Plain Finish	Epoxy Coated	min	max	B	D	C	C	E	Kg	Kg
376AC01	376AE01	376AB01	376AD01	24	25	94	38	75	128	102	0.234	0.276
376AC02	376AE02	376AB02	376AD02	25	27	97	38	75	128	102	0.241	0.284
376AC03	376AE03	376AB03	376AD03	27	28	100	38	75	128	102	0.248	0.291
376AC04	376AE04	376AB04	376AD04	28	30	103	38	76	130	104	0.255	0.298
376AC05	376AE05	376AB05	376AD05	30	32	105	38	79	133	107	0.269	0.305
376AC06	376AE06	376AB06	376AD06	32	34	106	38	83	135	109	0.284	0.312
376AC07	376AE07	376AB07	376AD07	34	35	109	38	86	137	110	0.291	0.319
376AC08	376AE08	376AB08	376AD08	35	36	113	38	89	138	113	0.298	0.326
376AC09	376AE09	376AB09	376AD09	36	38	116	38	92	140	114	0.305	0.333
376AC10	376AE10	376AB10	376AD10	38	40	119	38	95	145	118	0.312	0.34
376AC11	376AE11	376AB11	376AD11	40	41	122	38	99	147	121	0.319	0.347
376AC12	376AE12	376AB12	376AD12	41	43	124	38	105	149	123	0.326	0.354
376AC13	376AE13	376AB13	376AD13	43	44	127	38	108	150	124	0.34	0.369
376AC14	376AE14	376AB14	376AD14	44	46	130	38	112	154	128	0.354	0.383
376AC15	376AE15	376AB15	376AD15	46	48	133	38	114	156	129	0.361	0.39
376AC16	376AE16	376AB16	376AD16	48	49	137	38	118	159	133	0.369	0.397
376AC17	376AE17	376AB17	376AD17	49	51	140	38	121	165	135	0.376	0.404
376AC18	376AE18	376AB18	376AD18	51	53	143	38	124	165	137	0.383	0.411
376AC19	376AE19	376AB19	376AD19	53	54	146	38	127	172	141	0.39	0.418
376AC20	376AE20	376AB20	376AD20	54	55.5	155	44	133	183	152	0.503	0.56
376AC21	376AE21	376AB21	376AD21	55.5	57	158	44	137	187	155	0.517	0.574
376AC22	376AE22	376AB22	376AD22	57	59	160	44	141	189	157	0.532	0.588
376AC23	376AE23	376AB23	376AD23	59	60	163	44	145	191	160	0.546	0.602
376AC24	376AE24	376AB24	376AD24	60	62	165	44	148	194	162	0.552	0.617
376AC25	376AE25	376AB25	376AD25	62	63.5	168	44	152	196	165	0.567	0.631
376AC26	376AE26	376AB26	376AD26	63.5	65	172	44	156	199	168	0.581	0.645
376AC27	376AE27	376AB27	376AD27	65	66.5	176	44	160	202	170	0.602	0.666
376AC28	376AE28	376AB28	376AD28	66.5	68	178	44	164	205	173	0.624	0.687
376AC29	376AE29	376AB29	376AD29	68	70	181	44	168	208	176	0.652	0.716
376AC30	376AE30	376AB30	376AD30	70	71.5	187	44	171	215	183	0.68	0.745
376AC31	376AE31	376AB31	376AD31	71.5	73	190	44	175	217	186	0.695	0.758
376AC32	376AE32	376AB32	376AD32	73	74.5	193	44	179	220	188	0.709	0.773
376AC33	376AE33	376AB33	376AD33	74.5	76	197	44	183	222	191	0.722	0.787

### Description

Suitable for cables in Trefoil groups -  
cable diameter 24 - 76 mm

33 Sizes in Range

Can be used with all types of cable routes

Supplied complete with top fastening

Available as either single or two fixing  
design

Plain finish for indoor dry normal  
industrial use or outdoor unpolluted  
areas

Epoxy coated for more hostile conditions

Operating temperature -60°C to +100°C

### Application

These cleats are suitable for use at a  
maximum fault level of 30kA rms.

Recommended maximum spacings,  
straight runs 900mm, vertical bends  
300mm and horizontal bends on each  
support with, if necessary, intermediate  
unanchored cleats to limit resistance  
spacing to 300mm.

In all applications the cleats should be  
mounted on either one or two M10 fixings as  
appropriate. It is essential that they are  
secured to supports capable of withstanding  
the prospective short circuit forces.

