

# Multicleat/Multistrap System

## 378 Series



### Features and Benefits

- Suitable for use with cable diameters 24 to 145mm.
- Large range take on each size.
- Single or double bolt fixing.
- Operating temperatures -60°C to +105°C.
- All straps manufactured from non-magnetic 316L Stainless Steel.
- Plain Aluminium bases - for normal industrial areas or outdoor unpolluted areas.
- Epoxy coated Aluminium versions or Stainless Steel available for harsher environments.
- Bespoke tensioning adaptor included with every cleat and strap.
- Liners are made from LSOH materials.
- Suitable for single core cables laid in trefoil formation with high fault current capacities.
- Suitable for use with all standard ladder and tray systems.
- Suitable for groups of dissimilar cables.
- LUL APR Product ID 1996.
- Patent number 2082242.

Consisting of Aluminium or Stainless Steel bases with a Stainless Steel strap complete with a tensioning clip the BICON™ Multicleat system offers the best flexibility for cable fixing available on the market today. With an unprecedented test portfolio and service record, the Multicleat system should be your first choice for trefoil and single cables installations requiring a high system fault current rating.

Multistraps are used as intermediate restraints and are positioned centrally between a pair of Multicleats. The standard and heavy duty products have different short circuit ratings related to their installation spacings. Please consult the following information in order to make the correct selection.

All Multicleats and Multistraps now come with a disposable shear torque tensioning adapter. This was introduced in response to customer requests to improve the closure of the cleats and also better control the tension applied during installation. The adapter fits into the open end of the winding pin and is used with a standard 13mm socket wrench. Thus simplifying installation. When the correct tension has been applied the adapter shears off LSOH material liners are available for both the Multicleat and Multistrap. The LSOH conform to BS6853. Please contact the Prysmian Components technical team who will be able to offer the correct advice to suit your individual installation.

## Installation Sequence



Fasten base to support with M10 fixings. Loop strap through base and around cables.  
Standard duty = 2 loops.  
Heavy Duty = 3 loops.



Pull slack into outer loop. Insert split pin from right hand side around outer layer of strap about 10mm from end. Push plastic shear torque adaptor fully onto the end of the split pin and attach 13mm socket wrench. To tension the strap rotate key anti-clockwise with the socket wrench until the adaptor shears.



Remove the shear torque adaptor and wrench. Swing the key over and engage in slots in clip.

# Multileat

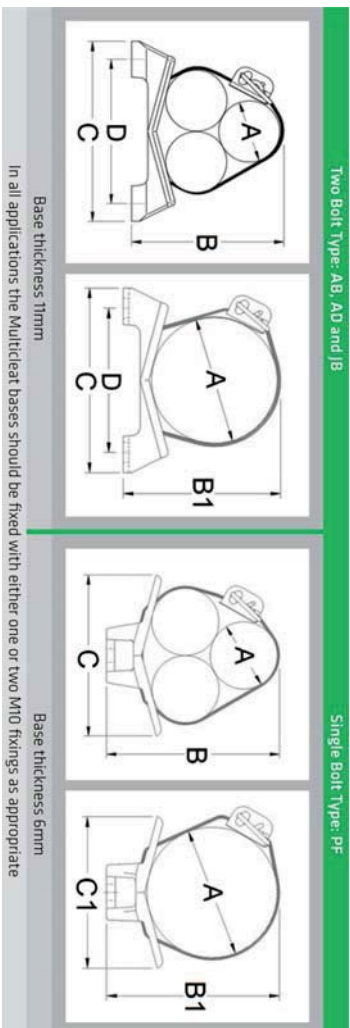
Base Options	Cable Size		Liner	Dimensions and Weights																
	Two Bolts	Single Bolt		Two Bolts				Single Bolt												
Standard	Heavy Duty	Trefoil Ø	Single Ø	AB / AD			JB			AB or AD or JB		PF								
Minimum Individual Cable Diameter (mm)	Maximum Individual Cable Diameter (mm)	Minimum Individual Cable Diameter (mm)	Maximum Individual Cable Diameter (mm)	Max Width C (mm)	Hole Centres D (mm)	Weight (kg) Standard Duty (01-09)	Weight (kg) Heavy Duty (01-09)	Max Width C (mm)	Hole Centres D (mm)	Weight (kg) Standard Duty (01-09)	Weight (kg) Heavy Duty (01-09)	Max Height Trefoil B (mm)	Max Height Single Cable B1 (mm)	Base Width (mm)	Max Width Trefoil C (mm)	Max Width Single Cable C1 (mm)	Weight (kg) Standard Duty (01-09)	Weight (kg) Heavy Duty (51-42)	Max Height Trefoil (mm)	Max Height Single Cable B1 (mm)
01	51	24	34	126	100	0.468	0.54	120	100	0.63	0.669	95	92	76	76	76	0.480	0.519	99	96
02	52	30	41	126	100	0.479	0.57	120	100	0.641	0.668	100	113	76	82	85	0.491	0.538	113	116
03	53	37	47	122	96	0.520	0.576	126	100	0.727	0.783	121	11	104	104	104	0.566	0.622	121	118
04	54	43	54	122	96	0.535	0.595	126	100	0.742	0.802	135	138	104	108	100	0.581	0.641	135	138
05	55	50	60	132	106	0.569	0.636	132	100	0.757	0.824	146	-	120	120	120	0.634	0.701	147	-
06	56	56	67	132	106	0.583	0.657	132	100	0.771	0.845	160	-	120	134	134	0.648	0.722	161	-
07	57	63	73	176	150	0.716	0.798	152	125	0.94	1.022	172	-	146	146	146	0.890	0.972	173	-
08	58	69	80	176	150	0.729	0.818	152	125	0.953	1.042	186	-	146	160	160	0.903	0.992	187	-
09	59	N/A	N/A	122	96	0.547	0.614	126	100	0.754	0.821	-	148	104	-	120	0.593	0.660	-	148
36	72	85	85	230	200	-	0.832	230	200	-	1454	190	-	-	-	-	-	-	-	-
37	82	95	95	230	200	-	0.864	230	200	-	1486	210	-	-	-	-	-	-	-	-
38	92	105	105	284	242	-	1.449	230	200	-	1.520	230	-	-	-	-	-	-	-	-
39	102	115	115	284	242	-	1.480	290	250	-	2.551	250	-	-	-	-	-	-	-	-
40	112	125	125	284	242	-	1.511	290	250	-	2.582	270	-	-	-	-	-	-	-	-
41	122	135	135	284	242	-	1.542	290	250	-	2.613	290	-	-	-	-	-	-	-	-
42	132	145	145	290	242	-	1.572	290	250	-	2.643	315	-	-	-	-	-	-	-	-

Example ordering code: 378 AD 58 Multileat with a 377 LSF 02 Liner

# Multistrap

Option	Cable Size		Weight	Liner		
	Standard	Heavy Duty			Trefoil Ø	
Minimum Individual Cable Diameter (mm)	Maximum Individual Cable Diameter (mm)	Weight (kg) Standard Duty (01-09)	Weight (kg) Heavy Duty (51-42)	377LSF		
01	51	24	0.160	0.199	01	
02	52	30	0.171	0.218		
03	53	37	0.184	0.24		
04	54	43	0.21	0.259	02	
05	55	50	0.225	0.278		
06	56	56	0.240	0.299		
07	57	63	0.253	0.322		
08	58	69	0.28	0.342		
			N/A	N/A		
			72	85		0.356
			82	95		0.388
			92	105		0.422
			102	115		0.453
			112	125	0.484	
			122	135	0.515	
			132	145	0.545	

Example ordering code: 377 AB 53 Strap with a 377 LSF 01 Liner



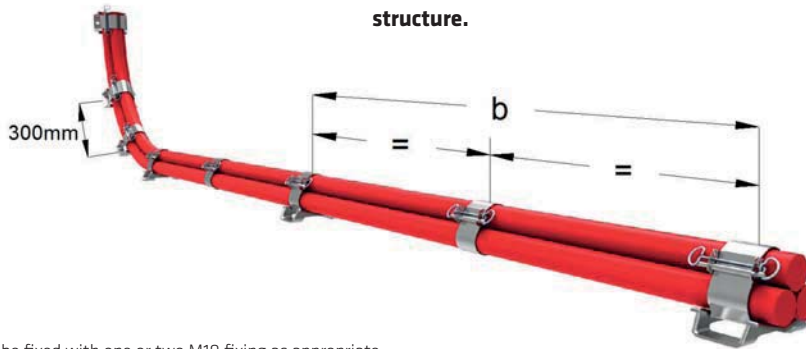
## Multicleat/Multistrap Selection and Spacing for Fault Current Rating

Multicleat / Multistrap	Spacing 'b' m Max	Short Circuit		Cleat Spacing at vertical change of direction (mm)
		rms	peak	
Standard Duty	1.8	43	114	300
Heavy Duty	1.5	50	130	300
Heavy Duty	1.2	71	184	300

**Important note:** To ensure adequate restraint, Multistrap **MUST** be used at the mid-point between cleats on all horizontal and vertical straight runs.



**Changes in direction require restraint spacing of 300mm maximum. Use Multistrap and/or Multicleat, as appropriate, to suit support structure.**



Note: Bases should be fixed with one or two M10 fixing as appropriate.

## Miscellaneous Arrangements



### Multicleat/Multistrap System

The Multicleat / Multistrap system is ideally suited for securing groups of cables of differing sizes. The Prysmian technical help team will be able to match the correct cleat /strap to for the size and fault rating of the cable arrangement.

### FREE Technical Advisory Service

Etech maintains a free technical advisory service.

Enquiries concerning this and all other products should be directed via the sales office:- +44(0) 1744 762 929