

PANDUIT®

Cable Cleats for Short Circuit Protection



Discover the perfect fit for your cable containment needs with Panduit comprehensive range of cable cleat solutions. Designed to secure cables in the event of a short circuit fault, our cable cleats prioritize safety and minimize disruption and damage to personnel and property. Engineered for easy installation in various applications and harsh environments, our cleats offer unmatched reliability and safety. Choose Panduit for on-the-job productivity and peace of mind, knowing you have the right product for your specific requirements.

REDUCE PROJECT COSTS AND INSTALLATION TIME



Simple and intuitive design leads to increased productivity



Tested to IEC 61914, the latest and most globally recognized cable cleat testing standard



Compatible with a variety of ladder racks and cables



Collaborative and consultative approach to cable cleat specification, supported by a team



Industry-unique mounting brackets and installation tool



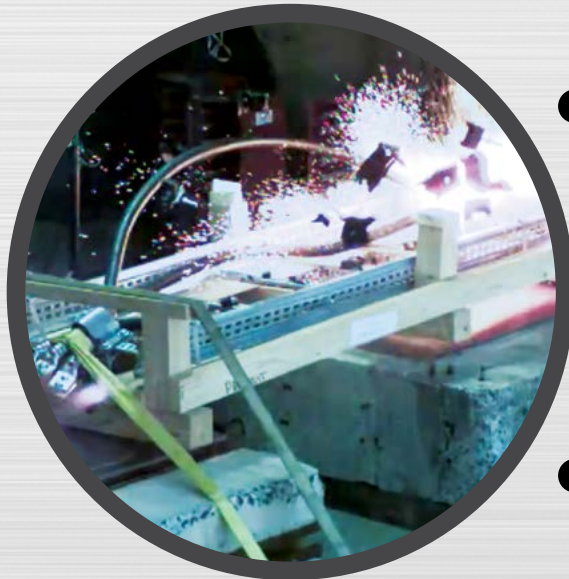
Applications:

Oil and Gas, Petrochemical, Shipbuilding, Rail, Utilities, Renewable Energy, and Data Centers

EC 61914 is the most comprehensive and globally accepted cable cleat testing standard.

It provides requirements for:

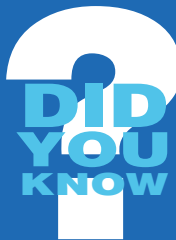
- Temperature rating
- Adequate resistance to flame propagation
- Lateral load testing
- Axial load testing
- Impact resistance
- UV resistance
- Resistance to electromechanical forces
- Corrosion resistance



During a short circuit fault, maximum electromechanical stress between conductors occurs at or before 0.005 second

Typical circuit breakers and other protection devices trip and interrupt a fault between 0.06 to 0.1 second

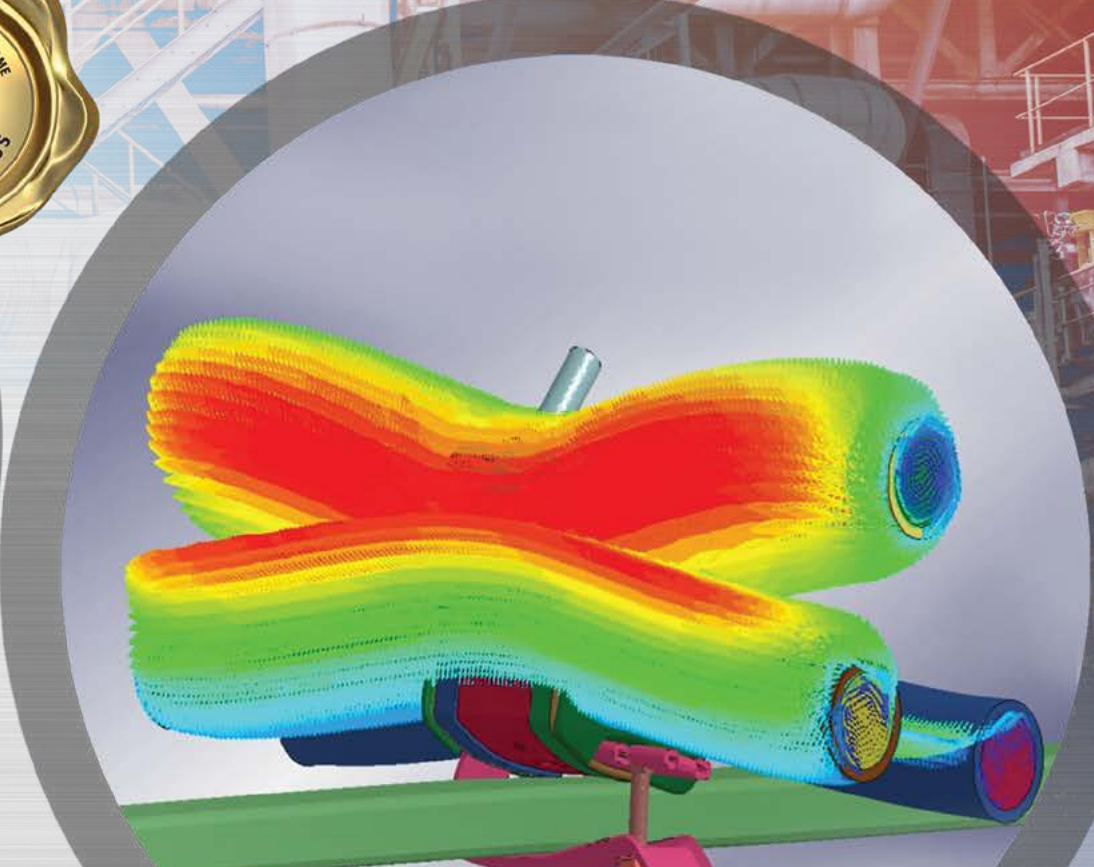
Cable cleats perform their function within those first 0.005 second (i.e. at peak kA) before a circuit breaker trips and interrupts a fault



...the **NEC 392.20(C)** doesn't specify how to protect against excessive cable movement due short circuit, however IEC 61914 provides testing methodology to ensure compliance to the NEC requirements.

Research & Development: We have created a state-of-the-art ANSYS award-winning program that simulates the material composition of our cable cleats and the electromechanical forces present in a short circuit fault, preparing our cable cleats for testing to IEC 61914 standards.

The cleats are then subjected to a live short circuit fault at a testing laboratory to validate compliance with this standard. The simulation program is a powerful tool that helps us select the most appropriate materials for our cleats, so they perform to their tested kA rating during a short circuit fault.



Selecting the right Cable Cleat has never been so easy

Prevent damages resulting from a short circuit fault by specifying and installing Panduit Cable Cleats

SELECT cable layout

INPUT peak short circuit current

INPUT cable diameter

Access the desktop Cable Cleat web application here:

www.panduit.com/en/support/tools1/cable-cleat-kalculator-web-application.html

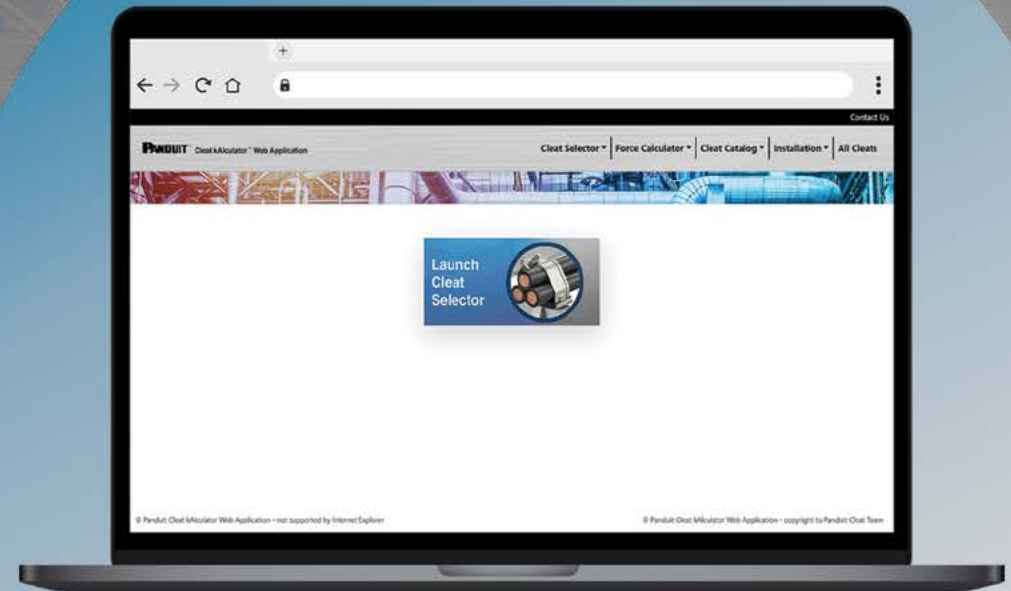


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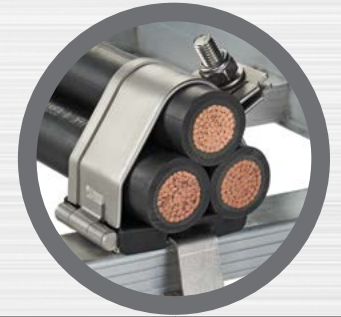
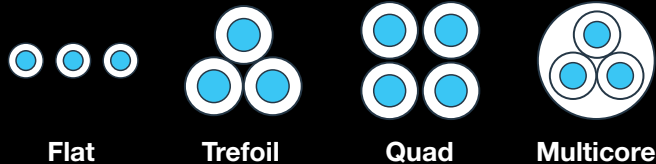
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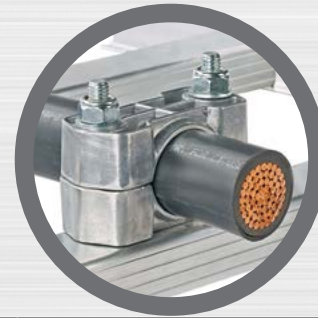
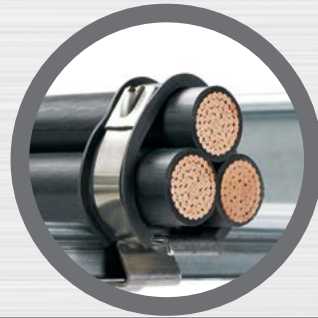
Cable Layout Legend



Product	Trefoil Cleat	
Material	Stainless Steel	
Parts	12 Parts	
Diameter Ranges	20 - 25 mm	50 - 57 mm
	23 - 28 mm	54 - 61 mm
	26 - 32 mm	58 - 65 mm
	30 - 36 mm	62 - 69 mm
	34 - 40 mm	
	38 - 44 mm	
	42 - 48 mm	
46 - 52 mm		



PANDUIT CLEAT OVERVIEW



Product	Buckle Strap Cleat	Locking Strap Cleat	Trefoil Cleat		Two-Hole Cleat	One-Hole Cleat	
Material	Stainless Steel	Stainless Steel	Aluminum		Aluminum	Aluminum	
Parts	6 Parts	13 Parts	14 Parts		7 Parts	10 Parts	
Diameter Ranges	12 - 45 mm 45 - 70 mm 70 - 95 mm 95 - 120 mm 120 - 150 mm 150 - 170 mm	12 - 95 mm (5) 95 - 120 mm (1) 95 - 150 mm (3) 120 - 150 mm (1) 150 - 195 mm (3)	23 - 26 mm 25 - 28 mm 27 - 30 mm 29 - 32 mm 31 - 35 mm 34 - 38 mm 37 - 41 mm 40 - 44 mm	43 - 47 mm 46 - 51 mm 50 - 56 mm 50 - 56 mm 55 - 61 mm 60 - 67 mm 66 - 75 mm	38 - 46 mm 46 - 58 mm 58 - 70 mm 70 - 83 mm 83 - 97 mm 97 - 109 mm 109 - 120 mm	10 - 13 mm 13 - 16 mm 16 - 19 mm 19 - 23 mm 23 - 27 mm 27 - 32 mm 32 - 38 mm 38 - 46 mm	46 - 51 mm 51 - 57 mm



CUSTOM CLEAT SOLUTIONS AVAILABLE

For global engineered custom solutions and technical support, reach out to your local Panduit Sales Representative.

To learn more visit: www.panduit.com/cable-cleats

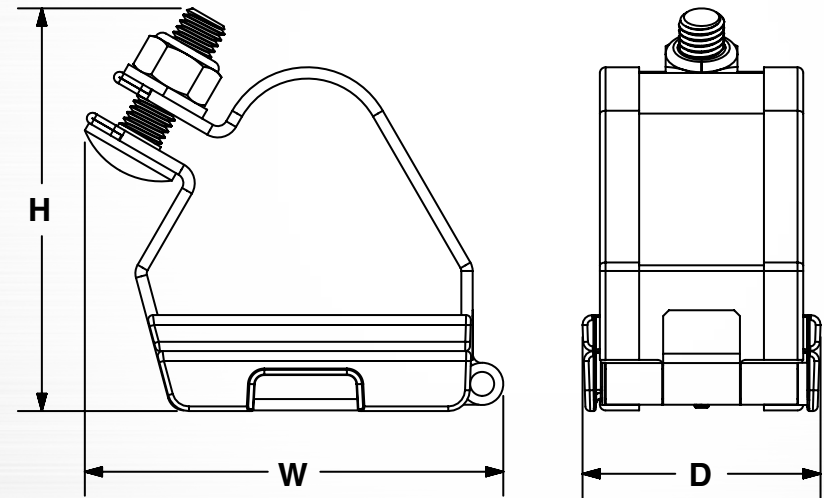
Trefoil Cleat	Two-Hole Cleat		One-Hole Cleat	
Polymer	Polymer		Polymer	
6 Parts	10 Parts		10 Parts	
22 - 28 mm	38 - 46 mm	109 - 120 mm	10 - 13 mm	32 - 38 mm
26 - 33 mm	46 - 58 mm	120 - 135 mm	13 - 16 mm	38 - 46 mm
31 - 39 mm	58 - 70 mm	135 - 150 mm	16 - 19 mm	46 - 51 mm
37 - 45 mm	70 - 83 mm	150 - 165 mm	19 - 23 mm	51 - 57 mm
43 - 52 mm	83 - 97 mm		23 - 27 mm	
50 - 60 mm	97 - 109 mm		27 - 32 mm	

STAINLESS STEEL TREFOIL CLEAT



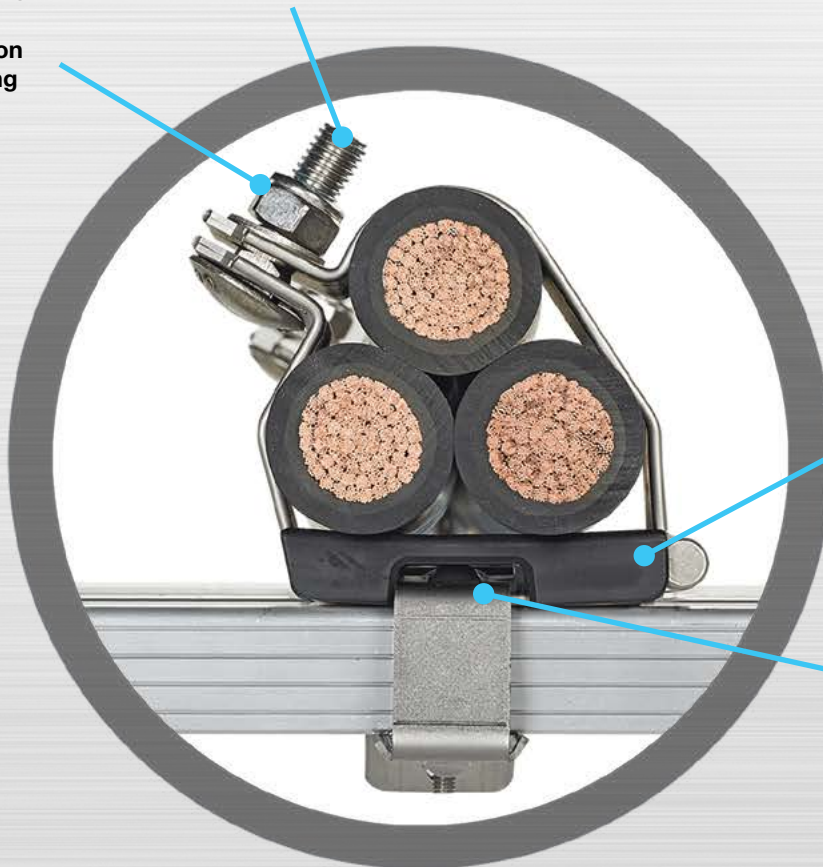
The **Stainless Steel Trefoil Cable Cleat** offers protection against extreme environments and high short circuit current faults. It is made of 316L stainless steel, available in multiple sizes with cable range taking capability, and suitable for trefoil cable arrangements.

The cleat can be installed after running cable using a Panduit mounting bracket or before running cable by installing direct to the cable tray rung through a fixing hole using an M8 bolt.



Nylon insert
lock nut
for vibration
dampening

Tightening bolt can
be installed from
top or bottom



Removeable
spacer for cable
range taking



Mounting bracket
slot allows for
installation flexibility

Part Number	Cable Diameter Range		H		W		D		Weight		Mounting Holes
	In.	mm	In.	mm	In.	mm	In.	mm	Lb.	g	
CCSSTR2025-X	0.79 - 0.98	20 - 25	3.43	87	3.39	86	2.48	63	0.92	417	1 X M8
CCSSTR2328-X	0.91 - 1.10	23 - 28	3.58	91	3.54	90	2.48	63	0.97	439	1 X M8
CCSSTR2632-X	1.02 - 1.26	26 - 32	3.74	95	3.82	97	2.48	63	1.06	480	1 X M8
CCSSTR3036-X	1.18 - 1.42	30 - 36	3.94	100	4.13	105	2.48	63	1.14	518	1 X M8
CCSSTR3440-X	1.34 - 1.58	34 - 40	4.25	108	4.37	111	2.48	63	1.21	547	1 X M8
CCSSTR3844-X	1.50 - 1.73	38 - 44	4.25	108	4.69	119	2.48	63	1.28	581	1 X M8
CCSSTR4248-X	1.65 - 1.89	42 - 48	4.41	112	4.96	126	2.48	63	1.35	613	1 X M8
CCSSTR4652-X	1.81 - 2.05	46 - 52	4.61	117	5.24	133	2.48	63	1.43	647	1 X M8
CCSSTR5057-X	1.97 - 2.24	50 - 57	4.84	123	5.63	143	2.48	63	1.51	686	1 X M8
CCSSTR5461-X	2.13 - 2.40	54 - 61	5.12	130	5.91	150	2.48	63	1.59	720	1 X M8
CCSSTR5865-X	2.28 - 2.56	58 - 65	5.43	138	6.18	157	2.48	63	1.66	754	1 X M8
CCSSTR6269-X	2.44 - 2.72	62 - 69	5.71	145	6.50	165	2.48	63	1.72	782	1 X M8

Short Circuit Testing Summary¹

Trefoil Formation 38 mm Cable Diameter	Trefoil Formation 38 mm Cable Diameter	Trefoil Formation 35 mm Cable Diameter	Trefoil Formation 38 mm Cable Diameter
One Short Circuit Event (Clause 6.4.4) 300 mm spacing	Two Short Circuit Events (Clause 6.4.5) 300 mm spacing	One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
0.1 sec	0.1 sec	0.1 sec	0.1 sec
172 kA Peak	167 kA Peak	143 kA Peak	125 kA Peak
8926 lbs force (39.77 kN)	8415 lbs force (37.4 kN)	13398 lbs force (59.5 kN)	9429 lbs force (41.9 kN)

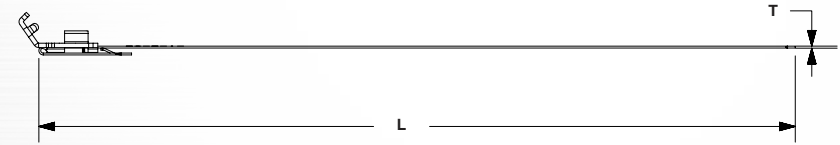
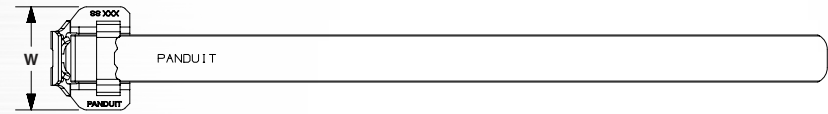
¹Test compliance to IEC 61914 utilizing KEMA facility; Independent, ISO 17025 accredited testing, inspection, and certification services (IEEE, IEC, UL, and ANSI) for electric power equipment.

STAINLESS STEEL BUCKLE STRAP CLEAT



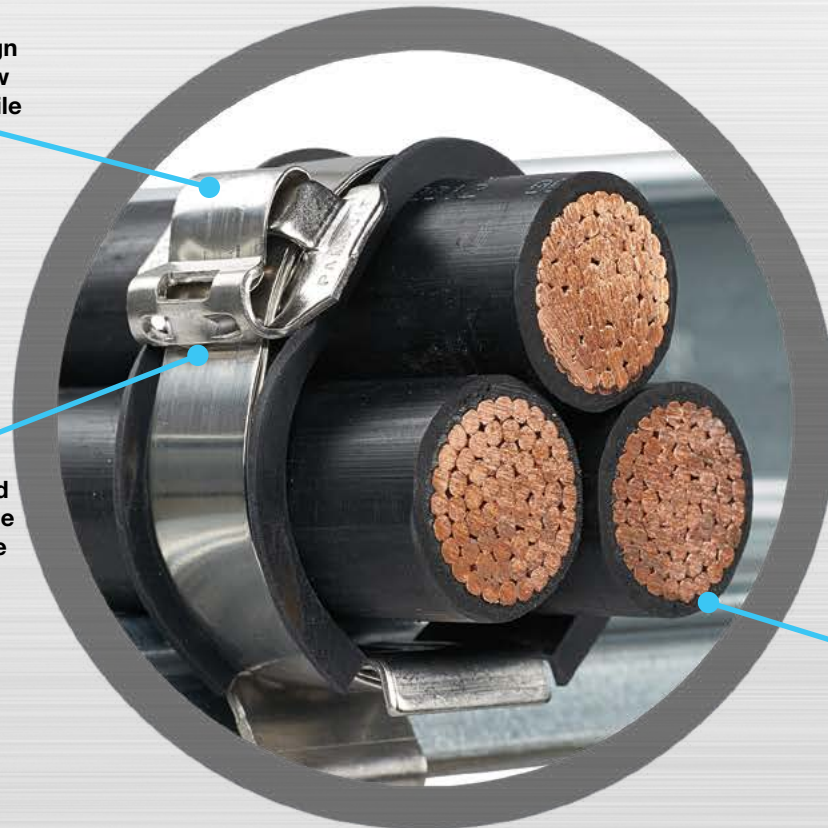
The **Stainless Steel Buckle Strap Cleat** is an effective option for protecting against high short circuit fault current requirements in harsh environments. The strap is made of 316L stainless steel, has inherent cable range-taking, and is compatible with quad, trefoil, and multicore cables.

The cleat is installed after running the cable via a unique in the industry mounting bracket. It is tensioned and cut using a manually-operated, ratchet-style installation tool or a tension screw drive installation tool. The straps have rounded edges to protect from damaging the cable and are often used in combination with a cushion sleeve inserted between the strap and cable for added protection.



Buckle design provides low finished profile

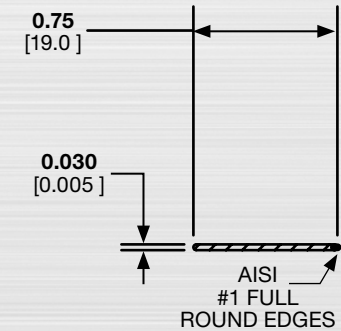
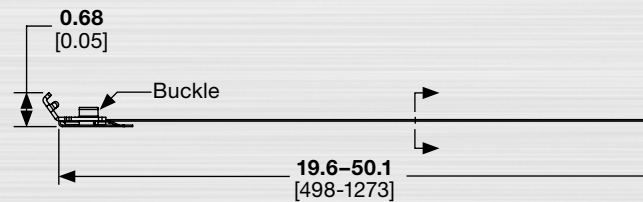
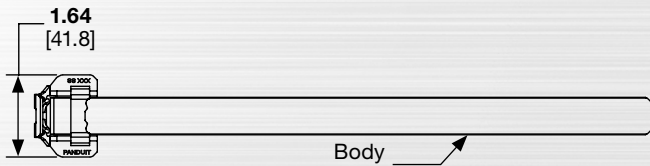
Smooth surfaces and rounded edges reduce risk of cable insulation damage



Compatible with a variety of cable trays and cables



Part Number	Trefoil Double Loop Cable Diameter Range		Trefoil Triple Loop Cable Diameter Range		Flat Multicore Double Loop Cable Diameter Range		Strap/Tie Width		Thickness		Length	
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm
MS4W75T30-Q6	0.47 - 0.79	12 - 20	-	-	0.47 - 1.77	12 - 45	0.75	19.1	0.03	0.76	20.2	513
MS6W75T30-Q6	0.79 - 1.18	20 - 30	0.47 - 0.79	12 - 20	1.77 - 2.76	45 - 70	0.75	19.1	0.03	0.76	26.5	673
MS8W75T30-Q6	1.18 - 1.65	30 - 42	0.79 - 1.02	20 - 26	2.76 - 3.74	70 - 95	0.75	19.1	0.03	0.76	32.7	831
MS10W75T30-Q6	1.65 - 2.28	42 - 58	1.02 - 1.38	26 - 35	3.74 - 4.72	95 - 120	0.75	19.1	0.03	0.76	39.0	991
MS12W75T30-Q6	2.28 - 2.84	58 - 72	1.38 - 1.73	35 - 44	4.72 - 5.91	120 - 150	0.75	19.1	0.03	0.76	44.7	1135
MS14W75T30-Q6	2.84 - 3.39	72 - 86	1.73 - 2.09	44 - 53	5.91 - 6.69	150 - 170	0.75	19.1	0.03	0.76	50.1	1273



Short Circuit Testing Summary¹

MS##W75T30-Q6 Double Loop Product			
Trefoil Formation 37 mm Cable Diameter	Trefoil Formation 38 mm Cable Diameter	Trefoil Formation 39 mm Cable Diameter	Trefoil Formation 39 mm Cable Diameter
One Short Circuit Event (Clause 6.4.4) 300 mm spacing	Two Short Circuit Events (Clause 6.4.5) 300 mm spacing	One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
153 kA	142 kA	109 kA	109 kA
7254 lbs force (32.3 kN)	6084 lbs force (27.1 kN)	6960 lbs force (31.0 kN)	6960 lbs force (31.0 kN)

MS##W75T30-Q6 Triple Loop Product	
Trefoil Formation 39 mm Cable Diameter	Trefoil Formation 39 mm Cable Diameter
One Short Circuit Event (Clause 6.4.4) 300 mm spacing	Two Short Circuit Events (Clause 6.4.5) 300 mm spacing
188 kA	188 kA
10391 lbs force (46.2 kN)	10391 lbs force (46.2 kN)

¹Test compliance to IEC 61914 utilizing KEMA facility; Independent, ISO 17025 accredited testing, inspection, and certification services (IEEE, IEC, UL, and ANSI) for electric power equipment.

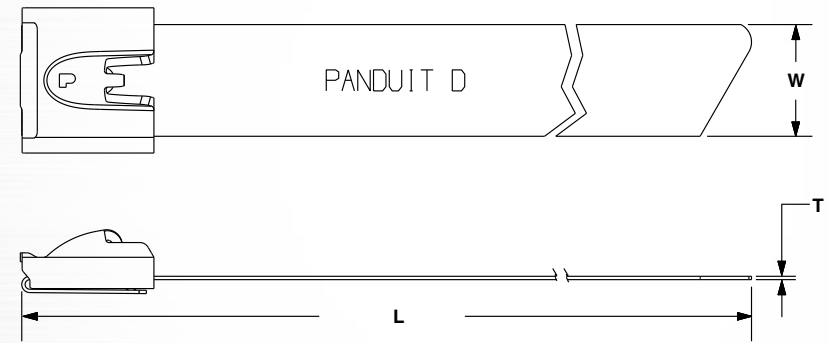
While Panduit's Cable Cleats are tested to meet the CSA standard C22.2 No.61914 it is the responsibility of the installer to ensure that the installation complies with all applicable local codes and regulations.

STAINLESS STEEL LOCKING STRAP CLEAT



The **Stainless Steel Locking Strap Cleat** is an effective option for protecting against lower to medium short circuit fault current requirements in harsh environments. The strap is made of 316L stainless steel, has inherent cable range-taking, and is compatible with quad, trefoil, and multicore cables.

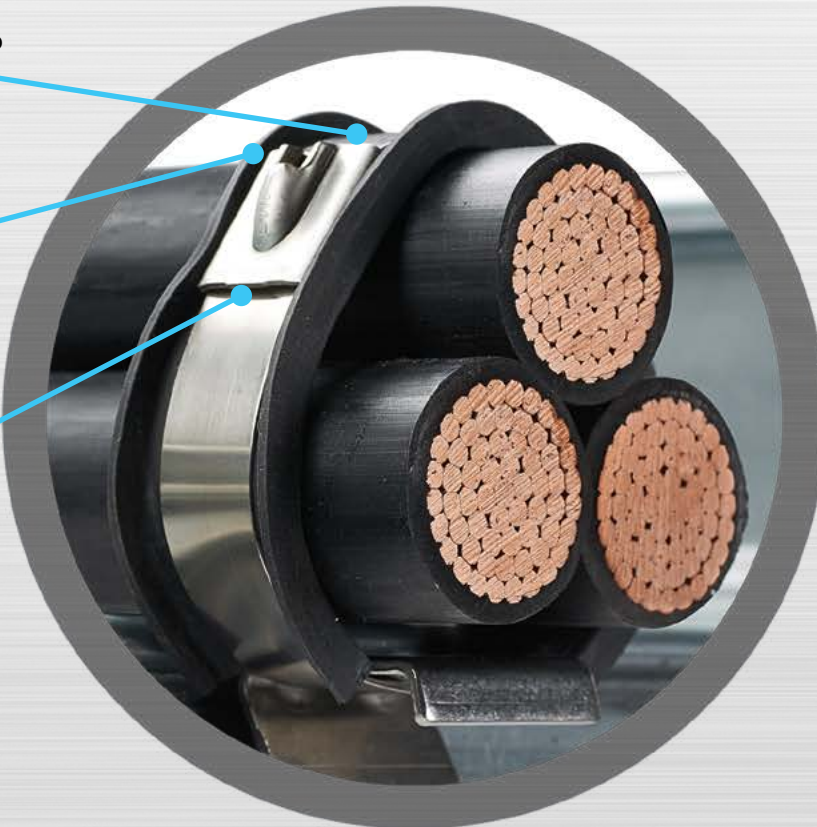
The cleat is installed after running the cable via a unique in the industry mounting bracket. It is tensioned and cut using a battery-operated, electromechanical or manually-operated, ratchet-style installation tool. The straps have rounded edges to protect from damaging the cable and are often used in combination with a cushion sleeve inserted between the strap and cable for added protection.



Cable tie cut off eliminates exposed sharp edges

Self-locking head for high-retained tension

Smooth surfaces and rounded edges reduce risk of cable insulation damage



Part Number	Trefoil Double Loop Cable Diameter Range		Flat Multicore Double Loop Cable Diameter Range		Width		Thickness		Length	
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm
MLT4DH-L316	0.47 - 1.65	12 - 42	0.47 - 3.74	12 - 95	0.31	7.9	0.010	0.25	28.0	711
MLT4DH-L	0.47 - 1.65	12 - 42	0.47 - 3.74	12 - 95	0.31	7.9	0.010	0.25	28.0	711
MLT4DEH15-Q316	0.47 - 1.65	12 - 42	0.47 - 3.74	12 - 95	0.50	12.7	0.015	0.38	29.5	749
MLT4DSH-Q316	0.47 - 1.65	12 - 42	0.47 - 3.74	12 - 95	0.63	15.9	0.015	0.38	29.5	749
MLT4DSH-Q	0.47 - 1.65	12 - 42	0.47 - 3.74	12 - 95	0.63	15.9	0.015	0.38	29.5	749
MLT5DH-L316	1.65 - 2.28	42 - 58	3.74 - 4.72	95 - 120	0.31	7.9	0.010	0.25	34.0	863
MLT6DEH15-Q316	1.65 - 2.84	42 - 72	3.74 - 5.91	95 - 150	0.50	12.7	0.015	0.38	41.5	1054
MLT6DSH-Q316	1.65 - 2.84	42 - 72	3.74 - 5.91	95 - 150	0.62	15.9	0.015	0.38	41.5	1054
MLT6DSH-Q	1.65 - 2.84	42 - 72	3.74 - 5.91	95 - 150	0.62	15.9	0.015	0.38	41.5	1054
MLT6DH-L316	2.28 - 2.84	58 - 72	4.72 - 5.91	120 - 150	0.31	7.9	0.010	0.25	40.0	1016
MLT8DEH15-Q316	2.84 - 3.94	72 - 100	5.91 - 7.68	150 - 195	0.50	12.7	0.015	0.38	53.5	1359
MLT8DSH-Q316	2.84 - 3.94	72 - 100	5.91 - 7.68	150 - 195	0.63	15.9	0.015	0.38	53.5	1359
MLT8DSH-Q	2.84 - 3.94	72 - 100	5.91 - 7.68	150 - 195	0.63	15.9	0.015	0.38	53.5	1359

Short Circuit Testing Summary¹

MLT#DH-L316 Product			
Trefoil Formation 39 mm Cable Diameter	Trefoil Formation 39 mm Cable Diameter	Trefoil Formation 39 mm Cable Diameter	Trefoil Formation 39 mm Cable Diameter
One Short Circuit Event (Clause 6.4.4) 300 mm spacing	Two Short Circuit Events (Clause 6.4.5) 300 mm spacing	One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
47.0 kA	47.0 kA	42.2 kA	33.2 kA
649 lbs force (2.89 kN)	649 lbs force (2.89 kN)	1047 lbs force (4.66 kN)	648 lbs force (2.88 kN)
MLT#DSH-Q316 Product			
Trefoil Formation 38 mm Cable Diameter	Trefoil Formation 38 mm Cable Diameter	Trefoil Formation 39 mm Cable Diameter	Trefoil Formation 39 mm Cable Diameter
One Short Circuit Event (Clause 6.4.4) 300 mm spacing	One Short Circuit Event (Clause 6.4.4) 300 mm spacing	One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
75.1 kA	75.1 kA	60.4 kA	60.4 kA
1702 lbs force (7.57 kN)	1702 lbs force (7.57 kN)	2145 lbs force (9.45 kN)	2145 lbs force (9.45 kN)
MLT#DEH15-Q316 Product			
Trefoil Formation 38 mm Cable Diameter	—	Trefoil Formation 39 mm Cable Diameter	Trefoil Formation 39 mm Cable Diameter
One Short Circuit Event (Clause 6.4.4) 300 mm spacing	—	One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
56.1 kA	—	42.4 kA	35.7 kA
925 lbs force (4.11 kN)	—	1057 lbs force (4.70 kN)	749 lbs force (3.33 kN)

¹Test compliance to IEC 61914 utilizing KEMA facility; Independent, ISO 17025 accredited testing, inspection, and certification services (IEEE, IEC, UL, and ANSI) for electric power equipment.

While Panduit's Cable Cleats are tested to meet the CSA standard C22.2 No.61914 it is the responsibility of the installer to ensure that the installation complies with all applicable local codes and regulations.

THE COMPLETE PANDUIT CABLE CLEAT TOOLS

The manually-operated **BT2HTI** and **BT75SDT** tools are used to install the buckle strap cleats.

The **BT2HTI** is a ratchet-style installation tool, allowing for high tension with minimal effort.

The **BT75SDT** tensions the strap using a screw drive mechanism, providing high tension while reducing operator fatigue.

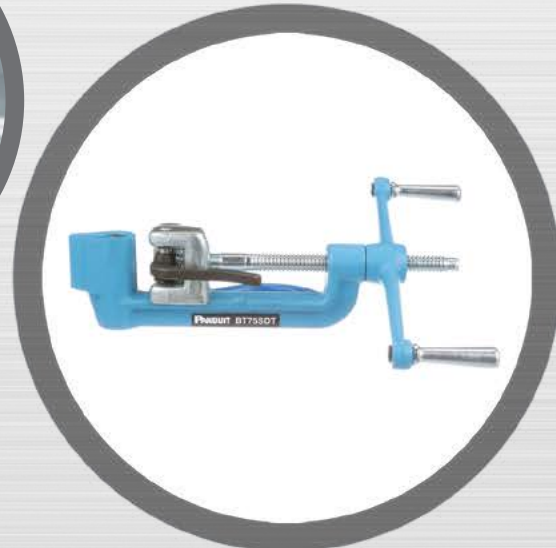
Both tools use a lever to cut the strap so there is an appropriate length remaining to fold over and secure with the buckle tab. A side entry slot allows for easy strap insertion, streamlining installation. The BT2HTI is more suitable for higher volume installations, and the BT75SDT for lower volume.



BT2HTI



For use with
**Stainless Steel
Buckle Strap Cleats**



BT75SDT

Part Number	Description	Length		Width		Used With	Std Pkg. Qty.
		In.	mm	In.	mm		
BT2HTI	Installation tool for use with MS75 buckles.	6.94	176	7.64	194	Stainless Steel Buckle Strap Cleat	1
BT75SDT	Screw drive tension mechanism provides high tension with minimal effort, reducing operator fatigue; Heavy duty construction offers a longer service life; Strapping side entry allows quick side entry of the strap into tool to speed installation.	15	381	8	203	Stainless Steel Buckle Strap Cleat	1

THE COMPLETE PANDUIT CABLE CLEAT TOOLS

The battery-operated **PBTMT** and manually-operated, ratchet-style **RT2HT** tools are used to install the locking strap cleats.

Both tools tension the strap through its locking head using a gripping tooth mechanism and then cut the end flush, eliminating any sharp edges.

A side entry slot allows for easy strap insertion, streamlining installation. The PBTMT is more suitable for higher volume installations, and the RT2HT for lower volume.



PBTMT/E



RT2HT



For use with
**Stainless Steel
Locking
Strap Cleat**



Part Number	Description	Length		Width		Used With	Std Pkg. Qty.
		In.	mm	In.	mm		
PBTMT/E	Battery powered installation tool, for use with Pan-Steel® Heavy, Extra-heavy, and Super-Heavy, Cross Section MLT Style Ties, and MLTD Double Wrapped Style Ties, 2-12 volt lithium-ion batteries and 115 volt, 60 Hz charger included.	10.33	262.4	3.17	80.5	Stainless Steel Locking Strap Cleat	1
RT2HT	Hand Operated Tool for use with Extra-Heavy and Super-Heavy Cross Section Pan-Steel® Type MLT Ties.	7.1	180	4.05	103	Stainless Steel Locking Strap Cleat	1

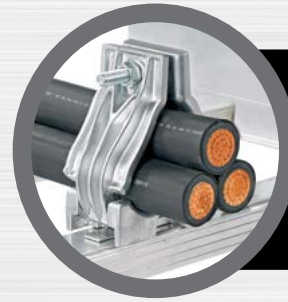
PANDUIT MOUNTING BRACKETS AND CUSHION SLEEVE

Mounting Brackets for Easy Installation and Labor Savings

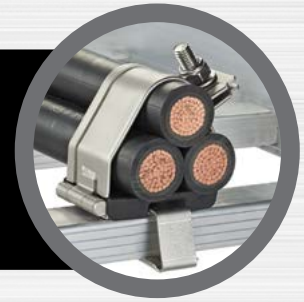
Install cable cleats after the cable is pulled with Panduit mounting brackets that affix to the cable tray and cleat after the cable is run in the tray.

CBH Series Brackets are compatible with the CCSSTR series stainless steel trefoil cleats and CICALTR series aluminum trefoil cleats.

UC Series Brackets work in concert with Panduit's unique MLT series locking strap cleats and MS75 series buckle strap cleats.

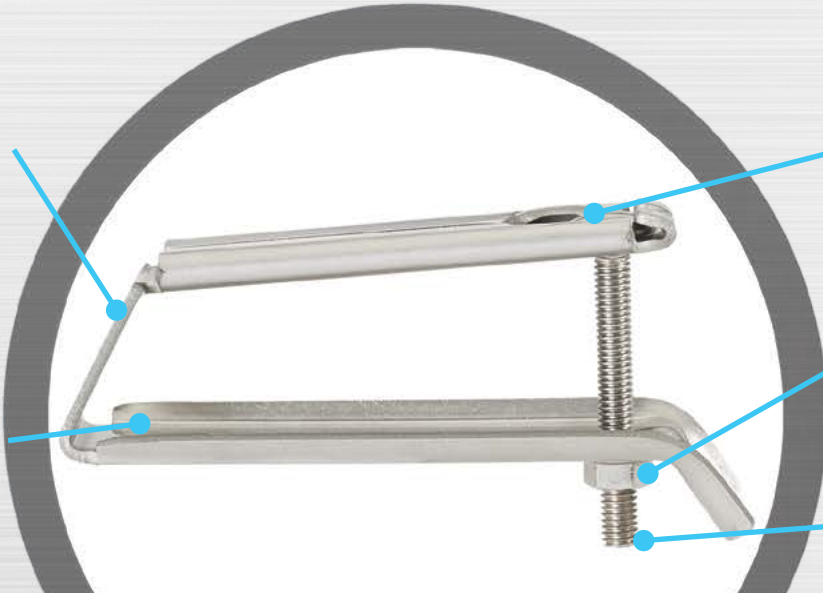


For use with
**Stainless
and Aluminum
Trefoil Cleats**



No loose pieces eliminates lost parts.

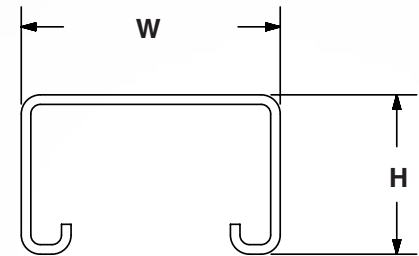
Mounting bracket eliminates the need to drill holes through rungs to secure cleats*



Capture slot for swing bolt provides added security

Peened nut prevents it from backing out completely off the screw

Easy-to-use swing bolt assembly



CABLE CLEAT BRACKETS

Part Number	Rung Height		Rung Width		Part Weight	
	In.	mm	In.	mm	lb.	g
CBH15L50-V6	0.59	15	1.97	50	0.32	145
CBH20L50-V6	0.59 - 0.79	15 - 20	1.97	50	0.32	145
CBH25L50-V6	0.79 - 0.98	20 - 25	1.97	50	0.33	151
CBH30L50-V6	0.98 - 1.18	25 - 30	1.97	50	0.34	154

PANDUIT MOUNTING BRACKETS AND CUSHION SLEEVE

1



I-Beam Mounting Bracket*

2



Top Hat Mounting Bracket*

3



Round Type Mounting Bracket*

4



Strut Mounting Bracket*

MOUNTING BRACKETS

Part Number	Std. Pkg. Qty.
UCSQ1-VC	5
UCRND1-VC	5
UCIB1-VC	5
UCTH1-VC	5
UCFG1-V316	5
UCSQ1-V316	5
UCRND1-V316	5
UCIB1-V316	5
UCTH1-V316	5

*Available in 316L stainless steel and galvanized steel.

CUSHION SLEEVE

Part Number	Length		Width		Std Pkg. Qty.
	In.	mm	In.	mm	
PCSLSH-B-CR	100	30.5	1.05	26.8	1

Pkg. -CR = 100 ft. (30.5 m) reel.

INDIVIDUAL CUSHION SLEEVES

Part Number	Flat/Multicore Cable Diameter Range		Trefoil Cable Diameter Range		Quad Cable Diameter Range		Length		Width		Thickness		Std. Pkg. Qty.
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	
CSB42-150-230-Q	1.38 - 2.75	35 - 70	0.71 - 1.26	18 - 32	0.63 - 1.14	16 - 29	10.80	274	2.62	66.70	0.10	2.50	25
CSB42-230-330-Q	2.75 - 3.94	70 - 100	1.26 - 1.97	32 - 50	1.14 - 1.73	29 - 44	14.80	376					
CSB42-330-430-Q	3.94 - 5.12	100 - 130	1.97 - 2.75	50 - 70	1.73 - 2.28	44 - 58	18.80	478					

CUSHION SLEEVE REELS

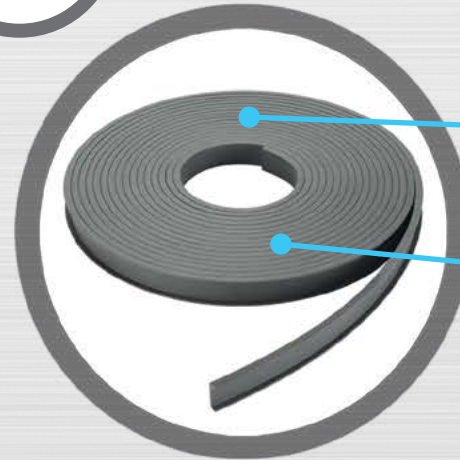
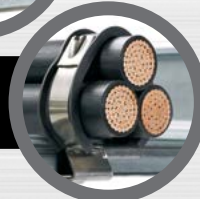
Part Number	Material	Length		Width		Thickness		Std. Pkg. Qty.
		Ft.	m	In.	mm	In.	mm	
BEST SELLER PCSLSH-B-CR	TPE Low Smoke, Halogen Free	100	30.5	1.05	26.8	0.08	2.2	1
BEST SELLER PCSSH-B-CR	Neoprene			0.91	23.1	0.12	3.1	



For use with
Stainless Steel Buckle Strap Cleat



For use with
Stainless Steel Locking Strap Cleat



Available in 100 ft. (30.5 m) rolls

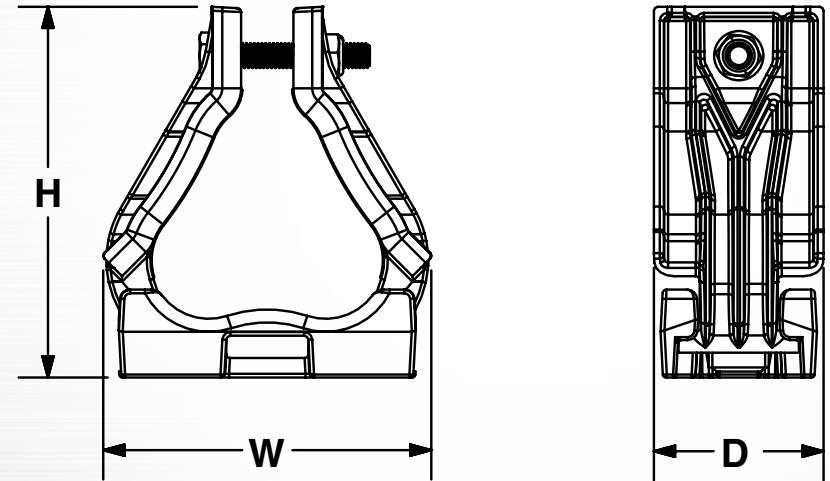
TPE low-smoke, halogen-free, and flame-resistant

ALUMINUM TREFOIL CLEAT



The **Aluminum Trefoil Cable Cleat** is ideal for medium-high short circuit faults in less corrosive environments. It is available in multiple sizes with cable range-taking capability and is suitable for trefoil cable arrangements.

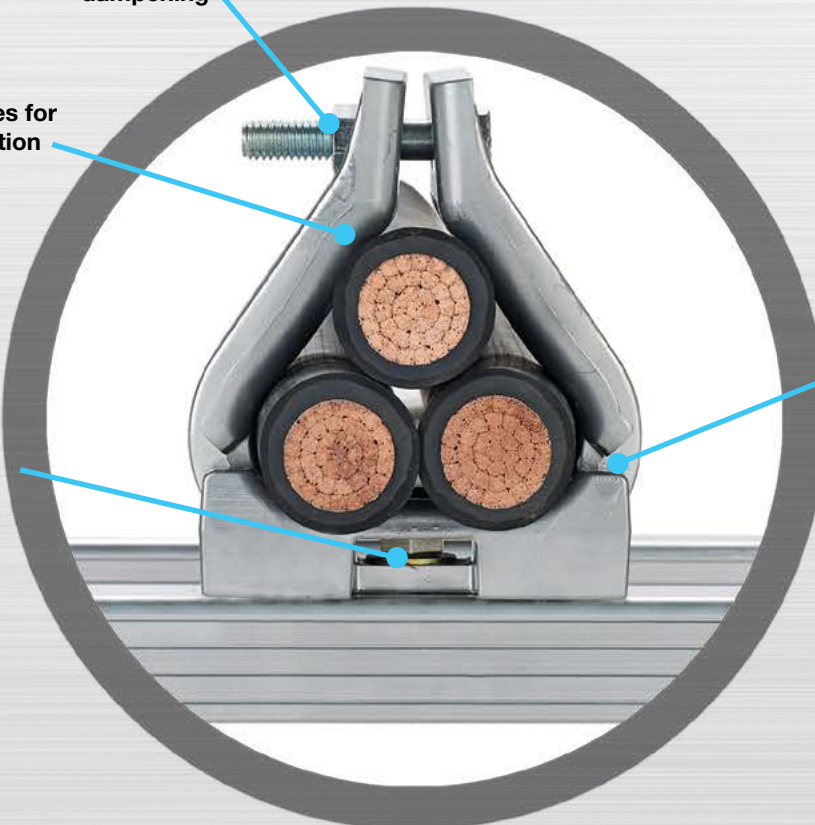
The cleat can be installed after running cable via a unique in the industry mounting bracket or before running cable through it by installing direct to the cable tray rung via a fixing hole and M8 bolt. Insulating spacers and washers are available to protect against galvanic corrosion between dissimilar cable tray rung and cable cleat materials.



Nylon insert lock nut for vibration dampening

Rounded edges for cable protection

Installation before or after cable is run via fixing bolt or mounting bracket



Hinged for cable range-taking



Part Number	Cable Diameter Range		H		W		D		Weight		Mounting Holes
	In.	mm	In.	mm	In.	mm	In.	mm	Lb.	g	
CCALTR2326-X	0.91 - 1.02	23 - 26	3.92	100	3.98	101	2.17	55	0.81	370	1 x M8
CCALTR2528-X	0.98 - 1.10	25 - 28	4.06	103	4.15	105	2.17	55	0.85	385	1 x M8
CCALTR2730-X	1.06 - 1.18	27 - 30	4.19	107	3.86	98	2.17	55	0.85	388	1 x M8
CCALTR2932-X	1.14 - 1.26	29 - 32	4.33	110	3.87	98	2.17	55	0.87	397	1 x M8
CCALTR3135-X	1.22 - 1.38	31 - 35	4.55	116	3.96	101	2.17	55	0.92	418	1 x M8
CCALTR3438-X	1.34 - 1.50	34 - 38	4.77	121	4.18	106	2.17	55	0.93	424	1 x M8
CCALTR3741-X	1.46 - 1.61	37 - 41	4.99	127	4.41	112	2.17	55	0.98	448	1 x M8
CCALTR4044-X	1.57 - 1.73	40 - 44	5.24	133	4.63	118	2.17	55	1.05	477	1 x M8
CCALTR4347-X	1.69 - 1.85	43 - 47	5.52	140	4.85	123	2.17	55	1.14	516	1 x M8
CCALTR4651-X	1.81 - 2.01	46 - 51	5.83	148	5.05	128	2.17	55	1.23	558	1 x M8
CCALTR5056-X	1.97 - 2.20	50 - 56	6.20	158	5.50	140	2.17	55	1.32	602	1 x M8
CCALTR5561-X	2.17 - 2.40	55 - 61	6.57	167	5.72	145	2.17	55	1.42	647	1 x M8
CCALTR6067-X	2.36 - 2.64	60 - 67	7.01	178	6.15	156	2.17	55	1.55	706	1 x M8
CCALTR6675-X	2.60 - 2.95	66 - 75	7.93	193	6.72	171	2.17	55	1.73	787	1 x M8

Short Circuit Testing Summary¹

Trefoil Formation 38 mm Cable Diameter	Trefoil Formation 38 mm Cable Diameter	Trefoil Formation 35 mm Cable Diameter	Trefoil Formation 38 mm Cable Diameter
One Short Circuit Event (Clause 6.4.4) 300 mm spacing	Two Short Circuit Events (Clause 6.4.5) 300 mm spacing	One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
114 kA	109 kA	94.6 kA	94.6 kA
3921 lbs force (17.4 kN)	3585 lbs force (15.9 kN)	5401 lbs force (24.0 kN)	5401 lbs force (24.0 kN)

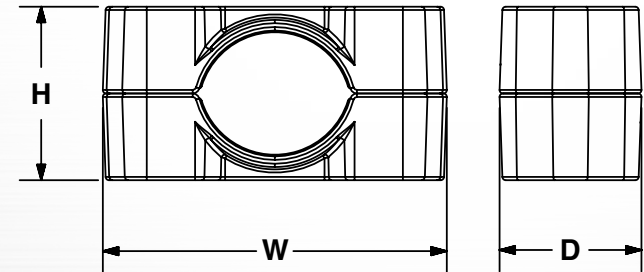
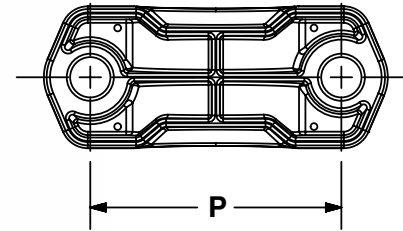
¹Test compliance to IEC 61914 utilizing KEMA facility; Independent, ISO 17025 accredited testing, inspection, and certification services (IEEE, IEC, UL, and ANSI) for electric power equipment.

ALUMINUM TWO-HOLE CLEAT



The **Aluminum Two-Hole Cleat** is ideal for medium-high short circuit faults in less corrosive environments. It is available in multiple sizes with cable range-taking capability and is suitable for single conductor cables.

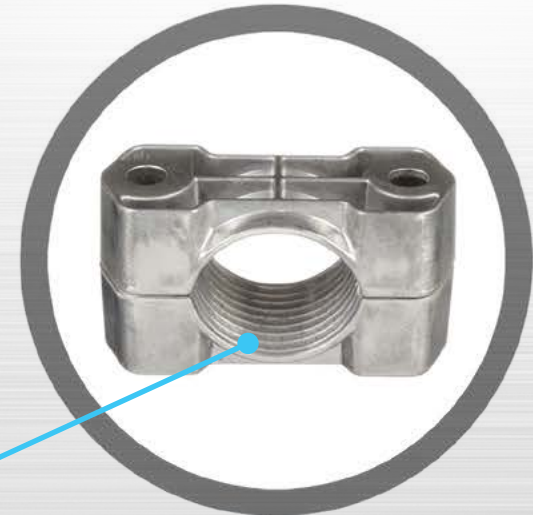
The cleat is installed after running cable by installing direct to the cable tray rung via fixing holes and two M10 bolts. Insulating spacers and washers are available to protect against galvanic corrosion in case of dissimilar cable tray rung and cable cleat materials.



Tightening bolts can be installed from top or bottom

Rounded edges for cable protection

Ridges to hold cable in place



Part Number	Cable Diameter Range		H		W		D		F		Weight		Mounting Holes
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	Lb.	g	
CCAL2H3846-X	1.50 - 1.81	38 - 46	2.01	51	3.98	101	1.64	42	2.91	74	0.50	226	2 x M10
CCAL2H4658-X	1.81 - 2.28	46 - 58	2.36	60	4.52	115	1.69	43	3.39	86	0.64	291	2 x M10
CCAL2H5870-X	2.28 - 2.76	58 - 70	2.87	73	5.18	132	1.75	45	3.96	101	0.89	404	2 x M10
CCAL2H7083-X	2.76 - 3.27	70 - 83	3.39	86	5.71	145	1.81	46	4.47	114	1.09	496	2 x M10
CCAL2H8397-X	3.27 - 3.82	83 - 97	3.94	100	6.36	162	1.87	47	5.06	129	1.39	630	2 x M10
CCAL2H97109-X	3.82 - 4.29	97 - 109	4.53	115	6.87	175	1.93	49	5.55	141	1.66	754	2 x M10
CCAL2H109120-X	4.29 - 4.72	109 - 120	5.04	128	7.33	186	1.98	50	5.99	152	1.92	873	2 x M10

Short Circuit Testing Summary¹

Flat Formation 105 mm Cable Spacing	Flat Formation 105 mm Cable Spacing
One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
131 kA	131 kA
3748 lbs force (16.7 kN)	3748 lbs force (16.7 kN)

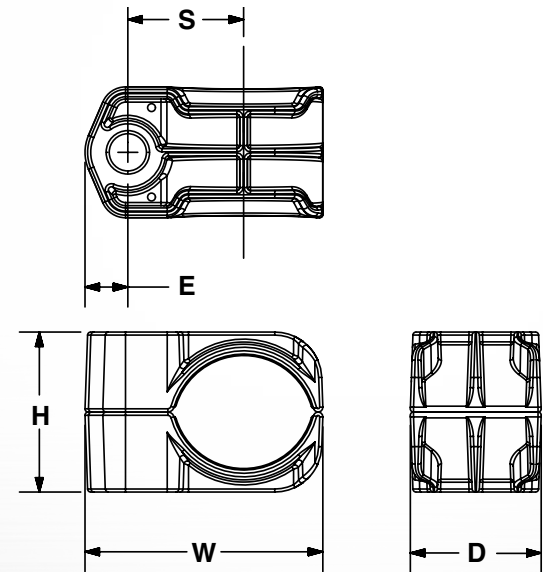
¹Test compliance to IEC 61914 utilizing KEMA facility; Independent, ISO 17025 accredited testing, inspection, and certification services (IEEE, IEC, UL, and ANSI) for electric power equipment.

ALUMINUM ONE-HOLE CLEAT

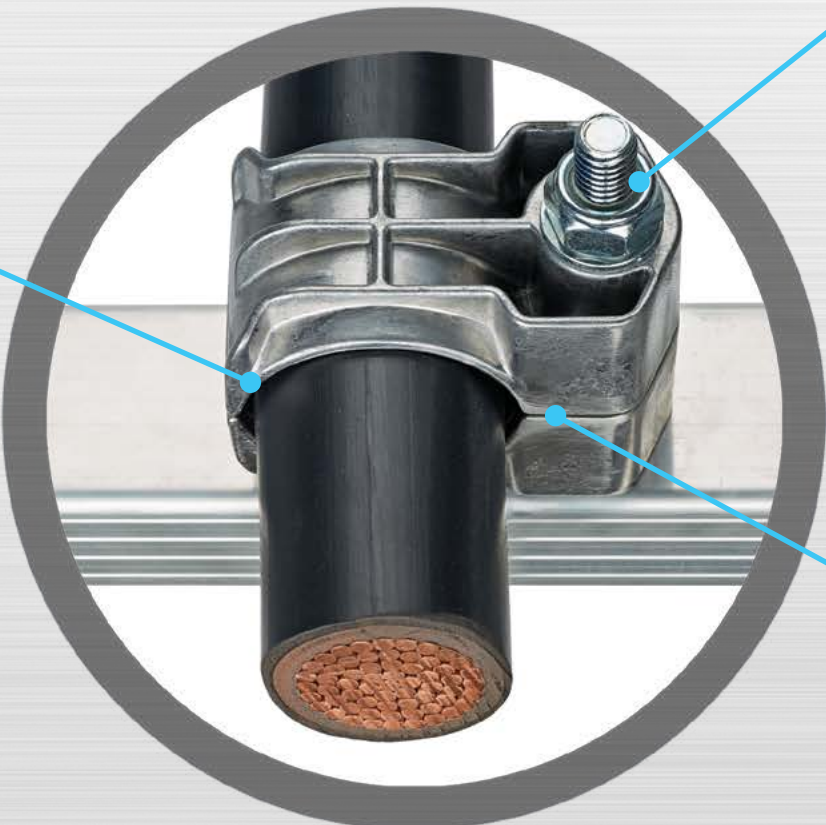


The **Aluminum One-Hole Cleat** is ideal for lower to medium short circuit faults in less corrosive environments. It is available in multiple sizes with cable range-taking capability and is suitable for single conductor cables.

The cleat is installed after running cable by installing direct to the cable tray rung via a fixing hole and M10 bolt. Insulating spacers and washers are available to protect against galvanic corrosion in case of dissimilar cable tray rung and cable cleat materials.

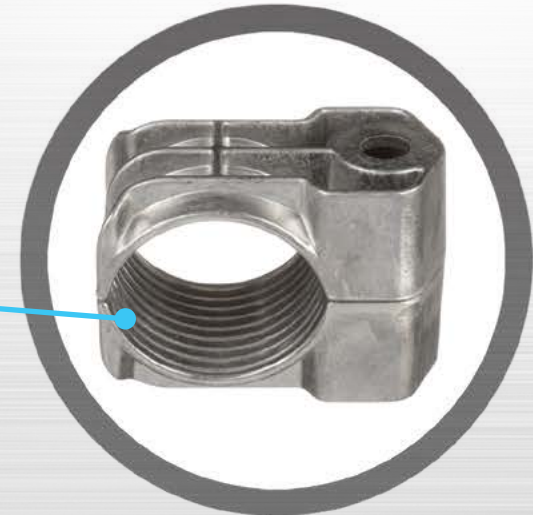


Rounded edges for cable protection



Tightening bolt can be installed from top or bottom

Ridges to hold cable in place



Interlock feature prevents rotation between top and bottom pieces

Part Number	Cable Diameter Range		H		W		D		E		S		Weight		Mounting Holes
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	Lb.	g	
CCAL1H1013-X	0.39 - 0.51	10 - 13	0.91	23	1.59	40	1.60	41	0.48	12	0.77	20	0.11	50	1 x M10
CCAL1H1316-X	0.51 - 0.63	13 - 16	1.02	26	1.72	44	1.61	41	0.48	12	0.83	21	0.13	59	1 x M10
CCAL1H1619-X	0.63 - 0.75	16 - 19	1.14	29	1.88	48	1.61	41	0.50	13	0.91	23	0.15	68	1 x M10
CCAL1H1923-X	0.75 - 0.91	19 - 23	1.26	32	2.04	52	1.61	41	0.50	13	0.99	25	0.17	77	1 x M10
CCAL1H2327-X	0.91 - 1.06	23 - 27	1.42	36	2.28	58	1.62	41	0.51	13	1.07	27	0.20	89	1 x M10
CCAL1H2732-X	1.06 - 1.26	27 - 32	1.57	40	2.44	62	1.63	41	0.53	14	1.19	30	0.24	107	1 x M10
CCAL1H3238-X	1.26 - 1.50	32 - 38	1.77	45	2.68	68	1.63	42	0.53	14	1.30	33	0.27	125	1 x M10
CCAL1H3846-X	1.50 - 1.81	38 - 46	2.01	51	2.98	76	1.64	42	0.54	14	1.45	37	0.33	149	1 x M10
CCAL1H4651-X	1.81 - 2.01	46 - 51	2.36	60	3.25	83	1.65	42	0.56	14	1.58	40	0.40	181	1 x M10
CCAL1H5157-X	2.01 - 2.24	51 - 57	2.56	65	3.49	89	1.66	42	0.57	14	1.70	43	0.44	202	1 x M10

Short Circuit Testing Summary¹

Flat Formation 105 mm Cable Spacing	Flat Formation 105 mm Cable Spacing
One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
93.4 kA	93.4 kA
1904 lbs force (8.47 kN)	1904 lbs force (8.47 kN)

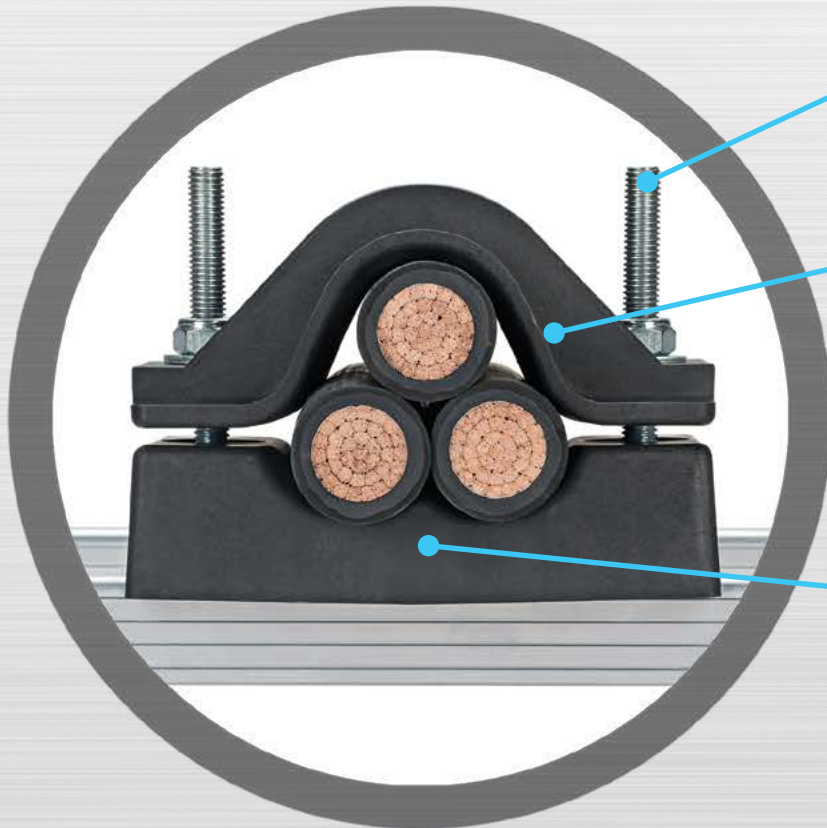
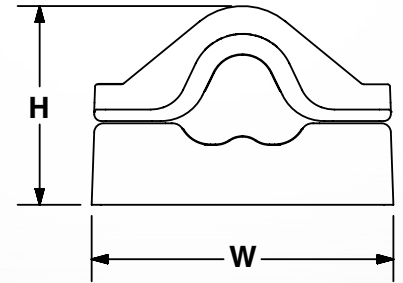
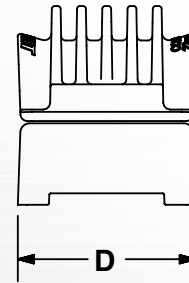
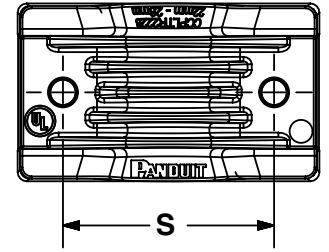
¹Test compliance to IEC 61914 utilizing KEMA facility; Independent, ISO 17025 accredited testing, inspection, and certification services (IEEE, IEC, UL, and ANSI) for electric power equipment.

POLYMER TREFOIL CLEAT



The **Polymer Trefoil Cleat** is ideal for medium-high short circuit faults in less harsh environments. It is available in multiple sizes with cable range-taking capability and is suitable for trefoil cable arrangements.

The cleat is installed after running cable by installing direct to the cable tray rung via a fixing hole and M10 bolt.

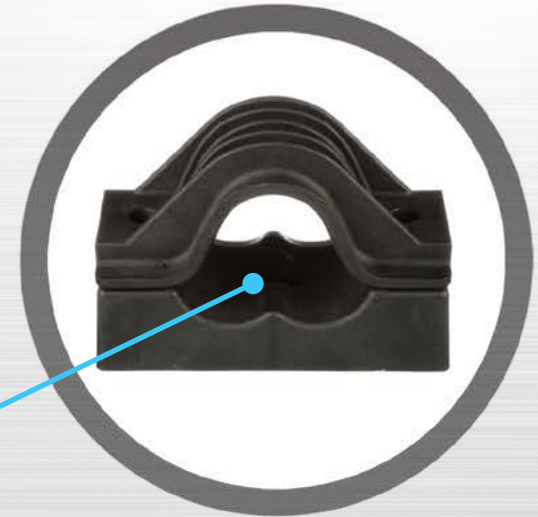


Dual bolt installation

Rounded edges for cable protection

Ridges to hold cable in place

Corrosion resistant body



Part Number	Cable Diameter Range		H		W		D		S		Weight		Mounting Holes
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	Lb.	g	
CCPLTR2228-X	0.87 - 1.10	22 - 28	3.46	88	5.20	132	3.07	78	3.62	92	1.29	585	1 X M10, 2 X M10
CCPLTR2633-X	1.02 - 1.30	26 - 33	3.86	98	5.59	142	3.07	78	4.02	102	1.39	630	1 X M10, 2 X M10
CCPLTR3139-X	1.22 - 1.54	31 - 39	4.13	105	6.06	154	3.07	78	4.49	114	1.51	685	1 X M10, 2 X M10
CCPLTR3745-X	1.46 - 1.77	37 - 45	4.61	117	6.54	166	3.07	78	4.96	126	1.64	745	1 X M10, 2 X M10
CCPLTR4352-X	1.69 - 2.05	43 - 52	5.04	128	7.09	180	3.07	78	5.51	140	1.80	815	1 X M10, 2 X M10
CCPLTR5060-X	1.97 - 2.36	50 - 60	5.55	141	7.76	197	3.07	78	6.14	156	1.97	895	1 X M10, 2 X M10

Short Circuit Testing Summary¹

Trefoil Formation 38 mm Cable Diameter	Trefoil Formation 38 mm Cable Diameter	Flat Formation 38 mm Cable Diameter	Flat Formation 38 mm Cable Diameter
One Short Circuit Event (Clause 6.4.4) 300 mm spacing	Two Short Circuit Events (Clause 6.4.5) 300 mm spacing	One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
136 kA	130 kA	109 kA	109 kA
5581 lbs force (24.8 kN)	5099 lbs force (22.7 kN)	7170 lbs force (31.0 kN)	7170 lbs force (31.0 kN)

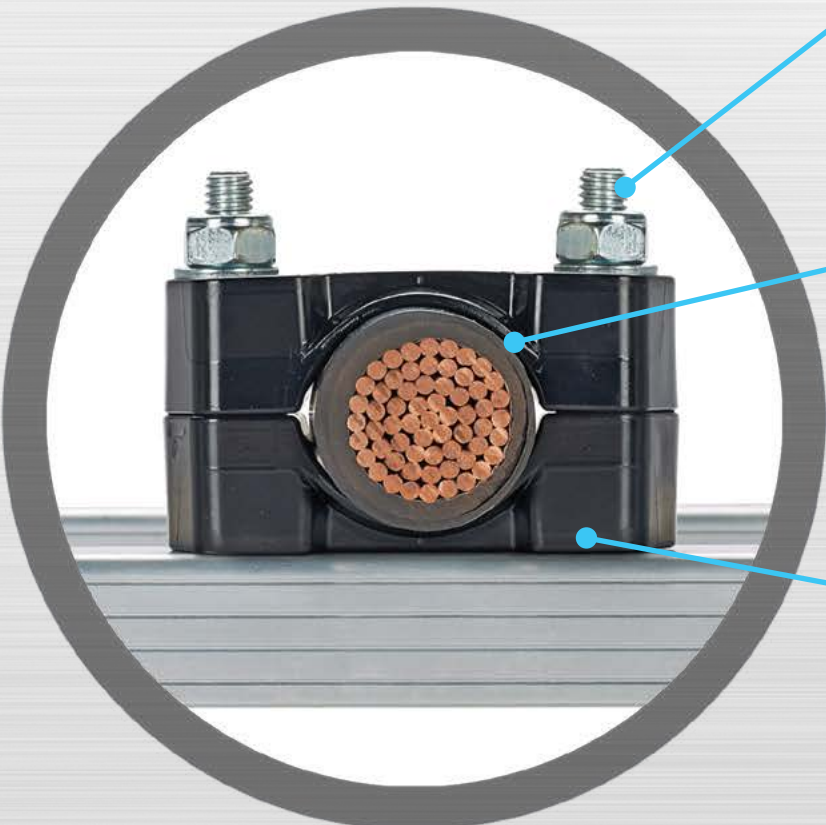
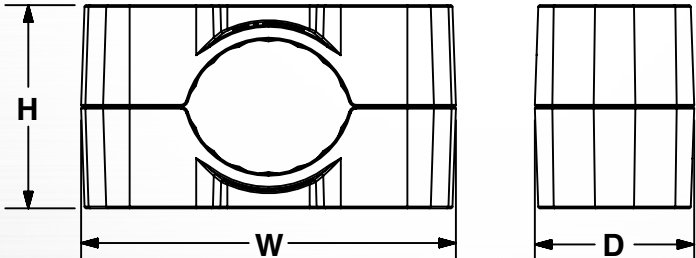
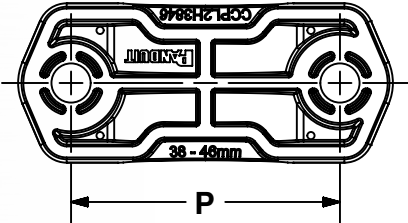
¹Test compliance to IEC 61914 utilizing KEMA facility; Independent, ISO 17025 accredited testing, inspection, and certification services (IEEE, IEC, UL, and ANSI) for electric power equipment.

POLYMER TWO-HOLE CLEAT



The **Polymer Two-Hole Cleat** is ideal for lower to medium short circuit faults in less harsh environments. It is available in multiple sizes with cable range-taking capability and is suitable for single conductor cable arrangements.

The cleat is installed after running cable by installing direct to the cable tray rung via fixing holes and two M10 bolts.



Dual bolt installation

Rounded edges for cable protection

Ridges to hold cable in place

Corrosion resistant body



Part Number	Cable Diameter Range		H		W		D		P		Weight		Mounting Holes
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	Lb.	g	
CCPL2H3846-X	1.50 - 1.81	38 - 46	2.20	56	4.07	103	1.73	44	2.92	74	0.31	143	2 x M10
CCPL2H4658-X	1.81 - 2.28	46 - 58	2.56	65	4.53	115	1.74	44	3.37	86	0.38	175	2 x M10
CCPL2H5870-X	2.28 - 2.76	58 - 70	3.07	78	5.04	128	1.76	45	3.85	98	0.48	220	2 x M10
CCPL2H7083-X	2.76 - 3.27	70 - 83	3.19	81	5.56	141	1.85	47	4.36	111	0.60	273	2 x M10
CCPL2H8397-X	3.27 - 3.82	83 - 97	4.13	105	6.13	156	1.95	50	4.91	125	0.74	335	2 x M10
CCPL2H97109-X	3.82 - 4.29	97 - 109	4.72	120	6.64	169	2.06	50	5.40	137	0.88	402	2 x M10
CCPL2H109120-X	4.29 - 4.72	109 - 120	5.24	133	7.10	180	2.09	53	5.84	148	1.01	460	2 x M10
CCPL2H120135-X	4.72 - 5.31	120 - 135	5.71	145	7.69	195	2.17	55	6.42	163	1.17	533	2 x M10
CCPL2H135150-X	5.31 - 5.91	135 - 150	6.34	161	8.31	211	2.19	56	7.01	178	1.35	615	2 x M10
CCPL2H150165-X	5.91 - 6.50	150 - 165	6.97	177	8.92	227	2.29	58	7.61	193	1.57	712	2 x M10

Short Circuit Testing Summary¹

Flat Formation 105 mm Cable Spacing	Flat Formation 105 mm Cable Spacing
One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
85.4 kA	85.4 kA
1593 lbs force (7.09 kN)	1593 lbs force (7.09 kN)

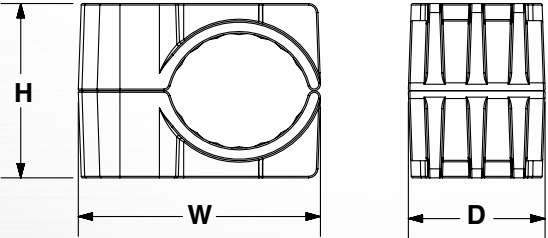
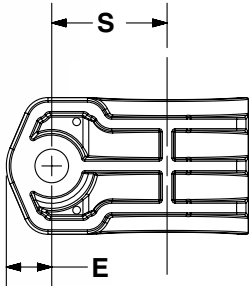
¹Test compliance to IEC 61914 utilizing KEMA facility; Independent, ISO 17025 accredited testing, inspection, and certification services (IEEE, IEC, UL, and ANSI) for electric power equipment.

POLYMER ONE-HOLE CLEAT



The **Polymer One-Hole Cleat** is ideal for lower to medium short circuit faults in less harsh environments. It is available in multiple sizes with cable range-taking capability and is suitable for single conductor cable arrangements.

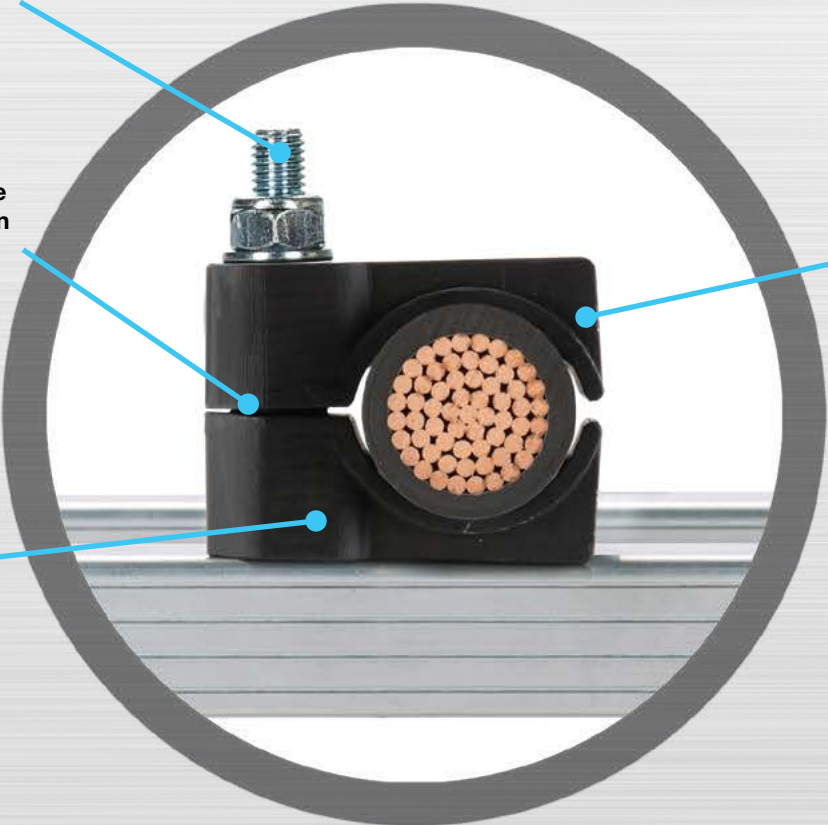
The cleat is installed after running cable by installing direct to the cable tray rung via a fixing hole and M10 bolt.



Single bolt installation

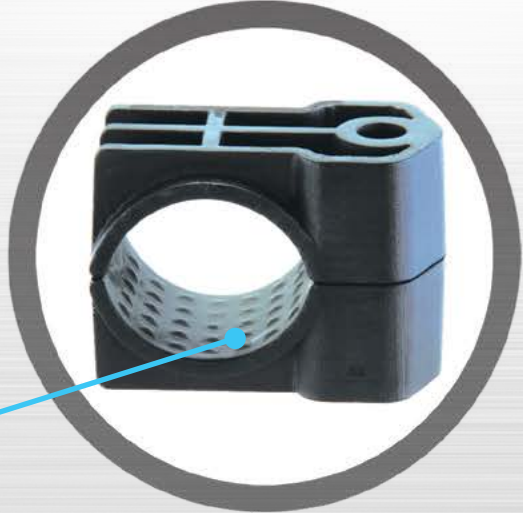
Interlock feature prevents rotation between top and bottom pieces

Corrosion resistant body



Rounded edges for cable protection

Ridges to hold cable in place



Part Number	Cable Diameter Range		H		W		D		E		S		Weight		Mounting Holes
	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	Lb.	g	
CCPL1H1013-X	0.39 - 0.51	10 - 13	1.10	28	1.74	44	1.69	43	0.56	14	0.81	21	0.08	38	1 x M10
CCPL1H1316-X	0.51 - 0.63	13 - 16	1.22	31	1.87	48	1.69	43	0.56	14	0.87	22	0.10	44	1 x M10
CCPL1H1619-X	0.63 - 0.75	16 - 19	1.34	34	2.00	51	1.70	43	0.56	14	0.94	24	0.11	49	1 x M10
CCPL1H1923-X	0.75 - 0.91	19 - 23	1.46	37	2.15	55	1.70	43	0.56	14	1.01	26	0.12	56	1 x M10
CCPL1H2327-X	0.91 - 1.06	23 - 27	1.61	41	2.32	59	1.71	43	0.56	14	1.09	28	0.14	63	1 x M10
CCPL1H2732-X	1.06 - 1.26	27 - 32	1.77	45	2.52	64	1.71	44	0.57	14	1.19	30	0.16	72	1 x M10
CCPL1H3238-X	1.26 - 1.50	32 - 38	1.97	50	2.75	70	1.72	44	0.57	15	1.31	33	0.18	82	1 x M10
CCPL1H3846-X	1.50 - 1.81	38 - 46	2.28	58	3.06	78	1.73	44	0.57	15	1.46	37	0.21	96	1 x M10
CCPL1H4651-X	1.81 - 2.01	46 - 51	2.56	65	3.29	84	1.74	44	0.58	15	1.57	40	0.25	114	1 x M10
CCPL1H5157-X	2.01 - 2.24	51 - 57	2.76	70	3.53	90	1.75	44	0.58	15	1.69	43	0.28	125	1 x M10

Short Circuit Testing Summary¹

Flat Formation 105 mm Cable Spacing	Flat Formation 105 mm Cable Spacing
One Short Circuit Event (Clause 6.4.4) 600 mm spacing	Two Short Circuit Events (Clause 6.4.5) 600 mm spacing
69.5 kA	69.5 kA
1055 lbs force (4.69 kN)	1055 lbs force (4.69 kN)

¹Test compliance to IEC 61914 utilizing KEMA facility; Independent, ISO 17025 accredited testing, inspection, and certification services (IEEE, IEC, UL, and ANSI) for electric power equipment.

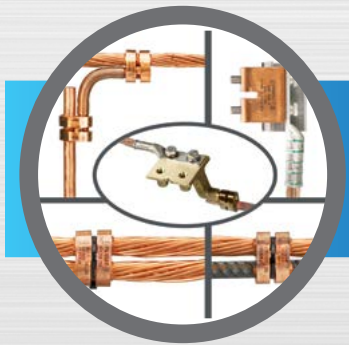
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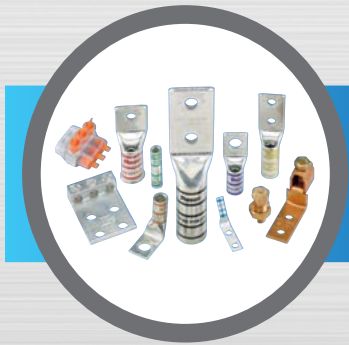
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PANDUIT®

Panduit Corp.
World Headquarters
Tinley Park, IL 60487

cs@panduit.com
US and Canada: 800.777.3300
Europe, Middle East, and Africa:
44.20.8601.7200
Latin America: 52.33.3777.6000
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