

CYCLONE I (LDSTR 2 LOOP)

The Cyclone I Strap cable cleat is a metallic cable cleat consisting of a fabricated lightweight aluminium base and a stainless steel strap which have been designed, constructed, and tested in accordance with the International Standard 'cable cleats for Electrical Installations' IEC 61914.

The Cyclone I Strap cable cleat ensures the retention and securing of cables, whilst preventing damage to the cable when in normal operation, or in the event of a short circuit.

The cable cleats allow a wide range of applications including miscellaneous formations. They have an exceptional overlapping cable range take and give the end user more flexibility when compared to more rigid cable cleats on the market. Each cleat is capable of securing various cable formations, such as single cable (multicore) or single cable in parallel formation, trefoil formation, and quad formation. Suitable for single cable applications in diameters of 36mm to 165mm in 10 sizes, in trefoil formation from diameters of 24mm to 145mm in 15 sizes and quad formation from 21mm to 124mm in 15 sizes.

The Cyclone I bases are manufactured from 5000 series aluminium, making the base lightweight, easy to handle and corrosion resistant. The Cyclone straps are manufactured in 316L stainless steel, providing excellent corrosion resistance, and the tensioned straps act as a coil during short circuit conditions to restrain the cable. The Cyclone strap wraps around the angled Cyclone I aluminium base ensuring the cables are always kept central. The strap is fastened to a stainless steel pin with a hexagon shaped head at one end allowing fast, easy installation via the use of a ratchet, power tool or other suitable mechanical device.

The Cyclone I Strap cable cleat has one M12 and two M10 fixing clearance holes within each base, allowing versatile installation and enabling the product to be secured to a variety of mounting surfaces. Due to the design of the Cyclone, the cables do not need to be lifted and placed in to the cable cleat, instead the cables are placed on to the Cyclone bases and the Cyclone straps then wrap around the cables securing them to the mounting surface of the Cyclone base.

The Cyclone I Cable Cleats and Cyclone intermediate straps come with standard liners, which are classified as Low Smoke & Fume (LSF), Zero Halogen (LSOH) and Phosphorus Free. A high temperature version of the liner is available by adding HT suffix to the ordering code. The liners help to restrain the cables within vertical applications, providing a layer of protection between the cable sheath and the Cyclone stainless steel strap and base during normal operation where thermal elongation of cables occurs. The liners also prevent the cable from chafing on any mounting surface due to differential movements such as those found in marine and offshore applications, and protect the cable during short circuit conditions.

The Cyclone Strap is also designed to be used as an intermediate restraint (where applicable) between two Cyclone cable cleats to bind cables together giving a cost effective, easy application fixing system. Using the Cyclone I Strap cable cleat and the Cyclone Intermediate Restraint alternatively will dramatically reduce installation time and cost, when compared to alternative cable cleat only solutions.



FEATURES

- Third party certification to IEC 61914
- Lightweight aluminium base with 316L stainless steel strap
- Short circuit rating of 124kA peak fault
- Standard operating temperature -50°C to +40°C
- Standard Polymer Liners are LUL approved and are classified as Low Smoke & Fume (LSF), Zero Halogen (LSOH) and Phosphorus Free
- High temperature liner version with HT suffix available with operating temperature -50°C to +90°C
- High temperature liners are classified as V0 Flame Retardant Polymer
- Combined single (M12) and two bolt (M10) base fixing design

TECHNICAL DATA & CLASSIFICATION

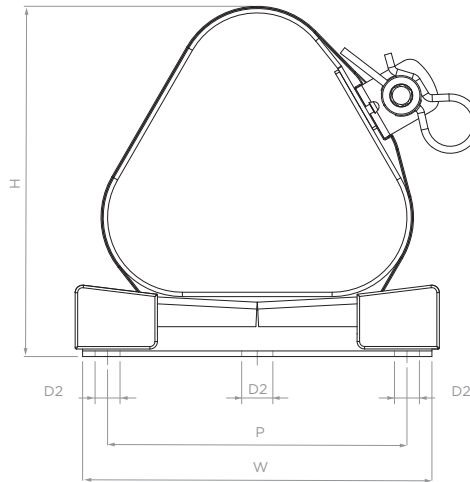
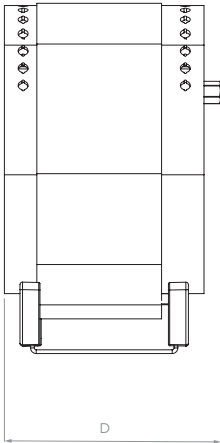
| | |
|---------------------------------------|--|
| TYPE | 6.1.3 Composite Strap Cable Cleat - 2 Loop Cyclone I |
| DESIGN SPECIFICATION | IEC 61914 |
| TEMPERATURE FOR PERMANENT APPLICATION | -50 to +40°C IEC 61914 clause / part 6.2 |
| NEEDLE FLAME TEST | Pass - 120 second flame application time IEC 61914 clause 10.0, 10.1, IEC 60695-11-5 |
| LATERAL LOAD TEST | Single and Trefoil, Refer to CMP Products, IEC 61914 clause 9.3 |
| AXIAL LOAD TEST | Single and Trefoil, Refer to CMP Products, IEC 61914 clause 9.4 |
| IMPACT RESISTANCE | Very Heavy IEC 61914 clause 6.3, 6.3.5, 9.2 |
| MATERIAL | 5000 Series Aluminium, 316L Stainless Steel Strap Standard Polymer Liners are classified as Low Smoke & Fume (LSF), Zero Halogen (LSOH) and Phosphorus Free. HT liners are classified as V0 Flame Retardant Polymer. |

300MM CYCLONE I (0.1 SEC)

| CABLE OD (MM) | PEAK kA |
|---------------|---------|
| 36 | 124.0 |
| 38 | 127.4 |
| 43 | 135.5 |
| 59 | 158.7 |
| 65 | 166.6 |

SHORT CIRCUIT TESTING TO IEC 61914 - CLAUSE 9.5

| TREFOIL FORMATION | | |
|--|---|---|
| One short circuit 300mm fixed cleat centres | Two short circuits 300mm fixed cleat centres | Two short circuits 300mm fixed cleat centres |
| 0.1 sec | 0.1 sec | 3 sec |
| 124kA Peak | 116kA Peak | 61kA Peak |
| 56.3kA r.m.s | 52.7kA r.m.s | 29.0kA r.m.s |



CABLE CLEAT SELECTION TABLE

| CYCLONE I PART NO. | INTERMEDIATE RESTRAINT PART NO. | CABLE Ø RANGE TAKE (MM) | | | DIMENSIONS (MM) | | | | | | WEIGHT (g) |
|-----------------------|---------------------------------------|-------------------------|---------|---------|-----------------|-----|----|-----|---------------|---------|------------|
| | | SINGLE | TREFOIL | QUAD | W | H | D | P | FIXING HOLE Ø | | |
| | | | | | | | | | D1 | D2 | |
| 1CYC024034 | 2STR024034 | 36-50 | 24-34 | 21-29 | 108 | 96 | 89 | 80 | 2 x M10 | 1 x M12 | 347 |
| 1CYC030041 | 2STR030041 | 45-60 | 30-41 | 26-35 | 108 | 109 | 89 | 80 | 2 x M10 | 1 x M12 | 358 |
| 1CYC037047 | 2STR037047 | 55-69 | 37-47 | 32-40 | 128 | 120 | 89 | 100 | 2 x M10 | 1 x M12 | 393 |
| 1CYC043054 | 2STR043054 | 64-80 | 43-54 | 37-46 | 128 | 134 | 89 | 100 | 2 x M10 | 1 x M12 | 406 |
| 1CYC050060 | 2STR050060 | 75-88 | 50-60 | 43-51 | 148 | 145 | 89 | 120 | 2 x M10 | 1 x M12 | 465 |
| 1CYC056067 | 2STR056067 | 83-99 | 56-67 | 49-57 | 148 | 158 | 89 | 120 | 2 x M10 | 1 x M12 | 478 |
| 1CYC063073 | 2STR063073 | 94-108 | 63-73 | 55-62 | 168 | 170 | 89 | 140 | 2 x M10 | 1 x M12 | 514 |
| 1CYC069080 | 2STR069080 | 103-118 | 69-80 | 60-68 | 168 | 183 | 89 | 140 | 2 x M10 | 1 x M12 | 527 |
| 1CYC072085 | 2STR072085 | 114-150 | 72-85 | 66-72 | 188 | 193 | 89 | 160 | 2 x M10 | 1 x M12 | 596 |
| 1CYC082095 | 2STR082095 | 145-165 | 82-95 | 70-81 | 188 | 212 | 89 | 160 | 2 x M10 | 1 x M12 | 615 |
| 1CYC092105 | 2STR092105 | | 92-105 | 70-81 | 210 | 231 | 89 | 100 | 2 x M10 | 1 x M12 | 653 |
| 1CYC102115 | 2STR102115 | | 102-115 | 88-98 | 210 | 250 | 89 | 100 | 2 x M10 | 1 x M12 | 672 |
| 1CYC112125 | 2STR112125 | | 112-125 | 96-107 | 235 | 269 | 89 | 100 | 2 x M10 | 1 x M12 | 751 |
| 1CYC122135 | 2STR122135 | | 122-135 | 105-116 | 235 | 288 | 89 | 100 | 2 x M10 | 1 x M12 | 771 |
| 1CYC132145 | 2STR132145 | | 132-145 | 113-124 | 250 | 307 | 89 | 120 | 2 x M10 | 1 x M12 | 808 |

Note: Cyclone I cable cleat consists of one base and one strap, additional Cyclone cable straps (restraints) ordered separately.

Coatings are available upon request by adding the following suffixes to the ordering reference - EC for epoxy coating, PC for polyester coating and TC for thermoplastic coating. Order reference example for epoxy coating of cable cleat base suffix EC (1CYC024034EC). Order reference example for High Temperature liner version suffix HT (1CYC024034HT). Fasteners required to secure the cable cleat to the support structure are not included but can be supplied upon request - see cleat fixing pack page 64-65. Isolation/separation pads (to prevent corrosion between two dissimilar metals) are not included but can be supplied on request - see isolation/separation pad page 66.