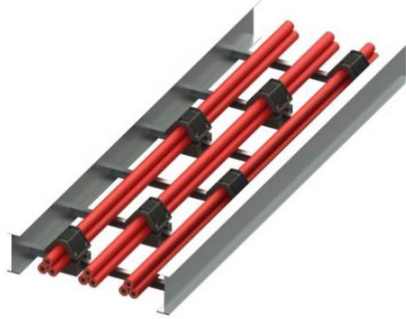




TALON
CABLE CLEATS

TALON[®] T3 DATA SHEET

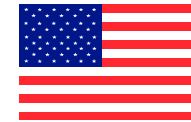
HOLD THE CABLES. HUG THE RUNG.[®]



Typical Installation in Cable Tray

Talon Products, LLC
47037 Conrad Anderson
Hammond, Louisiana 70401
USA

web: HugTheRung.com
email: info1@HugTheRung.com
phone: +1 985 956 7600

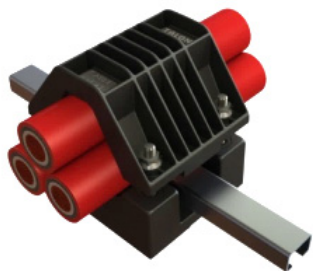


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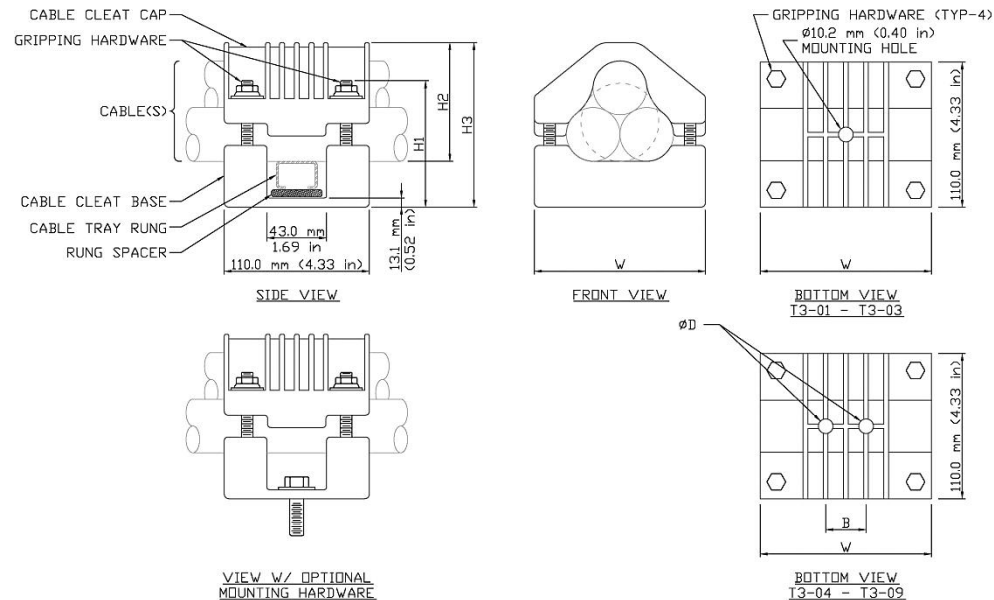
Talon cable cleats utilize a high-strength interlocking frame that simultaneously encloses cables and a support rung. In addition to securing cables subject to axial, lateral and torsional forces, Talon cable cleats provide strain relief for vertical cables. Talon heavy duty cable cleats are designed and tested to protect high voltage, medium voltage and low voltage cables from mechanical damage resulting from short circuits. You can trust Talon cable cleats to maintain constant vigilance over your cables and support system.



Talon[®] T3 on "I-Beam" Cable Tray Rung



Talon[®] T3 on "Box" Cable Tray Rung



US 8,757,560 • CA 2,806,535 • Other Patents Pending



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TABLE 1 – CABLE RANGE and PHYSICAL SPECIFICATIONS

Model - Frame Size	Nominal Cable Range (no liner) ¹		Nominal Dimensions and Weights						
	2 or 3 Cables Cable OD (each cable) mm (in)	1 - Cable Cable OD mm (in)	H1 Overall Base Height mm (in)	H2 Height above Rung Min/ Max ² mm (in)	H3 Overall Height Min/ Max ² mm (in)	W Overall Width mm (in)	ØD Aux. Mounting Hole(s) Qty & Inside Diameter mm (in)	B Mounting Hole Spacing mm (in)	Weight ³ kg (lbs)
T3-03	30.0 – 39.0 (1.18 – 1.54)	47.0 – 57.0 (1.85 – 2.24)	90.9 (3.58)	75.1 (2.96) / 91.9 (3.62)	116.1 (4.57) / 132.9 (5.23)	130.5 (5.14)	Qty-1 10.2 (0.40)	N/A	0.58 (1.28)
T3-04	37.0 – 47.0 (1.46 – 1.85)	57.0 – 70.0 (2.24 – 2.76)	105.1 (4.14)	86.3 (3.40) / 107.8 (4.24)	127.3 (5.01) / 148.9 (5.86)	147.8 (5.82)	Qty-2 10.2 (0.40)	34.0 (1.34)	0.66 (1.46)
T3-05	45.0 – 58.0 (1.77 – 2.28)	70.0 – 86.0 (2.76 – 3.39)	108.0 (4.25)	101.4 (3.99) / 127.9 (5.03)	142.4 (5.60) / 168.9 (6.65)	168.4 (6.63)		40.0 (1.57)	0.75 (1.65)
T3-06	56.0 – 71.0 (2.20 – 2.80)	86.0 – 106.0 (3.39 – 4.17)	123.5 (4.86)	120.1 (4.73) / 152.6 (6.01)	161.1 (6.34) / 193.6 (7.62)	197.4 (7.77)	Qty-2 13.3 (0.52)	36.0 (1.42)	0.94 (2.07)

Notes:

1. Talon T3 cable cleats secure one, two or three cables where all cables have similar outer dimensions. The dimensions listed in the cable range represent the diameter across the outermost layer of each cable (e.g. outer sheath). For example, Talon T3-03 cable cleats accommodate qty-1 x Ø47 – 57 mm cable and qty-2 or qty-3 x Ø30 – 39 mm cables. For application assistance with other cable configurations, including use with liners, contact Talon Products.
2. “Min” represents the nominal dimension of a Talon T3 cable cleat securing two or three of the smallest cables in the nominal cable acceptance range. “Max” represents the nominal dimension of a Talon T3 cable cleat securing two or three of the largest cables in the nominal cable acceptance range. For other dimensions, contact Talon Products.
3. Weight includes integral gripping hardware.
4. For mounting information, refer to the Talon T3 Cable Cleat Installation Guide.
5. Other Talon cable cleat frame sizes are available on request.
6. Any and all business undertaken with Talon Products, LLC is transacted subject to the latest revision of the Talon Products, LLC Sales Terms and Conditions as stated therein.



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TABLE 2 – PART NUMBER ^{1,2,9}

Model ³	-	Frame Size ⁴	-	Frame Type ⁵	Integral Gripping Hardware ⁶	Rung Spacer ⁷	-	Options and Custom Features ⁸
T3	-	01 02 03 * 04 * 05 * 06 * 07 08 09	-	F0 = Samples Only F1 = Heavy Duty F2 = Standard Duty	H4 = 304 Stainless Steel Bolts and Flange Nuts H6 = 316 Stainless Steel Bolts and Flange Nuts	R00 R05 R10 R20 R30 R40	-	000 = Standard Product (no custom features) C10 = 3.2 mm Neoprene Cable Cleat Liner C20 = 6.4 mm Neoprene Cable Cleat Liner C30 = 9.5 mm Neoprene Cable Cleat Liner

Notes:

- Talon cable cleat part numbers consist of 17 characters, including 3 dashes. Asterisks are for information only and are not included in the part number.
- * = Talon cable cleat frame sizes normally in stock and available through Talon Products' **Rapid Ship Program**.
- Talon cable cleats have passed rigorous 3rd party testing in accordance with ASTM B117, ASTM D570, ASTM D638, IEC 60695, IEC 61914, ISO 75, ISO 4892-2, UL 94, UL 746, UL 969 and UL 2239.
- Talon cable cleat frames are molded from high-strength polyamide that is electrically insulating, flame resistant, UV resistant, low smoke, zero-halogen, zero-phosphorous and resistant to drilling mud, gaseous atmospheres, salts and many other chemicals.
- Talon cable cleats secure cables subject to axial, lateral and torsional forces and provide strain relief for vertical cables. Additionally, Talon cable cleats utilizing the F1 heavy duty frame are designed and tested to protect cables from mechanical damage resulting from short circuits. Talon cable cleats may be used with high voltage, medium voltage and low voltage cables.
- Talon cable cleats include integral gripping bolts that are held captive in the base for ease of installation. Talon cable cleats typically do not require additional mounting hardware when simultaneously enclosing cables and their support rung (e.g. ladder-type cable tray). For wall mounting or other mounting preferences, auxiliary mounting hole(s) are included in the base. Mounting hardware for wall mounting or other mounting preferences is customer furnished.
- Talon cable cleats accommodate rungs with box, elliptical, hat, I-beam, oval, rectangular, round, square and channel strut profiles from most ladder-type cable tray manufacturers. Unless "R00" is specified, each Talon cable cleat includes an adhesive-backed neoprene rung spacer that compresses slightly during installation. Refer to TABLE 3 for rung spacer selection. For mounting information, refer to the Talon T3 Cable Cleat Installation Guide.
- "000" = Standard Product (i.e. no custom features). Optional cable cleat liners (a.k.a. inlays) may be specified by entering the appropriate 3-digit custom feature code in the part number. Cable cleat liners are typically used for cables > 35 kV or cables > 1000 kcmil. Cable cleat liners may also be used for single and bundled cables that are too small to otherwise fit in a cable cleat. Other custom feature part numbers are assigned by Talon Products.
- Examples:
 - Qty-3 x 35 mm (1.38 in) OD cables in ladder-type cable tray with 28.6 mm (1.125 in) deep rungs → **T3-03-F1H4R00-000**
 - Qty-2 x 41 mm (1.61 in) OD cables in ladder-type cable tray with 25.4 mm (1.00 in) deep rungs; cables not subject to fault current → **T3-04-F1H4R10-000** or **T3-04-F2H4R10-000**



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TABLE 3 – RUNG SPACER SELECTION

Rung or Strut Depth ^{1,2} mm (in)	Rung or Strut Width ³ mm (in)	Rung Spacer Thickness mm (in)	Part Number
27.5 – 28.6 (1.08 – 1.125)	≤ 43.0 (1.69)	N/A	R00 (not required)
26.0 – 27.4 (1.02 – 1.08)		1.6 (0.06)	R05
24.6 – 25.9 (0.97 – 1.02)		3.2 (0.13)	R10
21.7 – 24.5 (0.85 – 0.96)		6.4 (0.25)	R20
18.9 – 21.6 (0.74 – 0.85)		9.5 (0.38)	R30
15.0 – 18.8 (0.59 – 0.74)		12.7 (0.5)	R40
Notes: 1. For rung or strut depth > 28.6 mm (1.125 in.), secure cable cleat to top of rung or strut and select R00 part number. 2. For rung or strut depth < 15.0 mm (0.59 in.), contact Talon Products. 3. For rung or strut width > 43.0 mm (1.69 in.), secure cable cleat to top of rung or strut and select R00 part number.			

TABLE 4 – CLASSIFICATIONS and TYPICAL TEST RESULTS (Section numbers refer to IEC 61914:2015, Cable Cleats for Electrical Installations)

Color	Permanent Black
Strength Classification (§9.1.a)	Rigid Construction — No deformation after two short circuit tests; cable cleats are intact and reusable
Material Classification (§6.1.2)	Non-metallic
Ambient Temperature Range (§6.2)	-60°C to +90°C (-76°F to +194°F) — Suitable for 250°C momentary conductor temperature
Impact Resistance (§6.3.5, §9.1.b, §9.2)	Very Heavy, 20 J Impact Energy @ -60°C (-76°F) — Performed after UV test on same specimens
Lateral Retention (§6.4.2, §9.1.c, §9.3)	17,000 N (3,822 lbf) @ +60°C (140°F) — Parallel or Perpendicular to mounting surface
Axial Retention (§6.4.3, §9.1.d, §9.4)	5,000 N (1,124 lbf) @ +60°C (140°F) — Performed after short circuit tests on same specimens
F1 Frame Resistant to Electromechanical Forces (§6.4.5, §9.1.e, §9.5)	Trefoil: 154 kA _{PEAK} (3 x Ø33.2 mm cables)/ Flat: 230 kA _{PEAK} (s = 66 mm) — Cable cleats, cables and cable tray are intact and reusable after multiple short circuit tests Specimens subsequently tested for axial retention
Resistant to Environmental Influences (§6.5)	Resistant to Ultraviolet Light (§6.5.1.2, §11.1) — Specimens subsequently tested for impact resistance Integral Gripping Hardware: High Corrosion Resistance (§6.5.2.2, §11.2) Suitable for outdoor and wet locations
Resistant to Flame Propagation (§10.1)	Pass – Exceeds test criteria (no flaming; no dripping; no ignition of paper)



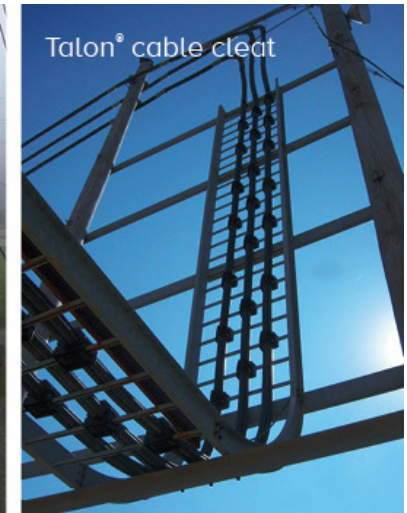
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HOLD THE CABLES. HUG THE RUNG.®



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Unrestrained vs. Restrained cables



Talon® cable cleats utilize a high-strength interlocking frame that simultaneously encloses cables and a support rung. Other value-added performance features and impressive test results include:

- **RIGID CONSTRUCTION** — suitable for continued use after short circuits
- **LARGE CLAMPING AREA** — low mechanical pressure on cables
- **STRAIN RELIEF** — axial grip for vertical cables
- **UNIVERSAL DESIGN** — secures tightly on cable tray rungs and channel strut
- **MADE IN USA** — by qualified and competent hands using American materials

Only Talon® cable cleats — ***Hold the Cables. Hug the Rung.®***



TALON® T3 DATA SHEET

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Before Test

IEC 61914:2015 §6.4.5 Resistant to electromechanical force, withstanding multiple short circuits.

After two short circuits:

- Cables remain secured;
- No damage to cables or cable tray;
- Talon® cable cleats are intact and reusable with no deformation



After Two Short Circuits