

Rebling Datasheet: 100 amp TFT-style Fixed Orientation Feed-through Terminal

Available
Dec 2022



Our TFT-style terminal provides 100 amp continuous current performance, can be mounted to metal or plastic panels from 0.03" to 0.16" (0.6 to 4.0 mm) thick, it exhibits the same 2,000 volt rating and water-tight properties as the other members of our feed-through terminal family. The TFT's innovative design eliminates the need for auxiliary panel-mounting hardware and accepts optional flexible cover. Equipping your smaller lithium battery modules or power conditioning modules with the TFT enables your product to fit into the tight spaces allocated by your end users.

Electrical

Current each current profile causes a max 30° C temperature rise when tested per IEC 61984

Current Profile #1	Continuous Rated Current (CRC)	-----	100 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min		600 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	400 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min		300 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	200 amps

Voltage & Resistance

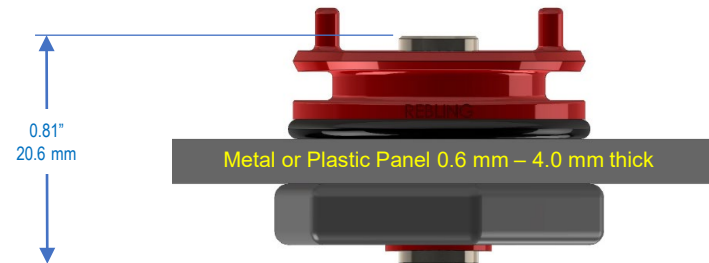
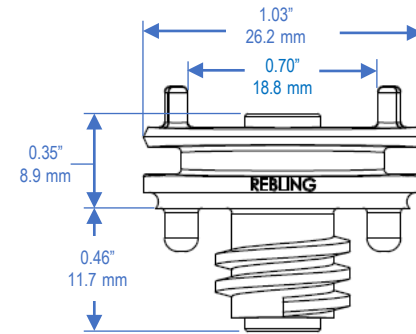
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

Flammability Rating:	Terminal and Covers	-----	UL 94	V-0
Environmental Sealing:	with Optional O-ring	-----	IEC 60529	IP68+ watertight
	without Optional O-ring		IEC 60529	IP65
Operating Temperature:	Terminal	-----		-40 to +125 C
	Flexible Cover			-40 to +90 C
Mechanical Shock		MIL-STD-202H Method 213 Condition A		50 Gs – 3 axes
Vibration		MIL-STD-202H Method 204 Condition A		10 Gs – 3 axes
Panel Thickness Required for Mounting –	Minimum	-----		0.025" (0.6 mm)
	Maximum			0.157" (4.0 mm)
Maximum Wire Size:	Terminal Only	-----		1 AWG (40 mm ²)
	with Flexible Snap-On Cover			2 AWG (32 mm ²)

Compliance & Conformance

RoHS, REACH, CMRT/3TG	All parts listed on this datasheet are RoHS, REACH and CMRT/3TG Compliant Declarations of UL and CE Conformity can be downloaded from Rebling.com
UL and CE Conformance	



For complete dimensions, download 3D Step files of Terminal and Accessories at Rebling.com

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P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
TFT-P-B-070	Terminal Kit*, Brass, Nickel plated	Black	17	1.5	V-0	E121562-220886
815A1927-B	Flexible Cover	Black	6	1.5	V-0	E121562-220886
TFT-P-R-070	Terminal Kit*, Brass, Nickel plated	Red	17	1.5	V-0	E121562-220886
815A1927-R	Flexible Cover	Red	6	1.5	V-0	E121562-220886
TFT-P-E-070	Terminal Kit*, Brass, Nickel plated	Blue	17	1.5	V-0	E121562-220886
815A1927-E	Flexible Cover	Blue	6	1.5	V-0	E121562-220886
812A1925	O-Ring for TFT Terminal	Black	0.2	1.5	V-0	Material = EPDM
-----	Panel Nut	Black	4	1.5	V-0	E121562-220886

*Terminal Kit = one Terminal + one Panel Nut + two Bolts + two Split Washers, all parts in a small poly bag
 **UL Material Yellow Cards can be downloaded from ULprospector.com



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Mounting and Assembly

Panel Thickness - Minimum	0.025" (0.6 mm)	
Maximum	0.157" (4.0 mm)	
Torque on M5 Bolts:		
Recommended	15 to 20 in-lbs (1.7-2.3 Nm)	electrical performance does not get better or worse above 15 in-lbs (1.7 Nm)
Maximum Recommended	25 in-lbs (2.8 Nm)	a Grade 4, M5 stainless bolt will snap at 50 in-lbs (5.6 Nm)
Recommended Torque on Panel Nut		
With or without O-Ring	15-20 in-lbs (1.7-2.3 Nm)	
Maximum Crimp Lug Tongue Width:		
with Flexible Cover	0.90" (23 mm)	

Application Notes

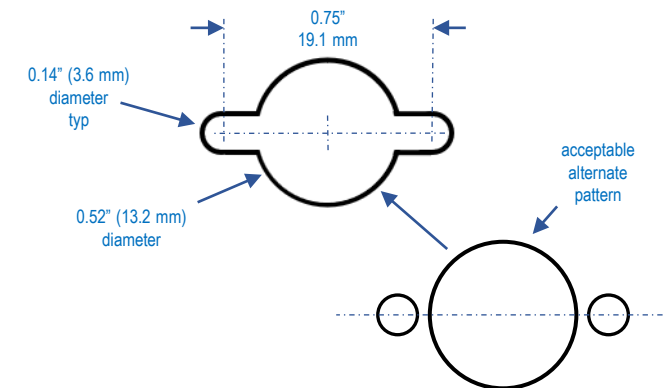
1. Watertight is superior to IP68: Rebling terminals are completely watertight to a depth of 20 meters which is superior to any IP Rating. The definitions of IP67, IP68 and IP69k per IEC 60529 state that "water may penetrate the seal but shall do no harm", a condition that is unacceptable to lithium battery designers.
2. Recommended crimp lug P/Ns

Mfg	2 AWG (32 mm ²)	4 AWG (19 mm ²)	6 AWG (13 mm ²)	8 AWG (8 mm ²)
TE	330301	33114	52197	31807
T&B	G926	F10261	E10261	D10361
Panduit	P2-10R	P4-10R	P6-10R	P8-10R
Burndy	-----	YAD4CM 5E10	YAD6CM 5E10	YAD8CM5 E10

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**Values on this
datasheet will be
updated when the
product is released**



Mounting Hole Pattern