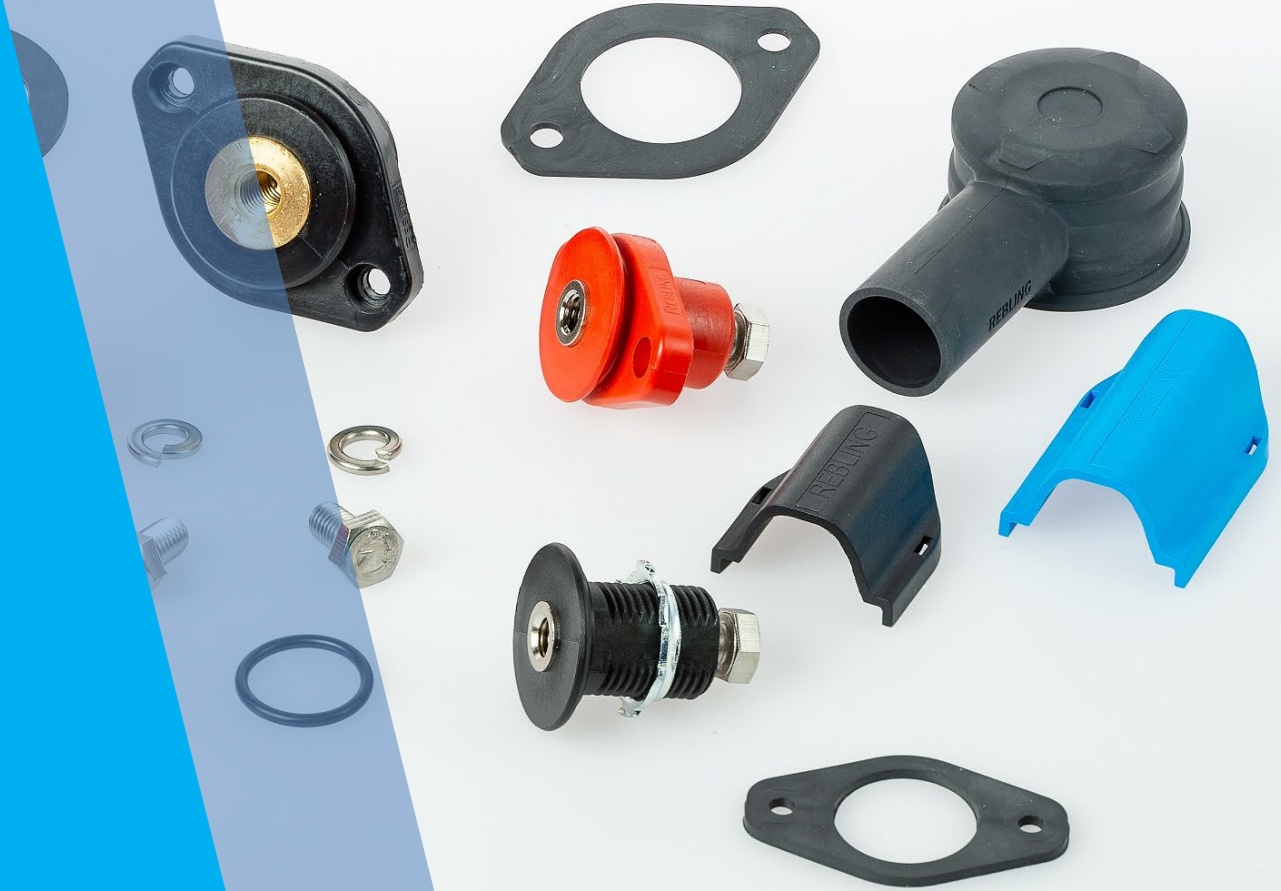


FLAME ENTERPRISES

REBLING LITHIUM BATTERY TERMINALS



****Terminal Styles highlighted in red are available with Imperial Threads.**
Add "-516" to the end of the part number for SFT & MFT Series to select "Imperial Threads".
Add -38 at the end of the part number for XFT Series for "Imperial Threads"

Your Application's Parameters					Rebling Terminal Selection Guide				Accessories					
Rated Current	Your Panel Material	Your Panel Thickness (inches)	Desired Panel Mounting Pattern	Connector Plating	Style	Insulator Color	P/N 1 pc/ bag	Advantages over other Styles	O-ring	Gasket	Flexible Cover	Long Rigid Cover	Short Rigid Cover	
250 amps	Plastic	0.025→0.220	3 circular holes	Unplated Brass	SFT	Black	SFT-B-B	Can be mounted on very thin or weak panels Mounting holes can be made with a hand drill	-	716A1814	713A1806-B (BLK) 713A1806-R (RED) 713A1806-E (BLU)	698A1789-L-B (BLK) 698A1789-L-R (RED) 698A1789-L-E (BLU)	698A1789-S-B (BLK) 698A1789-S-R (RED) 698A1789-S-E (BLU)	
				Ni-plated Brass		Red	SFT-B-R							
		0.230→0.660	1 double-D hole	Unplated Brass	LFT	Black	LFT-B-B	Smallest Footprint, Lowest Cost Simplest Environmental Seal	700A1799	-				
				Ni-plated Brass		Blue	LFT-B-E							
			3 circular holes	Unplated Brass	SFT	Black	LFT-P-B	Mounting holes can be made with a hand drill	-	716A1814				
				Ni-plated Brass		Red	LFT-P-R							
	Metal	0.025→0.100	3 circular holes	Unplated Brass	SFT	Blue	SFT-P-E	Can be mounted on very thin or weak panels Mounting holes can be made with a hand drill	-	716A1814				
				Ni-plated Brass		Red	SFT-P-R							
		0.110→0.660	1 double-D hole	Unplated Brass	LFT	Blue	SFT-P-E	Smallest Footprint, Lowest Cost Simplest Environmental Seal	700A1799	-				
				Ni-plated Brass		Black	LFT-P-B							
			3 circular holes	Unplated Brass	SFT	Red	LFT-P-R	Mounting holes can be made with a hand drill	-	716A1814				
				Ni-plated Brass		Blue	LFT-P-E							
500 amps	Plastic or Metal	0.025→0.660	3 circular holes	Unplated Brass	MFT	Black	MFT-B-B	Can be mounted on very thin or weak panels Mounting holes can be made with a hand drill	-	716A1815				
Ni-plated Brass	Red	MFT-B-R												
750 amps	Plastic	0.025→0.180	3 circular holes	Ni-plated Brass	XFT	Black	XFT-P-B	Can be mounted on very thin or weak panels Mounting holes can be made with a hand drill	-	720A1817	639A1830-B (BLK) 639A1830-R (RED)	-	-	
	Plastic	0.190→0.550	1 double-D hole	Ni-plated Brass	BFT	Red	BFT-P-B	Smallest Footprint, Lowest Cost Simplest Environmental Seal		651A1811		648A1758 (BLK) 648A1779 (RED)		
			3 circular holes	Ni-plated Brass	XFT	Black	XFT-P-B	Can be mounted on very thin or weak panels Mounting holes can be made with a hand drill		720A1817		-		
	Metal	0.025→0.070	3 circular holes	Ni-plated Brass	XFT	Red	XFT-P-R	Can be mounted on very thin or weak panels Mounting holes can be made with a hand drill		720A1817		-		
			1 double-D hole	Ni-plated Brass	BFT	Black	BFT-P-B	Smallest Footprint, Lowest Cost Simplest Environmental Seal		651A1811		648A1758 (BLK) 648A1779 (RED)		
			3 circular holes	Ni-plated Brass	XFT	Black	XFT-P-B	Mounting holes can be made with a hand drill		720A1817		-		
1000 amps	Plastic	0.025→0.180	3 circular holes	Ni-plated Copper	XFT	Black	XFT-N-B	Can be mounted on very thin or weak panels Mounting holes can be made with a hand drill	-	720A1817				-
		0.190→0.550	1 double-D hole	Ni-plated Copper	BFT	Red	BFT-N-B	Smallest Footprint, Lowest Cost Simplest Environmental Seal		651A1811		648A1758 (BLK) 648A1779 (RED)		
			3 circular holes	Ni-plated Copper	XFT	Black	XFT-N-B	Mounting holes can be made with a hand drill		720A1817		-		
	Metal	0.025→0.070	3 circular holes	Ni-plated Copper	XFT	Red	XFT-N-R	Can be mounted on very thin or weak panels Mounting holes can be made with a hand drill		720A1817		-		
			1 double-D hole	Ni-plated Copper	BFT	Black	BFT-N-B	Smallest Footprint, Lowest Cost Simplest Environmental Seal		651A1811		648A1758 (BLK) 648A1779 (RED)		
			3 circular holes	Ni-plated Copper	XFT	Black	XFT-N-R	Mounting holes can be made with a hand drill		720A1817		-		

Rebling Datasheet: 250 amp LFT-style Lithium Battery Terminal

Our LFT-style terminal is the most economical, smallest footprint, simplest environmental seal, battery terminal which can reduce connector costs on a single microgrid energy storage system by \$2,000 and offers a battery module designer the protection options of snap-on rigid or flexible covers. The brass core of our LFT is available with nickel plating for harsh environments and stays cool even at extreme charge or discharge rates. Equipping your design with these watertight, single pole, wrench disconnect terminals will enable system integrators to easily incorporate your power modules into the MicroGrid, Reserve Power, Vehicle Electrification or APU systems the end-user requires, regardless of battery chemistry. Whether you are coupling battery modules in series for a stationary power application, an immersion-cooled motive power system, a single SLI module, a telecom or datacenter reserve power system or simply bringing DC power from the inside to the outside of a metal panel which is at least 0.110" (2.8 mm) thick, our LFT-style 250 amp Terminals, Covers and Accessories were designed with your application in mind.



Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	250 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min		1,500 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	1,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min		750 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	500 amps

Voltage & Resistance

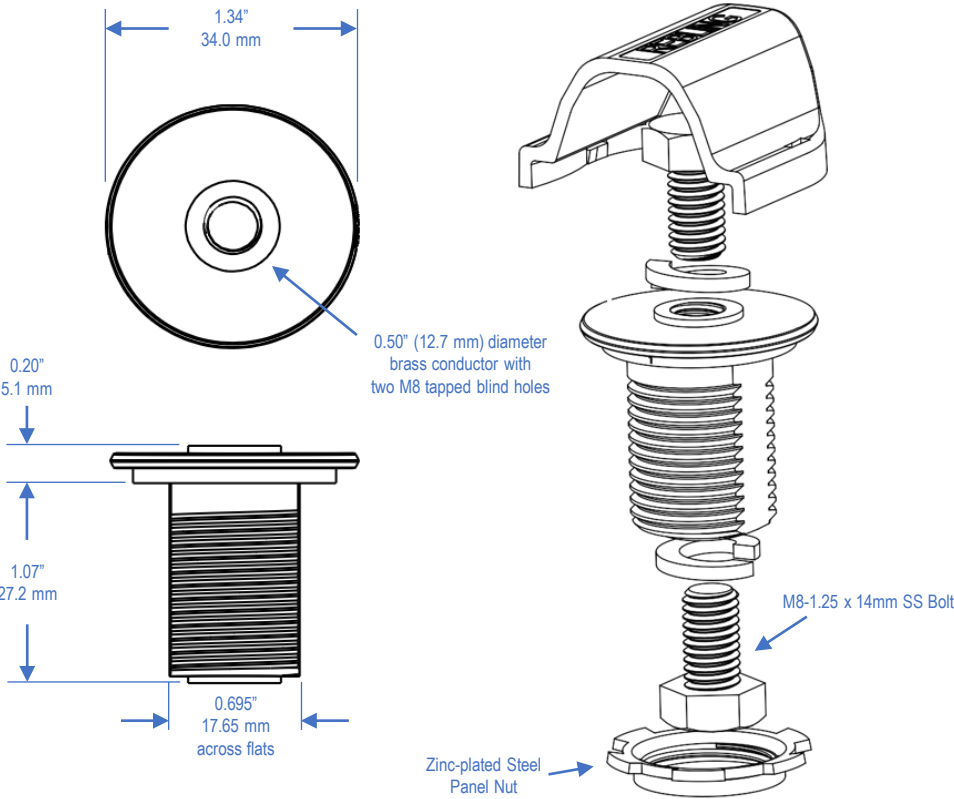
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

Flammability Rating:	Terminal and Rigid Covers	-----	UL 94	5VA
	Flexible Cover		UL 94	V-0
Environmental Sealing:	with Optional Gasket	-----	IEC 60529	IP68+ watertight
	without Optional Gasket		IEC 60529	IP65
Operating Temperature:	Terminal and Rigid Covers	-----		-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
Minimum Metal Panel Thickness Required for Mounting				0.110" (2.8 mm)
Maximum Wire Size:	Terminal only or with Flexible Cover	-----		4/0 (110 mm²)
	with Rigid Short Snap-On Cover			3/0 (80 mm²)
	with Rigid Long Snap-On Cover			2 AWG (35 mm²)








Compliance & Conformance

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









For complete dimensions, download 3D Step files of Terminal and Accessories at [Rebling.com](https://rebling.com)

Rebling Datasheet: 250 amp LFT-style Lithium Battery Terminal



P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
LFT-P-B	Terminal Kit*, Brass, Nickel plated	Black	75	2.1	5VA	E121562-101513781
LFT-B-B	Terminal Kit*, Brass, Unplated	Black	75	2.1	5VA	E121562-101513781
713A1806-B	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Black	26	2.0	V-0	E80017-250533
698A1789-S-B	Rigid Snap-On Cover, Short (1.44" OAL)	Black	9	2.0	5VA	E121562-101513781
698A1789-L-B	Rigid Snap-On Cover, Long (2.23" OAL)	Black	12	2.0	5VA	E121562-101513781
LFT-P-R	Terminal Kit*, Brass, Nickel plated	Red	75	2.1	5VA	E121562-101513781
LFT-B-R	Terminal Kit*, Brass, Unplated	Red	75	2.1	5VA	E121562-101513781
713A1806-R	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Red	26	2.0	V-0	E80017-250533
698A1789-S-R	Rigid Snap-On Cover, Short (1.44" OAL)	Red	9	2.0	5VA	E121562-101513781
698A1789-L-R	Rigid Snap-On Cover, Long (2.23" OAL)	Red	12	2.0	5VA	E121562-101513781
LFT-P-E	Terminal Kit*, Brass, Nickel plated	Blue	75	2.1	5VA	E121562-101513781
LFT-B-E	Terminal Kit*, Brass, Unplated	Blue	75	2.1	5VA	E121562-101513781
713A1806-E	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Blue	26	2.0	V-0	E80017-250533
698A1789-S-E	Rigid Snap-On Cover, Short (1.44" OAL)	Blue	9	2.0	5VA	E121562-101513781
698A1789-L-E	Rigid Snap-On Cover, Long (2.23" OAL)	Blue	12	2.0	5VA	E121562-101513781
700A1799	O-Ring for LFT Terminal	Black	0.5	2.5	V-0	Material = EPDM



*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](https://ulprospector.com)

Rebling Datasheet: 250 amp LFT-style Lithium Battery Terminal

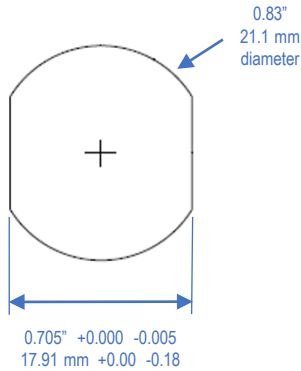
Mounting and Assembly

Minimum Panel Thickness (aluminum or steel)	0.110" (2.8 mm)	
Mounting Hole Pattern (see diagram below)	One Double-D Hole	
Torque on M8 Bolts:		
Recommended	50 to 60 in-lbs (5.6-6.8 Nm)	electrical performance does not get better or worse above 50 in-lbs (5.6 Nm)
Maximum Recommended	240 in-lbs (27 Nm)	a Grade 4, M8 stainless bolt will snap at 330 in-lbs (37 Nm)
Recommended Torque on Panel Nut		
Without O-Ring	30-35 in-lbs (3.4-4.0 Nm)	1/6 turn after finger tight
With O-Ring	30-35 in-lbs (3.4-4.0 Nm)	4/6 turn after finger tight
Maximum Crimp Lug Tongue Width:		
with Flexible Cover	1.10" (28 mm)	
with Short Rigid Snap-on Cover	0.91" (23 mm)	
with Long Rigid Snap-on Cover	0.70" (18 mm)	



Application Notes

- 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.
- Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
- Panel Nut Wrench: Gardner Bender wrench # LNW-500 is recommended for tightening the panel nut
- Customized Socket Wrench: if space prohibits use of the LNW-500 wrench, a 1 1/16 inch, 12 point socket can be modified by grinding off the socket's lead-in bevel, enabling it to engage the teeth on the panel nut which enables tightening the panel nut with a socket wrench.



Mounting Hole Pattern

Rebling Datasheet: 250 amp SFT-style Lithium Battery Terminal

Our SFT-style terminal has performance characteristics identical to our LFT-style terminal but is specially designed for mounting onto thin or weak panels. The SFT can also reduce the costs of a single microgrid energy storage system by \$2,000 and can accept the same snap-on rigid or flexible covers as our LFT-style terminal. The brass core is available with nickel plating for harsh environments and remains cool at extreme charge or discharge rates. Equipping your design with these watertight, single pole, wrench disconnect terminals will enable system integrators to easily incorporate your modules into the MicroGrid, Vehicle Electrification, Power Distribution Unit, or APU systems the end-user requires, regardless of battery chemistry. Whether you are coupling battery modules in series for a stationary power application, an immersion-cooled motive power system, a single SLI module, a telecom or datacenter reserve power system or simply bringing DC power from the inside to the outside of any panel of any material or thickness, our SFT-style 250 amp terminals, Covers and Accessories were designed with your application in mind.

Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	250 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min		1,500 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	1,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min		750 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	500 amps

Voltage & Resistance

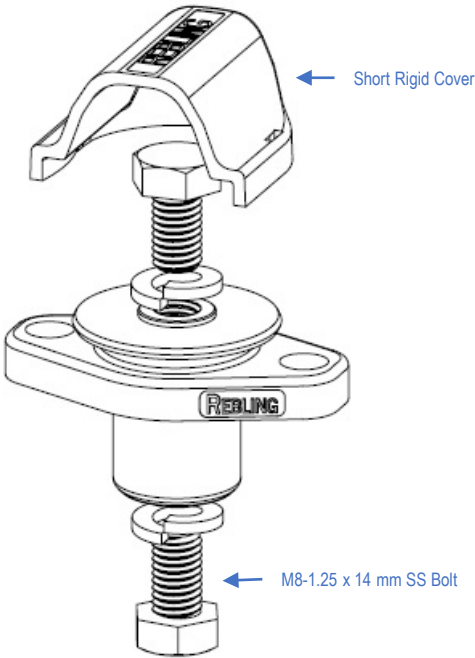
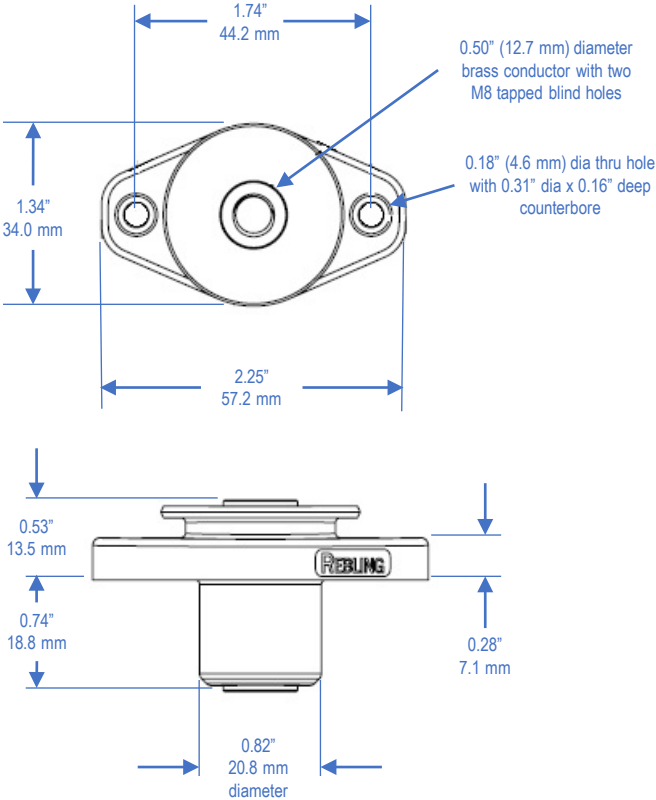
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

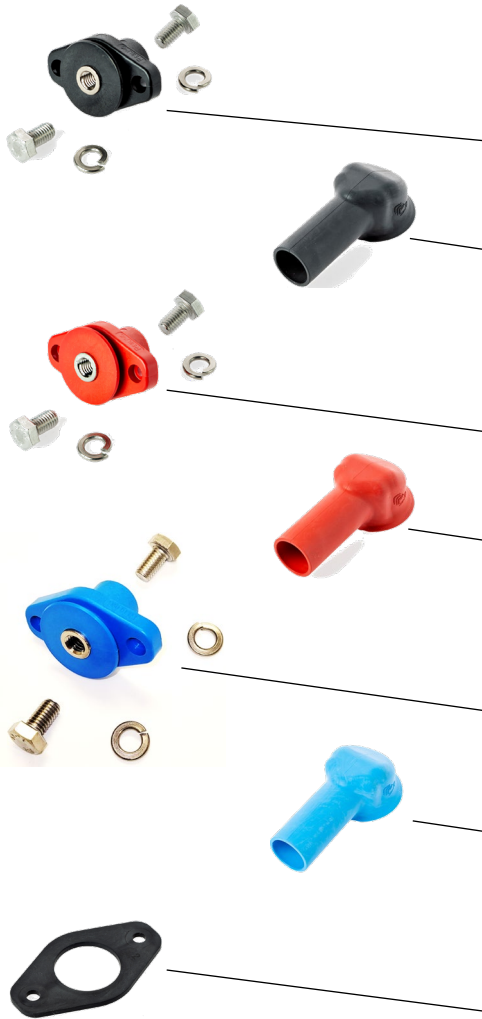
Flammability Rating:	Terminal -----	UL 94	V-0
	Flexible Cover and Rigid Cover	UL 94	V-0
Environmental Sealing:	with Optional Gasket -----	IEC 60529	IP68+ watertight
	without Optional Gasket	IEC 60529	IP65
Operating Temperature:	Terminal and Rigid Covers -----		-40 to +125 C
	Flexible Cover		-40 to +90 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
Minimum Panel Thickness Required for Mounting			0.025" (0.64 mm)
Maximum Wire Size:	Terminal only or with Flexible Cover -----		4/0 (110 mm²)
	with Short Rigid Snap-on Cover		3/0 (80 mm²)
	with Long Rigid Snap-on Cover		2 AWG (35 mm²)

Compliance & Conformance

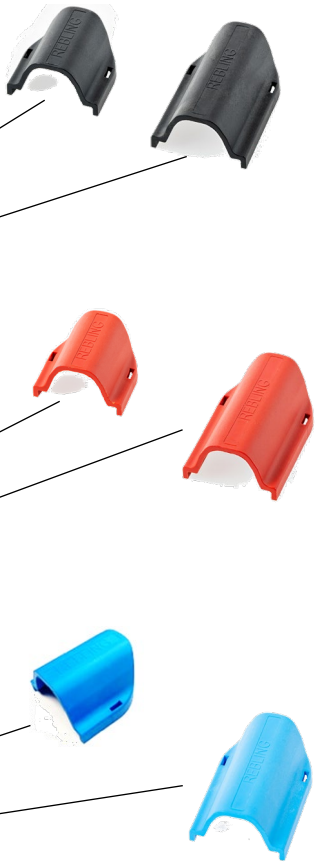
RoHS, REACH, CMRT/3TG	All parts listed on this datasheet are RoHS, REACH and CMRT/3TG Compliant
UL and CE Conformance	Declarations of UL and CE Conformity can be downloaded from Rebling.com



For complete dimensions, download 3D Step files of Terminal and Accessories at [Rebling.com](https://rebling.com)



P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
SFT-P-B	Terminal Kit*, Brass, Nickel plated	Black	75	2.1	V-0	E121562-220886
SFT-B-B	Terminal Kit*, Brass, Unplated	Black	75	2.1	V-0	E121562-220886
713A1806-B	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Black	26	2.0	V-0	E80017-250533
698A1789-S-B	Rigid Snap-On Cover, Short (1.44" OAL)	Black	9	2.0	V-0	E121562-101513781
698A1789-L-B	Rigid Snap-On Cover, Long (2.23" OAL)	Black	12	2.0	V-0	E121562-101513781
SFT-P-R	Terminal Kit*, Brass, Nickel plated	Red	75	2.1	V-0	E121562-220886
SFT-B-R	Terminal Kit*, Brass, Unplated	Red	75	2.1	V-0	E121562-220886
713A1806-R	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Red	26	2.0	V-0	E80017-250533
698A1789-S-R	Rigid Snap-On Cover, Short (1.44" OAL)	Red	9	2.0	V-0	E121562-101513781
698A1789-L-R	Rigid Snap-On Cover, Long (2.23" OAL)	Red	12	2.0	V-0	E121562-101513781
SFT-P-E	Terminal Kit*, Brass, Nickel plated	Blue	75	2.1	V-0	E121562-220886
SFT-B-E	Terminal Kit*, Brass, Unplated	Blue	75	2.1	V-0	E121562-220886
713A1806-E	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Blue	26	2.0	V-0	E80017-250533
698A1789-S-E	Rigid Snap-On Cover, Short (1.44" OAL)	Blue	9	2.0	V-0	E121562-101513781
698A1789-L-E	Rigid Snap-On Cover, Long (2.23" OAL)	Blue	12	2.0	V-0	E121562-101513781
716A1814	Gasket for SFT Terminal	Black	2.2	2.0	V-0	E80017-250535
*Terminal Kit = one Terminal + two Bolts + two Split Washers, all parts in a small poly bag **UL Material Yellow Cards can be downloaded from ULprospector.com						

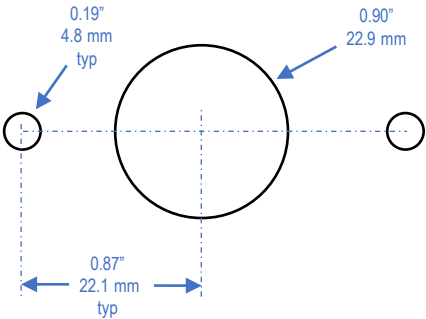


Mounting and Assembly

Minimum Panel Thickness	0.025" (0.64 mm)	
Mounting Hole Pattern (see diagram below)	Three Circular Holes	
Torque on M8 Bolts:		
Recommended	50 to 60 in-lbs (5.6-6.8 Nm)	electrical performance does not get better or worse above 50 in-lbs (5.6 Nm)
Maximum Recommended	240 in-lbs (27 Nm)	a Grade 4, M8 stainless bolt will snap at 330 in-lbs (37 Nm)
Recommended Torque on M4 panel mount screws	5 to 8 in-lbs (0.56-0.90 Nm)	mechanical performance does not improve above 5 in-lbs (0.56 Nm)
Maximum Crimp Lug Tongue Width:		
with Flexible Cover	1.10" (28 mm)	
with Short Rigid Snap-on Cover	0.91" (23 mm)	
with Long Rigid Snap-on Cover	0.70" (18 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. Interchangeability of 500 amp and 250 amp Terminals: if you are uncertain whether your application needs a 250 amp or 500 amp terminal, cut your panel with the mounting hole pattern for the 500 amp MFT-style Terminal. This gives you the flexibility of choice. If a 250 amp SFT-style Terminal is mounted in the MFT Terminal's mounting holes, the SFT Terminal will achieve all of its performance parameters, including watertight sealing.
- 3. Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
- 4. Panel Mounting Hardware: to achieve watertight sealing, the McMaster Carr P/Ns shown below can be used
 - 92855A416 M4 stainless socket head screw
 - 91828A231 M4 stainless nut
 - 9452K15 M4 O-Ring



Mounting Hole Pattern

Rebling Datasheet: 250 amp SFT-style Imperial Feed-through Terminal

Our Imperial-threaded SFT-style terminal has performance characteristics identical to our Metric-threaded SFT-style terminal but is specially designed for applications which require Imperial Threads, including Avionics Power Distribution Units and Power Conversion Modules. The Imperial SFT can accept the same snap-on rigid or flexible covers as our metric terminals. The brass core is nickel plated for harsh environments and remains cool at extreme current levels. Equipping your design with these watertight, single pole, wrench disconnect terminals will enable OEMs to easily incorporate your modules into their Power Distribution System, Electric Propulsion Airframe or Power Conditioning Architecture. Whether you are coupling battery modules in series for a Jump Starter, Ground Power Unit, Airborne Motive Power Battery Pack or simply bringing DC power from the inside to the outside of any panel, our Imperial-threaded SFT-style 250 amp terminals, Covers and Accessories were designed with your application in mind.



Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	250 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min		1,500 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	1,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min		750 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	500 amps

Voltage & Resistance

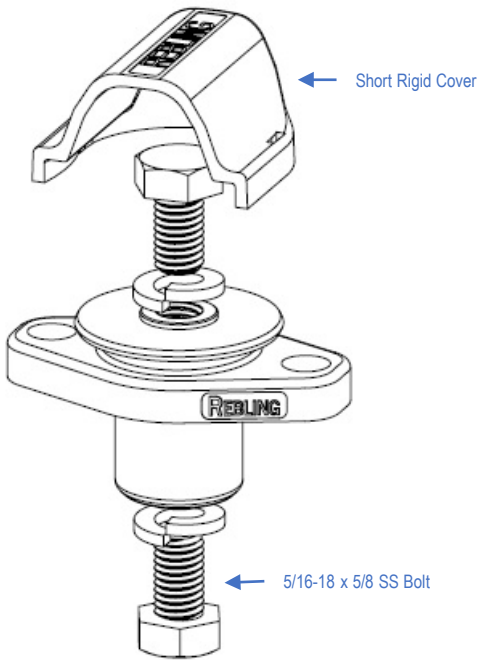
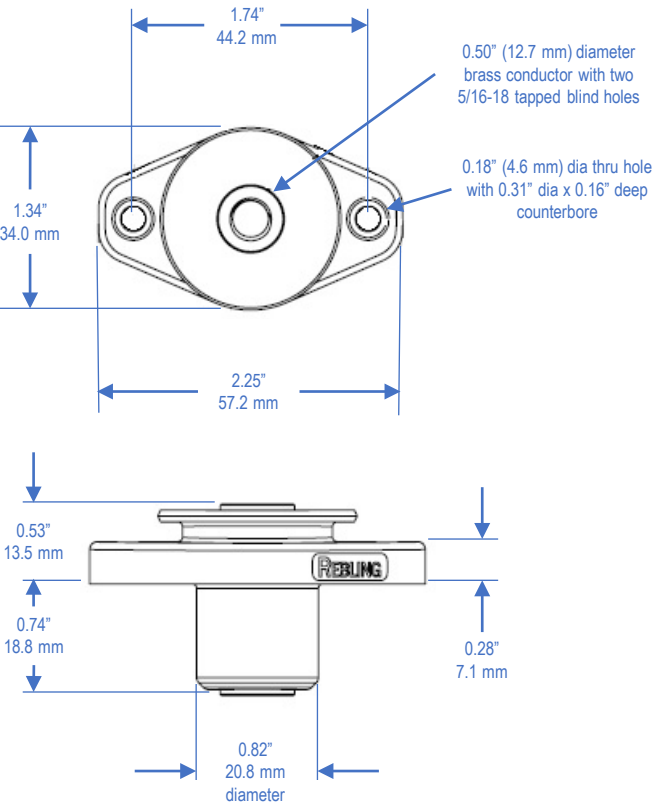
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

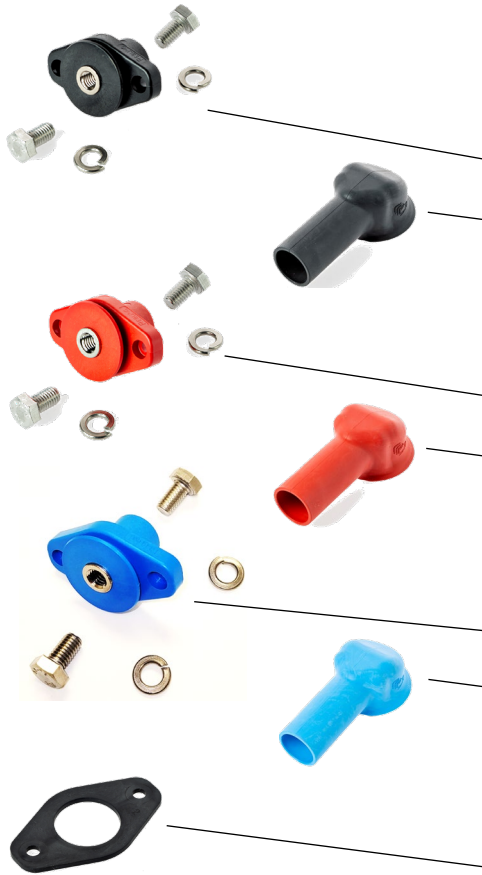
Flammability Rating:	Terminal -----	UL 94	V-0
	Flexible Cover and Rigid Cover	UL 94	V-0
Environmental Sealing:	with Optional Gasket -----	IEC 60529	IP68+ watertight
	without Optional Gasket	IEC 60529	IP65
Operating Temperature:	Terminal and Rigid Covers -----		-40 to +125 C
	Flexible Cover		-40 to +90 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
Minimum Panel Thickness Required for Mounting			0.025" (0.64 mm)
Maximum Wire Size:	Terminal only or with Flexible Cover -----		4/0 (110 mm²)
	with Short Rigid Snap-on Cover		3/0 (80 mm²)
	with Long Rigid Snap-on Cover		2 AWG (35 mm²)

Compliance & Conformance

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



For complete dimensions, download 3D Step files of Terminal and Accessories at [Rebling.com](https://www.rebling.com)



P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
SFT-P-B-516	Terminal Kit*, Brass, Nickel plated	Black	75	2.1	V-0	E121562-220886
713A1806-B	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Black	26	2.0	V-0	E80017-250533
698A1789-S-B	Rigid Snap-On Cover, Short (1.44" OAL)	Black	9	2.0	V-0	E121562-101513781
698A1789-L-B	Rigid Snap-On Cover, Long (2.23" OAL)	Black	12	2.0	V-0	E121562-101513781
SFT-P-R-516	Terminal Kit*, Brass, Nickel plated	Red	75	2.1	V-0	E121562-220886
713A1806-R	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Red	26	2.0	V-0	E80017-250533
698A1789-S-R	Rigid Snap-On Cover, Short (1.44" OAL)	Red	9	2.0	V-0	E121562-101513781
698A1789-L-R	Rigid Snap-On Cover, Long (2.23" OAL)	Red	12	2.0	V-0	E121562-101513781
SFT-P-E-516	Terminal Kit*, Brass, Nickel plated	Blue	75	2.1	V-0	E121562-220886
713A1806-E	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Blue	26	2.0	V-0	E80017-250533
698A1789-S-E	Rigid Snap-On Cover, Short (1.44" OAL)	Blue	9	2.0	V-0	E121562-101513781
698A1789-L-E	Rigid Snap-On Cover, Long (2.23" OAL)	Blue	12	2.0	V-0	E121562-101513781
716A1814	Gasket for SFT Terminal	Black	2.2	2.0	V-0	E80017-250535
*Terminal Kit = one Terminal + two Bolts + two Split Washers, all parts in a small poly bag **UL Material Yellow Cards can be downloaded from ULprospector.com						



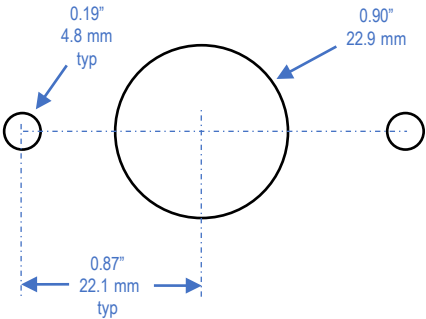
Rebling Datasheet: 250 amp SFT-style Imperial Feed-through Terminal

Mounting and Assembly

Minimum Panel Thickness	0.025" (0.64 mm)	
Mounting Hole Pattern (see diagram below)	Three Circular Holes	
Torque on M8 Bolts:		
Recommended	50 to 60 in-lbs (5.6-6.8 Nm)	electrical performance does not get better or worse above 50 in-lbs (5.6 Nm)
Maximum Recommended	240 in-lbs (27 Nm)	a Grade 4, 5/16 stainless bolt will snap at 330 in-lbs (37 Nm)
Recommended Torque on M4 panel mount screws	5 to 8 in-lbs (0.56-0.90 Nm)	mechanical performance does not improve above 5 in-lbs (0.56 Nm)
Maximum Crimp Lug Tongue Width:		
with Flexible Cover	1.10" (28 mm)	
with Short Rigid Snap-on Cover	0.91" (23 mm)	
with Long Rigid Snap-on Cover	0.70" (18 mm)	

Application Notes

- 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.
- Interchangeability of 500 amp and 250 amp Terminals: if you are uncertain whether your application needs a 250 amp or 500 amp terminal, cut your panel with the mounting hole pattern for the 500 amp MFT-style Terminal. This gives you the flexibility of choice. If a 250 amp SFT-style Terminal is mounted in the MFT Terminal's mounting holes, the SFT Terminal will achieve all of its performance parameters, including watertight sealing.
- Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
- Panel Mounting Hardware: to achieve watertight sealing, the McMaster Carr P/Ns shown below can be used
 - 92855A416 M4 stainless socket head screw
 - 91828A231 M4 stainless nut
 - 9452K15 M4 O-Ring



Mounting Hole Pattern

Rebling Datasheet: 500 amp MFT-style Lithium Battery Terminal

Our MFT-style terminal provides 500 amp continuous current performance, the ability to be mounted to panels of any material or thickness and retains the same 2,000 volt rating, IP68 sealing capability and nickel plating option as the lower power members of our feed-through terminal family. The MFT can accept the same snap-on rigid or flexible covers as our LFT and SFT-style terminals. Equipping your design with these watertight, single pole, wrench disconnect battery terminals will enable system integrators to easily incorporate your modules into the MicroGrid, Reserve Power, Vehicle Electrification or APU systems the end-user requires, regardless of battery chemistry. Whether you are coupling batteries or power conversion modules together for a reserve power or motive power system or making internal connections for an AC power distribution installation, our 500 amp MFT-style terminals, Covers and Accessories were designed with your application in mind.

Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	500 amps
Current Profile #2	50% CRC for 60min	+ 1 sec peak + 50% CRC for 60 min	3,000 amps
Current Profile #3	50% CRC for 60min	+ 10 sec peak + 50% CRC for 60 min	-----2,000 amps
Current Profile #4	50% CRC for 60min	+ 30 sec peak + 50% CRC for 60 min	1,250 amps
Current Profile #5	50% CRC for 60min	+ 60 sec peak + 50% CRC for 60 min	-----1,000 amps

Voltage & Resistance

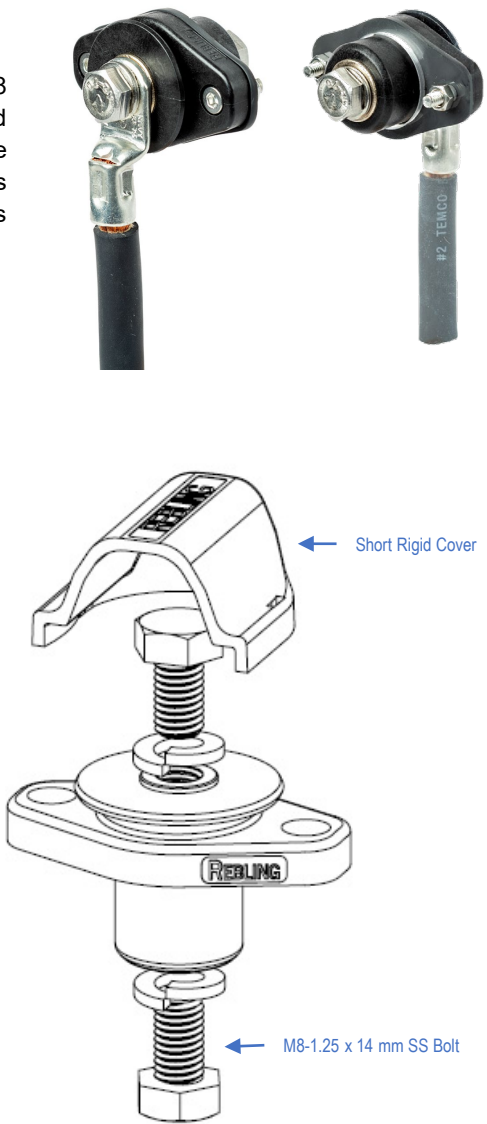
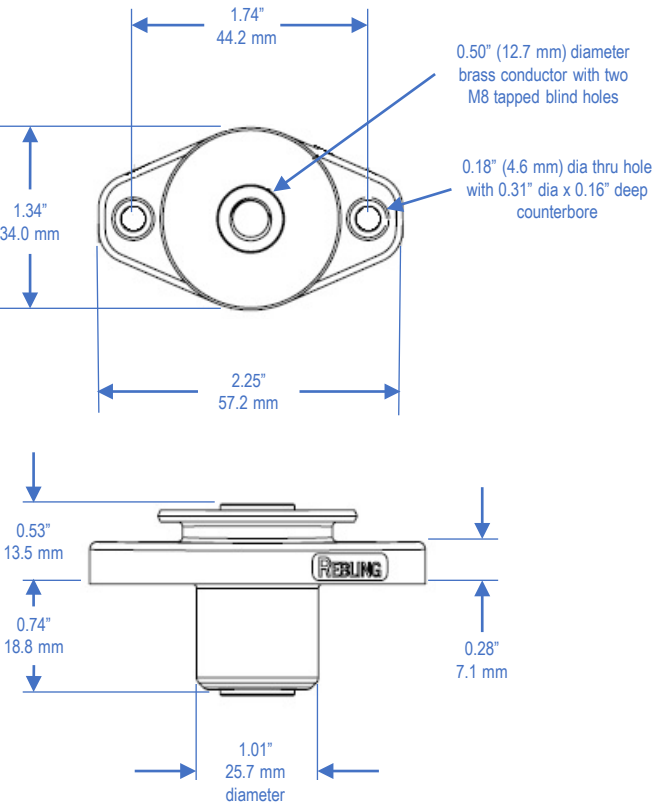
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

Flammability Rating:	Terminal -----	UL 94	V-0
	Flexible Cover and Rigid Cover	UL 94	V-0
Environmental Sealing:	with Optional Gasket -----	IEC 60529	IP68+ watertight
	without Optional Gasket	IEC 60529	IP65
Operating Temperature:	Terminal and Rigid Covers -----		-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
Minimum Panel Thickness Required for Mounting			0.025" (0.64 mm)
Maximum Wire Size:	Terminal only -----		450 MCM (230 mm²)
	with Flexible Cover -----		4/0 (110 mm²)
	with Short Rigid Snap-on Cover		3/0 (80 mm²)
	with Long Rigid Snap-on Cover		2 AWG (35 mm²)

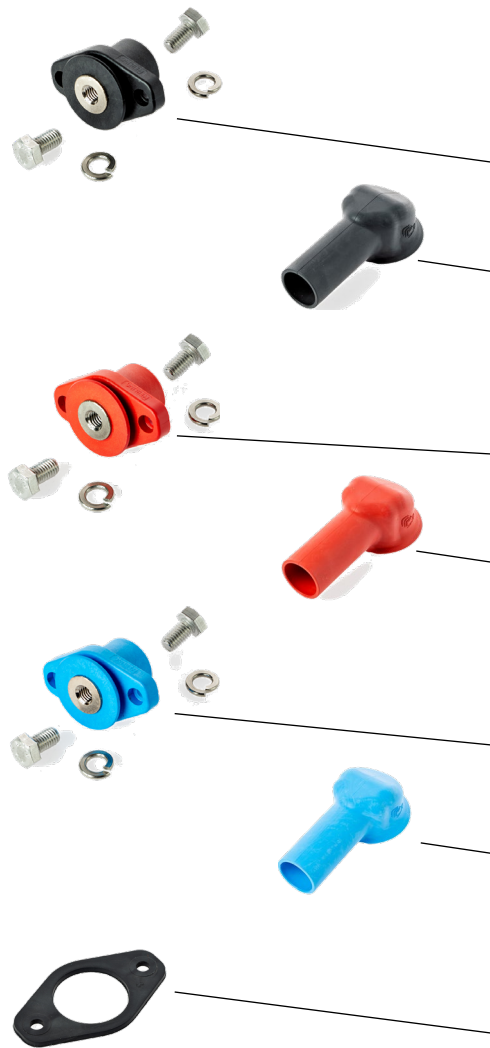
Compliance & Conformance

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



For complete dimensions, download 3D Step files of Terminal and Accessories at [Rebling.com](https://rebling.com)

Rebling Datasheet: 500 amp MFT-style Lithium Battery Terminal

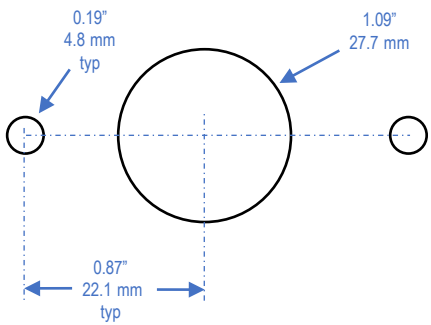
	P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
	MFT-P-B	Terminal Kit*, Brass, Nickel plated	Black	75	2.1	V-0	E121562-220886
	MFT-B-B	Terminal Kit*, Brass, Unplated	Black	75	2.1	V-0	E121562-220886
	713A1806-B	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Black	26	2.0	V-0	E80017-250533
	698A1789-S-B	Rigid Snap-On Cover, Short (1.44" OAL)	Black	9	2.0	V-0	E121562-101513781
	698A1789-L-B	Rigid Snap-On Cover, Long (2.23" OAL)	Black	12	2.0	V-0	E121562-101513781
	MFT-P-R	Terminal Kit*, Brass, Nickel plated	Red	75	2.1	V-0	E121562-220886
	MFT-B-R	Terminal Kit*, Brass, Unplated	Red	75	2.1	V-0	E121562-220886
	713A1806-R	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Red	26	2.0	V-0	E80017-250533
	698A1789-S-R	Rigid Snap-On Cover, Short (1.44" OAL)	Red	9	2.0	V-0	E121562-101513781
	698A1789-L-R	Rigid Snap-On Cover, Long (2.23" OAL)	Red	12	2.0	V-0	E121562-101513781
	MFT-P-E	Terminal Kit*, Brass, Nickel plated	Blue	75	2.1	V-0	E121562-220886
	MFT-B-E	Terminal Kit*, Brass, Unplated	Blue	75	2.1	V-0	E121562-220886
	713A1806-E	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Blue	26	2.0	V-0	E80017-250533
	698A1789-S-E	Rigid Snap-On Cover, Short (1.44" OAL)	Blue	9	2.0	V-0	E121562-101513781
	698A1789-L-E	Rigid Snap-On Cover, Long (2.23" OAL)	Blue	12	2.0	V-0	E121562-101513781
	716A1815	Gasket for MFT Terminal	Black	2.2	2.0	V-0	E80017-250535
*Terminal Kit = one Terminal + two Bolts + two Split Washers, all parts in a small poly bag **UL Material Yellow Cards can be downloaded from ULprospector.com							

Mounting and Assembly

Minimum Panel Thickness	0.025" (0.64 mm)	
Mounting Hole Pattern (see diagram below)	Three Circular Holes	
Torque on M8 Bolts:		
Recommended	50 to 60 in-lbs (5.6-6.8 Nm)	electrical performance does not get better or worse above 50 in-lbs (5.6 Nm)
Maximum Recommended	240 in-lbs (27 Nm)	a Grade 4, M8 stainless bolt will snap at 330 in-lbs (37 Nm)
Recommended Torque on M4 panel mount screws	5 to 8 in-lbs (0.56-0.90 Nm)	mechanical performance does not improve above 5 in-lbs (0.56 Nm)
Maximum Crimp Lug Tongue Width:		
with Flexible Cover	1.10" (28 mm)	
with Short Rigid Snap-on Cover	0.91" (23 mm)	
with Long Rigid Snap-on Cover	0.70" (18 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. Interchangeability of 500 amp and 250 amp Terminals: if you are uncertain whether your application needs a 250 amp or 500 amp terminal, cut your panel with the mounting hole pattern for the 500 amp MFT-style Terminal. This gives you the flexibility of choice. If a 250 amp SFT-style Terminal is mounted in the MFT Terminal's mounting holes, the SFT Terminal will achieve all of its performance parameters, including watertight sealing.
- 3. Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
- 4. Panel Mounting Hardware: to achieve watertight sealing, the McMaster Carr P/Ns shown below can be used
 - 92855A416 M4 stainless socket head screw
 - 91828A231 M4 stainless nut
 - 9452K15 M4 O-Ring



Mounting Hole Pattern

Rebling Datasheet: 500 amp MFT-style Imperial Feed-through Terminal

Our Imperial-threaded MFT-style terminal has performance characteristics identical to our Metric-threaded MFT-style terminal but is specially designed for applications which require Imperial Threads, including Avionics Power Distribution Units and Power Conversion Modules. The Imperial MFT can accept the same snap-on rigid or flexible covers as our metric terminals. The brass core is nickel plated for harsh environments and remains cool at extreme current levels. Equipping your design with these watertight, single pole, wrench disconnect terminals will enable OEMs to easily incorporate your modules into their Power Distribution System, Electric Propulsion Airframe or Power Conditioning Architecture. Whether you are coupling battery modules in series for a Jump Starter, Ground Power Unit, Airborne Motive Power Battery Pack or simply bringing DC power from the inside to the outside of any panel, our Imperial-threaded MFT-style 500 amp terminals, Covers and Accessories were designed with your application in mind.



Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	500 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min		3,000 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	2,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min		1,250 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	1,000 amps

Voltage & Resistance

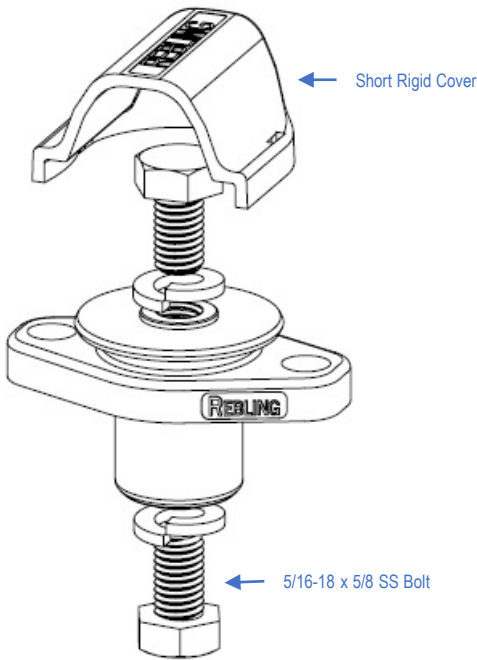
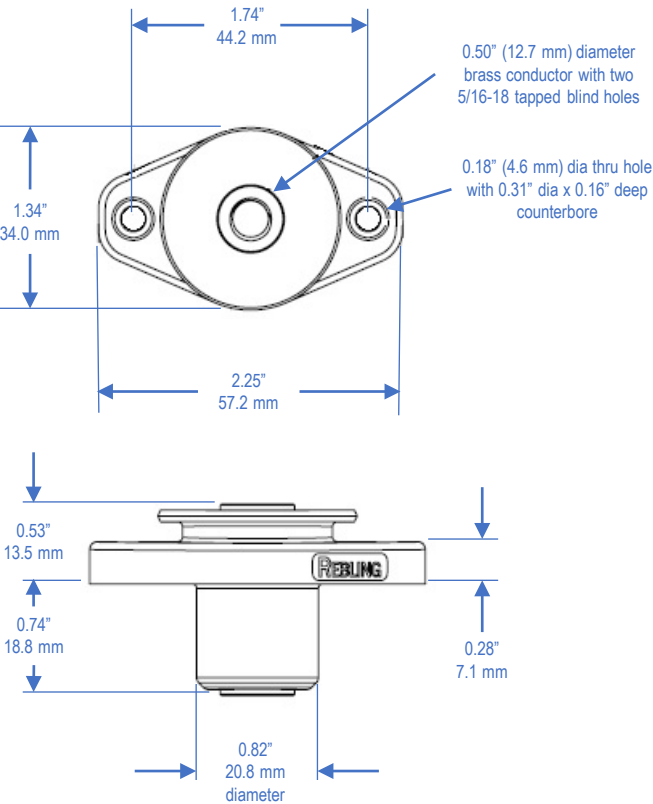
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

Flammability Rating:	Terminal -----	UL 94	V-0
	Flexible Cover and Rigid Cover	UL 94	V-0
Environmental Sealing:	with Optional Gasket -----	IEC 60529	IP68+ watertight
	without Optional Gasket	IEC 60529	IP65
Operating Temperature:	Terminal and Rigid Covers -----		-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
Minimum Panel Thickness Required for Mounting			0.025" (0.64 mm)
Maximum Wire Size:	Terminal only or with Flexible Cover -----		4/0 (110 mm²)
	with Short Rigid Snap-on Cover		3/0 (80 mm²)
	with Long Rigid Snap-on Cover		2 AWG (35 mm²)

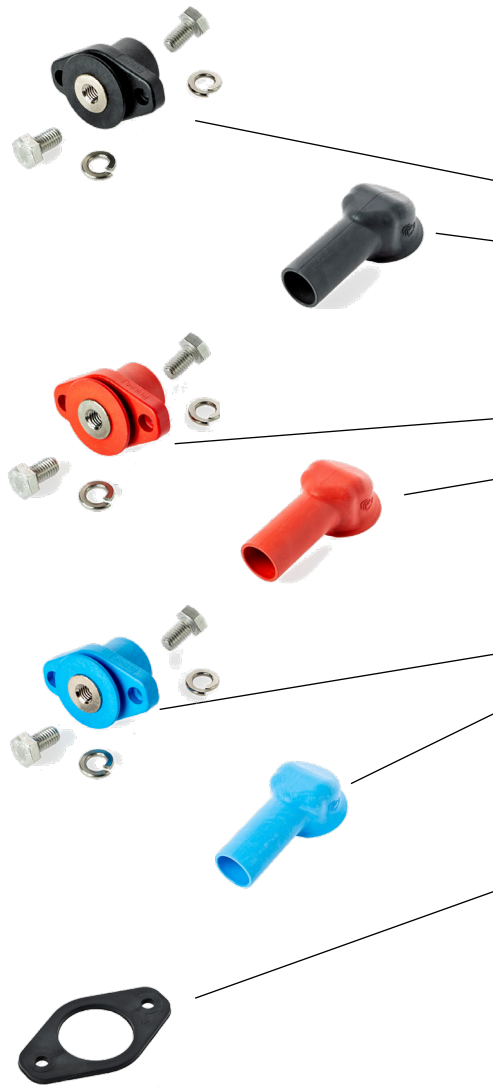
Compliance & Conformance

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



For complete dimensions, download 3D Step files of Terminal and Accessories at [Rebling.com](https://www.rebling.com)

Rebling Datasheet: 500 amp MFT-style Imperial Feed-through Terminal



P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
MFT-P-B-516	Terminal Kit*, Brass, Nickel plated	Black	75	2.1	V-0	E121562-220886
713A1806-B	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Black	26	2.0	V-0	E80017-250533
698A1789-S-B	Rigid Snap-On Cover, Short (1.44" OAL)	Black	9	2.0	V-0	E121562-101513781
698A1789-L-B	Rigid Snap-On Cover, Long (2.23" OAL)	Black	12	2.0	V-0	E121562-101513781
MFT-P-R-516	Terminal Kit*, Brass, Nickel plated	Red	75	2.1	V-0	E121562-220886
713A1806-R	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Red	26	2.0	V-0	E80017-250533
698A1789-S-R	Rigid Snap-On Cover, Short (1.44" OAL)	Red	9	2.0	V-0	E121562-101513781
698A1789-L-R	Rigid Snap-On Cover, Long (2.23" OAL)	Red	12	2.0	V-0	E121562-101513781
MFT-P-E-516	Terminal Kit*, Brass, Nickel plated	Blue	75	2.1	V-0	E121562-220886
713A1806-E	Flexible Snap-On Cover (3.75" OAL, 0.82" ID)	Blue	26	2.0	V-0	E80017-250533
698A1789-S-E	Rigid Snap-On Cover, Short (1.44" OAL)	Blue	9	2.0	V-0	E121562-101513781
698A1789-L-E	Rigid Snap-On Cover, Long (2.23" OAL)	Blue	12	2.0	V-0	E121562-101513781
716A1815	Gasket for MFT Terminal	Black	2.2	2.0	V-0	E80017-250535
*Terminal Kit = one Terminal + two Bolts + two Split Washers, all parts in a small poly bag **UL Material Yellow Cards can be downloaded from ULprospector.com						



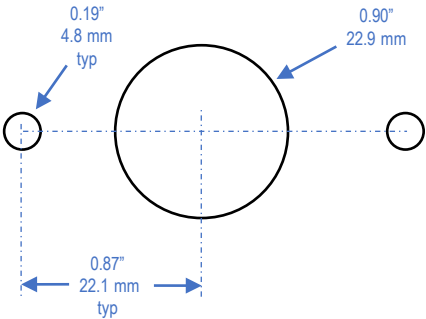
Rebling Datasheet: 500 amp MFT-style Imperial Feed-through Terminal

Mounting and Assembly

Minimum Panel Thickness	0.025" (0.64 mm)	
Mounting Hole Pattern (see diagram below)	Three Circular Holes	
Torque on M8 Bolts:		
Recommended	50 to 60 in-lbs (5.6-6.8 Nm)	electrical performance does not get better or worse above 50 in-lbs (5.6 Nm)
Maximum Recommended	240 in-lbs (27 Nm)	a Grade 4, 5/16 stainless bolt will snap at 330 in-lbs (37 Nm)
Recommended Torque on M4 panel mount screws	5 to 8 in-lbs (0.56-0.90 Nm)	mechanical performance does not improve above 5 in-lbs (0.56 Nm)
Maximum Crimp Lug Tongue Width:		
with Flexible Cover	1.10" (28 mm)	
with Short Rigid Snap-on Cover	0.91" (23 mm)	
with Long Rigid Snap-on Cover	0.70" (18 mm)	

Application Notes

- 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.
- Interchangeability of 500 amp and 250 amp Terminals: if you are uncertain whether your application needs a 250 amp or 500 amp terminal, cut your panel with the mounting hole pattern for the 500 amp MFT-style Terminal. This gives you the flexibility of choice. If a 250 amp SFT-style Terminal is mounted in the MFT Terminal's mounting holes, the SFT Terminal will achieve all of its performance parameters, including watertight sealing.
- Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
- Panel Mounting Hardware: to achieve watertight sealing, the McMaster Carr P/Ns shown below can be used
 - 92855A416 M4 stainless socket head screw
 - 91828A231 M4 stainless nut
 - 9452K15 M4 O-Ring



Mounting Hole Pattern

Rebling Datasheet: 750 amp XFT-style Lithium Battery Terminal

Our 750 amp XFT-style terminal has performance characteristics identical to our BFT-style 750 amp terminal but is specially designed for mounting onto thin or weak panels. The XFT-style 750 amp terminal's nickel-plated brass core stays cool at 750 amps of continuous current or short term peaks of 4,000 amps. These terminals are designed for the temperature sensitive environment of lithium battery cells, the charging rates of ultracapacitors and supercapacitors or installation in power distribution units. Equipping your power module with these watertight, single pole, wrench disconnect brass terminals will facilitate the incorporation of your modules into cutting edge GenSet, APU or Vehicle Electrification systems. Whether you are designing a liquid-cooled, pressurized battery pack for EV Mobility, a hazardous environment Generator Set or are simply bringing high current through a panel of any thickness, our XFT-style 750 amp terminals, Covers and Accessories were designed with your application in mind.

Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	750 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min		4,000 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	3,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min		1,800 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	1,500 amps

Voltage & Resistance

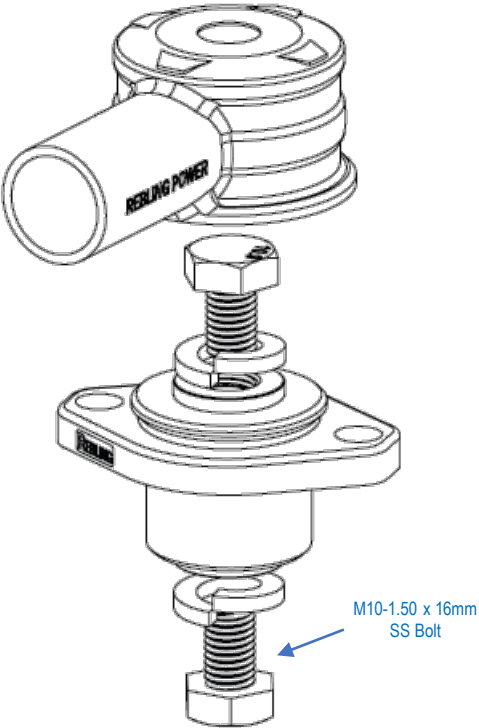
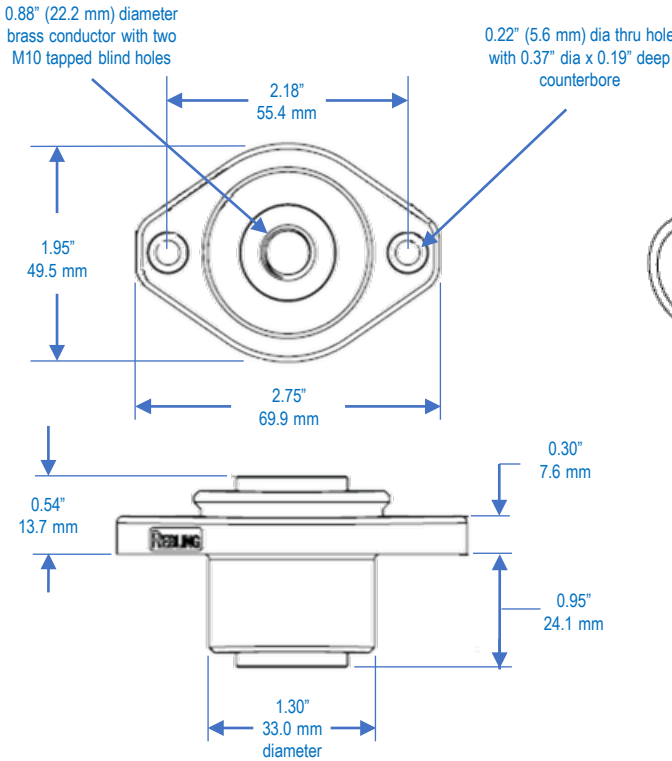
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

Flammability Rating:	Terminal -----	UL 94	V-0
	Flexible Cover	UL 94	V-0
Environmental Sealing:	with optional gasket -----	IEC 60529	IP68+ watertight
	without gasket	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
Minimum Panel Thickness Required for Mounting			0.025" (0.64 mm)
Maximum Wire Size:	Terminal only -----		750 MCM (380 mm ²)
	with Flexible Cover		4/0 (110 mm ²)

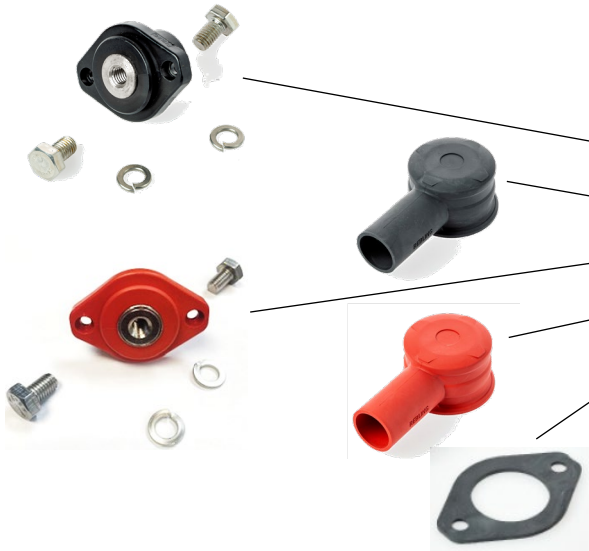
Compliance & Conformance

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



For complete dimensions, download 3D Step files of Terminal and Accessories at [Rebling.com](https://rebling.com)

Rebling Datasheet: 750 amp XFT-style Lithium Battery Terminal



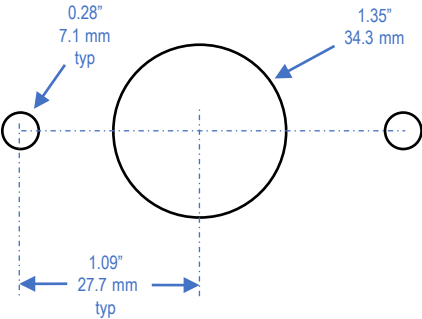
P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
XFT-P-B	Terminal Kit*, Brass, Nickel Plated	Black	195	2.5	V-0	E121562-220886
639A1830-B	Flexible Cover (3.50" OAL, 0.82" ID)	Black	25	2.0	V-0	E80017-250533
XFT-P-R	Terminal Kit*, Brass, Nickel Plated	Red	195	2.5	V-0	E121562-220886
639A1830-R	Flexible Cover (3.50" OAL, 0.82" ID)	Red	25	2.0	V-0	E80017-250533
720A1817	Gasket for XFT Terminal	Black	4	2.0	V-0	E80017-250535
*Terminal Kit = one Terminal + two Bolts + two Split Washers, all parts in a small poly bag **UL Material Yellow Cards can be downloaded from ULprospector.com						

Mounting and Assembly

Minimum Panel Thickness	0.025" (0.64 mm)	
Mounting Hole Pattern (see diagram below)	Three Circular Holes	
Torque on M10 Bolts:		
Recommended	60 to 80 in-lbs (6.8-9.1 Nm)	electrical performance does not get better or worse above 60 in-lbs (6.8 Nm)
Maximum Recommended	320 in-lbs (36 Nm)	a Grade 4, M10 stainless bolt will snap at 490 in-lbs (55 Nm)
Recommended Torque on M5 panel mount screws	5 to 8 in-lbs (0.56-0.90 Nm)	mechanical performance does not improve above 5 in-lbs (0.56 Nm)

Application Notes

- 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.
- Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
- Panel Mounting Hardware: to achieve watertight sealing, the McMaster Carr P/Ns shown below can be used
 - 92855A516 M5 stainless socket head screw
 - 91828A241 M5 stainless nut
 - 9452K16 M5 O-Ring



Mounting Hole Pattern

Rebling Datasheet: 750 amp BFT-style Lithium Battery Terminal

Our 750 amp BFT-style terminal consists of a nickel-plated brass core which stays cool at 750 amps of continuous current or when charge and discharge currents hit short term peaks of 4,000 amps. These small footprint terminals are designed for the temperature sensitive environment of lithium battery cells and the charging rates of ultracapacitors and supercapacitors. Equipping your power module with these watertight, single pole, wrench disconnect brass terminals will facilitate the incorporation of your modules into cutting edge GenSet, APU or Vehicle Electrification systems. Whether you are designing a liquid-cooled, pressurized battery pack for EV Mobility, a hazardous environment Generator Set or are simply bringing high current through a metal panel that's at least 0.080" (2.1 mm) thick, our BFT-style 750 amp terminals, Covers and Accessories were designed with your application in mind.

Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	750 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min		4,000 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	3,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min		1,800 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	1,500 amps

Voltage & Resistance

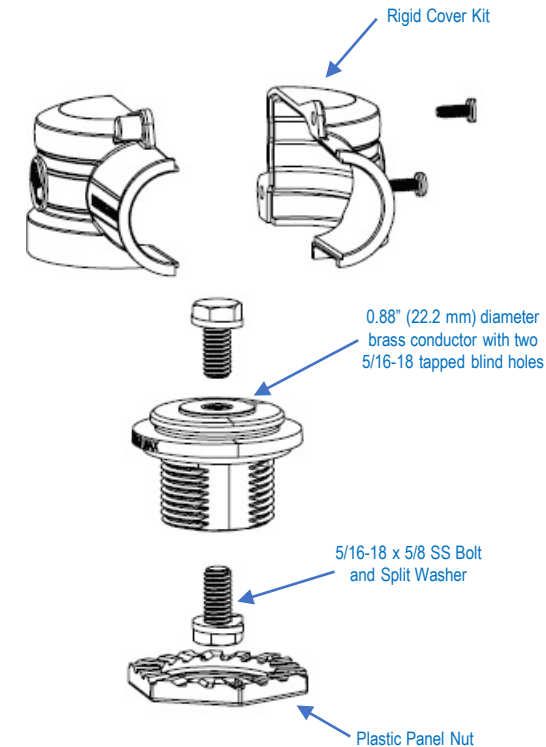
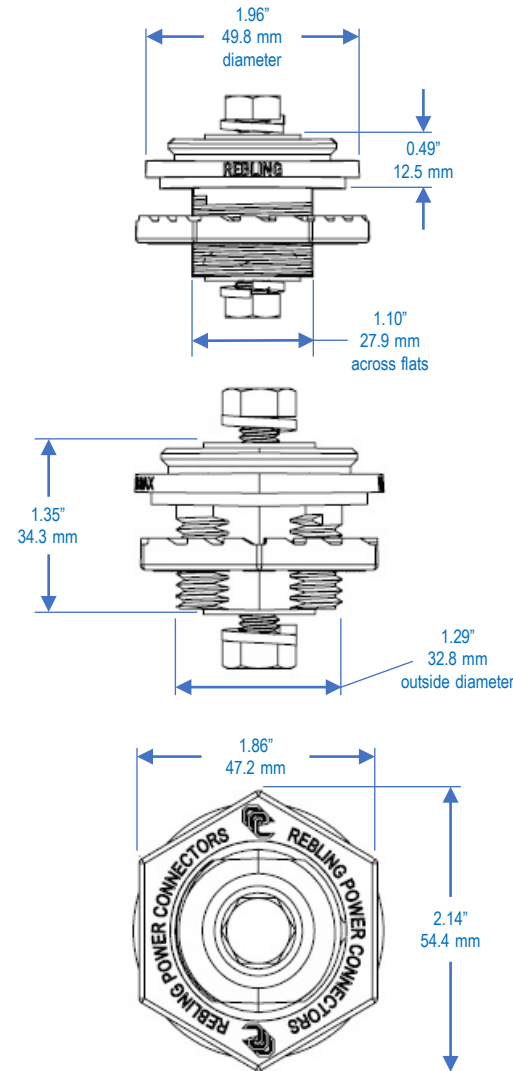
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

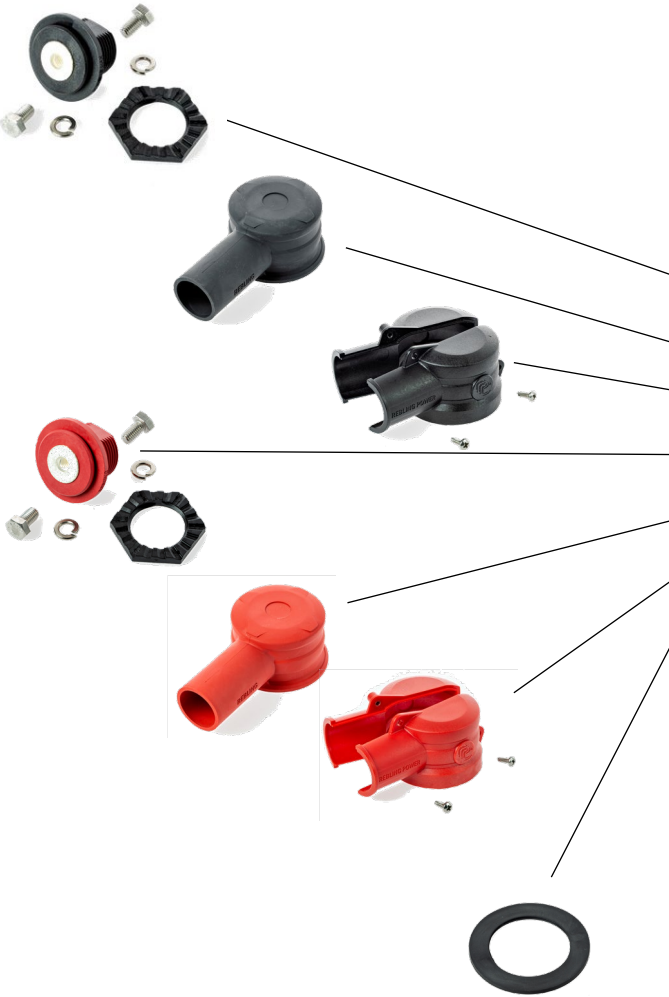
Flammability Rating:	Terminal -----	UL 94	5VA
	Flexible and Rigid Covers	UL 94	V-0
Environmental Sealing:	with Optional Gasket -----	IEC 60529	IP68+ watertight
	without Optional Gasket	IEC 60529	IP65
Operating Temperature:	Terminal and Rigid Cover -----		-40 to +125 C
	Flexible Cover		-40 to +90 C
Mechanical Shock	MIL-STD-202H Method 213 Condition A		50 Gs – 3 axes
Vibration	MIL-STD-202H Method 204 Condition A		10 Gs – 3 axes
Minimum Metal Panel Thickness Required for Mounting			0.080" (2.1 mm)
Maximum Wire Size:	Terminal only -----	-2.00" (50.8 mm) OD	750 MCM (380 mm²)
	with Rigid Cover	1.02" (25.9 mm) OD	250 MCM (130 mm²)
	with Flexible Cover	0.80" (20.3 mm) OD	4/0 (110 mm²)

Compliance & Conformance

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



For complete dimensions, download 3D Step files of Terminal and Accessories at [Rebling.com](https://rebling.com)



P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
BFT-P-B	Terminal Kit*, Brass, Nickel plated	Black	75	2.1	5VA	E121562-101513781
639A1830-B	Flexible Cover (3.50" OAL, 0.82" ID)	Black	75	2.1	V-0	E80017-250533
648A1758	Rigid Cover Kit (3.85" OAL, 1.05" ID)	Black	26	2.0	V-0	E121562-101729324
BFT-P-R	Terminal Kit*, Brass, Nickel plated	Red	75	2.1	5VA	E121562-101513781
639A1830-R	Flexible Cover (3.50" OAL, 0.82" ID)	Red	75	2.1	V-0	E80017-250533
648A1759	Rigid Cover Kit (3.85" OAL, 1.05" ID)	Red	26	2.0	V-0	E121562-101729324
651A1811	Gasket for BFT Terminal	Black	4	2.0	V-0	E80017-250535
656A1686	Plastic Panel Nut for BFT Terminal	Black	8	2.0	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						



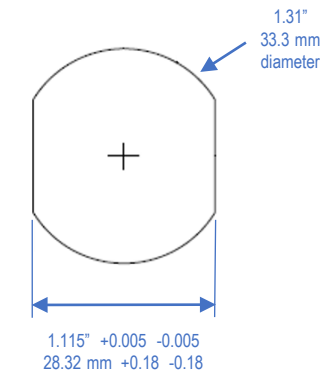
Rebling Datasheet: 750 amp BFT-style Lithium Battery Terminal

Mounting and Assembly

Minimum Panel Thickness (aluminum or steel)	0.080" (2.1 mm)	
Mounting Hole Pattern (see diagram below)	One Double-D Hole	
Torque on 5/16 Bolts:		
Recommended	50 to 60 in-lbs (5.6-6.8 Nm)	electrical performance does not get better or worse above 50 in-lbs (5.6 Nm) a Grade 4, 5/16 stainless bolt will snap at 330 in-lbs (37 Nm)
Maximum Recommended	240 in-lbs (27 Nm)	
Recommended Torque on Panel Nut	30-35 in-lbs (3.4-4.0 Nm)	
Maximum Crimp Lug Tongue Width:		
with Rigid Cover	1.70" (43 mm)	
with Flexible Cover	1.50" (38 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. Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
3. Panel Nut Wrench: a 1 7/8” socket wrench can be used to tighten the plastic panel nut



Mounting Hole Pattern

Rebling Datasheet: 1,000 amp XFT-style Lithium Battery Terminal

Our 1,000 amp XFT-style terminal has performance characteristics identical to our 1,000 amp BFT-style terminal but is specially designed for mounting onto thin or weak panels. The 1,000 amp XFT-style terminal's nickel-plated copper core stays cool at 1,000 amps of continuous current or at short term peaks of 5,000 amps. These terminals are designed for the temperature sensitive environment of lithium battery cells and the charging rates of ultracapacitors and supercapacitors. Equipping your power module with these watertight, single pole, wrench disconnect copper terminals will facilitate the incorporation of your modules into cutting edge EV, APU, Fuel Cell and Weapons Systems. Whether you are designing a liquid-cooled, pressurized battery pack for EV Mobility, Regenerative Braking, Rail Gun or Laser Weapon applications or are simply bringing high current through a panel of any material or thickness, our XFT-style 1,000 amp terminals, Covers and Accessories were designed with your application in mind.

Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	1,000 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min		5,000 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	4,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min		2,500 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	2,000 amps

Voltage & Resistance

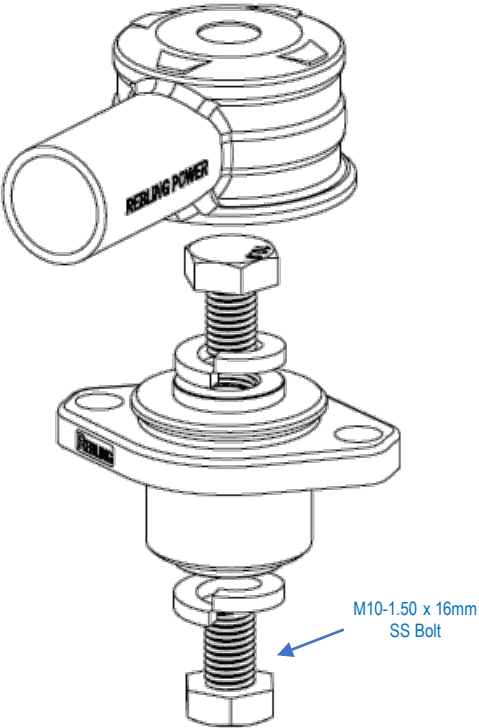
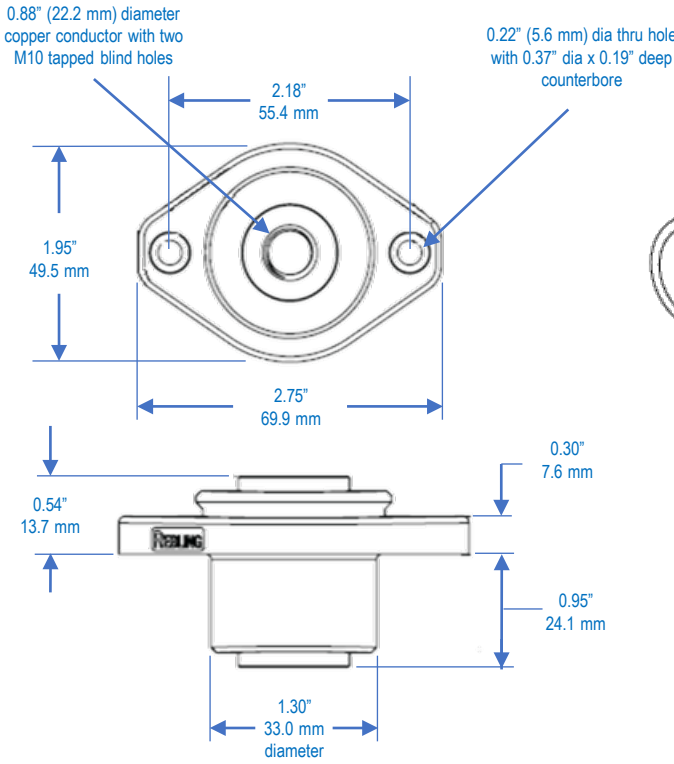
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

Flammability Rating:	Terminal -----	UL 94	V-0
	Flexible Cover	UL 94	V-0
Environmental Sealing:	with optional gasket -----	IEC 60529	IP68+ watertight
	without gasket	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
Minimum Panel Thickness Required for Mounting			0.025" (0.64 mm)
Maximum Wire Size:	Terminal only -----		750 MCM (380 mm ²)
	with Flexible Cover		4/0 (110 mm ²)

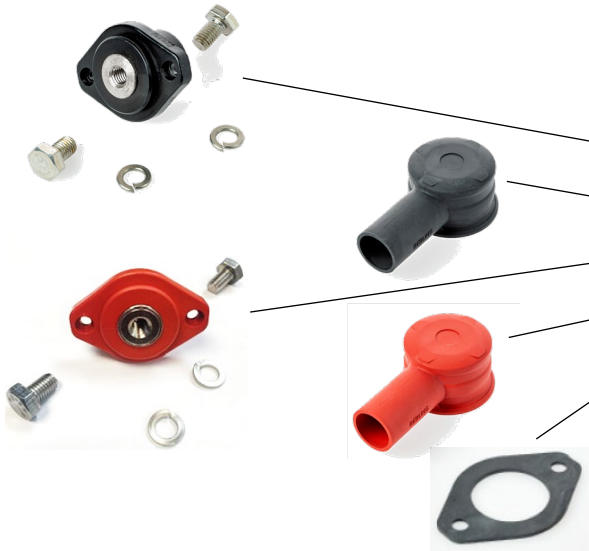
Compliance & Conformance

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



For complete dimensions, download 3D Step files of Terminal and Accessories at [Rebling.com](https://rebling.com)

Rebling Datasheet: 1,000 amp XFT-style Lithium Battery Terminal



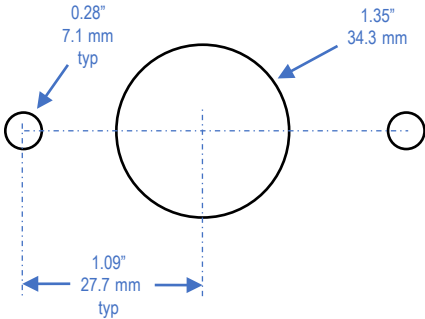
P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
XFT-N-B	Terminal Kit*, Copper, Nickel Plated	Black	195	2.5	V-0	E121562-220886
639A1830-B	Flexible Cover (3.50" OAL, 0.82" ID)	Black	25	2.0	V-0	E80017-250533
XFT-N-R	Terminal Kit*, Copper, Nickel Plated	Red	195	2.5	V-0	E121562-220886
639A1830-R	Flexible Cover (3.50" OAL, 0.82" ID)	Red	25	2.0	V-0	E80017-250533
720A1817	Gasket for XFT Terminal	Black	4	2.0	V-0	E80017-250535
*Terminal Kit = one Terminal + two Bolts + two Split Washers, all parts in a small poly bag						
**UL Material Yellow Cards can be downloaded from ULprospector.com						

Mounting and Assembly

Minimum Panel Thickness	0.025" (0.64 mm)	
Mounting Hole Pattern (see diagram below)	Three Circular Holes	
Torque on M10 Bolts:		
Recommended	60 to 80 in-lbs (6.8-9.1 Nm)	electrical performance does not get better or worse above 60 in-lbs (6.8 Nm)
Maximum Recommended	320 in-lbs (36 Nm)	a Grade 4, M10 stainless bolt will snap at 490 in-lbs (55 Nm)
Recommended Torque on M5 panel mount screws	5 to 8 in-lbs (0.56-0.90 Nm)	mechanical performance does not improve above 5 in-lbs (0.56 Nm)

Application Notes

- 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.
- Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
- Panel Mounting Hardware: to achieve watertight sealing, the McMaster Carr P/Ns shown below can be used
 - 92855A516 M5 stainless socket head screw
 - 91828A241 M5 stainless nut
 - 9452K16 M5 O-Ring



Mounting Hole Pattern

Rebling Datasheet: 1,000 amp XFT-style Imperial Feed-through Terminal

Our Imperial-threaded XFT-style terminal has performance characteristics identical to our Metric-threaded XFT-style terminal but is specially designed for applications which require Imperial Threads, including Avionics Power Distribution Units and Power Conversion Modules. The Imperial XFT can accept the same snap-on flexible covers as our metric terminals. The brass core is nickel plated for harsh environments and remains cool at extreme current levels. Equipping your design with these watertight, single pole, wrench disconnect terminals will enable OEMs to easily incorporate your modules into their Power Distribution System, Electric Propulsion Airframe or Power Conditioning Architecture. Whether you are coupling battery modules in series for a Jump Starter, Ground Power Unit, Airborne Motive Power Battery Pack or simply bringing DC power from the inside to the outside of any panel, our Imperial-threaded XFT-style 1,000 amp terminals, Covers and Accessories were designed with your application in mind.



Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	1,000 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min	-----	5,000 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	4,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min	-----	2,500 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	2,000 amps

Voltage & Resistance

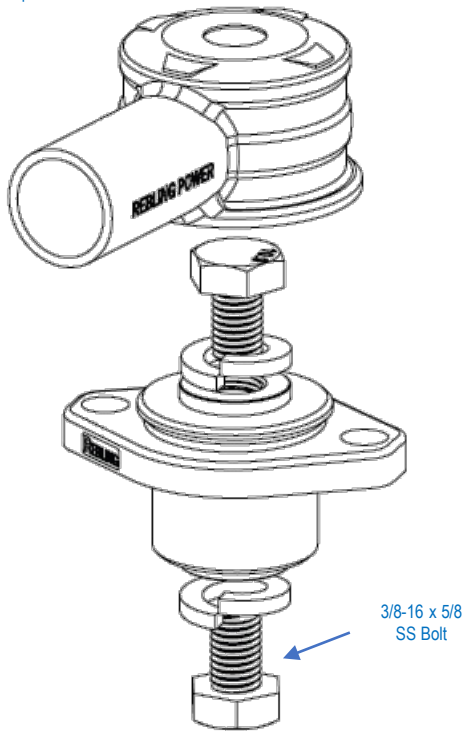
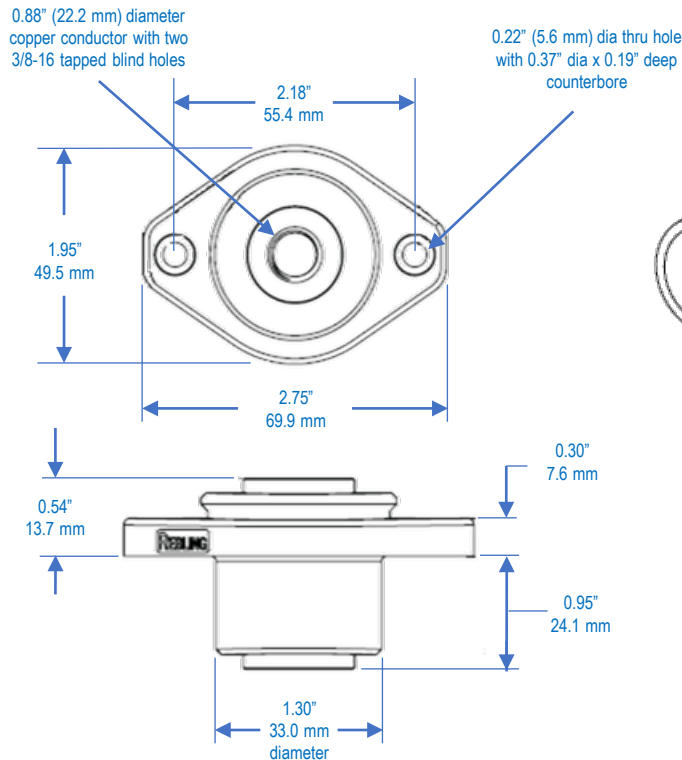
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

Flammability Rating:	Terminal -----	UL 94	V-0
	Flexible Cover -----	UL 94	V-0
Environmental Sealing:	with optional gasket -----	IEC 60529	IP68+ watertight
	without gasket -----	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
Minimum Panel Thickness Required for Mounting			0.025" (0.64 mm)
Maximum Wire Size:	Terminal only -----		750 MCM (380 mm ²)
	with Flexible Cover -----		4/0 (110 mm ²)

Compliance & Conformance

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



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

Rebling Datasheet: 1,000 amp XFT-style Imperial Feed-through Terminal



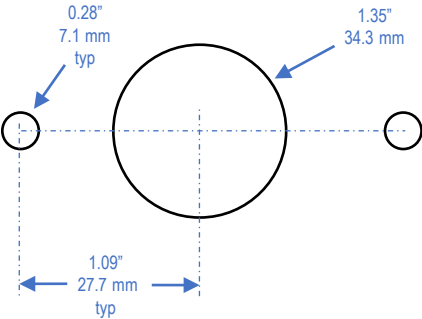
P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
XFT-N-B-38	Terminal Kit*, Copper, Nickel Plated	Black	195	2.5	V-0	E121562-220886
639A1830-B	Flexible Cover (3.50" OAL, 0.82" ID)	Black	25	2.0	V-0	E80017-250533
XFT-N-R-38	Terminal Kit*, Copper, Nickel Plated	Red	195	2.5	V-0	E121562-220886
639A1830-R	Flexible Cover (3.50" OAL, 0.82" ID)	Red	25	2.0	V-0	E80017-250533
720A1817	Gasket for XFT Terminal	Black	4	2.0	V-0	E80017-250535
*Terminal Kit = one Terminal + two Bolts + two Split Washers, all parts in a small poly bag						
**UL Material Yellow Cards can be downloaded from ULprospector.com						

Mounting and Assembly

Minimum Panel Thickness	0.025" (0.64 mm)	
Mounting Hole Pattern (see diagram below)	Three Circular Holes	
Torque on M10 Bolts:		
Recommended	60 to 80 in-lbs (6.8-9.1 Nm)	electrical performance does not get better or worse above 60 in-lbs (6.8 Nm)
Maximum Recommended	320 in-lbs (36 Nm)	a Grade 4, 3/8 stainless bolt will snap at 450 in-lbs (50 Nm)
Recommended Torque on M5 panel mount screws	5 to 8 in-lbs (0.56-0.90 Nm)	mechanical performance does not improve above 5 in-lbs (0.56 Nm)

Application Notes

- 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.
- Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
- Panel Mounting Hardware: to achieve watertight sealing, the McMaster Carr P/Ns shown below can be used
 - 92855A516 M5 stainless socket head screw
 - 91828A241 M5 stainless nut
 - 9452K16 M5 O-Ring



Mounting Hole Pattern

Rebling Datasheet: 1,000 amp BFT-style Lithium Battery Terminal

Our 1,000 amp BFT-style terminal consists of a nickel-plated copper core which stays cool at 1,000 amps of continuous current or when charge and discharge currents hit short term peaks of 5,000 amps. These small footprint terminals are designed for the temperature sensitive environment of lithium battery cells and the charging rates of ultracapacitors and supercapacitors. Equipping your power module with these watertight, single pole, wrench disconnect copper terminals will facilitate the incorporation of your modules into cutting edge EV, APU, Fuel Cell and Weapons Systems. Whether you are designing a pressurized battery pack for EV Mobility, Regenerative Braking, Rail Gun or Laser Weapon applications or are simply bringing high current through a metal panel that's at least 0.080" (2.1 mm) thick, our BFT-style 1,000 amp terminals, Covers and Accessories were designed with your application in mind.

Electrical

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

Current Profile #1	Continuous Rated Current (CRC)	-----	1,000 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min	-----	5,000 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	4,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak + 50% CRC for 60 min	-----	2,500 amps
Current Profile #5	50% CRC for 60min + 60 sec peak + 50% CRC for 60 min	-----	2,000 amps

Voltage & Resistance

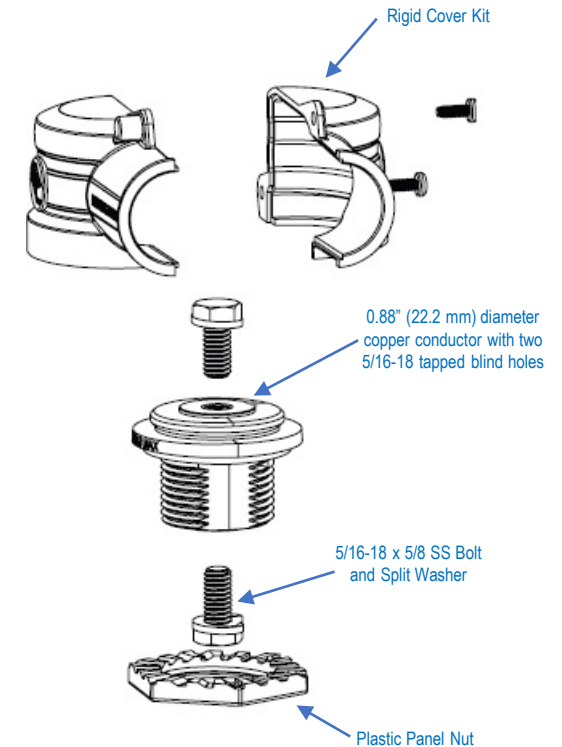
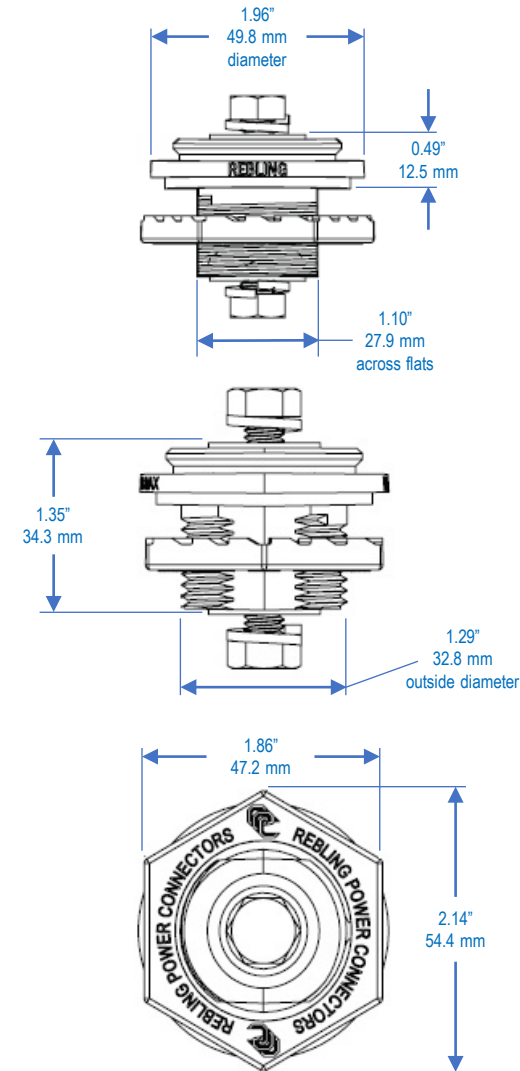
Continuous Rated Voltage	UL1977 Section 17	2,000 volts
Minimum Dielectric Withstanding Voltage	UL1977 Section 17	5,000 volts
Insulation Resistance	MIL-PRF-18148D Section 3.12.6	500 mega-ohms
Maximum Contact Resistance	MIL-STD-202H Method 307	70 micro-ohms

Mechanical & Environmental

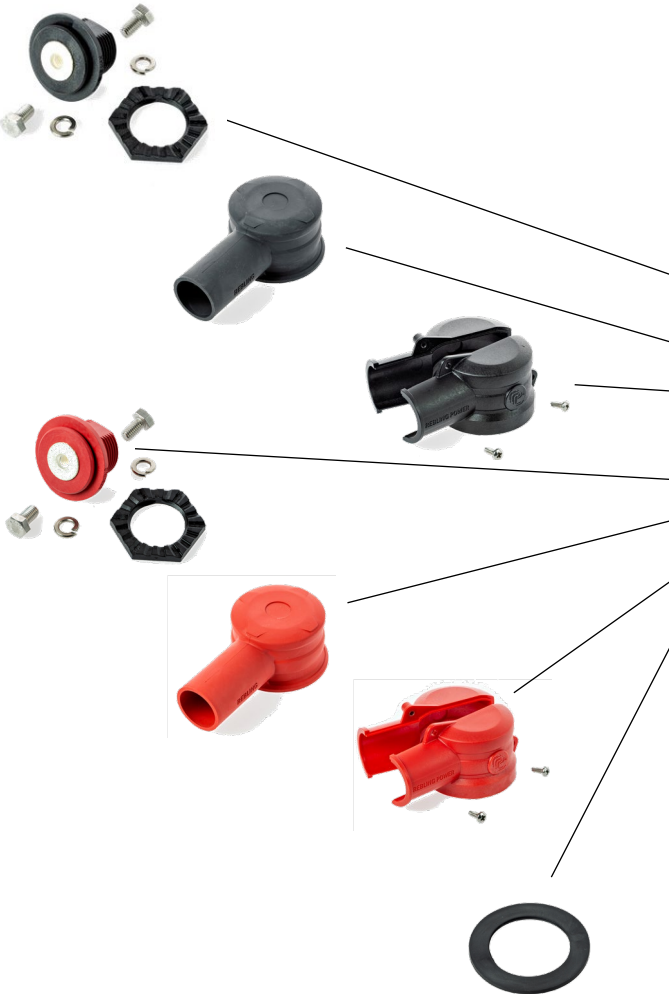
Flammability Rating:	Terminal -----	UL 94	5VA
	Flexible and Rigid Covers	UL 94	V-0
Environmental Sealing:	with Optional Gasket -----	IEC 60529	IP68+ watertight
	without Optional Gasket	IEC 60529	IP65
Operating Temperature:	Terminal and Rigid Cover -----		-40 to +125 C
	Flexible Cover		-40 to +90 C
Mechanical Shock	MIL-STD-202H Method 213 Condition A		50 Gs – 3 axes
Vibration	MIL-STD-202H Method 204 Condition A		10 Gs – 3 axes
Minimum Metal Panel Thickness Required for Mounting			0.080" (2.1 mm)
Maximum Wire Size:	Terminal only -----	-2.00" (50.8 mm) OD	750 MCM (380 mm²)
	with Rigid Cover	1.02" (25.9 mm) OD	250 MCM (130 mm²)
	with Flexible Cover	0.80" (20.3 mm) OD	4/0 (110 mm²)

Compliance & Conformance

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



For complete dimensions, download 3D Step files of Terminal and Accessories at [Rebling.com](https://rebling.com)



P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
BFT-N-B	Terminal Kit*, Copper, Nickel plated	Black	75	2.1	5VA	E121562-101513781
639A1830-B	Flexible Cover (3.50" OAL, 0.82" ID)	Black	75	2.1	V-0	E80017-250533
648A1758	Rigid Cover Kit (3.85" OAL, 1.05" ID)	Black	26	2.0	V-0	E121562-101729324
BFT-N-R	Terminal Kit*, Copper, Nickel plated	Red	75	2.1	5VA	E121562-101513781
639A1830-R	Flexible Cover (3.50" OAL, 0.82" ID)	Red	75	2.1	V-0	E80017-250533
648A1759	Rigid Cover Kit (3.85" OAL, 1.05" ID)	Red	26	2.0	V-0	E121562-101729324
651A1811	Gasket for BFT Terminal	Black	4	2.0	V-0	E80017-250535
656A1686	Plastic Panel Nut for BFT Terminal	Black	8	2.0	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						



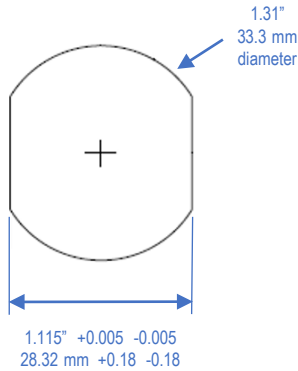
Rebling Datasheet: 1,000 amp BFT-style Lithium Battery Terminal

Mounting and Assembly

Minimum Panel Thickness (aluminum or steel)	0.080" (2.1 mm)	
Mounting Hole Pattern (see diagram below)	One Double-D Hole	
Torque on 5/16 Bolts:		
Recommended	50 to 60 in-lbs (5.6-6.8 Nm)	electrical performance does not get better or worse above 50 in-lbs (5.6 Nm)
Maximum Recommended	240 in-lbs (27 Nm)	a Grade 4, 5/16 stainless bolt will snap at 330 in-lbs (37 Nm)
Recommended Torque on Panel Nut	30-35 in-lbs (3.4-4.0 Nm)	
Maximum Crimp Lug Tongue Width:		
with Rigid Cover	1.70" (43 mm)	
with Flexible Cover	1.50" (38 mm)	

Application Notes

- 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.
- Cable Pulling Lubricant: when using 4/0 (110 mm²) cable with the flexible cover, crimp the lug to the cable then push the lug into the cover using lubricant
- Panel Nut Wrench: a 1 7/8" socket wrench can be used to tighten the plastic panel nut



Mounting Hole Pattern