

SIZE	DWG NO	SH	REV
A	ETX1200-24-TSO	1	IR



THIRD ANGLE PROJECTION		REVISION BLOCK			
		REV	DESCRIPTION	DATE	APPROVED
		New	Initial Release	8/05/2023	NICOSON

ETX1200-24-TSO Top Level Assembly Drawing

THIS DOCUMENT SHALL BE REVISED IN ITS ENTIRETY. ALL SHEETS OF THIS DOCUMENT ARE THE SAME REVISION LEVEL AS INDICATED IN THE REVISION BLOCK. UNLESS SPECIFIED ELSEWHERE, TOLERANCES ARE $\pm 1/16"$ or $\pm 5\%$.

EarthX		Windsor, CO		SIZE	DWG NO	DESCRIPTION	
DRAWN		KJENKINS		A	ETX1200-24-TSO	19.4Ah Battery	
ISSUED		R NICOSON		SCALE		SHEET	1

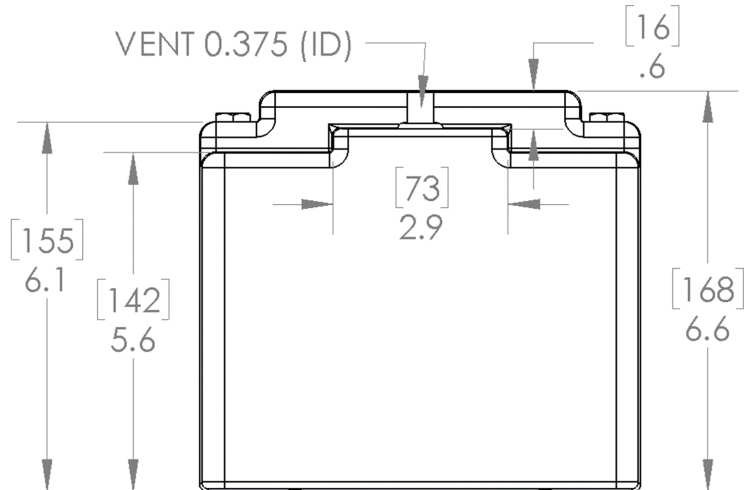




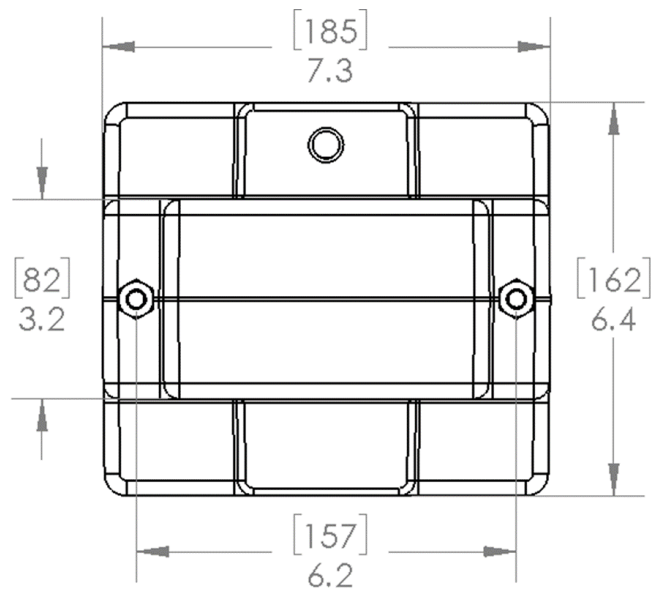
Top Level Assembly

The ETX1200-24-TSO is a Class A lithium battery of energy category 4 (>200Wh), venting category B (venting through designed provisions only). The battery dimensions and vent port is shown below (vent port is a 3/8" ID Teflon tube). The battery terminal screws are M8X1.25mm.

Back Side View



Top View



Battery Part# Options

Part #	Description
ETX1200-24-TSO OPT1	Battery with Heater



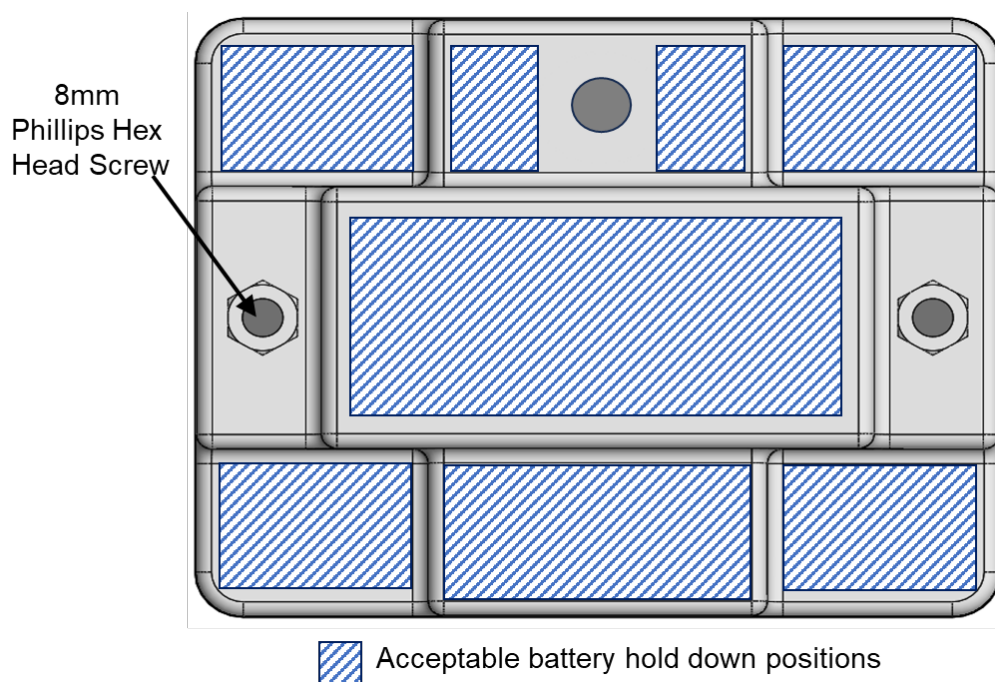


Notes

- This battery meets the TSO-C179b standards
- This product is manufactured under FAA TSOA quality system requirements.
- Components of this article meet the applicable flammability requirements of §§ 23.25/27/29.853, 23.25/27/29.863, and 25.869.
- The conditions and tests required for TSO approval of this article are minimum performance standards. The article may be installed only according to 14 CFR part 43 or the applicable airworthiness requirements
- Refer to 230407 Installation Manual, and 230408 Instructions for Continued Airworthiness (ICA) manual for installation and maintenance details.

Battery Mounting

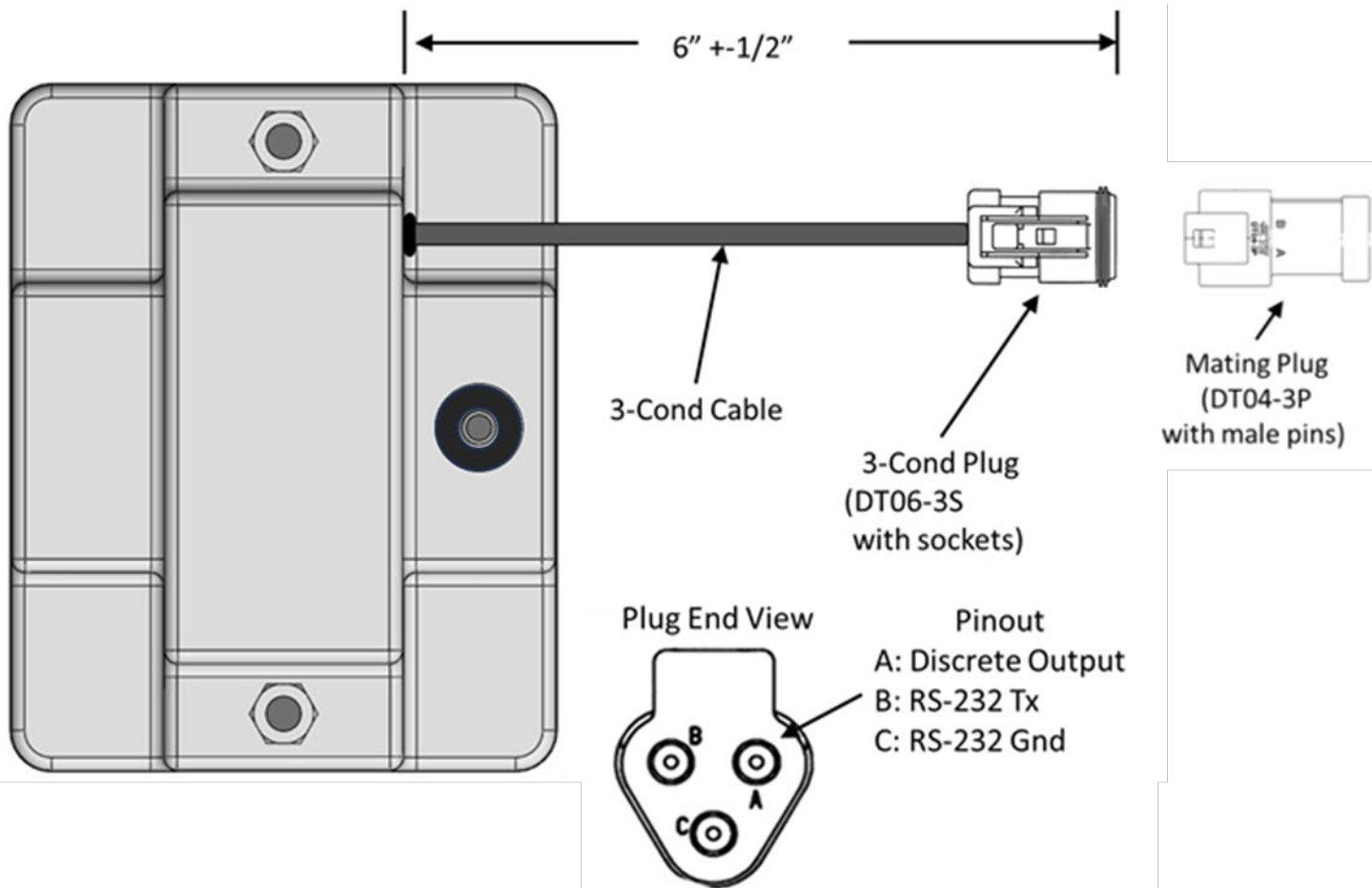
The ETX1200-24-TSO can be mounting in any position. A battery holder or battery box can contact any part of the bottom and sides of the battery, and any area on the top of the battery as indicated in the figure below.



Battery Monitoring Cable

The battery can provide status and fault information via a discrete output and RS-232 output. The connection to the battery is a latching and sealed plug (see the figures below).





Specifications

Voltage	26.4 V
Capacity (1C, 1hour rate at 23 °C)	19.4Ah @ 1C rate (See below)
Capacity vs Temperature	25 °C = 100% 0°C = 97% -30°C = 95% (19.4Ah at this temperature)
Self-Discharge Rate	<2%/month @ 25°C
Peak Power (I _{pp}), 23/-18 °C	1200 / 650 amps
Rated Power (I _{pr}), 23/-18 °C	800 / 400 amps
Max Continuous Discharge Amps (Discharging 100% of capacity)	40A
Standard Charge Voltage	27.6 – 28.8 V
Recommended Charger/Maintainer Amps	5 - 20A
Weight	12.4lb (5.6Kg)
Dimensions	7.3in (L) x 6.4in (W) x 6.6in (H) 185mm(L)x162mm(W)x168mm(H)
Environmental Rating (resistance to water intrusion)	IP 66 (wash down with a high-pressure washer)

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Operating Temperature	-30°C to +60°C (+70°C for 30minutes) (-45°C with optional heater)
Storage Temp	-45 °C to +70 °C
Short Term Ground Survival Temp	85°C
Maximum Altitude	50,000 Ft
Shelf Life	1 year (without charging)
FAA Standard Order	TSO-C179b
Design Assurance Level (DAL)	C (major)
Flammability Rating (case and vent tube)	14CFR 25.853 (a)

TSO Label Info

The TSO label contains the following information:

- Battery Classification: Rechargeable Lithium Battery
- ETX1200-24-TSO {Option} Rev xx
- TSO-C179b-CLASS A-4B
- Serial #:
- Date of Manufacture:
- BMS Part # and Revision:
- Firmware Revision:

Note: the x's in serial number field of the label are as follows, first three characters are year and month (i.e. 18A, where A is January, B is February, etc.) and the last five are a sequential number.

ISSUED	R NICOSON	SCALE	SHEET	5
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