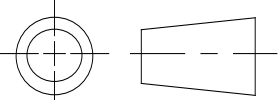


SIZE A	DWG NO ETX400-24-TSO	SH 1	REV IR
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THIRD ANGLE PROJECTION		REVISION BLOCK			
		REV	DESCRIPTION	DATE	APPROVED
		-	Initial Release	3/05/2023	NICOSON

CLICK HERE
TO UPDATE
TEMPLATE

ETX400-24-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 +-1/16" or +-5%

EarthX		Windsor, CO	SIZE	DWG NO		DESCRIPTION	
DRAWN		L HUBER	A	ETX400-24-TSO		7.8Ah Battery	
ISSUED		R NICOSON		SCALE		SHEET	1

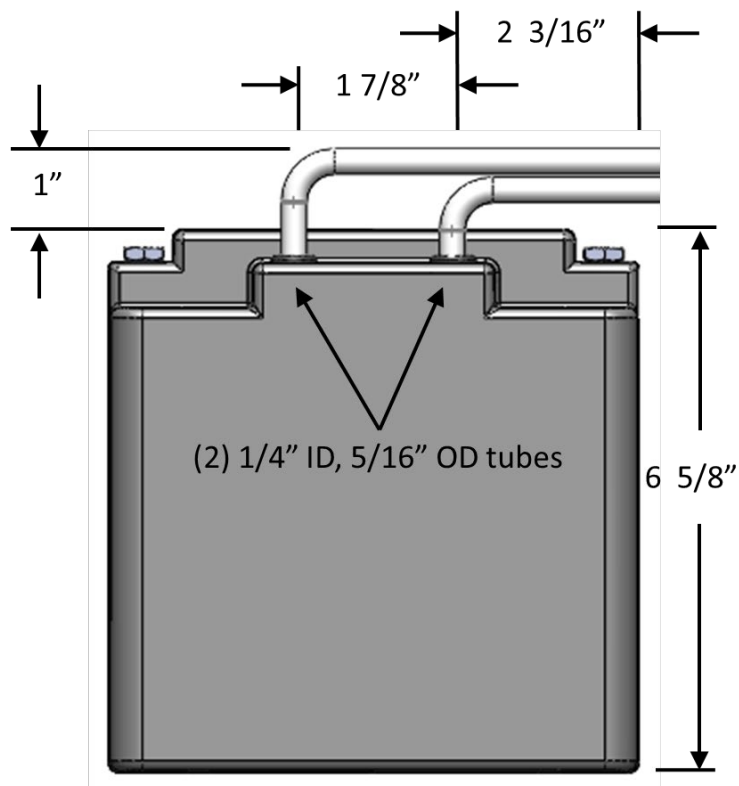




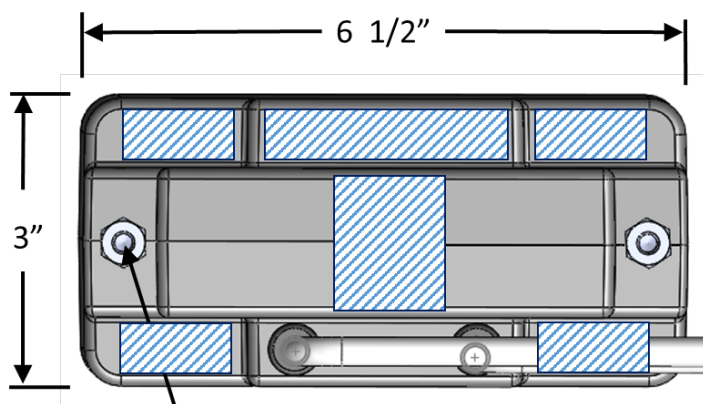
Top Level Assembly

The ETX400-24-TSO is a Class A lithium battery of energy category 3 (<200Wh), venting category B (venting through designed provisions only). The ETX400-24-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.

Back View



Top View



6mm Phillips Hex Head Screw



Acceptable battery hold down positions





Battery Part# Options

Part #	Description
ETX400-24-TSO \RTD	7.8 Ah Battery with Heater and RTD
ETX400-24-TSO \DI	7.8 Ah Battery with Heater and Discrete Test Input (can't be combined with RTD Input)

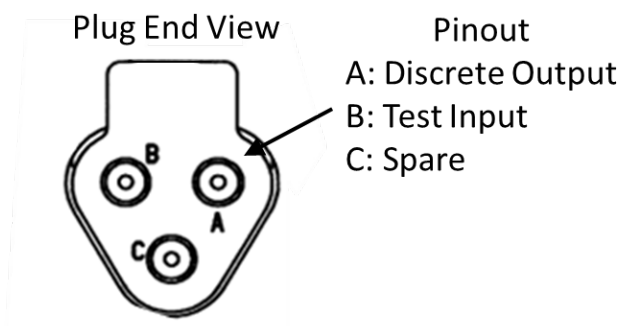
Notes

- This battery meets the TSO-C179b standards
- This product is manufactured under FAA TSOA quality system requirements.
- Reference documents: 180319 Acceptance Test Procedure (ATP)
- 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 documents 220407 Installation Manual, and 220408 Instructions for Continued Airworthiness (ICA) manual for installation and maintenance details.

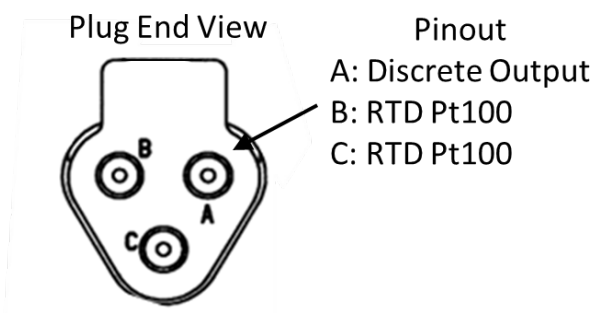
Battery Monitoring Cable

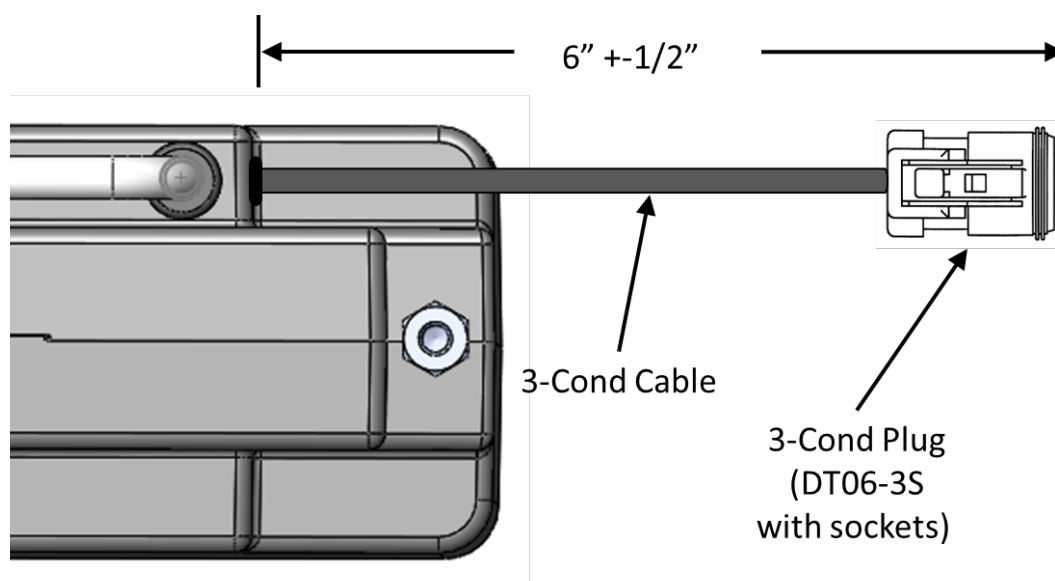
The ETX400-24-TSO can provide status and fault information via a discrete output and optional Pt100 RTD output and test discrete input. The connection to the battery is a three conductor latching and sealed plug (see the figures below).

Input Option



RTD Option





Specifications

Voltage	26.4 V
Capacity (1C, 1hour rate at 23 °C)	7.8Ah @ 1C rate (See below)
Capacity vs Temperature	25 °C = 100% 0°C = 97% -30°C = 95% (7.8Ah at this temperature)
Self-Discharge Rate	<5%/month @ 25°C
Peak Power (Ipp), 23/-18 °C	400 / 290 amps
Rated Power (Ipr), 23/-18 °C	240 / 170 amps
Max Continuous Discharge Amps (Discharging 100% of capacity)	40A
Standard Charge Voltage	27.6 – 28.8 V
Recommended Charger/Maintainer Amps	.8 - 10A
Max Charge Amps	Internally limited to less than 12 amps
Weight	5.4lb (2.45Kg)
Dimensions	6.5in (L) x 3.0in (W) x 6.6in (H) 166mm(L)x77mm(W)x168mm(H)
Environmental Rating (resistance to water intrusion)	IP 66 (wash down with a high-pressure washer)
Operating Temperature (short term)	-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)

SIZE	DWG NO	SH	REV
A	ETX400-24-TSO	5	IR



TSO Label Info

The TSO label contains the following information:

- Battery Classification: Rechargeable Lithium Battery
- ETX400-24-TSO {Option} Rev { }
- TSO-C179b-CLASS A-3B
- 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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