Altronix TANGO8P PoE Driven Multi Output Power Supply with Lithium Battery Backup

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Altronix TANGO8P PoE Driven Multi-Output Power Supply with Lithium Battery Backup

Product Information

Specifications

- **Power Supply Model:** Tango8P(CB)
- **Input Voltage**: IEEE802.3bt PoE
- **Output Voltage**: 12VDC and/or 24VDC
- **Maximum Output Power**: 75W
- **Number of Outputs**: 8
- **Fuse/PTC Ratings**: Fuse protected outputs for Tango8P, Class 2 power-limited PTC protected outputs for Tango8PCB
- **Battery Charger**: Built-in Lithium Iron Phosphate Battery Charger

Overview

The Altronix Tango8P(CB) PoE Driven Multi-Output Power Supply is designed to convert an IEEE802.3bt PoE input into eight regulated 24VDC and/or 12VDC outputs with a maximum power of 75W. This power supply eliminates the need for high voltage inside the enclosure and is capable of supporting a single 12V LiFePO4 (Lithium Iron Phosphate) battery for backup.

Installation Instructions:

1. Mount the unit in the desired location using the provided keyholes.
2. Secure the enclosure to the earth’s ground.

3. Connect the IEEE802.3bt PSE from the PoE source to the RJ45 Jack marked [PoE+ Data Input] on the Tango1B board. If Data pass-through is required, connect another IEEE802.3bt PSE to the RJ45 Jack marked [Data Output].
4. Set each output [OUT1 – OUT8] to route power from Input 1 or Input 2 using the jumper position 1 or 2.

FAQ

- **Can the Tango8P(CB) power supply be used outdoors?**
  - No, the product is intended for indoor use only.
- **What is the maximum output power of the Tango8P(CB) power supply?**
  - The maximum output power is 75W.
- **What type of battery does the Tango8P(CB) power supply support for backup?**
  - The Tango8P(CB) power supply is designed to support a single 12V LiFePO4 (Lithium Iron Phosphate) battery for backup.
- **How many outputs does the Tango8P(CB) power supply have?**
  - The Tango8P(CB) power supply has eight outputs.

Overview

Altronix Tango8P(CB) PoE Driven Multi-Output Power Supply converts an IEEE802.3bt PoE input into eight (8) regulated 24VDC and/or 12VDC outputs up to 75W. It eliminates the need for a high voltage inside the enclosure. Tango8P(CB) is designed to support a single 12V LiFePO4 (Lithium Iron Phosphate) battery for 12VDC and 24VDC backup.

Specifications

Ethernet Input:

- 802.3bt PoE up to 90W or 802.3at up to 30W or 802.3af up to 15W.
- Power Output (when using 802.3bt 90W):
- 12VDC up to 6.25A (75W) and/or 24VDC up to 3A (75W). Combined output not to exceed 75W.
- **When charging batteries**: 12VDC up to 5.4A (65W) and/or 24VDC up to 2.7A (65W) Combined output not to exceed 65W.
- **Tango8P**: Fuse-protected outputs rated @ 3A per output, non-power-limited.
- **Tango8PCB**: PTC-protected outputs rated @ 2A per output, Class 2 power-limited.
- Any of the eight (8) fuse/PTC-protected power outputs are selectable to follow power Input 1 or Input 2. The output voltage of each output is the same as the input voltage of the input selected.
- Individual outputs may be set to the OFF position for servicing.
- Surge suppression.

Fuse/PTC Ratings:

- Main input fuses rated @ 10A/32V each.
- **PDS8**: output fuses rated @ 3A/32V each.
- **PDS8CB**: output PTCs rated @ 2A each.

- **TANGO1B**: battery fuse rated @ 10A/32V each.

Ethernet Output (Tango1B):

- Pass-through Ethernet Port (data only).
- 100/1G.

Battery (Tango1B):

- 12VDC battery charger for Lithium Iron Phosphate Battery (LiFeP04 only).

Battery (cont'd) (Tango1B):

- Unique technology allows for single battery to backup 12VDC and/or 24VDC systems.
- Low power shutdown. Shuts down DC output terminals if battery voltage drops below 80% of nominal. Prevents deep battery discharge.

Supervision:

- Loss of PoE Input.
- Battery Supervision.

Visual Indicators:

- **Tango1B**
  - Input indicates input voltage is present.
  - Battery status indicates battery trouble condition.
  - PoE Class indicator.
  - Supervision PoE Fail or BAT Fail.
- **PDS8(CB)**
  - Individual voltage LEDs indicate 12VDC (Green) or 24VDC (Green and Red).
- **Environmental:**
  - **Operating temperature**: 0ºC to 49ºC ambient.
  - **Humidity**: 20 to 85%, non-condensing.
- **Enclosure Dimensions** (approximate H x W x D):
  - 15.5" x 12.25" x 4.5" (394mm x 311mm x 114mm).
- **Accessories:**
  Power Sourcing Equipment
- **NetWay1BT** – Single Port Managed Hi-PoE Injector supplies 90W total power.
- **NetWaySP1BT** – 802.3bt Media Converter/ Injector supplies 90W total power.
- **NetWay4BT** – 4-Port Managed Hi-PoE Midspan Injector supplies 480W total power.
- **NetWay8BT** – 8-Port Managed Hi-PoE Midspan Injector supplies 480W total power.

Stand-by Specifications:

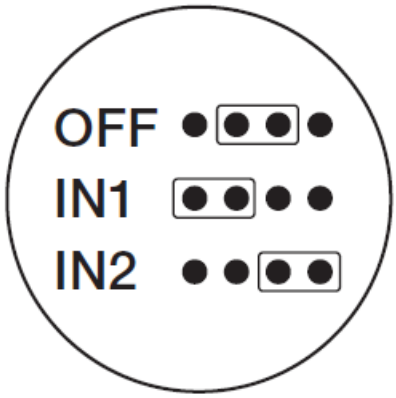
Battery	Access Control Applications Stand-by
4AH	30 Mins.
7AH	45 Mins.
12AH	1.5 Hours

Installation Instructions

Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/NFPA 72/ANSI, the Canadian Electrical Code and with all local codes and authorities having jurisdiction. The product is intended for indoor use only.

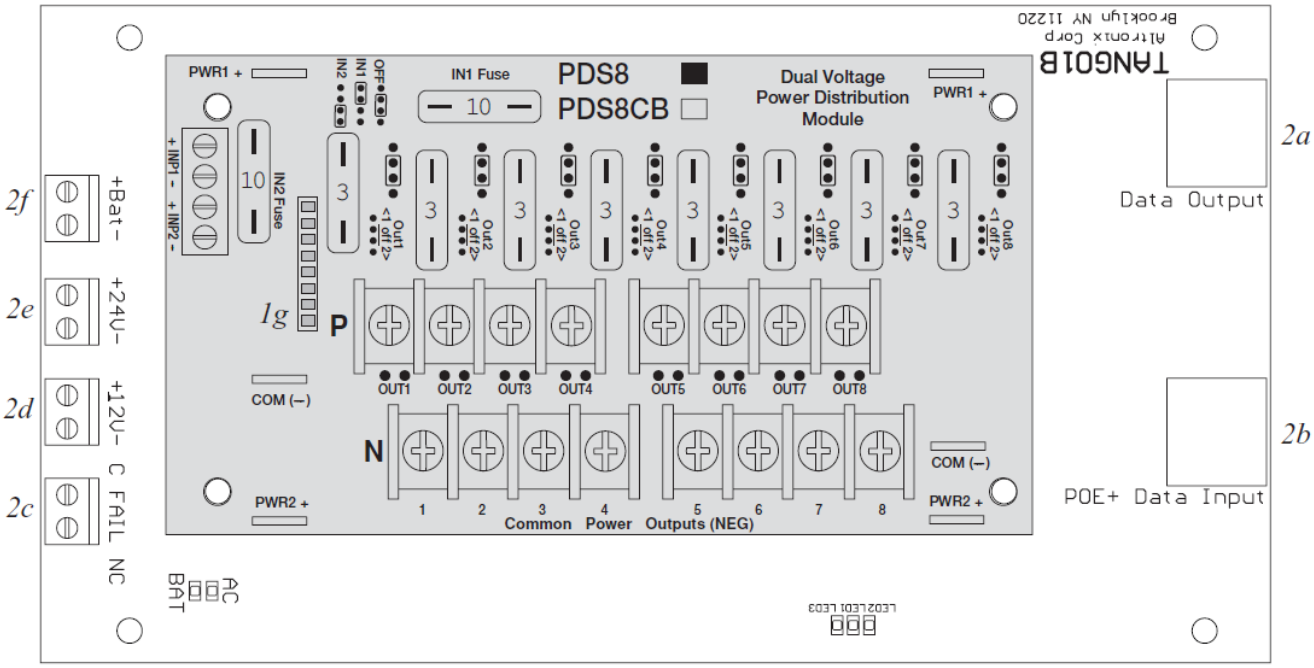
1. Mount the unit in the desired location. Mark and predrill holes in the wall to line up with the top two keyholes in the enclosure. Install two upper fasteners and screws in the wall with the screw heads protruding. Place the enclosure's upper keyholes over the two upper screws, level and secure. Mark the position of the lower two holes. Remove the enclosure. Drill the lower holes and install the two fasteners. Place the enclosure's upper keyholes over the two upper screws. Install the two lower screws and make sure to tighten all screws (Enclosure Dimensions, pg. 8). Secure the enclosure to earth ground.

Fig. 1



1. Ensure all output jumpers [OUT1 – OUT8] on PDS8(CB) are placed in the Fig. 1 OFF (center) position marked [•] (Fig. 1,).

Fig. 2 - Tango1B with PDS8 stacked above



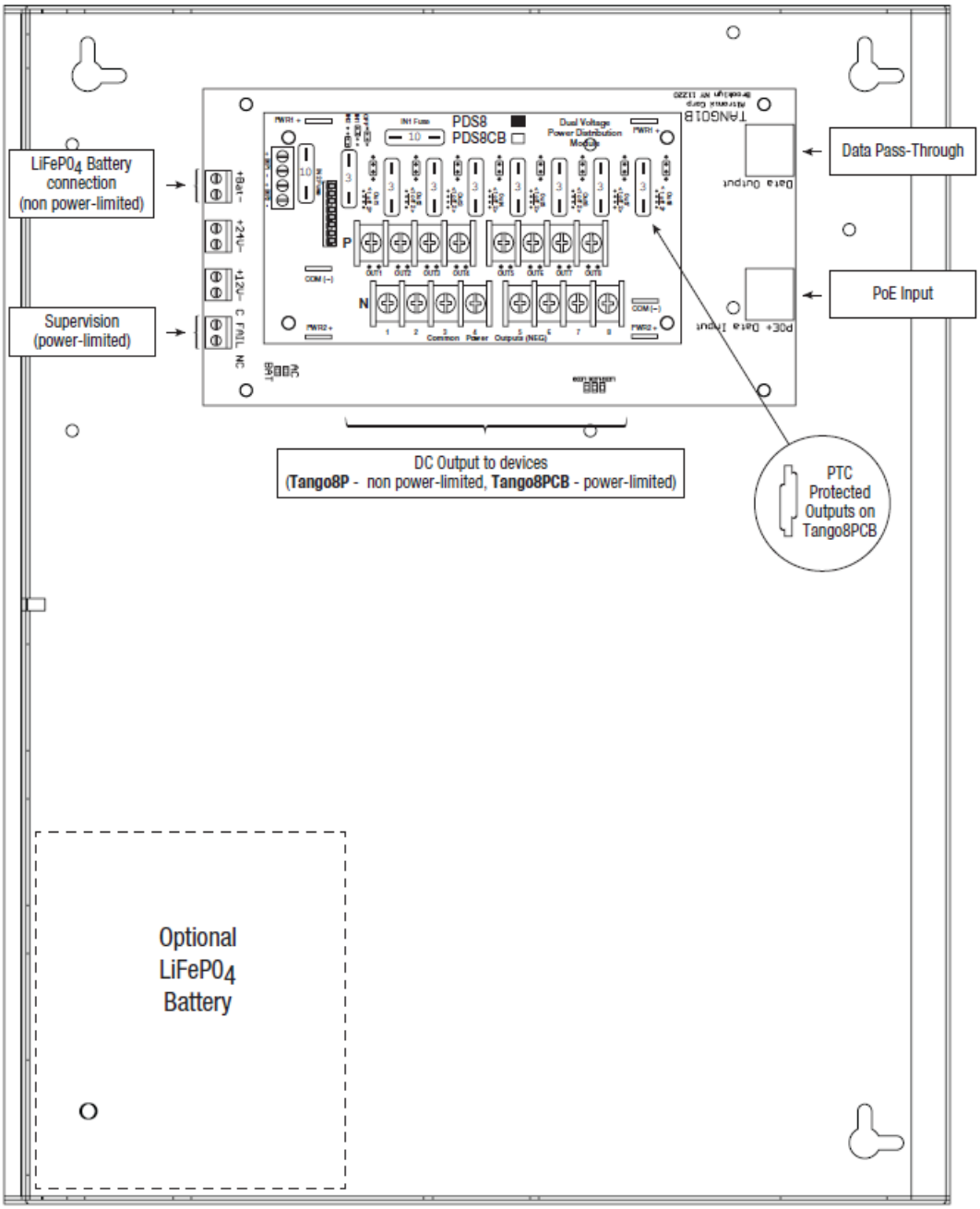
Wiring:

Use 18 AWG or larger for all low voltage power connections.

2. Connect IEEE802.3bt PSE from PoE source to RJ45 Jack marked [PoE+ Data Input] on the Tango1B board (Fig. 2b,). If Data pass-through is required, connect another IEEE802.3bt PSE to RJ45 Jack marked [Data Output] (Fig. 2a, pg. 4).
   - **CAUTION:** Do not touch exposed metal parts.

     There are no user-serviceable parts inside. Refer installation and servicing to qualified service personnel.
3. Set each output [OUT1 – OUT8] to route power from Input 1 or Input 2 (jumper position 1 or 2) (Fig. 1, 2, pg. 4, Fig. 3 pg. 6). IN1 = 24VDC, IN2 = 12VDC.
4. **Note**: Measure output voltage before connecting devices. This helps avoid potential damage.

Fig. 3 - Tango8P(CB)



5. Connect devices to terminal pairs 1 to 8, marked [P (Positive) – OUT1-OUT8, N (Negative)] (Fig. 2, pg. 4, Fig. 3).
    - **6**. When the use of stand-by batteries is desired, they must be Lithium Iron Phosphate (LiFePO4). Connect batteries to the terminals marked [+ BAT –] on Tango1B (battery leads included) (Fig. 2f, pg. 4).
6. Connect appropriate signaling notification devices to terminals marked [C FAIL NC] (Fig. 2c,) supervisory relay output.

LED Diagnostics

Tango1B

LED	ON	BLINKING
Input	Input voltage is present.	Input voltage not present.
Battery	Normal operating condition.	Battery is low or missing.
PoE	Indicates Class.	Refer to table below Classes 3-8
Supervision	PoE Fail or BAT Fail.	NC dry contact 30V 1A (not an LED)

Class	Green	Red	Blue
Class 1	–	–	–
Class 2	–	–	–
Class 3	Off	Off	Off
Class 4	Off	On	Off

Class	Green	Red	Blue
Class 5	On	Off	On
Class 6	On	Off	On
Class 7	On	On	On
Class 8	On	On	On

PDS8:

LED	ON
Green	12VDC Output.
Green and Red	24VDC Output.

Tango1B

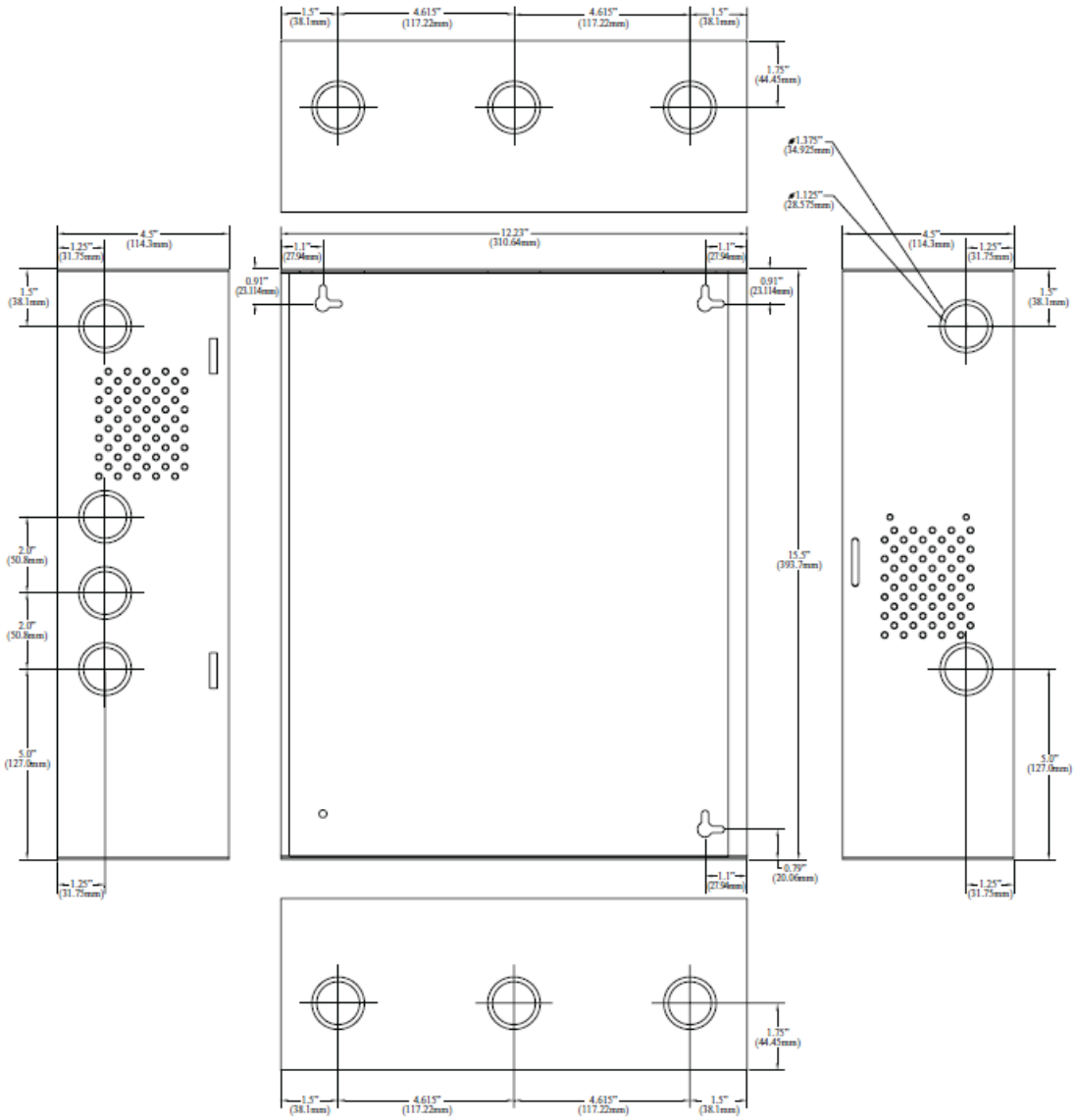
Terminal/RJ45 Legend	Function/Description
PoE+ Data Input	IEEE802.3bt Input *(Fig. 2b, pg. 4)*.
Data Output	Passes Data to Switch *(Fig. 2a, pg. 4)*
C FAIL NC	Power and Battery Fail *(Fig. 2c, pg. 4)*.
+ 12V –	12VDC output *(Fig. 2d, pg. 4)*.
+ 24V –	24VDC output *(Fig. 2e, pg. 4)*.
+ BAT –	Lithium Iron Phosphate battery backup *(Fig. 2f, pg. 4)*.
8-Pin Connector *(Fig. 2g, pg. 4)*	Facilitates electrical connection to PDS8(CB).

PDS8

Terminal Legend	Function/Description
+ INP1 –	Factory connected to Tango1B. Do not use these terminals.
+ INP2 –	Factory connected to Tango1B. Do not use these terminals.
P [OUT1-OUT8]	Positive DC power outputs.
N [OUT1-OUT8]	Negative DC power outputs.

Enclosure Dimensions

15.5” x 12.25” x 4.5” (394mm x 311mm x 114mm)



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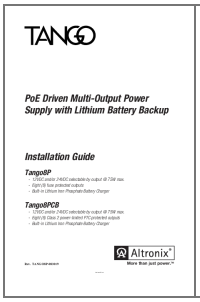
Documents / Resources

	**Altronix TANGO8P PoE Driven Multi Output Power Supply with Lithium Battery Backup** [pdf] Installation Guide TANGO8P PoE Driven Multi Output Power Supply with Lithium Battery Backup, TANGO8P, PoE Driven Multi Output Power Supply with Lithium Battery Backup, Multi Output Power Supply with Lithium Battery Backup, Output Power Supply with Lithium Battery Backup, Lithium Battery Backup

References

- **Manual-Hub.com – Free PDF manuals!**
- **User Manual**