ICT DIN Series
Power Supply Unit
Quick Start Guide

The Power of Reliability

WARNING

Risk of serious personal injury or damage to equipment and property. Always observe the following:

- Installation must be done by qualified technicians.
- Input voltages can range up to 240 volts AC. All upstream AC, load and battery breakers must be shut OFF prior to installation. The system must be completely de-energized.
- Operate the supply from a grounded 3-wire 120-volt AC or 230/240-volt AC source (50 or 60 Hz) with a branch circuit breaker rated 20 amps or less.
- Always consult with and observe all battery manufacturer recommendations.

CAUTION

Risk of personal injury or damage to equipment and property. Always observe the following:

- Do not touch the power supply during operation as surfaces may be hot. Before removing the unit from DIN rail, disconnect AC and battery power and allow the unit to cool for at least 10 minutes.
- Lithium-ion battery support is available when the unit is connected with an ICT DIN Series Power Distribution Unit.
- If a lithium-ion battery is used, it must have an integrated battery management system (BMS) to protect the battery cells from inappropriate voltage or current levels.
- DC-AC inverters should not be connected to the outputs without a battery connected to the unit.
- The unit must be placed near the backup battery in a location that restricts access to the wiring and battery terminals such as in an enclosed equipment cabinet.
- The unit is convection cooled. Provide at least a 4-inch open space above and below the unit for sufficient air flow.

NOTICE

Risk of damage to equipment, environmental hazards, loss of data and other undesirable consequences. Always observe the following:

- Third-party surge suppression devices must be utilized to protect AC input power feeds, every exposed DC power conductor and exposed data cables. These protection devices must be installed at both ends of the exposed conductor, in close proximity to installed equipment. Periodically inspect these surge protection devices for proper function.

1 UNPACK AND INSPECT

- Power supply
- Bag containing the following:
  - Instruction Manual
  - One removable 3-pin AC input wire clamp connector plug
  - One removable 5-pin form-C alarm and temperature sensor wire clamp connector
  - One 6-pin DC output wire clamp connector for output load and battery input (comes preinstalled on the ICT480)
  - RJ11 data cable

NOTE: In case of shipping damage, your freight carrier should be notified immediately.

2 PREPARE THE TOOLS AND PARTS NEEDED

- 1/8-inch slotted screwdriver
- Wire stripper

SCAN ME

Scan the QR code to download the Instruction Manual.

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3 MOUNT THE UNIT ON A STANDARD TS35 (EN 50022)

NOTE: The Power Supply can be paired with the ICT-DIN-PDU6 DIN PDU to allow monitoring over Ethernet. Refer to the instruction manual of the DIN Series Power Distribution Unit.

4 CONNECT THE GROUND

Ensure to use a grounded 3-wire AC source.

5 CONNECT USER SUPPLIED SURGE PROTECTION DEVICE(S)

Third-party surge protection device(s) must be utilized to protect AC input power feeds, every exposed DC power conductor and exposed data cables. These protection devices must be installed at both ends of the exposed conductor, in close proximity to installed equipment. Periodically inspect these surge protection devices for proper function.

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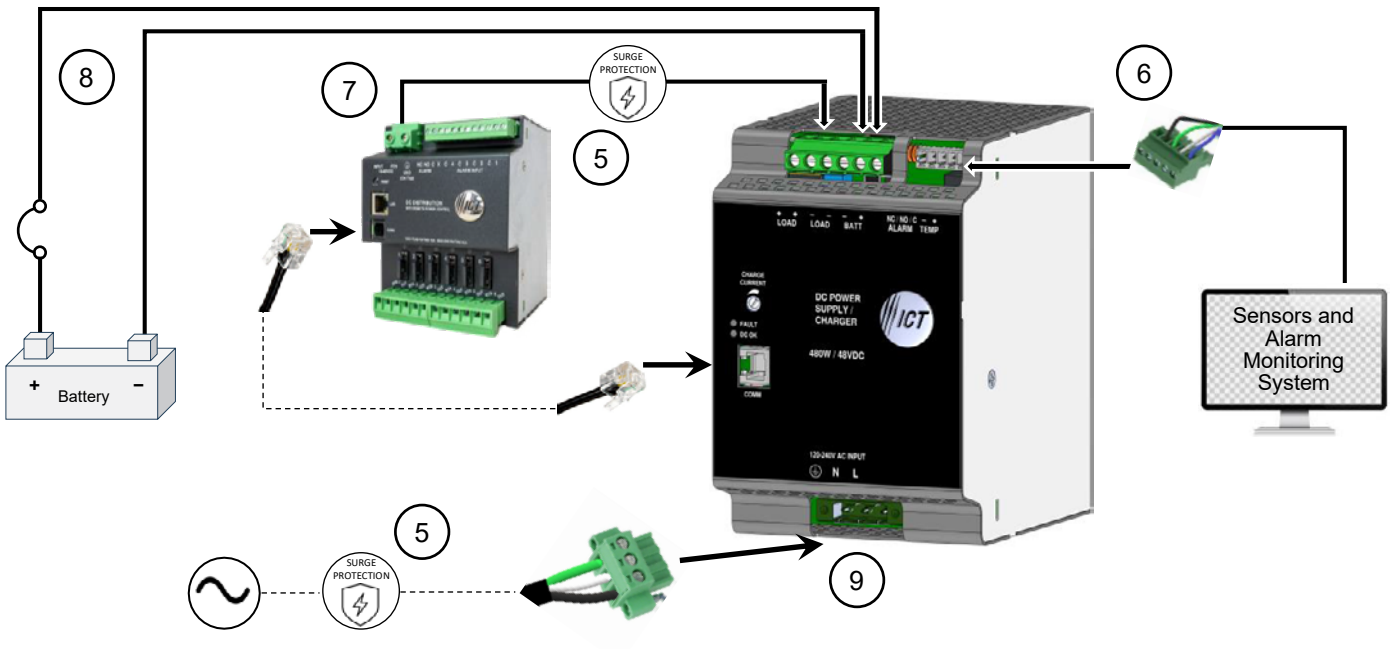

6 CONNECT THE SENSORS AND ALARMS IF NEEDED

a. Install the 5-pin connector to the ALARM/TEMP terminal.
b. Connect an external monitoring device to pins C and either NC or NO, if needed, using 22–26 AWG wire.
c. Connect the optional external Battery Temperature Sensor (ICT-TMP for use with lead-acid batteries only) to the "TEMP" terminals using 22–26 AWG wire.

7 CONNECT THE LOADS

a. Install the 6-pin DC output wire clamp connector (comes preinstalled on the ICT480).
b. Make connections to the load using wire and connectors appropriately rated for the maximum load current. Connect the load device's return to either the "LOAD +" terminal for a negative voltage system or the "LOAD −" for a positive voltage system. Connect the load device's output to the other terminal.

8 CONNECT THE BATTERY

a. Choose a battery with a nominal DC voltage rating that matches the power supply's output voltage and has an amp-hour (Ahr) capacity suitable for the battery type.
b. Connect the battery negative terminal to the "BATT −" terminal on the power supply.
c. Install an appropriate in-line DC overcurrent protection device, such as a fuse or circuit breaker on the battery positive lead.
d. With the battery fuse removed or disconnect switch open, connect the fuse or switch to the "BATT +" terminal of the power supply.
e. Set the charge current to be supplied to the battery by rotating the selector dial with a slotted screwdriver. The settings are 100%, 75%, 50%, and 25%. The default setting is 100%.

NOTE: Lithium-ion battery support is available only when the unit is connected with an ICT DIN Series Power Distribution Unit.

9 CONNECT AND ENERGIZE THE AC POWER SOURCE

a. Create an AC power cable using a 3-conductor cord rated for the maximum input current of the unit by stripping and terminating the three wires in the Line, Neutral, and Ground terminals of the removable AC input connector.
b. De-energize the AC source by switching off its circuit breaker.
c. Plug the AC connector into the AC input on the unit and tighten the captive retaining screws.
d. Connect the source end of the cord to the de-energized AC feed equipped with a branch rated circuit breaker of 20 amps or less.
e. Energize the AC feed.

10 CONFIGURE THE ICT SOFTWARE SETTINGS (if applicable)

Applicable when ICT DIN Series Power Supply is used with ICT DIN Series Power Distribution Unit.

NOTE: Refer to Section 4.0 of the ICT DIN Series Power Distribution Unit user manual for a detailed operation of the GUI.

11 VERIFY THE SYSTEM WIRING

Check that all connections to the unit are correct and properly tightened.

12 DE-ENERGIZE THE UNIT TO ALLOW SAFE MODIFICATION OF THE CONNECTIONS, IF NEEDED

13 ENERGIZE THE LOADS AND BATTERY CONNECTIONS

a. Re-energize the unit to energize the loads.
b. Close the external battery breaker or disconnect switch to connect the backup battery string to the system.

HELIOS POWER SOLUTIONS

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