



EH-30

30 Amp RF Hardened Desktop Power Supply



- Universal AC/DC input
- Built in Battery Backup/Charging Circuit
- Parallel function capability
- Low Noise (> 25mV p-p @ full load)
- RoHS Compliant



AC Input Voltage	Auto Ranging 90 – 264 VAC or 127 – 370 VDC
DC Output Voltage	Ch 1 = 13.8 VDC Ch 2 = 13.4 VDC
Output Ripple	25 mV p-p @ full load
Related Current (max.)	Ch 1 = 30.0 Amps Ch 2. 0.5 Amps
Duty Cycle	Continuous = 100% Industry Continuous Comm. Service (CCS)
Over Voltage	17V max. Shutdown, re-power on to recover
Overload	105 to 107% (Ch 1) Rated Output Hiccup Mode – Auto Recover
Over Temperature	+100 C Shutdown Auto Recover
Load Regulation	4.0% No load to full load
Line Regulation	0.5%
Inrush Current (max.)	30A/115VAC, 45A/230VAC
AC Current	6A/115VAC, 3A/230VAC
Rated Power	414 Watts
Cooling	Forced air, Fan on = +45C
Working Temperature	-22 – +140 F (-30 – +60C)
Derate	2.5% for every 1C over 50C
Efficiency	Typically 80%
Safety	UL 60950-1 UL/CUL Recognized
Quality Assurance	ISO 9001 Standards
Dimensions (L x W x H), Product	7.0 x 8.25 x 2.875 in
Dimensions (L x W x H), Shipping	21 x 10 x 7 in
Weight, Shipping	6.5 lbs.

***NOTE: Specifications are subject to change without notice**

Table of Contents

Section 1 Important Safety Instructions	2
Section 2 Product Overview	3
Section 3 Installation & Operation	3
Load	3
Battery	4
Parallel	4
Operation	4
Section 4 Maintenance	5
Conductor Pretreatment	5
Recommended Copper Wire Size for Current Capacity	5
Section 5 Warranty	6
Section 6 Contact Us	6

Section 1 | Important Safety Instructions

WARNING: THERE ARE NO USER SERVICEABLE PARTS INSIDE. HAZARDOUS VOLTAGES EXIST INSIDE THE UNIT. SERVICE AND REPAIR MUST BE REFERRED TO QUALIFIED FACTORY PERSONNEL.

NOTE: The individual user should take care to determine, prior to use or installation, whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, DuraComm makes no representation or warranty as to the merchantability, suitability or fitness of these units for any specific application.

NOTE: DO NOT expose the unit to rain or moisture.

DO NOT block any of the cooling vents on the sides and always allow adequate ventilation by not installing the unit inside tightly closed spaces. Physical mounting position is not critical, but the cooling vents must not be blocked.

Section 2 | Product Overview

The RF Hardened EH-30 desktop power supply is UL&CUL recognized. These power supplies convert AC to DC output into low noise and ripple, regulated 13.8-volt DC output for channel 1 and 13.4 Volt DC for channel 2. The EH-30 has a built-in battery backup and charging circuit with diode isolation for seamless transfer to battery if input power is disrupted. Once input power is restored the EH-30 will automatically recharge the battery with 0.5 amps of trickle charging.

The EH-30 contains a parallel circuit which provides for connection to another EH-30 for load sharing. It also contains active Power Factor Correction for energy savings.

See www.duracomm.com for more information.

Section 3 | Installation & Operation

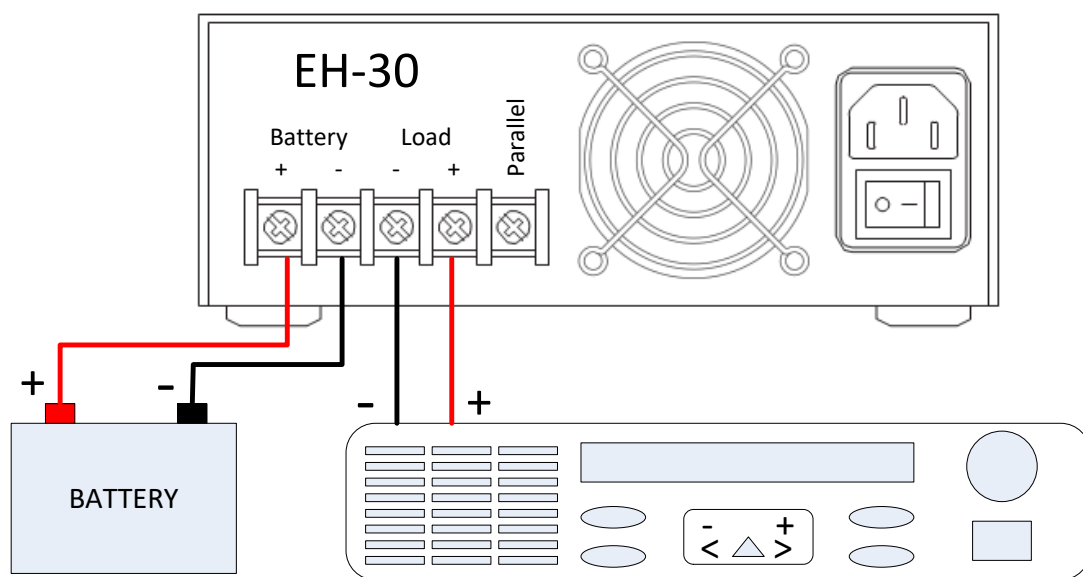


Figure 1. Connecting battery and load to EH-30.

Load

Connect your 12-volt DC device using UL wiring to the EH-30 terminal output marked Load (-) and Load (+). Be certain to connect Positive (+) to Positive (red) and Negative (-) to Negative (black). If two EH-30s are used in parallel, then connect wires to each terminal as shown.

Battery

Connect your 12-volt DC battery using UL wiring to the EH-30 terminal marked Battery (+) and Battery (-). Be certain to connect Positive (+) to Positive (red) and Negative (-) to Negative (black). If two EH-30s are used in parallel, then connect the batteries as shown. Note: It is not recommended to connect 2 or more batteries in series as this will delay charging time and if one battery fails it may cause other to malfunction.

Parallel

Two EH-30s may be connected for parallel operation. Be certain to connect the terminal marked parallel to the terminal marked parallel. Note: The EH-30 is factory pre-set to 13.8 VDC output. If output is re-set, make sure other EH-30 used in parallel is set to same voltage.

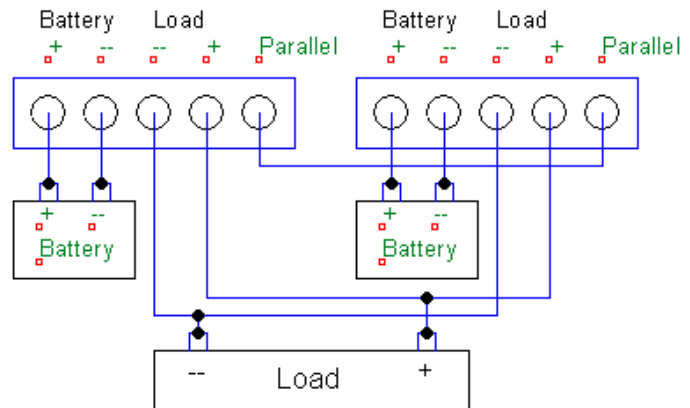


Figure 2. Two EH-30s in parallel operation.

Operation

1. Insert Power cord into an outlet of the proper voltage.
2. Press the ON/OFF (- / O) switch to the "ON" (-) position and observe if indicator light on front of unit illuminates.
 - If the indicator fails to light, re-check the equipment installation.

Section 4 | Maintenance

Conductor Pretreatment

All kinds of copper conductors can be clamped without treatment. DO NOT solder tin stranded conductors. The solder yields and fractures under high pressure. The result is increased contact resistance and excessive temperature rise. Additionally, corrosion has been observed due to the fluxes. Notch fractures at the transition from the rigid tinned part to the flexible conductors are also possible. Ferrules can be used as a protection when wiring stranded conductors. Copper ferrules prevent the current transfer from being influenced by dissimilar metals and remove the risk of corrosion. Always use the correct tool to crimp the ferrule.

Recommended Copper Wire Size for Current Capacity

(Insulated Wire, Single Conductor in free air)

Current Level in Amperes	Wire Size Requirements According to MIL-W-5088B	
	Up to 5 feet	Up to 10 feet
<7 AMPERES	20 AWG	18 AWG
14 AMPERES	18 AWG	16 AWG
20 AMPERES	16 AWG	14 AWG
30 AMPERES	14 AWG	12 AWG
40 AMPERES	12 AWG	10 AWG
50 AMPERES	10 AWG	8 AWG
70 AMPERES	8 AWG	6 AWG
100 AMPERES	6 AWG	4 AWG

Section 5 | Warranty

DuraComm warrants to the initial end user, each power supply manufactured by DuraComm to be free from defects in material and workmanship when in normal use and service for a period of three years from the date of purchase from an authorized DuraComm dealer.

Should a product manufactured by DuraComm fail or malfunction due to manufacturing defect, or faulty component, DuraComm, at its option, will repair or replace the faulty product or parts thereof, which, after examination by DuraComm, prove to be defective or not operational according to specifications in effect at the time of sale to the initial end user. The product that is replaced or repaired under the provisions of this warranty will be warranted for the remainder of the original warranty period, only, and will not extend into a new three-year warranty period.

The limited warranty does not extend to any DuraComm product which has been subject to misuse, accidental damage, neglect, incorrect wiring not associated with the manufacturer, improper charging voltages, or any product which has had the serial number removed, altered, defaced, or changed in any way.

DuraComm reserves the right to change, alter, or improve the specifications of its products at any time, and by so doing, incurs no obligation to install or retrofit any such changes or improvements in or on products manufactured prior to inclusion of such changes.

DuraComm requires any product needing in or out of warranty service to be returned to DuraComm. All requests for warranty service must be accompanied by proof of purchase, such as a bill of sale with purchase date identified. DuraComm is not responsible for any expenses or payments incurred for the removal of the product from its place of use, transportation or shipping expenses to the place of repair, or return expenses of a repaired or replacement product to its place of use.

The implied warranties that the law imposes on the sale of this product are expressly LIMITED, in duration, to the three (3) year time period specified herein. DuraComm will not be liable for damages, consequential or otherwise, resulting from the use and operation of this product, or from the breach of this LIMITED WARRANTY. Some states do not allow limitations on the duration of the implied warranty or exclusions or limitations of incidental or consequential damages, so said limitations or exclusions may not apply to you. This warranty gives you specific legal rights which vary from state to state. This warranty is given in lieu of all other warranties, whether expressed, implied, or by law. All other warranties, including WITHOUT LIMITATION, warranties of merchantability and fitness or suitability for a particular purpose, are specifically excluded. DuraComm reserves the right to change or modify its warranty and service programs without prior notice.

Section 6 | Contact Us

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