



A Benny Lee Company

PRODUCT USER GUIDE

EH-24-10N

Indoor/Outdoor Heavy Duty AC to DC Wall Mount Power Supply Owners Guide

(These instructions are intended for use by a technician familiar with electronic products)

- Selectable Input Voltage 110 or 220 VAC
- NEMA 3R Enclosure
- Low Voltage Disconnect
- Internal Battery 24v / 7 Amp-hour (included)
- AC Fail Relay Contacts
- Output with 5 Fuse Distribution Block
- AC Input Breakers (included)
- 3 year warranty



DESCRIPTION

The Environmentally Hardened EH-24-10N is a weatherproof power supply with Low Voltage Disconnect and Batter Back-up, housed in 16-gauge steel NEMA 3R enclosure, and which are dust-proof and moisture-resistant.

SPECIFICATIONS

| | |
|--|---------------------------------------|
| Operational DC Voltage | 27.5 VDC, nominal |
| Output Voltage Tolerance | +/- 1 pct |
| Output Amperage | 7 Amps Continuous, 10 Amps Max |
| Max Power, continuous | 200 Watts |
| Maximum ripple and noise | 150 mV p-p max |
| Input Voltage, Switch Selectable (Factory Set) | 110 or 220 VAC |
| Input frequency range | 47-63 Hz |
| Maximum AC current | 4 A/120 VAC; 2 A/240 VAC |
| Max Inrush Current, Single Cycle | 35 A |
| Short Circuit Protection (operates) | Typical 110-120 pct |
| Line Regulation | 100 mV (20-100 pct load) |
| Load Regulation | 100 mV (20-100 pct load) |
| Fan Control | Heat sink temp>140 F (60 C) = ON |
| Over Temperature | >195 F (90 C) auto output shutdown |
| Rise Time following ON | 50 mS |
| Hold Time following OFF | 10 mS |
| Withstand Voltage* | 1.5 KV @ 10 ma(I/P-O/P, I/ P-FG)/1min |
| (Continued) | 500 V @ 10 ma (O/P-FG)/1min |
| Working Temperature range | 14 – +140 F (-10 - + 60 C) |
| Storage Temperature | -40 – +185 F (-40 - +85 C) |
| Size | 16" H x 14" W x 7" D |
| Weight | 35 lbs |

CHARGER & BATTERY BACK UP SPECIFICATIONS

Maximum Charger output current 15 Amps (limited by Resistor)
 Auto-revert to battery or power supply Provided by dual Shottky diode in OR configuration
 Maximum Charger Voltage 27.5 VDC
 Maximum recharge rate 1.5 Amps Float Charger
 Visual Indication LED indication Red = AC Fail or Power Supply Fail, Green = DC Output Okay

LOW VOLTAGE DISCONNECT & AC FAIL RELAY

Maximum interrupt current / continuous current 20 Amps DC
 Disconnect Voltage 21.5 VDC
 Reconnect Voltage 25 VDC
 Disconnect Delay 2 minutes @ less than preset disconnect voltage
 AC Fail Relay Normally Open and Normally Closed Contacts

INSTALLATION WARNING

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.

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. Make certain the input voltage switch is set to the correct voltage BEFORE applying AC power.

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)

| <u>Current Level in Amperes</u> | <u>Wire Size</u> |
|--|---|
| <7 AMPERES | 20 AWG Up to 5 feet 18 AWG Up to 10 feet |
| 14 AMPERES | 18 AWG Up to 5 feet 16 AWG Up to 10 feet |
| 20 AMPERES | 16 AWG Up to 5 feet 14 AWG Up to 10 feet |
| 30 AMPERES | 14 AWG Up to 5 feet 12 AWG Up to 10 feet |
| 40 AMPERES | 12 AWG Up to 5 feet 10 AWG Up to 10 feet |
| 50 AMPERES | 10 AWG Up to 5 feet 8 AWG Up to 10 feet |
| 70 AMPERES | 8 AWG Up to 5 feet 6 AWG Up to 10 feet |
| 100 AMPERES | 6 AWG Up to 5 feet 4 AWG Up to 10 feet |

LIMITED 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 year 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 manufacture, 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 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 which 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.

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