

40 Watt, DRC-40 Series, Battery Backed DIN Rail Power Supply

- Universal AC Input
- High Efficiency, High Reliability
- Wide Temperature Range to +70 °C
- Alarm Signal for AC OK & Battery Low
- Power On LED, Output Voltage Trim
- Short Circuit, Over Load, Over Voltage, Protected
- Battery Low & Battery Reverse Polarity Protection
- Full Approvals : UL/CUL/TUV/CE/CB
- 3 Year Warranty
- Very Competitive Prices / From Stock



Size: 90(H) x 40(W) x 100(D) mm

Overview :

The DRC-40 is a 40W AC/DC DIN Rail mounting Battery Back-Up Power Supply series. In addition to the primary output to power the load, there is also a charger output with a smaller rated current, enabling a Lead Acid Battery to be float charged. The DRC-40 accepts the Universal AC Input between 90VAC and 264VAC, and supplies 13.8VDC or 27.6VDC output for 12 Volt or 24 Volt applications respectively. With the efficiency up to 87%, it can operate with air convection cooling from -30°C through to +70°C. In addition the units include key protection features such as overload protection, over voltage protection, battery low cut off, and battery reverse polarity protection (by fuse). The alarm signals for AC OK and Battery Low signalling are provided, via TTL open collector output for the ease of system design.

Specification :

Input Voltage (Universal).....	90~264 VAC, (127~370 VDC)
Input Frequency.....	47~63 Hz
Inrush Current.....	Cold start, 30A @ 115V, 60A @ 230V
Output Voltage.....	See table below (plus adjustment range)
Over Load Protection.....	105~150% hiccup mode, auto recovery
Over Voltage Protection.....	Shuts down, re-power unit to reset
Set Up, Rise, Hold Up Time.....	400 ms, 50 ms, 50 ms @ 230 VAC full load
Isolation Voltage.....	I/P-O/P: 3 kVAC, I/P-F/G: 2 kVAC
Operating Temperature.....	-30~+70 °C (derates above 55°C to 60% at +70°C)
Safety Standards.....	UL60950-1, TUV EN60950-1 approved
EMC Standards.....	EN55022 (CISPR22) Class B EN61000-3-2, 3. EN55024, EN61000-4-2,3,4,5,6,8,11, EN61204-3, light industrial level, criteria A
Dimensions.....	90(H) x 40(W) x 100 (depth from rail) mm
MTBF.....	536.6 khrs (MIL-HDBK-217F) @ 25 °C

Models and Ratings (12 Volt or 24 Volt Battery Systems)

Model	Output 1 to load	Battery Float Charger	Max Total Power	Efficiency
DRC-40A	13.8 Volts / 2.9 Amps	13.8 Volts / 1 Amps	40 Watts	86%
DRC-40B	27.6 Volts / 1.45 Amps	27.6 Volts / 0.5 Amps	40 Watts	87%

Please see next page for mechanical drawings, connections and derating.

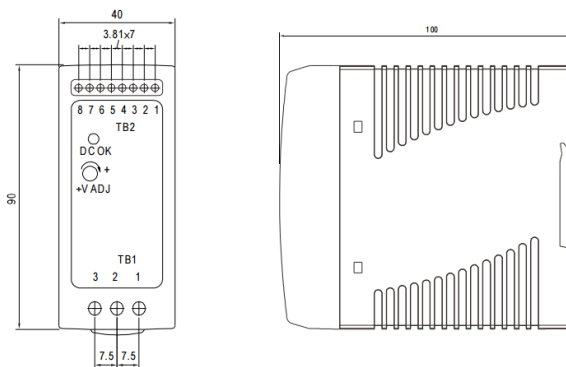
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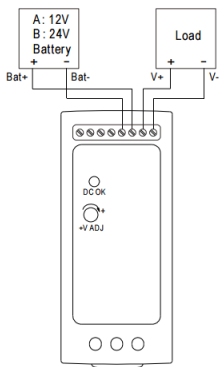
electronicpowersolutions

Mechanical Details and Connections.



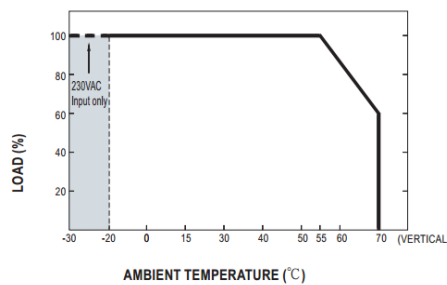
Terminal	Function (TB1)
1	AC Live
2	AC Neutral
3	Input Earth
Terminal	Function (TB2)
1	-V Output
2	+V Output
3	Battery +
4	Battery -
5,6	AC OK
7,8	Battery Low

Suggested System Configuration :

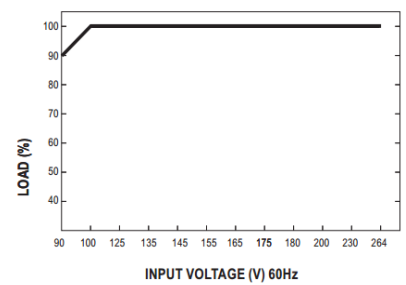


The power supply charges the battery and provides energy to the load at the same time when AC mains is OK. The battery starts to supply power to the load when AC mains fails.

Derating Curve



Static Characteristics

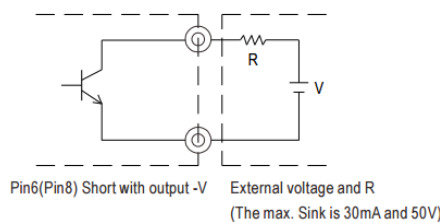


Alarm signal for AC OK and Battery Low :

Alarm signal is sent out through "AC OK" & "Battery Low" terminals. TTL Open connector. An external voltage source is required for this option. The maximum applied voltage is 50 Volts and the maximum sink current is 30mA, see below diagram.

Function	Description	Output of Alarm
AC OK	The signal is "Low" when the power supply turns ON	Low (0.3 max at 30mA)
	The signal turns to be "High" when the power supply turns OFF	High or Open (External applied voltage 50V Max)
Battery Low	The signal is "Low" when the voltage of battery is under A:11V, B:22V	Low (0.3 max at 30mA)
	The signal is "High" when the voltage of the battery is above A:11V, B:22V	High or Open (External applied voltage 50V Max)

AC OK (Battery low)



Specifications can change without notice. E&OE. ALL PSU Terms & Conditions apply.

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