



CHEROKEE INTERNATIONAL

"The Powerful Choice"

CRP340 Series

400 Watt Power Factor Corrected
Single Output Power Supply

Features

- ◆ Power Factor and Harmonic Current Corrected CE (LVD) marked & CB Test Report
- ◆ UL1950, CSA22.2-234, TUV to EN60950
- ◆ Current Sharing Single Wire Method
- ◆ Remote Sense
- ◆ Over Current Protection
- ◆ Overvoltage Protection
- ◆ Power failed signal indicators
- ◆ Thermal Shutdown
- ◆ AC Input Undervoltage Protection
- ◆ Remote On/Off - Enable /Inhibit
- ◆ Self-Protection; Automatically decreases output power to compensate for elevated temperature up to 70°C ambient.



400 Watts

SPECIFICATIONS

CRP340K1 (Without Isolation Diode): 21-30.0VDC (adjustable), 12Amps max. 340 Watts max. @ 50°C. Output setting of 27.250VDC. Customer provided forced air (25 CFM) per cooling method 1:14 Amps max. 400 Watts max. @ 50°C.

CRP340K1D or H (With Isolation Diode): 21-30.0VDC (adjustable), 12Amps max. 340 Watts max. @ 50°C. Output setting of 27.250VDC. Customer provided forced air (25 CFM) per cooling method 1:14 Amps max. 400 Watts max. @ 50°C.

CRP340L1 (Without Isolation Diode): 42-60VDC (adjustable), 6 Amps max. 340 Watts max. @ 50°C. Output setting of 54.5VDC. Customer provided forced air (25 CFM) per cooling method 1:7 Amps max. 400 Watts max. @ 50°C.

CRP340L1D or H (With Isolation Diode): 42-60VDC (adjustable), 6Amps max. 340 Watts max. @ 50°C. Output setting of 54.5VDC. Customer provided forced air (25 CFM) per cooling method 1:7 Amps max. 400 Watts max. @ 50°C.

INPUT SPECIFICATIONS

INPUT VOLTAGE RANGE: 85-265VAC Continuous Range operation from 47-63 Hz. Internally fused with a 6.3A 250VAC, 5x20mm, Axial FA Type. Leakage: 3 ma max. Input Frequency Transient: 47-400Hz per Bellcore TR-TSY000947.

UNDER VOLTAGE PROTECTION: On at 80 ±5V. Off at 75 ±5V.

INRUSH CURRENT: 15 amps maximum.

EFFICIENCY (Nominal line, full load): CRP340K1 of 82% minimum. CRP340L1 of 83% minimum.

POWER FACTOR AND HARMONIC CORRECTION: Compliant to EN61000-3-2 down to 10% load. Power factor 0.99% typical at full load.

OUTPUT SPECIFICATIONS

TOTAL PACKAGE OUTPUT POWER: Full power from 0°C to 50°C. Derate 2.5% / °C to 50% at 70°C. See "Standard Models" section above.

OUTPUT RATINGS: See "Standard Models" section above.

SELF-LIMITING & SELF-PROTECTING: Automatically limits output power to compensate for elevated temperature up to 70°C ambient.

CURRENT LIMITING: Constant current at 110% of continuous output current rating. Output recovers when fault is removed. Maximum output current under any conditions will not exceed to maximum ratings x 1.33.

SHORT CIRCUIT OUTPUT CURRENT: Maximum of the output current rating x 1.33.

REGULATION TOTAL (Line, Load & Initial Setting): With or without isolation diode at remote sense point, ±0.5%, from 0 to full load.

TURN ON TIME: 2 seconds maximum (before Current Walk In time).

CURRENT WALK IN: 8 to 16 seconds from 0 to 90% load (Per Bellcore).

OUTPUT SPECIFICATIONS (CONT'D)

TEMPERATURE COEFFICIENT: ±0.02% / °C.
VOLTAGE DRIFT: 0.1% max. for any 8 hour period.
OUTPUT VOLTAGE ADJUSTMENT: Pot adjustable. Available from outside of the supply.
REMOTE SENSE: Compensates for total line loss of 5%. The output voltage will change by 2% max. should the sense line open.
CURRENT SHARING: ±5%. Single Wire Method, shares as a percent of the maximum output current rating.
DYNAMIC RESPONSE: 5% step load 10 to 90% recovery in 4 msec .
HOLD-UP TIME: At full load, low line, output will remain in regulation for a minimum of 30 msec after loss of AC input power.
OVERSHOOT & UNDERSHOOT: Following turn-On/Off or (Enable/ Inhibit), the output voltage overshoot or undershoot shall be less than 2% of nominal output voltage.
THERMAL SHUTDOWN: Shuts down when excessive temperature condition occurs. Recovers when fault is removed.
OVERVOLTAGE PROTECTION:
CRP340K: OVP trip point is 31.5V max. To reset, cycle input power.
CRP340L: OVP trip point is 63V max. To reset, cycle input power.
REVERSE VOLTAGE PROTECTION: To 100% of rated output current.
DC GOOD LED INDICATOR: Green LED On indicates DC output is greater than the following:
 • 20.5 ±1VDC on the CRP340K1 & CRP340K1D.
 • 41 ±1VDC on the CRP340L1 & CRP340L1D.
DC OUTPUT FAIL SIGNAL: Fail signal indicates output voltage of less than following:
 • 20.5 ±1VDC on the CRP340K1 & CRP340K1D.
 • 41 ±1VDC on the CRP340L1 & CRP340L1D.
NOTE: Form C Type contacts provide contact closure for fail.
ENABLE/INHIBIT: Short to RTN, disables output.
CAPACITOR DISCHARGE: Upon removal of a supply, all capacitors shall discharge to 5% of their steady state voltage within 1 minute per Bellcore TR-EOP-000151.
VOICE FREQUENCY NOISE: 32dBrc without battery connected.
WIDE BAND NOISE: 30mv rms max. on all models with any 3kHz Portion from 10kHz to 20Mhz, (CRP340K1 of 150mV max. peak to peak) (CRP340L1 of 250mV max. peak to peak) from DC to 100MHZ.

SAFETY SPECIFICATIONS

CE: Marked
UL: Recognized to UL1950
CSA: Certified to CSA22.2 No. 950 & No. 234
TUV: Licensed to IEC950 and EN60950

ENVIRONMENTAL CONDITIONS

TEMPERATURE RANGE: Operating 0 to +70°C.
 Storage -40°C to 100°C.
COOLING: (Methods 1 & 2)
 1. Customer provided forced air of 25 CFM minimum. Air in linear feet per minute (LFM) through the power supply (end to end or top through both ends) is critical.
 2. Natural Convection Cooled based natural airflow through the length of the power supply with added heat sink (Option W).
FIRE RESISTANCE (materials and components): Meets requirements per Bellcore TR-EOP-00063 test procedures.
HUMIDITY: Up to 95%, Non-Condensing
ALTITUDE: Operation: 0 to 13,000 ft. Derate operating Temperature by 1°C / 1000 ft. above 6,000 ft. Non Operating: 40,000 ft.
SHOCK: MIL-STD810E PER 516.4 Part IV. Operating half sine, 11 msec, 3 axes, 3 impulses to 10 G. SEISMIC: Zone 4 (operational)
VIBRATION: Operating, three orthogonal axes, 5 to 500 to 5Hz, 0.03-in. displacement to 0.5G sine peak. Non-operating, same as above except 0.15-in. displacement to 1G. (Also meets TR-NWT-000332).
NOISE: Less than 60dBA, 5 feet above floor and 2 feet from equipment, per Bellcore TR-TSY-000967.
LIGHTNING PROTECTION: Meets IEEE 487 Class A and B
MTBF: (200,000 hours minimum per Bellcore TR-NWT-000332).
WARRANTY: One Year.
STANDARD OPTIONS:
 1. Option D: Isolation diodes.
 2. Option W: Heat sink with fins to improve cooling.
 3. Option C: Cover
 4. Option U: Connectors and cable harness.

NOTES: (a) Some options require a minimum order. (b) Isolation Diodes are required for Hot Plug-in and/or Fault Tolerant applications. They are also recommended for other applications where the outputs are paralleled. Specifications are limited to those specified herein and are subject to change without notice.

Outline Dimensions/Interface

