

PRODUCT SPECIFICATION

QD13 Series

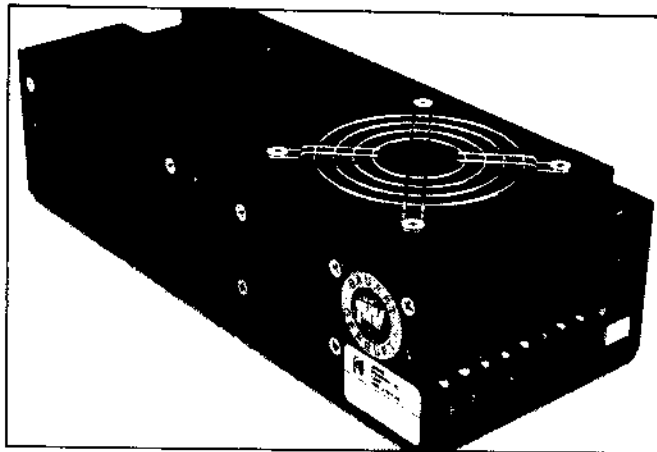
Switching Regulated Power Supplies

Benefits

- Proprietary Cascade Topology inherently provides the most reliable FET switcher available.
- Mag Amp auxiliaries provide well regulated, high current outputs.
- New technology provides highest efficiencies, typically over 80%.
- All outputs can be paralleled.
- Autoranging (Automatic VAC input range selection) is standard.

Features

- UL Recognized to UL 1012 and 478+ (UL 1950 Pending)
- CSA Certified to C22.2 No. 220-M1986 and EB1402+
- TUV Licensed to IEC 380 and VDE 0806 class 1 SELV+ (IEC 950 Pending)
- Fully compliant with FCC and VDE (Level A) standards for EMI.
- Accommodates high-peak disk drive requirements
- 0°-70°C operating ambient.



- AC input provisions:
 - Autoranging, 90-132/180-264 VAC, 47-63 Hz automatically selected
 - Input surge current limited
 - Brown out protected
 - Meets IEEE 587 for input transients
- DC output provisions:
 - Complete overload protection
 - Overvoltage protected
 - Reverse voltage protected
 - Low noise outputs
 - Direct paralleling 2

400 Watts Up to 4 Outputs

Available Outputs

| Standard Output Voltage Combination | Output 1* | | | Output 2 | | | Output 3 | | | Output 4 | | |
|-------------------------------------|-------------|-----------|------------|------------|------------|-----------|----------|------------|-----------|-----------------|------|------|
| | Rated Volts | Peak Amps | Rated Amps | Peak Volts | Rated Amps | Peak Amps | Volts | Rated Amps | Peak Amps | Volts | Amps | Amps |
| A | 5 | 50 | 60 | 12 | 6 | 10 | 12 | 5 | 6 | 24 ¹ | 5 | 8 |
| B | 5 | 50 | 60 | 12 | 6 | 10 | 12 | 5 | 6 | 5 | 5 | 8 |
| C | 5 | 50 | 60 | 5 | 6 | 10 | 12 | 5 | 6 | 24 ¹ | 5 | 8 |
| D | 5 | 50 | 60 | 15 | 6 | 10 | 15 | 5 | 6 | 5 | 5 | 8 |
| E | 5 | 75 | - | | | | | | | | | |
| F | 12 | 33 | - | | | | | | | | | |

Total (sum) of rated DC output power, maximum: 400 Watts²

¹ Minimum load 300 mA for 24 VDC outputs

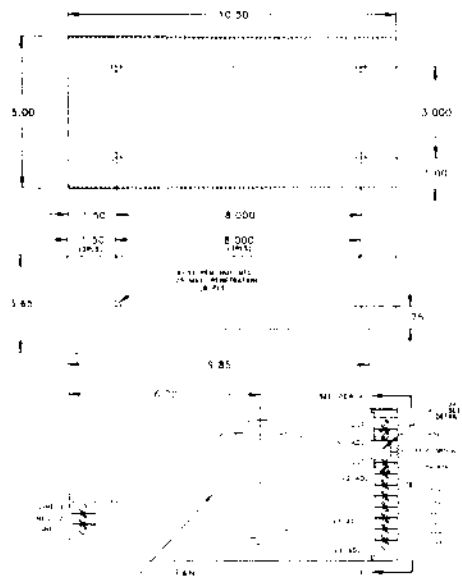
² Derate 20% with option "E", paralleling

- * All outputs are isolated.
- * Other output combinations are also available; consult factory.
- + Most models; consult factory

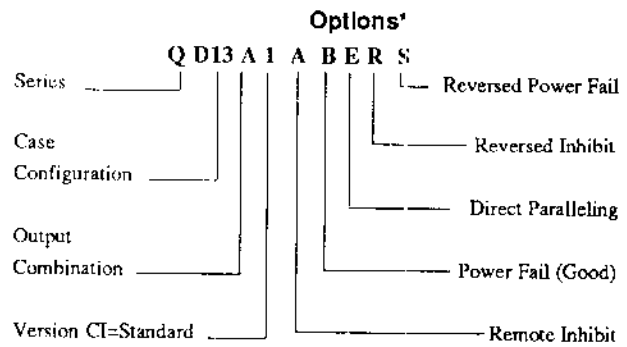


QD13 Series

Outline/Mounting/Interface



Ordering Information



Specifications

| | | | |
|-----------------------------------|--|----------------------------|--|
| AC Input | Nominal: 115/230 VAC, 47-63 Hz Range: 90-132/180-264 VAC; automatically selected | Direct Paralleling* | Output current set at factory at 80% of rated (-0% + 10%). Adjust output voltages +/-0.01V. Contact factory for instructions. |
| DC Outputs | Nominal: See AVAILABLE OUTPUTS table Range: +/-5% adjustment, all outputs All outputs are isolated. | Hold-up Time | 20 ms after loss of nominal AC Input, for specified load regulation |
| Regulation | Line: +/-0.5%, all outputs, full AC Input range Load: +/-0.5% Output 1, +/-1% all other outputs, for Output 1 at 10-100% loading, all other outputs at 0-100% loading | In-rush Surge | 50A Pk, cold start |
| Ripple/Noise | Sum: 1% Pk-Pk, all outputs | Fusing(F-I) | For 115/230 VAC 8A, 250 VAC; 3AG |
| Overshoot & Undershoot | Deviation: +/-2% for 25% load change at 5A.uscc Response: 200 uscc to 1% deviation, all outputs, turn-on or turn-off | Remote Sense | For Output 1 only |
| Temperature Coefficient | +/-0.02%/°C, all outputs | Remote On/Off* | Turn on: open circuit or TTL "hi" Turn off: short to Output 1 return or TTL "lo" |
| Temperature Range | Operation: 0° to 50°C at rated output power, derate linearly to 50% power at 70°C Storage: -55°C to 85°C | Power Fail(Good)* | Power applied: Output "lo" until all outputs are in regulation Power lost: After one cycle ride-through (16 msec minimum) output goes "lo" 4 msec minimum before loss of regulation |
| Efficiency | 80% typical | Thermal Shutdown | Automatic shutdown in event of thermal overload. Automatic recovery when condition improved. "Standard". |
| Overload Protection | Main output current limited by primary current level. All other outputs are individually current limited. | Shock/Vibration | Per MIL-STD-810C Vibration: Method 514.2 Procedures X, X1 Shock: Method 516.2, Procedures I, III Shock (Transit): Method 516.2, Procedure II |
| Overvoltage Protection | Output 1: output level 6.2V +/-5% causes shutdown (AC input cycle required for restart) | Weight | 4 lbs, 1 oz |

* Options

Rev. 91229

Specifications are subject to change without notice.

CHEROKEE INTERNATIONAL, INC.

2841 Dow Ave., Tustin, CA 92680-7211

(714) 544-6665 * FAX (714) 838-4742 * TWX 510-101-0493