

PRODUCT SPECIFICATION

Variable Frequency Flyback

25-10/11/92

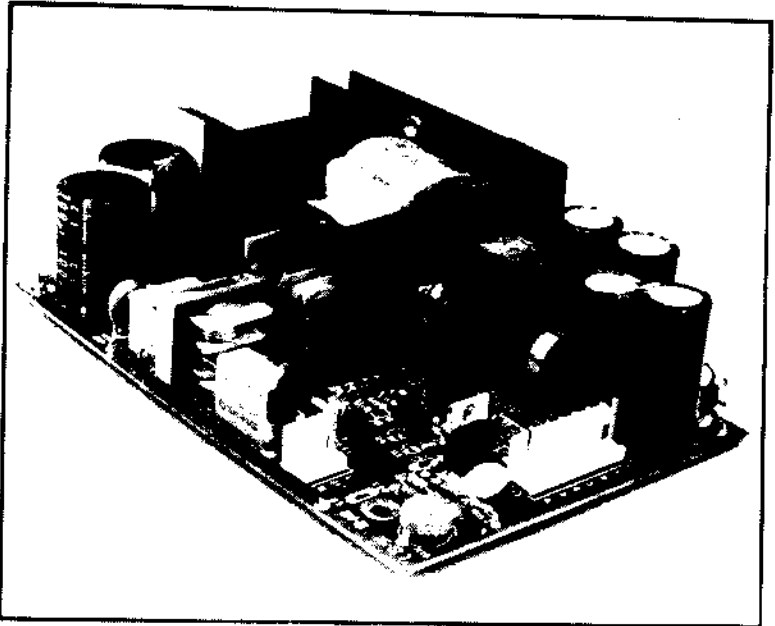
QF2 Series

Multiple Output Switching
Power Supplies

*Same as QF1 + 4th output.
Bigger Connectors*

Features

- UL Recognized to UL 1012 and 478 †
- CSA Certified to C 22.2 No. 220 - M1986 and EB1402 †
- TUV Licensed to IEC 380 and 950 and VDE 0806 Class 1 SELV †
- Fully compliant with FCC and VDE (Level A) standards for EMI
- Accommodates high-peak disk drive requirements
- 0° - 50° C operating ambient with convection cooling only
- AC input provisions
 - 90-132/180-264 VAC, 47-63Hz
 - jumper relocation for VAC range selection
 - input surge current limited
 - brown out protected
- DC output provisions:
 - complete overload protected
 - overvoltage protected
 - reverse voltage protected
 - low noise outputs



50/60 Watts Up to 4 Outputs

** Value of 4th output voltage can not exceed value of 2nd & 3rd output.*

Available Outputs

Standard Output Voltage Combination	<i>Output 1</i>			<i>Output 2</i>			<i>Output 3</i>			<i>Output 4*</i>		
	Volts	Rated Amps	Peak Amps	Volts	Rated Amps	Peak Amps	Volts	Rated Amps	Peak Amps	Volts	Rated Amps	Peak Amps
A	+5	4.0	5.0	+12	3.0	4.0	-12	0.5	1.0	-5	0.1	-
B	+5	4.0	5.0	+12	3.0	4.0	5	0.5	1.0	-	-	-
C	+5	4.0	5.0	+24	2.0	2.5	-12	0.5	1.0	-5	0.1	-
D	+5	4.0	5.0	+24	2.0	2.5	5	0.5	1.0	-	-	-
E	+5	4.0	5.0	+12	3.0	4.0	-	-	-	-	-	-
F	+5	4.0	5.0	+24	2.0	2.5	-	-	-	-	-	-
G	+5	4.0	5.0	+15	2.0	3.0	15	0.5	1.0	-5	0.1	-
J	+5	6.0	8.0	-	-	-	-	-	-	-	-	-
K	+5	4.0	5.0	+15	2.0	3.0	-15	0.5	1.0	-	-	-

Total (sum) of rated DC output power, maximum:
 Convection cooling only 50 Watts
 Forced-air cooling (25 CFM) 60 Watts
 Peak power (10 sec) 60 Watts

Output 1: 5V, 4A, 20W
Output 2: 12V, 3A, 36W
Output 3: 12V, 0.5A, 6W
Output 4: 5V, 0.1A, 0.5W
10-15% to 100%
180W

Other output combinations are also available; consult factory

All outputs share a common return; consult factory for alternatives.

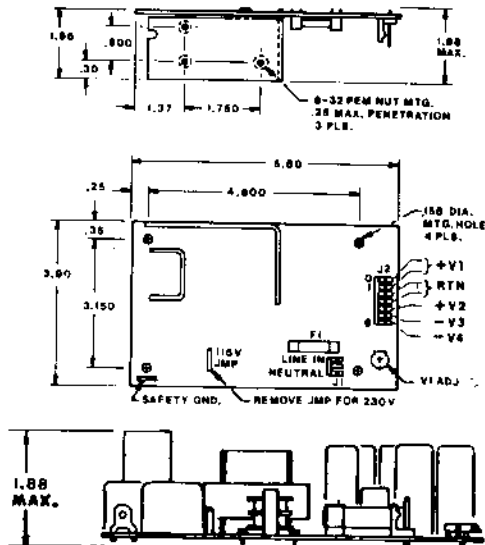
Increased output power can be obtained by appropriate heat sink mounting *CHASSIS*

†Most models; consult factory



QF2 Series

Outline/Mounting/Interface

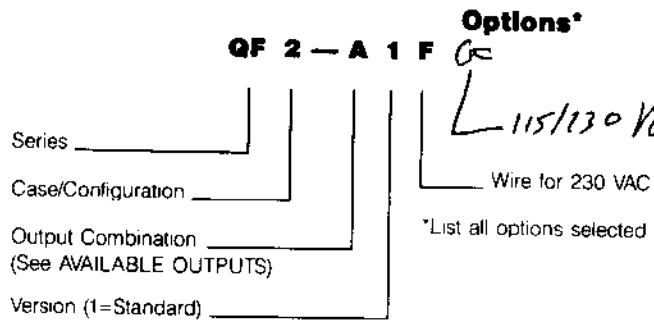


J-1	PCB Connector	Mating Connector
AMP	640445-3	640427-3
MOLEX	09-74-1031	09-50-3031
PANDUIT	HLSS-156-3	CE 156F20-3
J-2		
AMP	640445-7	640427-7
MOLEX	09-74-1071	09-50-3071
PANDUIT	HLSS-156-7	CE 156F20-7
Safety Gnd		
FASTON	.25 TAB	

Specifications

AC Input	Nominal: 115/230 VAC, 47-63Hz Range: 90-132/180-264 VAC, jumper selectable																												
DC Outputs	Nominal: See AVAILABLE OUTPUTS table Range: Output 1 adjustable $\pm 5\%$ Output 2 tracks Output 1. Outputs 3 and 4 fixed $\pm 5\%$																												
Output Tolerances	<table border="1"> <thead> <tr> <th>Output</th> <th>Min</th> <th>Max</th> <th>Tolerance*</th> </tr> </thead> <tbody> <tr> <td>Output 1 (+5V)</td> <td>0.5A</td> <td>4.0A</td> <td>$\pm 5\%$</td> </tr> <tr> <td>Output 2 (+12V)</td> <td>0.4A</td> <td>3.0A</td> <td>$\pm 5\%$</td> </tr> <tr> <td>(+15V)</td> <td>0.4A</td> <td>3.0A</td> <td>$\pm 5\%$</td> </tr> <tr> <td>(+24V)</td> <td>0.2A</td> <td>2.0A</td> <td>$\pm 5\%$</td> </tr> <tr> <td>Output 3 All</td> <td>0</td> <td>0.5A</td> <td>$\pm 5\%$</td> </tr> <tr> <td>Output 4 (-5V)</td> <td>0</td> <td>0.1A</td> <td>$\pm 5\%$</td> </tr> </tbody> </table>	Output	Min	Max	Tolerance*	Output 1 (+5V)	0.5A	4.0A	$\pm 5\%$	Output 2 (+12V)	0.4A	3.0A	$\pm 5\%$	(+15V)	0.4A	3.0A	$\pm 5\%$	(+24V)	0.2A	2.0A	$\pm 5\%$	Output 3 All	0	0.5A	$\pm 5\%$	Output 4 (-5V)	0	0.1A	$\pm 5\%$
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	* Tolerance includes load regulation, cross regulation, centering, line regulation and temperature regulation.																												
	• Single output version requires 1A min.																												
Ripple/Noise	Sum: 1% Pk-Pk, all outputs																												
Overshoot & Undershoot	Deviation: 2% for 25% load change at 5A/usec Response: 200 usec to 1% deviation, all outputs, turn-on or turn-off																												
Temperature Coefficient	$\pm 0.02\%$ / °C, all outputs																												
Temperature Range	Operation: 0° to 50°C at rated output power; derates linearly to 50% power at 70°C Storage: -55°C to 85°C																												

Ordering Information



All Power Supplies are warranted to be free of defects in materials and workmanship for a period of one year.

Efficiency	75% typical
Overload Protection	All Outputs protected through short circuit conditions, automatic recovery
Overvoltage Protection	Output 1: Output level exceeding 6.25V $\pm 5\%$ causes shutdown, automatic recovery
Reverse Voltage Protection	100% of rated current Outputs 1 and 2
Hold-up Time	16 ms after loss of nominal AC Input, for specified load regulation
In-rush Surge	15A Pk/115VAC, 30A Pk/230 VAC
Fusing (F-1)	2A, 5MF for 115/230 VAC
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
Weight	14 oz

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 (714) 510-101-0493