

PRODUCT SPECIFICATION

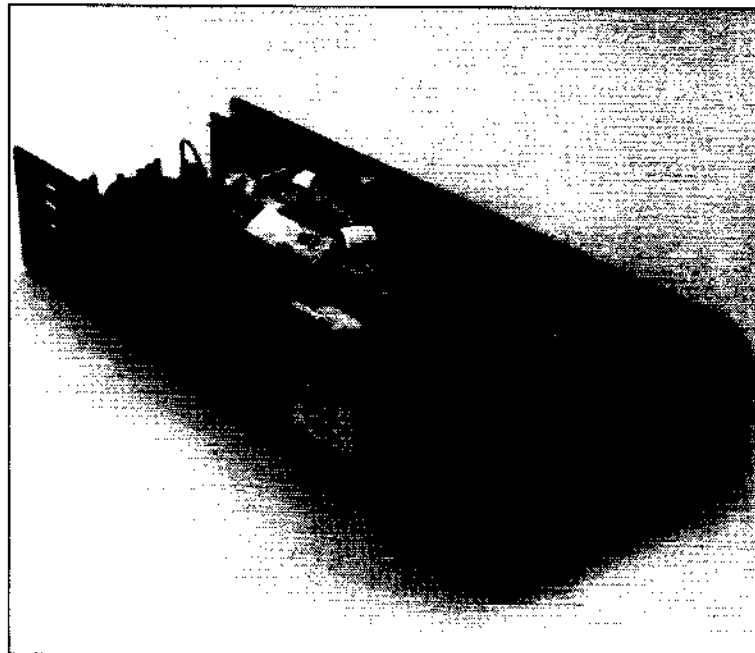
*switching freq: 25 kHz
50%*

QX5 Series

Multiple Output Switching
Power Supplies

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 1
- 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, 47-63 Hz
 - jumper re-ocation for VAC range selection
 - input surge current limited
 - brown out protected
- DC output provisions:
 - complete overload protection
 - overvoltage protected
 - reverse voltage protected
 - low noise outputs
- Output 1 provided via ¼" studs or terminal block



250/300 Watts Up to 4 Outputs

Available Outputs

Standard Output Voltage Combination	<i>or 12 Volts</i> Output 1*			Output 2			Output 3			Output 4		
	Volts	Rated Amps	Peak Amps	Volts	Rated Amps	Peak Amps	Volts	Rated Amps	Peak Amps	Volts	Rated Amps	Peak Amps
A	5	50	60	+12	5	—	-12	3	—	Aux Rtn	—	—
B	5	50	60	+12	5	—	-12	3	—	-5	1	—
C	5	50	60	+15	5	—	-15	3	—	Aux Rtn	—	—
D	5	50	60	+15	5	—	-15	3	—	-5	1	—
E	5	50	60	+12	5	—	-5	3	—	Aux Rtn	—	—
F	5	50	60	+12	5	—	-5	3	—	-12	1	—
G	5	30	40	+24	5	—	-12	1.5	—	Aux Rtn	—	—
H	5	30	40	+24	5	—	-12	1.5	—	+12	2.5	3.0
I	5	30	40	+24	5	—	-12	1.5	—	-5	1	—
J	5	30	40	+12	5	—	-12	3	—	+24	1.0	1.3
K	5	50	60	+12	5	—	—	—	—	-12	1	—
M	5	30	40	+12	6	8	-12	3	—	Aux Rtn	—	—

*Output studs required if current > 40 Amp

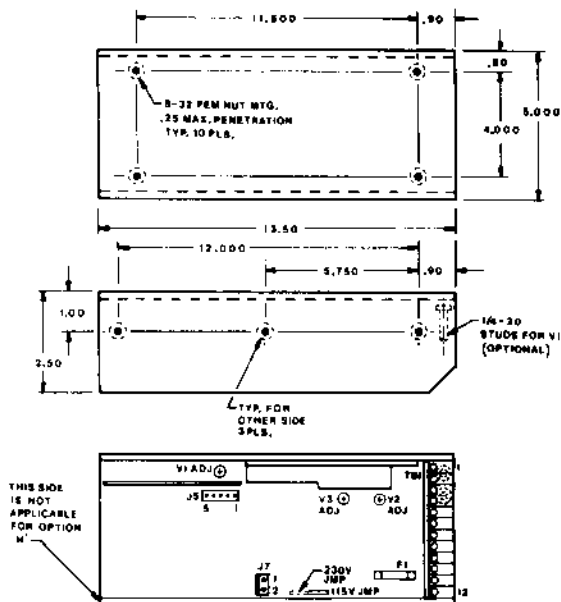
- Available options include:
 - 115 VAC fan output
 - remote on/off control
 - power fail (good) signal
 - thermal shutdown
 - EMI/safety cover
- total (sum) of rated DC output power, maximum:
 Convection cooling only 250 Watts
 Forced-air cooling (25 CFM) 300 Watts

- Other output combinations are also available; consult factory
 - Output 1 has separate return. all other outputs share a common auxiliary return
 - Auxiliary Outputs 2 through 4 can be provided as quasi-regulated versions for increased output power and decreased costs
 - Output studs recommended for Output 1 rated currents > 30A
- †Most models, consult factory



QX5 Series

Outline/Mounting/Interface

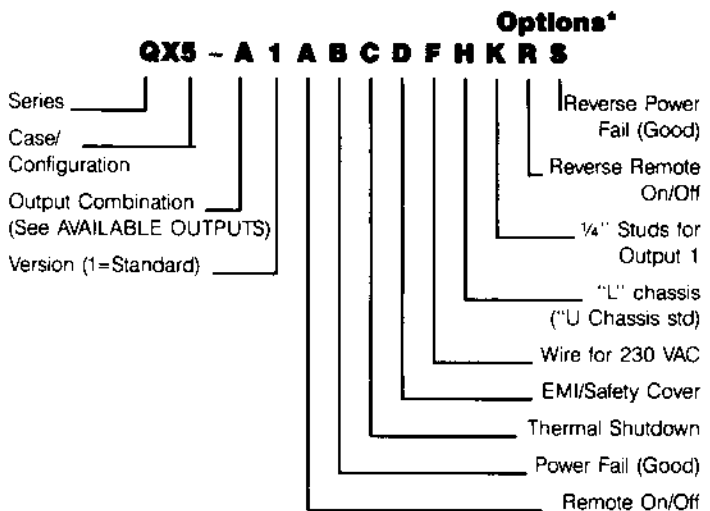


Terminal Block (TB1)

1 Output 1 (+)	7 Output 2-4 Aux Rtn
2 Output 1 (-)	8 Output 3 (-)
3 Output 1 Rtn	9 Not Used
4 Output 1 Rtn	10 Safety Ground
5 Output 2 (+)	11 AC Input (ACC)
6 Output 4 (+, - or Aux Rtn)	12 AC Input (AC)

Output 1 and its return can be provided as 1/4" studs (Option K)

Ordering Information



*List all options selected

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

Control Connector (J5) (AMP MTA, #640456-5)

- 1 Output 1 Sense (+)
- 2 Output 1 Sense (-)
- 3 Thermal Shutdown
- 4 Power Fail (Good)
- 5 Remote On/Off

Fan Drive Connector (J7) (AMP MTA, #640445-4)

- 1 115 VAC
- 2 115 VAC Rtn

Specifications

AC Input	Nominal: 115/230 VAC, 47-63Hz Range: 90-132/180-264 VAC; jumper selectable	Hold-up Time	20 ms after loss of nominal AC Input, for specified load regulation
DC Outputs	Nominal: See AVAILABLE OUTPUTS table Range: $\pm 5\%$ adjustment, all outputs save Output 4, fixed $\pm 5\%$	In-rush Surge	50A Pk, cold start
Regulation	Line: $\pm 0.25\%$, all outputs, full AC Input range Load: $\pm 0.25\%$ Output 1, $\pm 1\%$ all other outputs, for Output 1 at 10-100% loading, all other outputs at 0-100% loading	Fusing (F-1)	6A/3A, 3AG for 115/230 VAC
Ripple/Noise	Sum: 1% Pk-Pk, all outputs	Remote Sense	For Output 1 only
Overshoot & Undershoot	Deviation: $\pm 2\%$ for 25% load change at 5A/usec Response: 200 usec to 1% deviation, all outputs, turn-on or turn-off	Remote On/Off*	Turn on: open circuit or TTL "hi" Turn off: short to Output 1 return, or TTL "lo"
Temperature Coefficient	$\pm 0.02\%$ / °C, all outputs	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
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	Thermal Shutdown*	Heat-sink-mounted thermal switch shorting to Output 1 Return initially causes "lo" "power fail"; then, after 4 msec delay, acts equivalently to overvoltage shutdown
Efficiency	75% typical	Fan Drive*	115 VAC fan output (11W)
Overload Protection	Output 1: current limited by primary current level Outputs 2, 3 and 4: current limited by post regulator characteristics	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 $> 6.25V \pm 5\%$ causes shutdown (AC input cycle required for restart) Other Outputs: Post regulators have preregulated inputs.	Weight	4 lbs., 13 oz.

Specifications are subject to change without notice.

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