CHEROKEE INTERNATIONAL, INC.

PRODUCT SPECIFICATION

Half bridge @ 25 KHz.

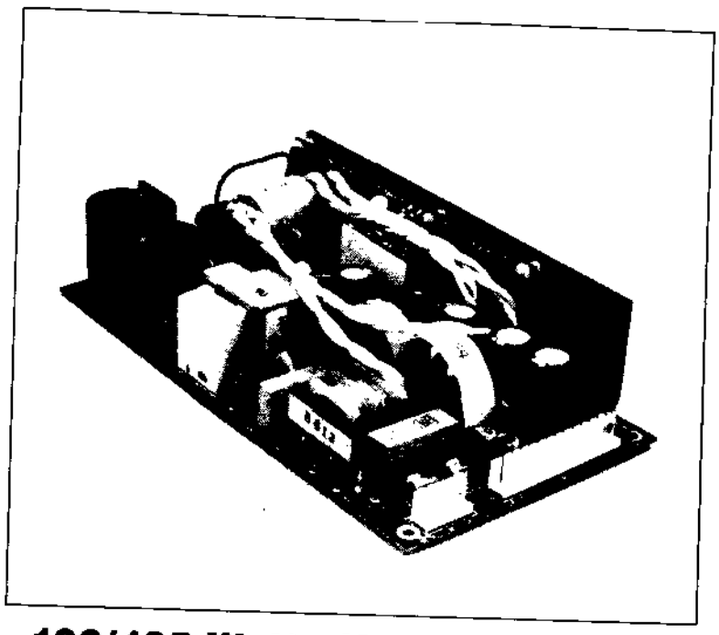
QT1 Series

QT11 if terminal block wanted.

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 ‡
- 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



100/125 Watts Up to 3 Outputs

Available Outputs

Standard Output Voltage Combination	Output 1 * (OVP, Adj) Volts	Rated Amps	Peak Amps	Output 2 (OVP, Adj) Volts	Rated Amps	Peak Amps	Output 3 Volts	Rated Amps	Peak Amps
A	+5	15.0	20.0	+12	4.0	8.0	-12	1.0	1.5
B	+5	15.0	20.0	+12	4.0	8.0	- 5	0.5	1.0
C	+5	15.0	20.0	+15	4.0	8.0	-15	1.0	1.5
D	+5	15.0	20.0	+24	4.0	5.0	-24	1.0	1.5
E	+5	20.0	25.0	—	—	—	—	—	—
F	+5	15.0	20.0	+12	4.0	8.0	—	—	—
I	+5	10.0	15.0	+24	4.0	6.0	—	—	—

* 15% min load requires Linear Post regulation. 3 terminal regulator.

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

Convection cooling only	100 Watts
Forced-air cooling (25 CFM)	125 Watts
Peak power (10 sec)	125 Watts

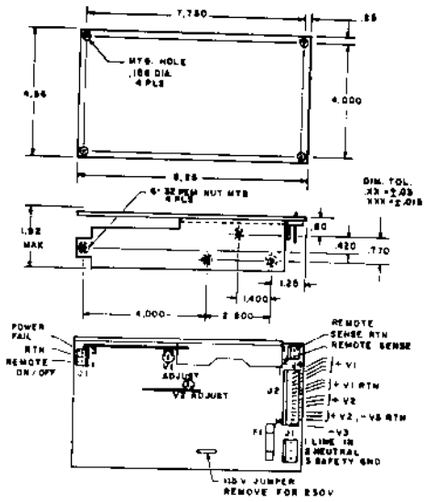
- Other output combinations are also available; consult factory
- All outputs share a common return; consult factory for alternatives.
- Increased output power can be obtained by appropriate heat sink mounting - Chassis

‡Most models; consult factory

2841 Dow Ave., Tustin, CA 92680-7211 • (714) 544-6665 • FAX (714) 838-4742 • TWX (714) 510-101-0493

QT1 Series

Outline/Mounting/Interface



Ordering Information

Options*

QT 1 - A 1 A B F R V

- Series: QT1
- Case/Configuration: A
- Output Combination (See AVAILABLE OUTPUTS): 1
- Version (1=Standard): A
- Remote On/Off: B
- Power Fail (Good): F
- Wire for 230 VAC: R
- Reverse Remote On/Off: V — Auto-range

*List all options selected

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

J-1	PCB Connector	Mating Connector
AMP	640445-5	640426-5
MOLEX	09-74-1051	09-50-3051
PANDUIT	HLSS-156-5	CE 156F20-5
J-2		
AMP	1-640445-4	1-640426-4
MOLEX	09-74-1141	09-50-3141
PANDUIT	HLSS-156-14	CE 156F20-14

J-3	PCB Connector	Mating Connector
AMP	640445-3	640426-3
MOLEX	09-74-1031	09-05-3031
PANDUIT	HLSS-156-3	CE 156F20-3
J-4		
AMP	640456-2	640440-2
MOLEX	22-23-2021	10-11-2023
PANDUIT	MLSS/00-2	CE 100F22-2

All Mating Connectors fit any PCB Connector

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: Outputs 1 and 2 adjustable ±5%, Output 3 fixed ±5%
Regulation	Line: ±0.25%, all outputs, full AC input range Load: ±0.25% for Outputs 1 and 2, ±1% for Output 3; for ≥15% loading of Output 1 and zero to full loading of other Outputs
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	±0.02% / °C, all outputs
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
Efficiency	75% typical
Overload Protection	Output 1 current limited by primary current level Outputs 2 and 3, current limited by post regulator characteristics
Overvoltage Protection	Output 1 output level >6.25V ±5% causes shutdown (AC input cycle for restart) Outputs 2 and 3: post regulators have quasi-regulated inputs
Reverse Voltage Protection	100% of rated current outputs
Hold-up Time	20 ms after loss of nominal AC input, for specified load regulation
In-rush Current	35A Pk, cold start
Fusing (F-1)	4A/2A, 5MF for 115/230 VAC
Remote Sense	For Output 1 only
Remote On/Off*	Turn on: open circuit or TTL "hi" Turn off: short circuit or TTL "lo"
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 Output 1 and 2 returns are commoned
Shock/Vibration	Per MIL-STD-810C Vibration: Method 514.2 Procedures X, XI Shock: Method 516.2, Procedures I, III Shock (Transit): Method 516.2, Procedure II
Weight	1 lb., 14 oz.

Specifications are subject to change without notice.

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Rev 11/87