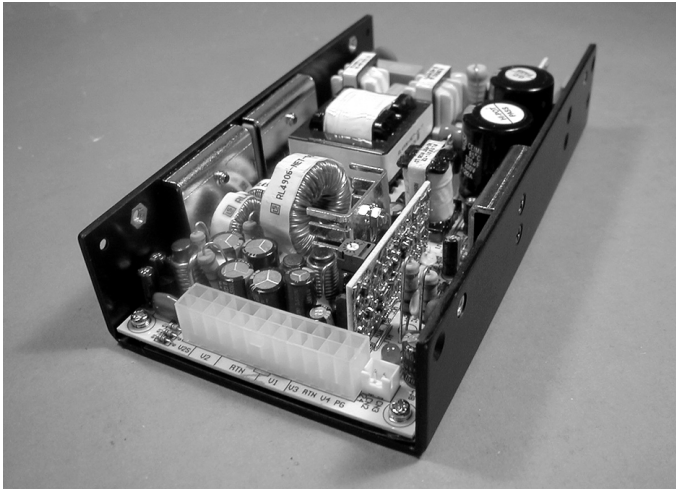


AC/DC U-Channel

175 Watts HUL175 Series

XPiQ inc.

Intelligent Design Quality Product



- Meets EN61000-3-2, -3
- Meets 1U, Low Profile Requirements
- Quad Outputs with 3.3V and 5V
- 100W with Convection Cooling
- International Safety Approvals
- CE Marked - LVD

Specification

Input

- Input Voltage* • 90-132 VAC, 180-264 VAC
- Input Frequency* • 47-63 Hz
- Inrush Current* • 35 A max at 110 VAC
70 A max at 230 VAC
- Input Current* • 5 A max at 115 VAC
2.5A max at 230 VAC

Output

- Output Voltage* • See Tables
- Output Current* • 175 Watts
- Output Voltage Adjustment* • $\pm 5\%$
- Minimum Load* • $V1 = 2 A, V3 = 0.3 A, V2 \& V4 = 0 A$
- Line Regulation* • $\pm 1\%$ maximum
- Load Regulation* • $\pm 4\%$ maximum
- Ripple & Noise* • 1% or 50mV pk-pk maximum
whichever is greater
- Transient Response* • Maximum excursion of 5% recovering
to 1% of final value in less than
500 μ s after a 50% step load change
- Temperature Coefficient* • $\pm 0.1\%/^{\circ}C$ maximum
- Hold Up Time* • 20 ms min at 120 VAC/80% load
- Oversvoltage Protection* • 130%, recycle input to reset
- Overcurrent Protection* • 110% - 135% with auto recovery
- Overtemperature Protection* • 85 $^{\circ}C$ with auto recovery
- Remote Sense* • On V2 only. Compensates for up
to 0.5 V drop
- Fan Output* • 12V/300mA

General

- Efficiency* • 70% minimum
- Power Density* • 4.5 W/in³
- MTBF* • 100,000 hours min to MIL-HBK-217F
- Size* • 6.8" x 3.8" x 1.5"
- Weight* • 700 grams approx.
- Signals* • Green LED = On
Power Good: Logic High within 100 to
500 msec of regulation
Logic Low at least 1 msec before loss
of regulation

Environmental

- Operating Temperature* • 0 $^{\circ}C$ to 70 $^{\circ}C$
Derate from 100% load at 50 $^{\circ}C$ to
50% load at 70 $^{\circ}C$
- Cooling* • 18.7 CFM required
- Humidity* • 5% to 90% RH, non-condensing
- Storage Temperature* • -20 $^{\circ}C$ to +85 $^{\circ}C$

Safety and EMC

- Safety Approvals* • UL1950, CSA C22.2 No. 234,
EN60950
- EMI/EMC* • EN61000-3-2, -3,
CISPR22 Class B and FCC
Class B conducted CE Mark LVD

OUTPUT VOLTAGE & CURRENT RATINGS

HUL175

Output 1			Output 2			Output 3			Output 4			Model Number
Output V1	Conv. Cooled	Max 18 CFM	Output V2	Conv. Cooled	Max 18 CFM	Output V3	Conv. Cooled	Max 18 CFM	Output V4	Conv. Cooled	Max 18 CFM	
5.0 V	10.0 A	15.0 A	3.3 V	10.0 A	20.0 A	12.0 V	2.2 A	3.0 A	-5.0 V	0.7 A	1.0 A	HUL175-40-3
5.0 V	10.0 A	15.0 A	3.3 V	10.0 A	20.0 A	12.0 V	2.2 A	3.0 A	-12.0 V	0.7 A	1.0 A	HUL175-42-3
5.0 V	10.0 A	15.0 A	3.3 V	10.0 A	20.0 A	24.0 V	1.5 A	2.0 A	-12.0 V	0.7 A	1.0 A	HUL175-45-3
5.0 V	10.0 A	15.0 A	3.3 V	10.0 A	20.0 A	15.0 V	2.2 A	3.0 A	-15.0 V	0.7 A	1.0 A	HUL175-46-3

Notes

1. Total regulation for V1, V2 and V3 = ±5%. V4 = ±3%. Total regulation includes tolerance, line regulation and load regulation.
2. Total combined output power for the 3.3 V and 5.0 V not to exceed 126 W with 18.7 CFM or 70 W with no air.
3. Maximum load continuous output power is 175W with minimum 18.7 CFM forced air cooling or 100 W with convection cooled.
4. Outputs are fully isolated.

Pin Chart

1	2	3	4	5	6	7	8	9	10	11	12
+Sense Output #2	Output #2	Output #2	Return	Return	Return	Output #1	Output #1	Output #3	Return	Output #4	Power Good
13	14	15	16	17	18	19	20	21	22	23	24
-Sense Output #2	Output #2	Output #2	Return	Return	Return	Output #1	Output #1	Output #3	Return	Output #4	Return

Mechanical Details

NOTES:

1. Dimensions shown in mm (inches).
2. Tolerance 0.5mm (0.02) maximum.
3. Input connector P1 mates with Molex housing 09-91-0500 and Molex 2478/2578/8818 Series crimp terminal
4. Output connector P3 mates with Molex housing 39-01-2240 and Molex 44476 Series crimp terminal.
5. P2 Connector is JST XHP-2 for an external 12V/300 mA fan.
6. Weight: 700 grams approx.

