

POWER SUPPLY

3U 10HP 180W ATX

AC/DC



GENERAL SPECIFICATION:

Partnumber: D575.00381

- Dimension: 150.00x133.35x50.8 (mm)
5.91x 5.25x2 (inch)
- Operating temperature: 0° - +50°C (90 - 264VAC)
- Storage temperature: -20°C - +80°C
- Operating humidity: 20% to 80%
- Non-operating humidity: 10% to 90%
- Over power protection: 110 -160% max.
- Hold up time: 34mS minimum at 115V full load
- Dielectric withstand:
 - input/output 1800VAC for 1 second,
 - input to frame ground 1800 VAC for 1 second.
- Incl. front panel 3U 10HP with switch.
- Efficiency: Power supply efficiency typical 80%(±2%)
- Safety: To meet UL (E143756-A75-UL-1), CUL, TUV, CCC



ELECTRICAL SPECIFICATION

AC INPUT SPECIFICATION

Input voltage:	Typ.100-240VAC full range (±10% tolerance)
Input frequency:	47-63Hz.
Input current:	2A (RMS) for 115VAC / 1A (RMS) for 230VAC
Inrush current:	35/70Amps @ 115/230Vac (at 25 degrees ambient cold start)
Input protection (primary):	The input power line must have an over power protection device in accordance with safety requirement of section 8.0
Power factor correction:	The power supply shall incorporate universal power input with active power factor correction, which shall reduce line harmonics in accordance with the IEC61000-3-2 standards. PFC can reach the target of 95% @ 115/230 Vac, Full load

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ELECTRICAL SPECIFICATION

DC OUTPUT SPECIFICATION

DC load requirements

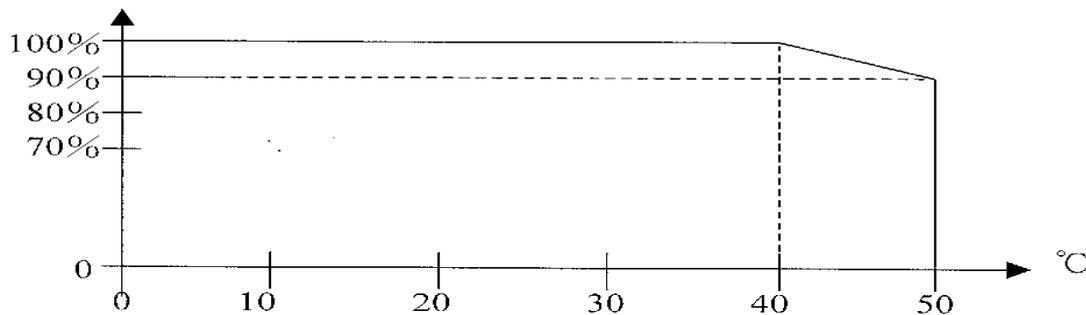
Normal Output voltage	Load current (A)		Regulation Load		Ripple and noise
	Min.	Max.	Max./Min.	Line	Max. (P-P)
+5V	0A	14A	±5%	±50mV	50mV (P-P)
+12V	0.1A	14A	±5%	±120mV	120mV (P-P)
-12V	0A	0.3A	±10%	±120mV	120mV (P-P)
+3.3V	0A	12A	±5%	±50mV	50mV (P-P)
+5Vsb	0A	2.5A	±5%	±50mV	50mV (P-P)

+5V and +3.3V total output max: 70W

+5V, +3.3V, +12V, -12V total output max: 168W

Total power: 180W

Power output derartig curve: Total power – Temperature



Over voltage protection

If an over voltage fault occurs, the power supply will latch all DC output into a shutdown state.

	Min	Typical	Max
+3.3V	3.6V	4.1V	4.3V
+5V	5.6V	6.1V	6.5V
+12V	13.2V	14.3V	15.0V



POWER SUPPLY

HARTMANN ELEKTRONIK

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OVERSHOOT

Any overshoot at turn on or turn off shall be less 10% of the nominal voltage value, all output shall be within the regulation limit before issuing the power good signal.

EFFICIENCY

Power supply efficiency typical 80%(±2%) at 230V_{in} and Load condition:

Output	AC115V FULL LOAD(100%)					AC 230V FULL LOAD(100%)				
	+5V	+3.3V	+12V	-12V	5Vsb	+5V	+3.3V	+12V	-12V	5Vsb
Load current	6.33A	5.43A	9.92A	0.21A	1.77A	6.33A	5.43A	9.92A	0.21A	1.77A
Voltage (Rms)	5.11V	3.34V	12V	-12V	4.97V	5.1V	3.34V	12.11V	-11.8V	5.09V
P in(AC in 230V)	230.2W					223.6W				
Efficiency	80.01%					82.2%				

- Any difference either on the DC output cable (i.e., length, wire gauge) or on the accurate of instruments will conclude different test result.
- Efficiency calculation: When calculating output power, internal fan current shall be included with 12V output current

SHORT CIRCUIT

- A short circuit placed on any DC output to DC return shall cause no damage.
- The power supply shall be latched in case any short circuit is taken place at +5V, +3.3V, +12V, -12V output.
- The power supply shall be auto-recovered in case any short circuit is taken place at +5Vsb.