
Features:

- Universal Input 90 – 264 VAC
- Power Density: 12.5 watts/cu in.
- +5V, +12V or +12V, +24V DC Dual Output
- Over-Current Protection
- Over-Voltage Protection
- Compact Size: 1U Height
- 3 Mechanical Options
- UL / EN / IEC 60601-1 3rd Edition
- RoHS Compliant



Input Voltage: 90-264 VAC full range, 47-63Hz.

Input Current: 5 A at 90 VAC full load.

Inrush Current: 70A Max. @ 230 VAC, 35A Max. @ 115VAC, with full load and cold start.

PFC: Power Factor Correction meets EN61000-3-2 class D
PF > 0.95 Typical

Transient Response: Returns to within 1% in less than 2.5mS for a 50% load change and the peak transient does not exceed 5%.

Overshoot: Turn-on/off not exceed 5% over nominal voltage.

Efficiency: 79% - 89% Typical, depending on model.

Turn On Delay: 1 second maximum at 120 VAC.

Hold Up Time: 16mS min. at 80% of full load.

Adjustability: Output user adjustable $\pm 5\%$ minimum.

Fan Drive: 12VDC/300mA is available to drive an external fan.

Fan Fail Alarm: Designated as **FF** on pin 3 of CN3, open collector output rated for 28VDC/5mA sink current max. It will go high when a fan failure is detected.

Remote On-Off: Designated as **INH** on the pin 4 of CN3, requires a low signal to inhibit output.

Power Supply On: Green LED designated as **LED 1** on the PCB.

Power Good: Designated as **PG** on the CN3 will go high 100-500mS after regulation and goes low 1mS before loss of regulation (Open Collector).

Input Circuit Protection (primary): Fuse Protected.

Over-Power Protection: 110-140% and auto-recovery.

Over-Voltage Protection: Latching down will occur when output voltage exceed 130% and recycle AC input to reset.

Short Circuit Protection: Trip without damage and auto-recovery.

Over-Temperature Protection: Protected in the event of excessive operating ambient 110°C $\pm 5^\circ\text{C}$, and automatic recovery.

Operating Temperature: 0 to 70°C ambient, de-rating at 2.5% per degree from 50°C to 70°C.

Storage Temperature: -20 to 85°C.

Operating Humidity: 5% to 90% RH, Non-condensing.

Storage Humidity: 5% to 95% RH, Non-condensing.

Vibration: Frequency 5 to 50 Hz, acceleration $\pm 7.35 \text{ M}/(\text{SxS})$ on X, Y and Z Axis.

Emc: EN60601-1-2 Class B conducted / Radiated; EN61000-3-2, -3; IEC61000-4-2, -3, -4, -5, -6, -8, -11.

Safety Regulation: EN/ IEC/ UL 60601-1 3rd Edition

Leakage Current: < 300 μA @ 264VAC

HI-POT Test: 1500 VAC between input line and chassis (10mA DC cut off current); 4000 VAC between primary and secondary windings; Primary to core 1500 VAC. All for 3 sec.

Grounding Test: Apply 25A from ground pin to the earthed connection point. Maximum allowable resistance is 0.1 Ω .

MTBF: 100,000 Hrs (according to MIL-HBK-217F) at 30°C.

Cooling: SMU240T2: U-Chassis @ 240W max. with 25CFM airflow or 120W max. under convection cooling.

SME240T2: Enclosed with side built-in fan @ 240W max.
SMF240T2: U-Chassis with top built-in fan @ 240W max.

Burn in: 45 $\pm 5^\circ\text{C}$ for 1 hour @ 230 VAC with full load.

Enclosure: SMU240T2: 5(L) x 3.2(W) x 1.5(H) inches.

SME240T2: 6.5(L) x 3.2(W) x 1.6(H) inches.

SMF240T2: 5(L) x 3.2(W) x 2(H) inches.



Output Voltage and Current Chart

Model Number	Output Voltage	Max. Output Power/Current		Total Regulation	Ripple & Noise
		Type <u>U</u> , <u>E</u> , & <u>F</u> (Forced Air)	Type <u>U</u> (Convection)		
SMY240T250R	+5 VDC	24 A	12 A	±5%	±1%
	+12 VDC	13.33 A	6.67 A	±5%	±1%
SMY240T266R	+12 VDC	13.33 A	6.67 A	±5%	±1%
	+24 VDC	6.67 A	3.33 A	±5%	±1%

** To Determine Part Number:

- Replace "Y" with Desired Case Code:
 - Type U: U-Chassis @ 120 Watts Max. Output Power with Convection Cooling
U-Chassis @ 240 Watts Max. Output Power with 25CFM Forced Airflow Cooling
 - Type F: U-Chassis with Top Built-In Fan @ 240 Watts Max. Output Power
 - Type E: Enclosed with Side Built-In Fan @ 240 Watts Max. Output Power
 - Conformal Coating (Optional): Order as SMY240T2XXCR
 - Input Connector: For Enclosure w. Fan (SME240T2XXR): IEC320-C14 Inlet or 3-Position Barrier Strip.
For U-Channel (SMU240T2XXR) & Top Built-In Fan (SMF240T2XXR): PCB Header (5-Pins, 3 Used) or 3-Position Barrier Strip.
 - Output Connector: 8-Pin Crimp Style PCB Header or 3-Position Barrier Strip.
For Crimp Style PCB Header (or IEC320-C14 Input), Order as: SMY240T2XXR (Unchanged)
For 6-Position Barrier Strip, Order as: SMY240T2XXAR
- Example: SME240T250R indicates a Unit with an Enclosed, Side Built-In Fan Case, C14 Input and 16-Pin Crimp Style PCB Header with +5, +12 VDC Outputs.
SMU240T266ACR indicates a Unit with U-Chassis Case, 6-Position Barrier Strip, and Conformal Coating with +12, +24 VDC Outputs.





Pin Connection: SMY240T2XXR

Pin	Input: 5-Pin Crimp Terminal	
1	Ground	
2	No Pin	
3	Neutral	
4	No Pin	
5	Line	
	Output: 8-Pin Crimp Terminal	
	SMY240T250R	SMY240T266R
1	+12V	+24V
2 - 5	Return (-)	Return (-)
4 - 6	+5V	+12V

Pin Connection: SMY240T2XXAR

Pin	3-Position Barrier Strip	
	SMY240T250R	SMY240T266R
1	+12V	+24V
2	Return (-)	Return (-)
3	+5V	+12V

Notes:

Input Connector(CN1):

SMU240T2 or SME240T2 Series: Mating Molex Part No. 035977-0590 or equivalent (5 pin, 3 used), or Howder Terminal block Part No. HD-601-3P.

SME240T2 Series: IEC320 or equivalent Snap-in mounting type or Howder Terminal block Part No. HD-602-3P (3 pin).

Output Connector (CN2):

Mating Molex 6 pins (035977-0890), or HOWDER M3 (HD-816-3P).

Output Pin Assignment:

(See table above).

Logic signal connectors (CN3):

Mating JST XHP-4 or equivalent (CHYAO SHIUNN JS-2001-04)

Mating Pins: JST SXH-002T-P0.6 for AWG 30 to 26.

Mounting Inserts:

6 Places M3x0.7, maximum penetration 4 mm.





SMY240T2 Series 120 - 240 Watts

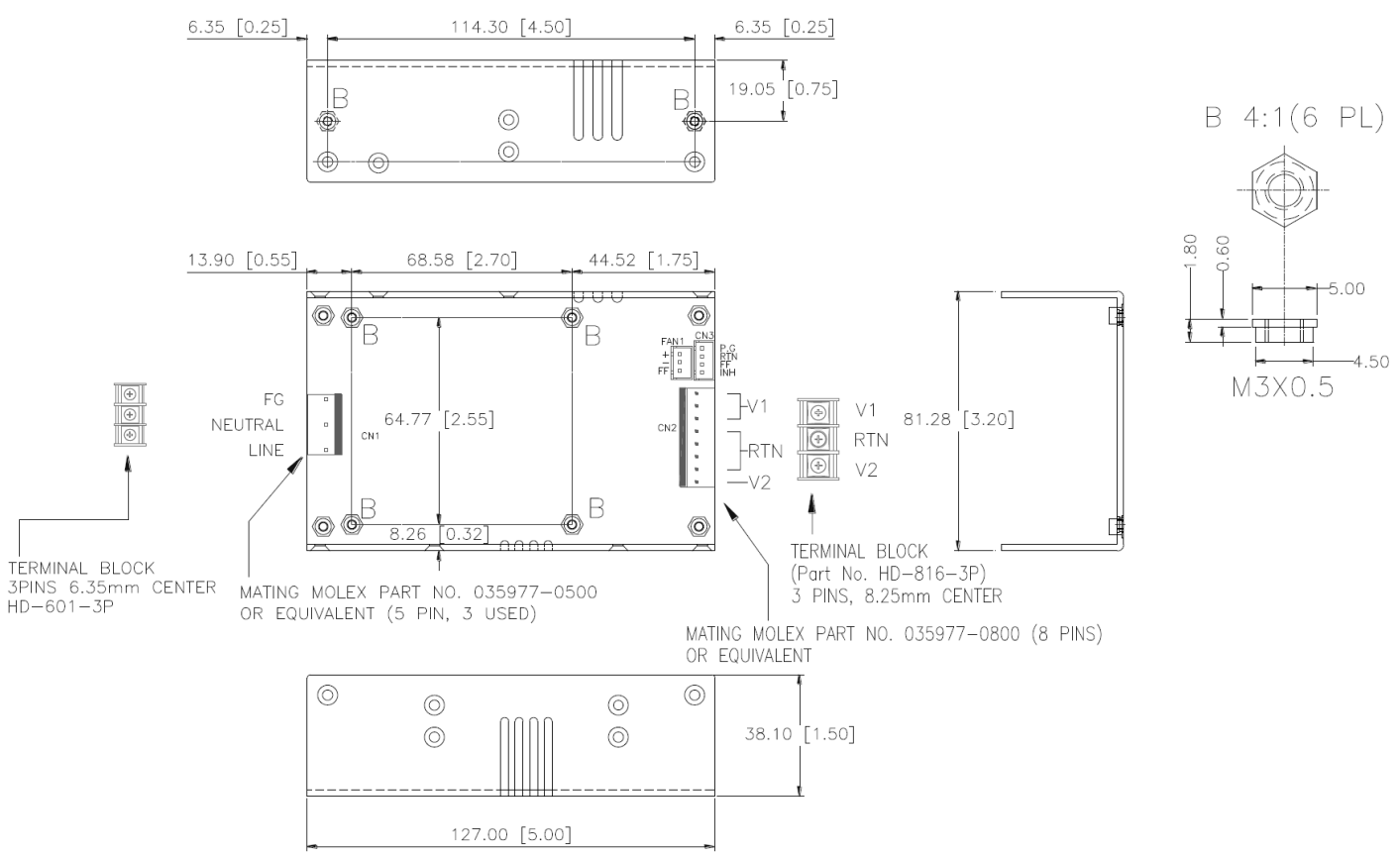
Switch Mode Open Frame Medical Power Supply Dual Output, UL / EN / IEC 60601-1 3rd Edition

Date: 8/13/12

Rev: 080712

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Type U: U-Chassis Case
Order as: SMU240T2XXR





SMY240T2 Series 120 - 240 Watts

Switch Mode Open Frame Medical Power Supply
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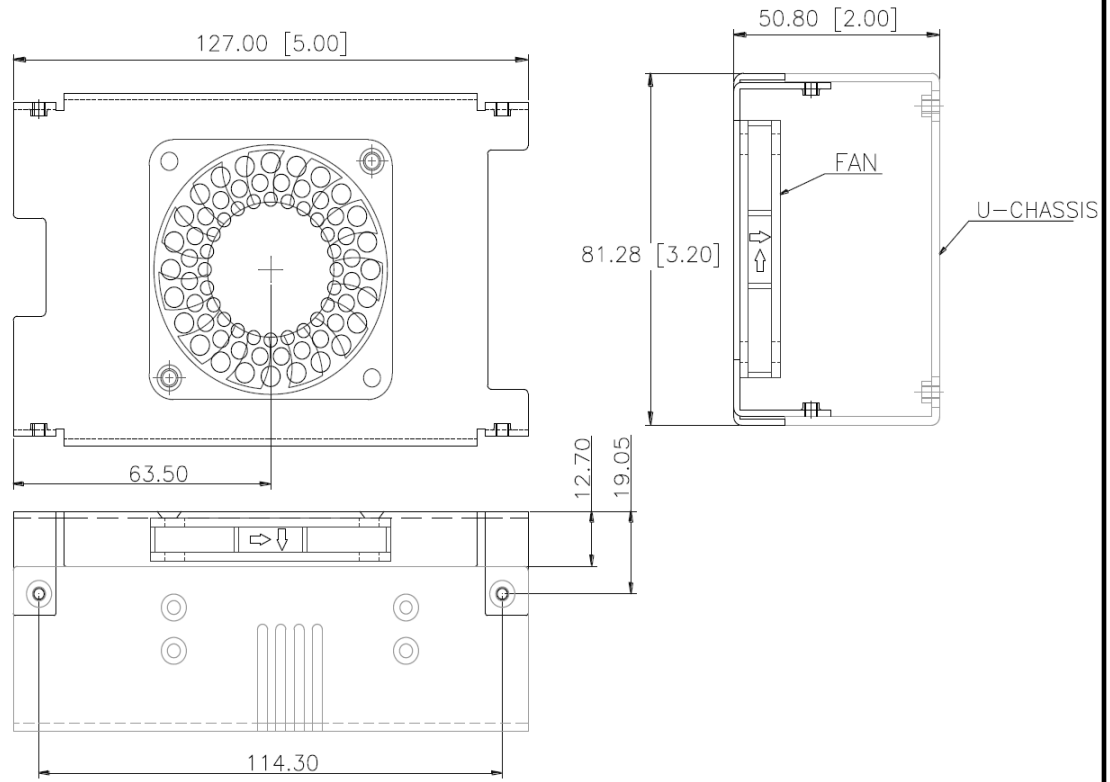
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Type **E**: U-Chassis w/ Top Fan Cover
Order as: SM**E**240T2XXR

COVER WITH
BUILT-IN DC FAN





SMY240T2 Series 120 - 240 Watts

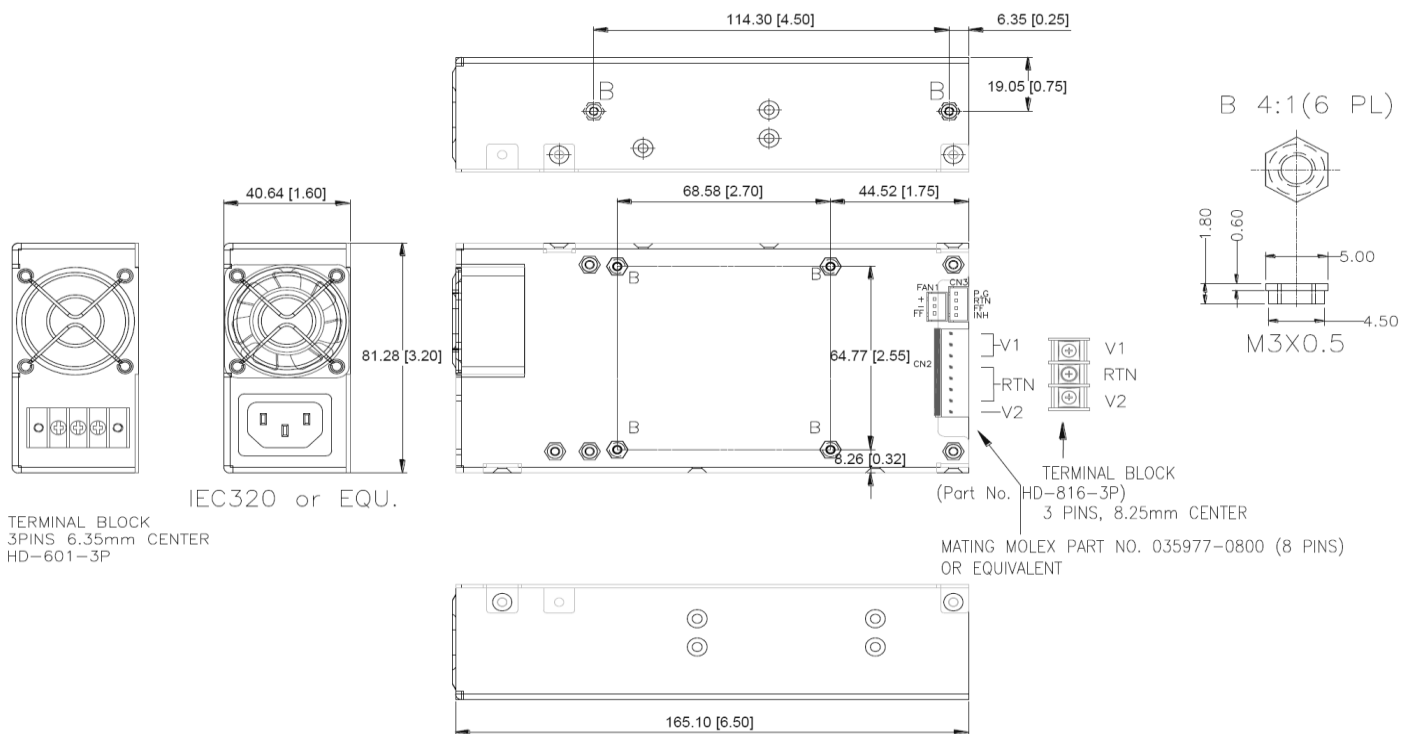
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Type **E**: Enclosed Case w/ Side Fan
Order as: SME240T2XXR



TERMINAL BLOCK
3PINS 6.35mm CENTER
HD-601-3P

IEC320 or EQU.

TERMINAL BLOCK
(Part No. HD-816-3P)
3 PINS, 8.25mm CENTER

MATING MOLEX PART NO. 035977-0800 (8 PINS)
OR EQUIVALENT



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