



Features:

- Universal Input 100 – 240 VAC
- Power Density: 5.15 watts/cu in.
- Power Factor Corrected to EN61000-3-2 class D
- 3 VDC – 60 VDC Output
- Over-Current Protection
- Over-Voltage Protection
- Peak Power 600W within 500uS Duty Duration
- 3 Mechanical Options
- RoHS Compliant



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

Input Current: 5.5A @ 90 VAC full load.

Inrush Current: 70A Max @ 230 VAC with full load cold start.

PFC: Power Factor Correction meets EN61000-3-2 Class D.

Fan Drive: 12VDC/400mA offering to drive an external fan.

Transient Response: output voltage return to within 1% in less than 2.5mS for a 50% dynamic load peak does not exceed 5%.

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

Efficiency: 70% for 3.3V, 75% for 5V, 80% for 12V and 82% minimum for others output (Measuring at 230V and full load).

Turn On Delay: 1 second maximum at 120 VAC.

Hold Up Time: 20mS min. at 80% of full load.

Adjustability: Output user adjustable +/-5% minimum.

Input Circuit Protection: One 250V/ 6.3A fuse inserted.

AC Under Voltage Protection: Power shut down when VAC in under 79 +/-2V and automatic recovery once back over 86 +/-3V.

Over Load Protection: 110 ~ 135% hiccup mode, auto-recovery.

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

Over Voltage Protection: Unit latching down when output exceed 130%, and recycle AC input to reset.

Over-Temperature Protection: Output voltage dropped in the event of excessive operating ambient 85°C, auto-recovery.

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

Power Supply On: Green LED designated as **LED1** on the PCB.

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

Storage Temperature: -20°C to +85°C.

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

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

Vibration: 5 ~ 50 Hz, acceleration 7.35 m/s*s on X,Y and Z Axis.

EMC Standards: CISPR 22 / EN55022 class B, EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11, EN55024 CE Marked (LVD).

Safety Regulation: Approved to UL60950-1, CSA C22.2 No. 60950-1, TUV EN60950-1 and CB certificate available.

Leakage Current: Regular Type 1.5mA @ 240 VAC. (optional for 500uA max. at 240 VAC / 200uA max. at 120 VAC input).

HI-POT Test: 3 Sec 1,500 VAC input line to chassis; 3,000 VAC primary to secondary; 1,500 VAC Primary to core.

Grounding Test: Apply 25A from the ground pin to the far most earthed connection point. Max. resistance 0.1ohm.

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

Cooling:

SDU350T1: 350W @ forced air or 230W @ convection.

SDC350T1: 350W @ forced air or 230W @ convection.

SDF350T1: 350W @ top built-in fan flow.

Burn in: 45°C for 1 hour @ 230 VAC with full load.

Enclosure:

SDU350T1 & SDC350T1: 8(L) x 4.25(W) x 2(H) inches.

SDF350T1: 8(L) x 4.25(W) x 2.5(H) inches.

Weight:

SDU350T1: 950g.

SDF350T1: 1050g.



SDY350T1 Series

Single Output, Switch Mode Power Supply
Active PFC, RoHS Compliant

Date: 8/28/09

Rev: 082809

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Output Voltage and Current Chart

Model Number**	Preset Voltage	Output Voltage Range	Max. Output Power/Current		Efficiency	Ripple & Noise
			Type <u>U</u> & <u>C</u> (Forced Air) Type <u>F</u>	Type <u>U</u> & <u>C</u> (Convection)		
SDY350T1XXR	3.3 VDC	3 - 4 VDC	240W	120W	70%	±1%
SDY350T1XXR	5 VDC	5 - 6 VDC	350W	175W	75%	±1%
SDY350T1XXR	12 VDC	12 - 13 VDC	350W	230W	80%	±1%
SDY350T1XXR	15 VDC	14 - 15 VDC	350W	230W	82%	±1%
SDY350T1XXR	18 VDC	16 - 21 VDC	350W	230W	82%	±1%
SDY350T1XXR	24 VDC	22 - 30 VDC	350W	230W	82%	±1%
SDY350T1XXR	36 VDC	31 - 41 VDC	350W	230W	82%	±1%
SDY350T1XXR	48 VDC	42 - 53 VDC	350W	230W	82%	±1%
SDY350T1XXR	54 VDC	54 - 60 VDC	350W	230W	82%	±1%

** To Determine Part Number:

- Replace "XX" with Required Output Voltage (5VDC = "05", 12VDC = "12", 48VDC = "48", ect.)
 - Replace "Y" with Desired Case Code:
 - Type U: U-Chassis @ 350 Watts Max. Output Power with 30CFM Airflow Cooling, or 230 Watts Convection.
 - Type C: U-Chassis with Cover @ 350 Watts Max. Output Power with 30CFM Airflow Cooling or 230 Watts Convection.
 - Type F: Enclosed with Top Built-In Fan @ 350 Watts Max. Output Power
 - Conformal Coating (Optional): Order as SDY350T1XXCR
 - Input/Output Connector: Crimp Style PCB Header [I/P: 5-Pin (3 Used), O/P: 10-Pin], or 4-Position Barrier Strip.
 - For Crimp Style PCB Header, Order as: SDY350T1XXR (Unchanged)
 - For 7-Position Barrier Strip, Order as: SDY350T1XXAR
- Example: SDF350T124R indicates a 24VDC Unit with an Enclosed, Top Fan Case and 10-Pin Crimp Style PCB Header.
- SDU350T148ACR indicates a 48VDC Unit with U-Chassis Case, 4-Position Barrier Strip, and Conformal Coating.



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Pin Connection: SDY350T1XXR

Pin	Input: 5-Pin Crimp Terminal
1	Ground
2	No Pin
3	Neutral
4	No Pin
5	Line
	Output: 10-Pin Crimp Terminal
1 - 5	Return (-)
6 - 10	V Output (+)

Pin Connection: SDY350T1XXAR

Pin	4-Position Barrier Strip
1 - 2	Return (-)
3 - 4	V Output (+)

AC Input Connector(CN1):

Howder 6-32. 3 pin Terminal block 9.5MM Center (HI-201-3P) or Molex Part No. 09-91-0500 or equivalent (5 pin,3 used). Pin 1: FG; Pin 2: Neutral; Pin 3: Line.

Output Connector(CN2):

Howder 6-32. 4 pin Terminal block 9.5MM Center (HI-201-4P) or Molex Part No. 09-91-1000 or equivalent (10 pins).

Output Pin Assignment:

(See table above)

FAN and PG Connector:

Mating JST XHP-2 or equivalent (CHYAO SHIUNN JS-2001-02)

Mounting Inserts: 8 Places 8-32 flush nut, screws must not protrude into unit by more than 4mm sees outline drawing for location.



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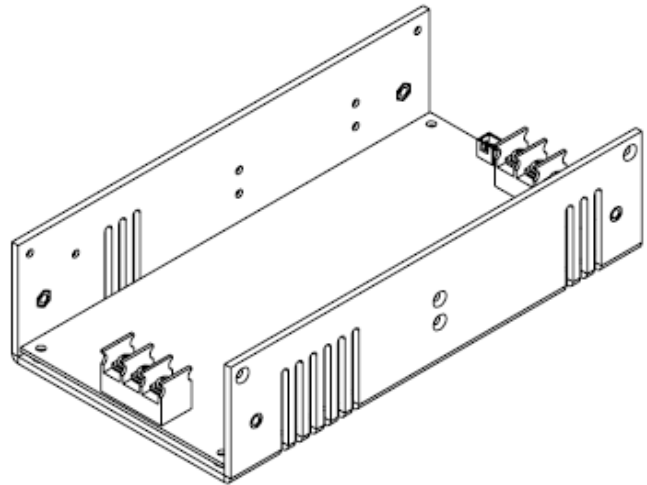
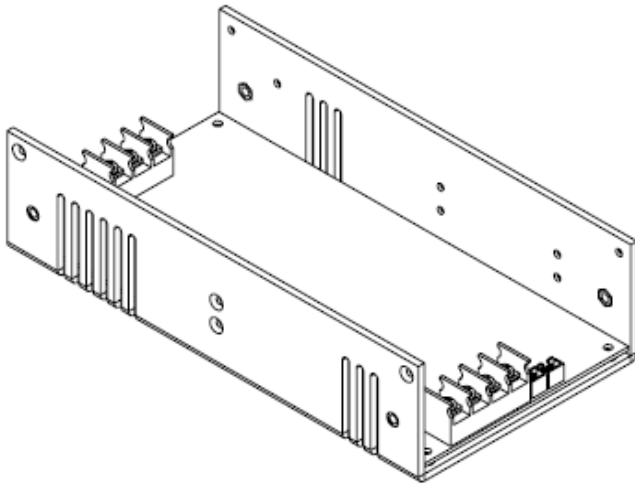
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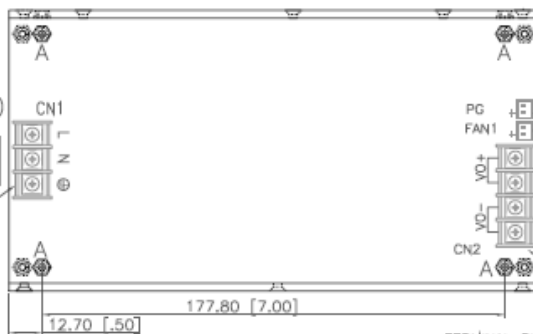
Type **U**: U-Chassis Case
Order as: SD**U**350T1XXR

Type **C**: U-Chassis Case w/ Cover
Order as: SD**C**350T1XXR



MOLEX PART NO.
09-91-0500 (5 PINS, 3 USED)
PIN NO.2,4 NC

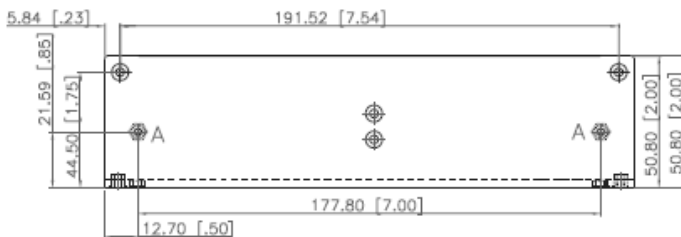
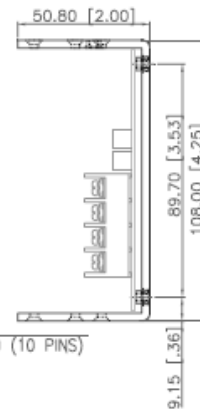
TERMINAL BLOCK
M3.5 SCREW 3PINS
9.5mm CENTER



TERMINAL BLOCK
M3.5 SCREW 8PINS 9.5mm CENTER

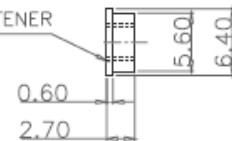
Mating JST XHP-2 or equivalent

MOLEX PART NO. 09-91-1000 (10 PINS)



A 4:1(BRASS) 8 Places

8-32 NUT FASTENER



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SDY350T1 Series

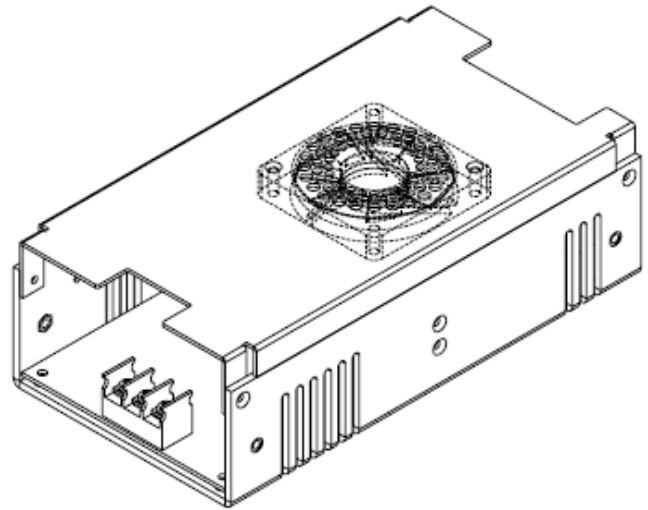
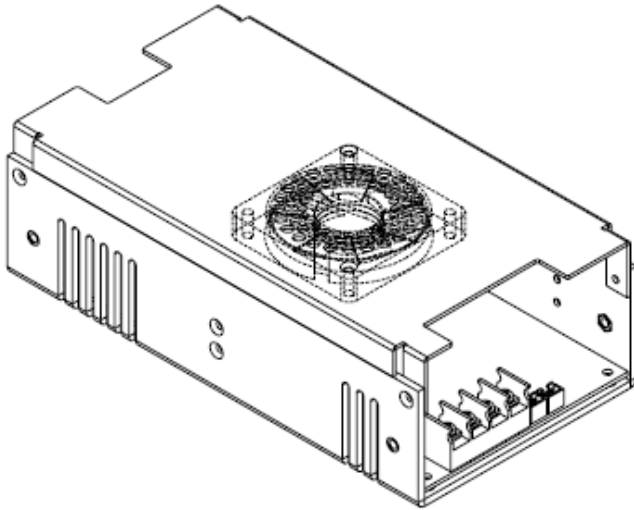
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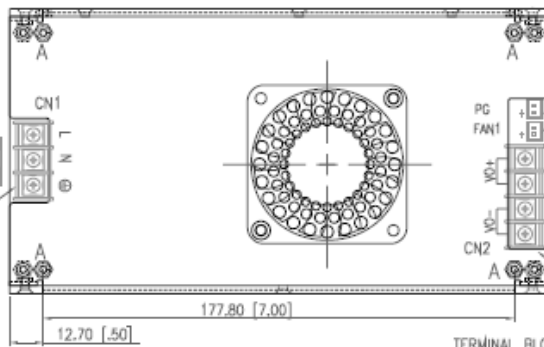
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Type **F**: Enclosed Case w/ Top Fan
Order as: SDE350T1XXR



MOLEX PART NO.
09-91-0500 (5 PINS, 3 USED)
PIN NO.2,4 NC

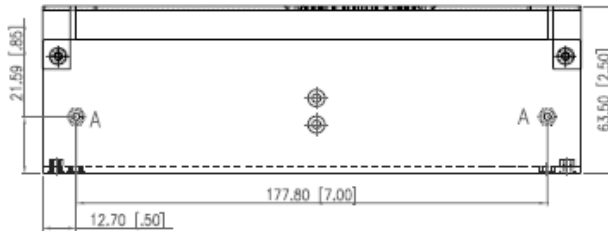
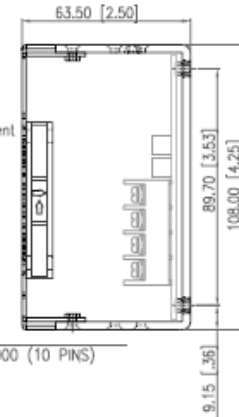
TERMINAL BLOCK
M3.5 SCREW 3PINS
9.5mm CENTER



TERMINAL BLOCK
M3.5 SCREW 8PINS 9.5mm CENTER

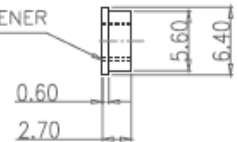
Mating JST XHP-2 or equivalent

MOLEX PART NO. 09-91-1000 (10 PINS)



A 4:1(BRASS 8 PLACES)

8-32 NUT FASTENER



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