



Features:

- Universal Input 100 – 240 VAC
- Power Factor Corrected to EN61000-3-2 class D
- 3.3 VDC – 56 VDC Output
- Over-Current Protection
- Over-Voltage Protection
- N+1 Active Current Sharing Available
- RoHS Compliant



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

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

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

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 overshoot < 5% over nominal voltage.

Efficiency: 70% for 3.3V, 75% for 5V, 80% for 12V and 83% minimum for others output @ 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 $\pm 5\%$ minimum.

Remote On-Off: Designated as **RSW** on CN3, requires a low signal to inhibit output.

Remote Sense: Designated as **RS+** and **RS-** on CN3, voltage compensates for up to 0.5V line drop (not for current share model).

LED display: Bi-color **LED1** emit Green for Power On; And emit Orange when protection is enable or RSW is applied a low signal.

Power Good: Designated as **PG** on the CN3 and TTL high 100-500ms after regulation. It goes low at least 1ms before loss of regulation for Power on Reset signal.

Current Sharing: Designated as **CSH** on the CN3, optional single wired for forced current sharing function and parallel up to 4 units within 10% accuracy at full load.

Current Monitor: Designated as **CMN** on the CN3 is a 0.5V to 3VDC output voltage to represent 0% to 100% output current.

Input Fusing Protection: a T10A/250V fuse is inserted in primary.

Input Voltage Protection: Power shut down under 80 ± 5 VAC, and recovered over 86 VAC.

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

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

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

Over-Temperature Protection: Unit protected of excessive operating ambient 85°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°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/s² on X,Y and Z Axis.

Emissions: FCC Part 15, CISPR 22 class B, Conducted.

Safety Regulation: Approved to UL60950-1, CSA C22.2 No. 60950-1-03, TUV EN60950-1, CE Mark (LVD) EN61000-3-2,3 & IEC61000-4 Series Regulations and CB.

Leakage Current: 3.5mA max. @ 240 VAC.

HI-POT Withstand Voltage: 1,500 VAC input line to chassis (10mA DC cut off current); Isolating 3,000 VAC primary to secondary windings; Primary to core 1,500 VAC. All for 3 sec.

Grounding Test: Apply 25 A from ground pin of the three prong plug to the far most earth. Max allowable resistance 0.1 ohm.

MTBF: 150,000 Hrs (according to MIL-HBK-217F) at 30°C.

Enclosure: 8(L) x 4.33(W) x 2.5(H) inches.

Cooling: Convection cooled.

Burn in: 45 ± 5 °C for 1 hour @ 230 VAC with full load.

Weight: 1350g.



SDY300T1R1 Series

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

Date: 9/8/09

Rev: 090809

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Output Voltage and Current Chart

Model Number**	Preset Voltage	Output Voltage Range	Max. Output Current	Efficiency	Ripple & Noise	Max. Output Power
SDY300T1R1XXR	3.3 VDC	2 - 3.3 VDC	50 A	70%	50mV	165W
SDY300T1R1XXR	5 VDC	5 - 6 VDC	45 A	75%	50mV	225W
SDY300T1R1XXR	12 VDC	12 - 15 VDC	25 A	80%	±1%	300W
SDY300T1R1XXR	18 VDC	16 - 21 VDC	18.75 A	83%	±1%	300W
SDY300T1R1XXR	24 VDC	22 - 30 VDC	13.63 A	83%	±1%	300W
SDY300T1R1XXR	36 VDC	31 - 47 VDC	9.68 A	83%	±1%	300W
SDY300T1R1XXR	48 VDC	48 - 56 VDC	6.25 A	83%	±1%	300W

** To Determine Part Number:

- Replace "XX" with Required Output Voltage (12VDC = "12", 48VDC = "48", ect.)
 - Conformal Coating (Optional): Order as SDY300T1XXCR
 - Input/Output Connector: Crimp Style PCB Header [I/P: 7-Pin (5 Used), O/P: 20-Pin), or 8-Position Barrier Strip.
For Crimp Style PCB Header, Order as: SDY300T1R1XXR (Unchanged)
For 8-Position Barrier Strip, Order as: SDY300T1R1XXAR
- Example: SDC300T1R148ACR indicates a 48VDC Unit with U-Chassis Case w/Cover, 8-Position Barrier Strip, and Conformal Coating.

AC Input Connector (CN1):

Mating Molex Part No. 09-91-0700 or equivalent (7 pin. 5 used) or Howder Terminal block Part No. HD-121-3P.

Output Connector (CN2):

Mating Molex Part No. 09-91-2000 (20 pin) or Howder Terminal block Part No. HD-121-8P (8 pin).

Output Pin Assignment:

See table on right.

Logic signal connectors (CN3):

Mating JST XHP-7 or equivalent (CHYAO SHIUNN JS-2001-07).

Fan Drive:

12VDC/500mA Mating JST XHP-2 or equivalent (CHYAO SHIUNN JS-2001-02).

Mounting Inserts:

6-32, M4 4 Places individually with maximum penetration 0.2 inch on bottom side and 0.25 inch on both side.

Pin Connection: SDY300T1R1XXR

Pin	Input: 7-Pin Crimp Terminal
1 - 2	Line
3	No Pin
4 - 5	Neutral
6	No Pin
7	Ground
	Output: 20-Pin Crimp Terminal
1 - 10	V Output (+)
11 - 20	Return (-)

Pin Connection: SDY300T1R1XXAR

Pin	8-Position Barrier Strip
1 - 4	V Output (+)
5 - 8	Return (-)



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Type **U**: U-Chassis Case
Order as: SD**U**300T1R1XXR

Type **C**: U-Chassis Case with Cover
Order as: SD**C**300T1R1XXR

