Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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SDH400

AC-DC Power Supplies

XP Power

400 Watts

- Convection-cooled
- Single and Dual Outputs
- Up to 700 W Peak Power on Single Output Versions
- Power Good and Remote On/Off
- Optional Connectors
- Fits 1U Applications
- 3 Year Warranty

The SDH400 series provide up to 400 W with only convection cooling in a low profile (1.6") chassis mount format. Single outputs are available from 3.3 – 60 VDC and there are three dual output models offering combinations from 5V to 24 VDC. The full convection rating is available from 90 – 264 VAC input in ambient temperatures up to 50 °C providing power solutions for global use without the need for de-rating. All models comply with level B for both conducted and radiated emissions.

Dimensions:

SDH:
8.00 x 5.00 x 1.60" (203.0 x 127.0 x 40.64 mm)

Models & Ratings

Output	Output 1[2]		Output 2		Model Number [1]
	Voltage	Current	Voltage	Current	
200 W	3.3 VDC	60.00 A			SDH400PS03[3]
300 W	5.0 VDC	60.00 A			SDH400PS05[3]
400 W	12.0 VDC	33.33 A			SDH400PS12
400 W	15.0 VDC	26.66 A			SDH400PS15[3]
400 W	18.0 VDC	22.22 A			SDH400PS18[3]
400 W	24.0 VDC	16.66 A			SDH400PS24
400 W	36.0 VDC	11.11 A			SDH400PS36[3]
400 W	48.0 VDC	8.33 A			SDH400PS48
400 W	54.0 VDC	7.40 A			SDH400PS54[3]
400 W	60.0 VDC	6.66 A			SDH400PS60[3]
300 W	+5.0 VDC	35.00 A	+12.0 V	16.67 A	SDH400PD0512
300 W	+5.0 VDC	35.00 A	+24.0 V	8.33 A	SDH400PD0524
400 W	+12.0 VDC	25.00 A	+24.0 V	12.5 A	SDH400PD1224

Notes

1. Standard models have screw terminals, for optional Molex input terminals add suffix '-F-, for optional Molex output terminals add suffix '-G' and for optional Molex input and output terminals add suffix '-FG'. Molex output terminals are not available on 3V3 and 5V single output versions or 0512 and 0524 dual output versions.

2. Output peak power of 700 W for 500 µs is available on single output models.

3. Available for OEM quantities, contact sales.

Summary

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Range	90		264	VAC	
Signals					Power Good
Efficiency		88 / 85		%	Single output / Dual output at 230 V and full load
Operating Temperature	0		+70	°C	Derate at 2.5%/°C from +50 °C to +70 °C
Weight		2.42/1.1		lb (kg)	
EMC	EN55022 Level B Conducted & Radiated, EN61000-4, EN61000-3				
Safety Approvals	EN60950-1, UL60950-1, CSA22.2 No.60950-1				

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage	90		264	VAC	
Input Frequency	47		63	Hz	
Input Current		4.1		A	115 VAC (2.0 A at 230 VAC)
Inrush Current		70		A	230 VAC (35 A at 115 VAC)
Power Factor		>0.9			EN61000-3-2 class A
Earth Leakage Current		<0.5		mA	264 VAC
Input Protection	T6.3 A/250 V fuse				

Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage	3.3		60	VDC	See Models and Ratings table
Output Voltage Trim		±5		%	V1 (V2 of dual output models will track by same % of adjustment)
Initial Set Accuracy		±1		%	
Minimum Load	1 / 10			A	Single / Dual (for regulation)
Start Up Delay			2.0	s	115 VAC
Start Up Rise Time		40		ms	PD1224 model typically 80ms
Hold Up Time	10	13		ms	115 VAC
Drift			±0.5	%	After 20 min warm up
Line Regulation			±0.5	%	
Load Regulation		±1 / ±3 / ±5		%	Single / Dual V1 / Dual V2 outputs
Over/Undershoot		1.5	5	%	
Transient Response			±5	%	Deviation, recovery to within 1% in 500 µs for a 50% load change
Ripple & Noise			1	% pk-pk	Measured at 20 MHz BW and 22 µF electrolytic and 0.1 µF ceramic at terminals
Overvoltage Protection			130	%	V1 recycle AC input to reset
Overload Protection	110		140	%	
Short Circuit Protection - V1					Trip and restart, auto recovery
Remote On/Off	Applying short circuit between Remote On/Off pin and signal return turns output off.				
Remote Sense	Compensates for 0.5 V max. voltage drop on single output models only.				

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		88 / 85		%	Single output / Dual output at 230 V and full load
Isolation: Input to Output			3000	VAC	
Input to Ground			1500	VAC	
Output to Ground			250	VDC	
Switching Frequency		60 / 27		kHz	PFC / PWM
Power Density		6.25		W/in^3	
Signals					Power Good
Mean Time Between Failure	115			kHrs	MIL-HDBK-217F at 25 °C GB
Weight		2.42/1.1		lb (kg)	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	0		+70	°C	Derate at 2.5%/°C from +50 °C to +70 °C
Storage Temperature	-20		+85	°C	
Cooling					Convection-cooled
Operating Altitude			3000	m	
Vibration	5		50	Hz	Acceleration 7.35 ms^2 on 3 axes

EMC: Emissions

Phenomenon	Standard	Test Level	Notes & Conditions
Conducted	EN55022	Level B	
Radiated	EN55022	Level B	
Harmonic Current	EN61000-3-2	Class A	Class C for loads ≥70%
Voltage Flicker	EN61000-3-3		

EMC: Immunity

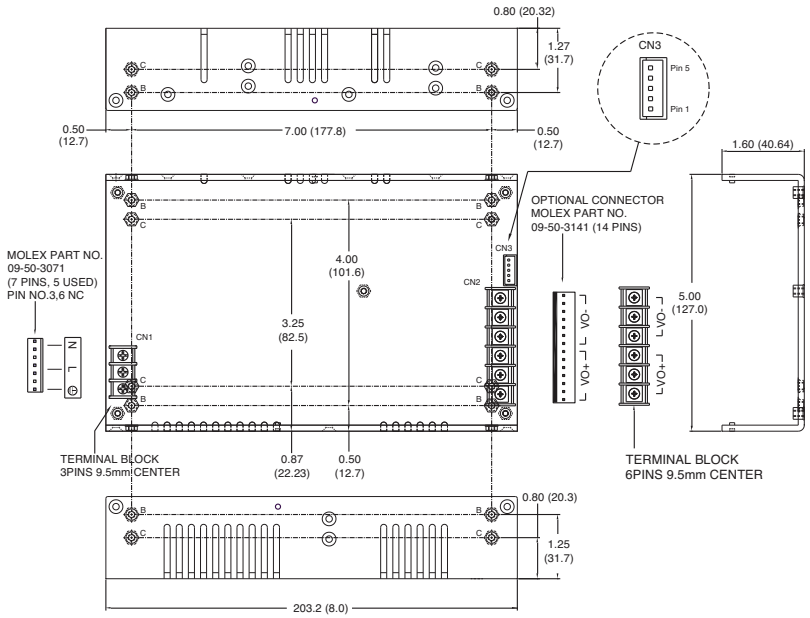
Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD	EN61000-4-2	Level 3	A	
Radiated	EN61000-4-3	Level 2	A	
EFT	EN61000-4-4	Level 2	A	
Surges	EN61000-4-5	Installation class 3	A	
Conducted	EN61000-4-6	Level 2	A	
Dips and Interruptions	EN61000-4-11	DIP: 30% 10 ms DIP: 60% 100 ms INT: 100% 5000 ms	A A/B B	Highline/Lowline

Safety Approvals

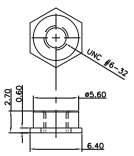
Safety Agency	Safety Standard	Notes & Conditions
UL	UL60950-1 (2007), CSA 22.2 No.60950-1-1:08	
CSA	C22.2 No.60950-1	
TUV	EN60950-1	

Mechanical Details

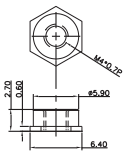
Single Model



B: MOUNTING HOLE 8 PLACE
6-32 UNC(Zn-plated)
SCALE 4:1

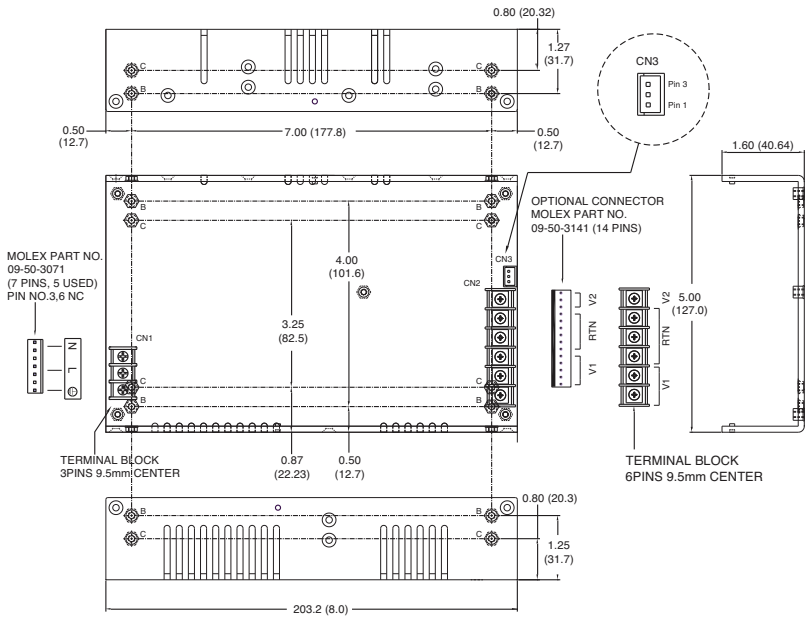


C:MOUNTING HOLE 8 PLACE
M4X0.7 (BRASS)
SCALE 4:1



CN3 Signals	
Pin	Function
1	Power Good
2	Return
3	Remote On/Off
4	-Remote Sense
5	+Remote Sense

Dual Model



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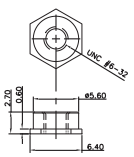
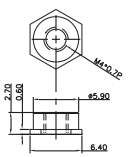
6-32 UNC(Zn-plated)
SCALE 4:1



C:MOUNTING HOLE 8 PLACE
M4X0.7 (BRASS)
SCALE 4:1



CN3 Signals	
Pin	Function
1	Power Good
2	Return
3	Remote On/Off

Notes

1. All dimensions in inches (mm).
2. Tolerance .xx = ±0.02 (0.50); .xxx = ±0.01 (0.25)
3. Weight: 2.42 (1.1)