



LS200 Series

Single Output 150 - 200W
General Purpose Power Supplies

- Very low cost
- Small size
- Power factor corrected
- Wide range AC Input
- Convection or fan cooled
- Three year warranty
- 41mm high (for 1U racking)
- 250W peak rating on 24 & 36V models

Key Market Segments & Applications

Test and Measurement	Light Industrial
Automated Service	Kiosks
LED Lighting & Displays	

LS200 Features and Benefits

Features

- High MTBF
- High efficiency
- -25 to +70°C operating temperature
- Low derating above 50°C (up to 60% load available at 70°C)
- Curve B EMC

Benefits

- Superior reliability
- Easier system cooling
- Suitable for indoor & outdoor enclosures
- Improved system power optimisation
- Assists system compliance

Specifications

MODEL		LS200 (enclosed style with internal fan)	LS200/L (U channel style - no internal fan)
ITEMS			
AC Input Voltage (300VAC for 5s)	VAC	85 - 264VAC	
Input Frequency	Hz	47 - 63Hz	
DC Input Voltage	VDC	120 - 373VDC	
Inrush Current (230VAC, cold start)	A	60	
Power Factor	-	Meets EN61000-3-2, -3 (Typical PF 0.98/0.95) (1)	
Input Current (115/230VAC)	A	3.5 / 1.7 (typical)	
Temperature Coefficient	-	<0.02%/°C (0 - 50°C)	
Overcurrent Protection (2)	-	> 105% of nominal or peak. Constant current style	
Overvoltage Protection (2)	V	3.3V: 3.8 - 4.45V, 5V: 5.75 - 6.75V, 7.5V: 8.6 - 8.1V, 12V: 15.1 - 17.75V 15V: 17.25 - 20.25V, 24V: 30.25 - 35.5V, 36V: 41.4 - 48.6V, 48V: 60 - 69.6V	
Hold Up Time (115/230V input)	ms	20ms	
Leakage Current (230VAC 60Hz)	mA	<1mA	
Remote Sense	-	Yes	
Remote On/Off	-	On: 0 - 0.8V; Off: 3 - 12V	
LED Indicator	-	Green LED = On	
Operating Temperature	-	-25 to +70°C see derating curves	
Storage Temperature	°C	-40 to +85°C	
Operating Humidity	-	20 - 90% RH (non condensing)	
Storage Humidity	-	10 - 95% RH (non condensing)	
Cooling	-	Fan cooled (exhaust from fan end)	Convection or customer supplied airflow
Withstand Voltage	-	Input to Ground 1.5kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min.	
Isolation Resistance	-	>100MΩ at 25°C & 70%RH, Output to Ground 500VDC	
Vibration (non operating)	-	10 - 55Hz: 19.6m/s ² constant sweep 1 min X, Y, Z for 1 hour	
Shock	-	< 196.1 m/s ² (20G)	
Immunity	-	IEC61000-4-2, -3, -4, -5, -6, -8, -11	
Safety Agency Approvals	-	UL60950-1, CSA60950-1 (cUL), IEC60950-1 2nd Edition, CE Mark	
Conducted & Radiated EMI	-	EN55011/EN55022-B, FCC--B	
MTBF (MIL-HDBK-217F)	hrs	300,000	
Weight (Typ)	g	700	600
Size (LxWxH)	mm	199 x 98 x 41	
Warranty	yrs	3	

Notes (1) 115 / 230VAC input

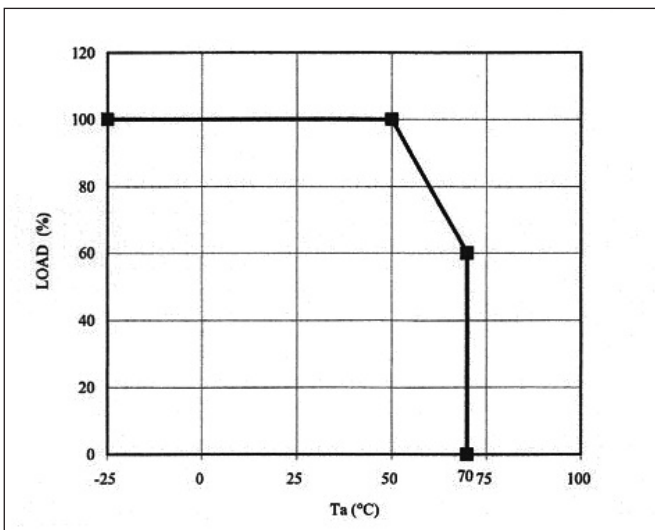
(2) Recycle AC to reset

Model Selector									
Model	Voltage	Adjust Range Range (V)	Max Current (A) (3)	Max Current Convection (A) (at nom output voltage)	Peak Current <10s, >35% DC (A)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Efficiency (typ) % (1)
LS200-3.3	3.3V	3.0 - 3.6	40	N/A	-	40	16	80	67 / 68
LS200-5	5V	4.75 - 5.5	40	N/A	-	40	20	80	72 / 75
LS200-7.5	7.5V	6.8 - 8.2	26.7	N/A	-	40	20	80	74 / 77
LS200-12	12V	10.8 - 14.4	16.7	N/A	-	96	48	120	76 / 79
LS200-15	15V	13.5 - 16.5	13.4	N/A	-	120	60	120	80 / 83
LS200-24	24V	22 - 28.8	8.4	N/A	10.4	192	96	120	82 / 84
LS200-36	36V	32 - 40	5.6	N/A	6.9	288	144	150	82 / 85
LS200-48	48V	42 - 57.6	4.2	N/A	-	384	192	200	82 / 85
LS200-3.3/L	3.3V	3.0 - 3.6	40	26	-	40	16	80	67 / 68
LS200-5/L	5V	4.75 - 5.5	40	26	-	40	20	80	72 / 75
LS200-7.5/L	7.5V	6.8 - 8.2	26.7	17.3	-	40	20	80	74 / 77
LS200-12/L	12V	10.8 - 14.4	16.7	11.6	-	96	48	120	76 / 79
LS200-15/L	15V	13.5 - 16.5	13.4	9.3	-	120	60	120	80 / 83
LS200-24/L	24V	22 - 28.8	8.4	5.8	10.4	192	96	120	82 / 84
LS200-36/L	36V	32 - 40	5.6	3.9	6.9	288	144	150	82 / 85
LS200-48/L	48V	42 - 57.6	4.2	2.9	-	384	192	200	82 / 85

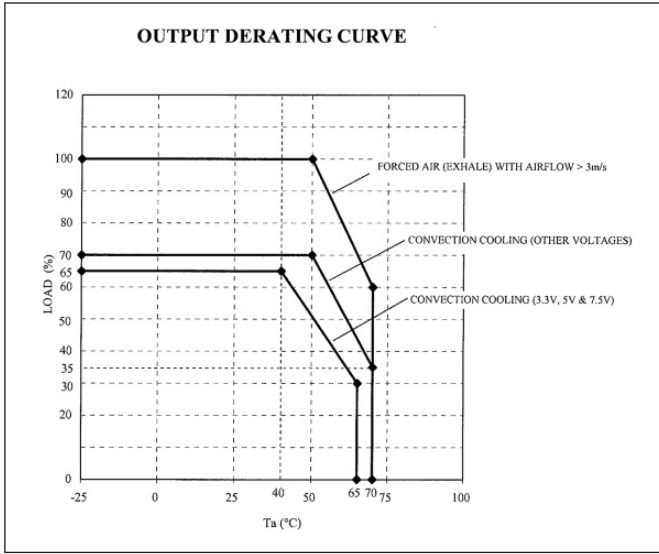
Notes
 (3) Internal fan version or customer supplied airflow for /L models

Options	
Suffix	Description
/L	No cover or fan (U channel)
Blank	Cover and fan

Derating Curve LS200



Derating Curve LS200/L



Outline Drawing LS200 Series

SIGNAL CONNECTOR INFORMATION

SBB-PHDS5 (LF)(SN)	1. +V ₁
	2. +S
	3. -V ₁
	4. -S
	5. NC
	6. NC
	7. CNT+
	8. CNT-

SIGNAL CONNECTOR USED

PART DESCRIPTION	PART NAME	MANUFACT
PIN HEADER	S10B-PHDS5(LF)(SN) (CN2)	JST

MATCHING HOUSINGS, PIN & TOOL

PART DESCRIPTION	PART NAME	MANUFACT
SOCKET HOUSING	PHDR-10VS (CN2)	JST
TERMINAL PINS	SPHD-002T-P05(AWG28-24) SPHD-001T-P05(AWG28-22)	JST
HAND CRIMPING TOOL	YRS-620(SPHD-002T-P0.5) YC-610R(SPHD-001T-P0.5)	JST

==ACCESSORIES==

* SHORT PIECE _____ 1
SHORTING +V₁ → +S, -V₁ → -S, CNT+ → CNT-
(ATTACHED ON CN2 AT SHIPMENT)

NAME PLATE

SEE NOTE A

NOTES

A. MODEL NAME NOMINAL OUTPUT VOLTAGE AND MAXIMUM OUTPUT CURRENT ARE SHOWN IN THE NAME PLATE IN ACCORDANCE WITH THE SPECIFICATION.

B. M4 COUNTERSUNK & EMBOSSED HOLES (2) FOR CUSTOMER CHASSIS MOUNTING SCREW MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 5mm.

C. M4 COUNTERSUNK & EMBOSSED HOLES (8) FOR CUSTOMER CHASSIS MOUNTING SCREW MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 8mm.