

1800W 3ph Industrial Power Supplies

Features

- ◆ Limited Lifetime Warranty
- ◆ 208VAC Three Phase Input
- ◆ High Efficiency
- ◆ SEMI F47 Compliant
- ◆ Compact Size



Key Market Segments & Applications



Specifications

Model		HWS1800
Input Voltage Range	-	208VAC, Three phase 170 - 265VAC (47 - 63Hz)
Input Current (Typical)	A	3.3V: 4.5A, 5V to 15V: 6A, 24 to 60V: 7A
Inrush Current (200VAC)	A	40A
Power Factor	-	Typically 0.94
Temperature Coefficient	-	<0.02%/°C
Overcurrent Protection	-	>105% of maximum / peak current rating
Overvoltage Protection	V	See table on page 2. Cycle input to reset or use remote on/off function
Hold Up Time (Typ)	ms	3.3V to 15V: 20ms, 24 to 60V: 18ms at 200VAC
Leakage Current (max)	mA	<2.6mA at 240VAC 60Hz
Remote Sense	-	Yes
Indicator	-	Green LED = ON
Remote on/off	-	Yes
Parallel operation	-	Single wire connection
DC Good	-	Yes
Remote Adjust (PV)	-	External voltage adjusts output voltage. See Instruction Manual
Operating Temperature	°C	-10°C to +71°C, see output derating curves, -20°C start up
Storage Temperature	°C	-30 to +85°C
Humidity (non condensing)	-	Operating: 10 - 90%RH, Non operating 10 - 95%RH
Cooling	-	Internal fan
Withstand Voltage	-	I/P to Grnd 2kVAC, I/P to O/P 3kVAC, O/P to Grnd 500VAC (1), O/P to CNT 100VAC for 1 min
Isolation Resistance	-	>100M at 25C & 70%RH, Output to Ground 500VDC
Vibration (non operating)	-	10 - 55Hz (1 minute sweep), 19.6m/s ² constant X, Y, Z 1 hour
Shock (In package)	-	< 196.1 m/s ²
Safety Agency Approvals	-	UL60950-1, CSA60950-1, EN60950-1, EN50178
Line Dip	-	Complies with SEMI F47
Conducted & Radiated EMI	-	EN55011 / EN55022-A, FCC-A, VCCI-A
Immunity	-	IEC61000-4-2, -3, -4, -5, -6, -8
Weight (Typ)	g	3800
Size (WxHxD)	in	4.98 x 3.23 x 11"
Warranty	yrs	Limited lifetime warranty (See Lambda's terms & conditions)

Notes:

(1) HWS1800T-60V: 651VAC

[illegible]

		Adjust	Max	Peak	Max	Peak	Load	Line	Ripple		Efficiency
	Voltage	Range	Curr.	Curr.	Power	Power	Reg	Reg	Noise	Overshoot	(typ)
Model	V	V	A	A(2)	W	W2	mV	mV(3)	mV	V	%
HWS1800T-3	3.3	2.64 - 3.96	300	-	990	-	60	36	120	4.12 - 4.62	75
HWS1800T-5	5	4 - 6	300	-	1500	-	60	36	120	6.25 - 7.0	81
HWS1800T-6	6	4.8 - 7.2	250	300	1500	1800	60	40	150	7.5 - 8.4	82
HWS1800T-7	7.5	6 - 9	200	240	1500	1800	60	40	150	9.37 - 10.5	84
HWS1800T-12	12	9.6 - 14.4	125	150	1500	1800	72	48	200	15 - 17.4	84
HWS1800T-15	15	12 - 18	100	120	1500	1800	90	60	200	18.7 - 21.8	84
HWS1800T-24	24	19.2 - 28.8	75	105	1800	2520	144	96	250	30 - 34.8	88
HWS1800T-36	36	28.8 - 43.2	50	70	1800	2520	216	144	250	45 - 49.7	88
HWS1800T-48	48	38.4 - 52.8	37.5	52.5	1800	2520	288	192	300	55.2 - 60	90
HWS1800T-60	60	48 - 66	30	42	1800	2520	360	240	400	69 - 75	90

(3) 180 - 265VAC

Figure 1 is a line graph titled "OUTPUT DERATING CURVE". The vertical axis is labeled "LOAD(W)" and ranges from 0 to 2000 in increments of 200. The horizontal axis is labeled "Ta(°C)" and ranges from -10 to 80 in increments of 10. There are four data series representing different input voltages: 3V (dashed line), 5V (dash-dot line), 6V-15V (dotted line), and 24V-60V (solid line). All curves show a constant load capacity until approximately 40°C, after which they derate linearly. The 3V and 5V curves derate most sharply, while the 24V-60V curve derates most gradually.

Ta (°C)	3V Load (W)	5V Load (W)	6V-15V Load (W)	24V-60V Load (W)
-10	1450	1000	1000	1000
0	1450	1000	1000	1000
10	1450	1000	1000	1000
20	1450	1000	1000	1000
30	1450	1000	1000	1000
40	1450	1000	1000	1000
50	1650	1250	1150	850
60	1350	1050	1000	700
70	850	650	750	550

HWS	15W to 1500W single output, single phase
LZSA	500W to 1500W single output
SWS	50W to 1000W, low cost
DPP, DLP & DSP	10W to 960W DIN Rail mount

