



HWS 300/600/1500



Single Output Industrial Power Supplies

- ◆ 5 Year Warranty
- ◆ UL508 approved
- ◆ SEMI F47 Compliant (high line AC)
- ◆ Universal Input (85 - 265VAC)
- ◆ High Efficiency
- ◆ RoHS Compliant design

Key Market Segments & Applications

Factory Automation
 Test & Measurement
 Automated Service

HWS Features and Benefits

Feature	Benefit
◆ 5 Year Warranty	◆ Lower Cost of Ownership
◆ High Efficiency	◆ Easier System Cooling
◆ Wide Range AC Input	◆ Supports Global Use

Specifications

MODEL		HWS300	HWS600	HWS1500
ITEMS				
Input Voltage range	-	85 - 265VAC (47 - 63Hz), (120 - 330VDC HWS300, 600 only)		
Input Current (Typ)	(1) A	5V: 3.8/1.9; 12-48V: 4.2/2.1	5V: 7.5/3.6; 12-48V: 8.1/3.9	19/10
Inrush Current	(1) A	20 / 40		
Power Factor	-	Meets EN61000-3-2		
Temperature Coefficient	-	<0.02%/°C		
Overcurrent Protection	-	>105% (>101% of peak current for 24V output models)		
Overvoltage Protection	V	3.3V: 125-150%, 5V to 24V: 125-145%, 48V: 115-135% (Recycle AC or remote on/off to reset)		
Hold Up Time (Typ)	ms	20		
Leakage Current (240VAC, 60Hz)	mA	<0.75mA		<1.5mA
Remote Sense	-	Yes		
Indicator	-	Green LED = ON		
Remote On/Off	-	Yes (Isolated from output)		
Parallel operation	-	Single wire connection (up to 5 units)		
DC Good	-	Yes		
Remote Adjust (PV)	-	1-6V external voltage adjusts output 20-120% of nominal (20-110% 48V model). Optional on 300/600W		
Operating Temperature	°C	-10°C to +70°C, derate linearly to 50% load from 50°C to 70°C (2, 3)		
Storage Temperature	°C	-30 to +85°C		
Humidity (non condensing)	-	Operating: 10 - 90%RH, Non operating 10 - 95%RH		
Cooling	-	Internal fan		
Withstand Voltage	(4) -	Input to Ground 2.5kVAC, Input to Output 3kVAC, Output to Ground 500VAC for 1 min.		
Isolation Resistance	-	>100M at 25°C & 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	-	< 196.1 m/s ²		
Safety Agency Approvals	(5) -	UL60950-1, CSA60950-1, EN60950-1, EN50178, UL508 (HWS300-24, 600-24 only), CE Mark		
Line Dip	-	Complies with SEMI F47 (200VAC line only)		
Conducted & Radiated EMI	-	EN55011 / EN55022, FCC VCCI (HWS300 & 600: Class B, HWS1500: Class A)		
Recommended EMI Filter	-	MC1206	MC1210	MC1230
Immunity	-	IEC61000-4-2, -3, -4, -6 (Level 3), -5, -8 (Level 4), -11		
Weight (Typ)	g	1,000	1,600	3,800
Size (WxHxD)	in	2.4 x 3.23 x 6.5"	3.94 x 3.23 x 6.5"	5 x 3.25 x 11"
Warranty	yrs	Five Years		

Notes:

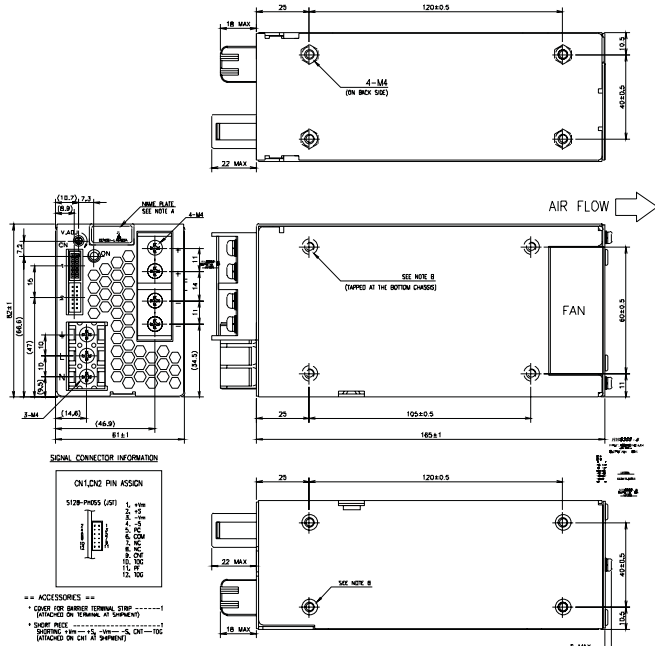
- (1) 100/200VAC
- (2) Start up at -20°C (HWS1500)
-40°C start up, see options table

- (3) HWS1500 with 85VAC input: -10 to 50°C derate to 80% load, derating linearly to 40% load from 50°C to 70°C
- (4) 2kVAC HWS1500
- (5) UL60601-1, EN60601-1, see options

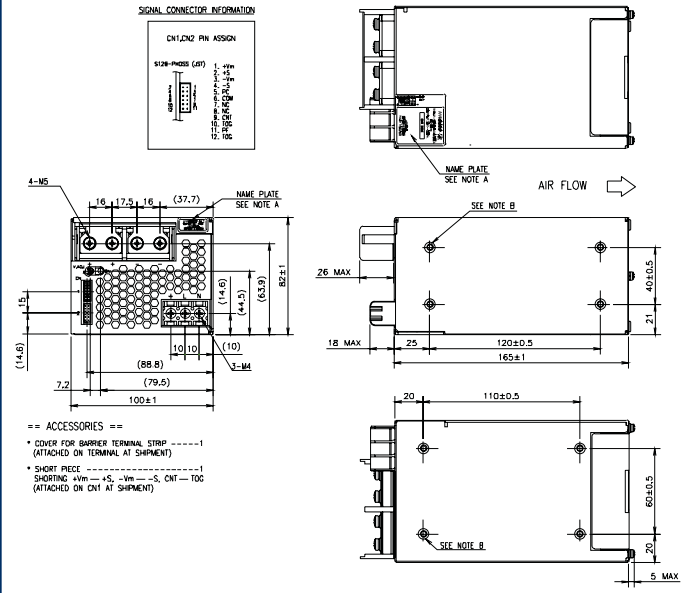


HWS 300/600/1500

HWS300 Outline Drawing



HWS600 Outline Drawing



Output Ratings

Model	Voltage V	Adjust Range ³ V	Max Curr. A	Peak Curr. A ²	Load Reg mV	Line Reg mV	Ripple Noise mV	Eff. typ % ¹
HWS300-3	3.3	2.64 - 3.96	60	-	30	20	120	74/77
HWS600-3	3.3	2.64 - 3.96	120	-	30	20	120	75/78
HWS300-5	5	4.0 - 6.0	60	-	30	20	120	79/82
HWS600-5	5	4.0 - 6.0	120	-	30	20	120	80/83
HWS300-12	12	9.6 - 14.4	27	-	72	48	150	80/83
HWS600-12	12	9.6 - 14.4	53	-	72	48	150	80/83
HWS1500-12	12	9.6 - 14.4	125	-	72	48	150	82/85
HWS300-15	15	12.0 - 18.0	22	-	90	60	150	82/85
HWS600-15	15	12.0 - 18.0	43	-	90	60	150	82/85
HWS1500-15	15	12.0 - 18.0	100	-	90	60	150	83/87
HWS300-24	24	19.2 - 28.8	14	16.5	144	96	150	82/85
HWS600-24	24	19.2 - 28.8	27	31	144	96	150	82/85
HWS1500-24	24	19.2 - 28.8	65/70 ¹	105	144	96	200	84/88
HWS1500-36	36	28.8 - 43.2	42/46.5	70	150	144	200	84/88
HWS300-48	48	38.4 - 52.8	7	-	288	192	350	82/85
HWS600-48	48	38.4 - 52.8	13	-	288	192	350	82/85
HWS1500-48	48	38.4 - 52.8	32	-	288	192	200	86/90

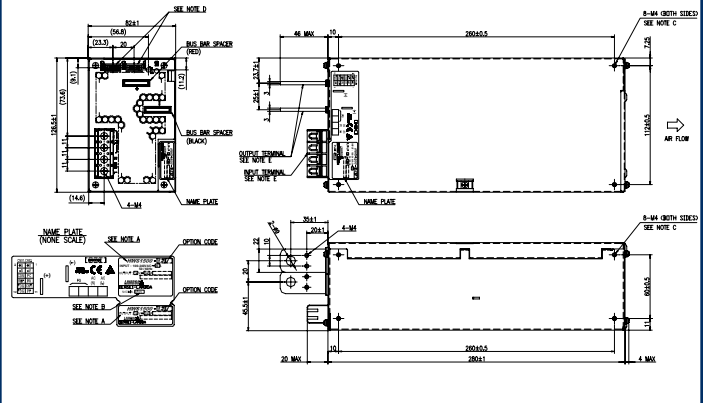
Notes
 (1) 100/200VAC
 (2) 200-265VAC Input, 10s maximum on time with 35% duty cycle
 (3) Use program input (PV) to adjust from 20-120% of nominal (20-110% for 48V models)

Other Lambda Industrial Products

HWS	15W to 150W single output
LZS	250W to 1500W Single output
JFS	500W to 2000W Single output
DPP, DLP & DHP	15W to 480W DIN Rail Mount

For Additional Information, please visit
www.lambdapower.com/products/hws-series.htm

HWS1500 Outline Drawing



Options

Suffix	Description
Blank	HWS300-1500 the cover is fitted as standard
/A	Not Applicable
/PV	HWS300-1500 the cover is fitted as standard HWS300, 600 (Standard on HWS1500): 1-6V program voltage input to adjust output 20-120% of nominal (20-110% for 48V)
/HD	See HWS50-600/HD Datasheet for details. -40 to +71(74)°C operation, conformally coated PCBs
/ME	See HWS30-600/ME Datasheet for details. UL60601-1, EN60601-1 medical approvals