



HWS Series

15 -150W Single Output
Industrial Power Supplies

- Lifetime Warranty
- UL508 approved
- SEMI F47 Compliant (high line AC)
- Universal Input (85 - 265VAC)
- High Efficiency
- RoHS Compliant Design

Key Market Segments & Applications

Factory Automation	Process Control, NC-Machining, Automotive, Packaging Equipment, Materials Handling, Chemical Processing, Robots
Test & Measurement Automated Service	Burn-in & Test, Automated Test, Instrumentation, Measurement, Detection

HWS Features and Benefits

Features

- Lifetime Warranty
- High Efficiency
- Wide Range AC Input

Benefits

- Lower Cost of Ownership
- Easier System Cooling
- Supports Global Use

Specifications

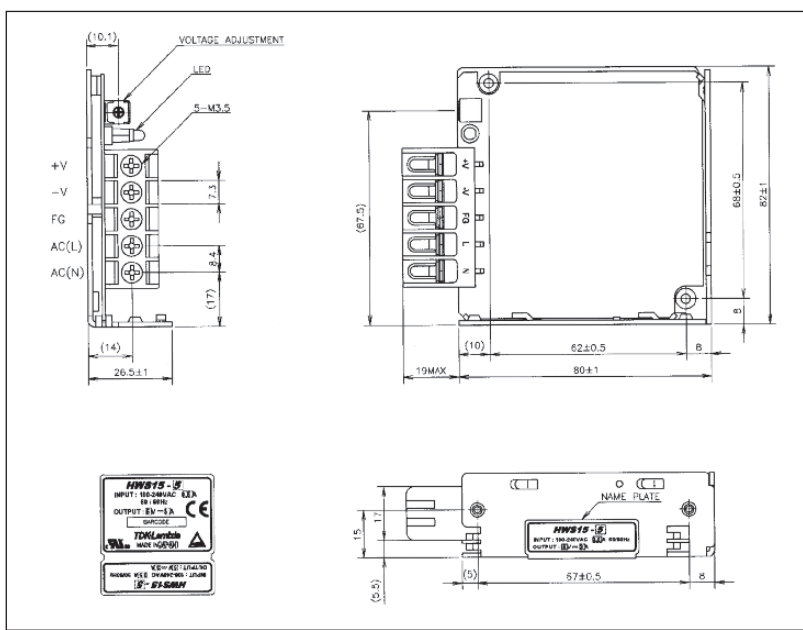
ITEMS	MODELS	HWS15	HWS30	HWS50	HWS100	HWS150
Input Voltage range	-	85 - 265VAC (47 - 63Hz) or 120 - 370VDC				
Input Current (Typ) (1)	A	0.4/0.2 (3.3V: 0.3 / 0.5)	0.8/0.4 (3.3V: 0.6 / 0.3)	0.7/0.35 (3.3V: 0.5 / 0.25)	1.3/0.65 (3.3V: 0.9 / 0.45)	1.9/0.95 (3.3V: 1.3 / 0.65)
Inrush Current 100/200VAC	A	14 / 28				
Power Factor	-	Meets EN61000-3-2				
Temperature Coefficient	-	<0.02%/°C				
Overcurrent Protection	-	Yes				
Overvoltage Protection	V	Yes (See page 2)				
Hold Up Time (Typ)	ms	20				
Leakage Current (max)	mA	<0.5 (Typ 0.2 at 100VAC, 0.4 at 230VAC)				
Remote Sense	-	No			Yes	
Indicator	-	Green LED = ON				
Operating Temp. (no cover)	°C	-10°C to 70°C, derate linearly to 20% load from 50°C to 70°C				
Storage Temperature	°C	-30°C to 85°C				
Humidity (non condensing)	% RH	Operating: 30 - 90, Non operating 10 - 95				
Cooling	-	Convection				
Withstand Voltage	-	Input to Ground 2kVAC, 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 (1 minute sweep), 19.6m/s ² constant X, Y, Z 1 hour				
Shock	-	< 196.1m/s ²				
Safety Agency Approvals	-	-UL60950-1, CSA60950-1, EN60950-1, EN50178, Built to meet UL508 CE Mark				
Line Dip	-	Complies with SEMI F47 (200VAC line only)				
Conducted & Radiated	-	EN55011 / EN55022-B, FCC-B, VCCI-B				
Immunity	-	IEC61000-4-2(Level 2,3), -3(Level 3), -4(Level 3), -5(Level 3,4), -6(Level 3), -8(Level 4), -11				
Weight (Typ)	g	180	220	280	450	500
Size (WxHxD)	mm	26.5x82x80	26.5x82x95	26.5x82x120	28x82x160	37x82x160
Warranty	-	Lifetime Warranty (See TDK-Lambda's terms & conditions)				

Notes: (1) 100/200VAC

See website for HWS/ME medical EN/UL60601-1 approved models and HWS/HD heavy duty / harsh environment models with -40 °C startup. HWS80 is also available but no specification in this catalogue.

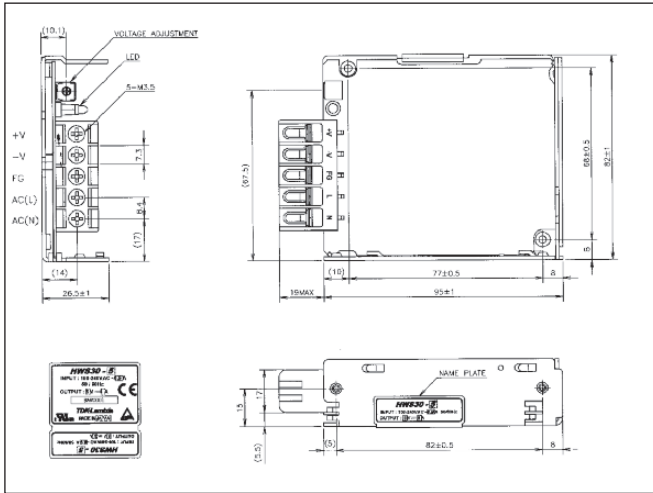
Model Selector								
Model	Voltage	Adjust Range	Maximum Current (A)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Over Voltage (V)	Efficiency typ % 100/200 VAC
HWS15-3/A	3.3V	2.97 - 3.96	3	40	20	120	4.13-4.95	68/71
HWS30-3/A	3.3V	2.97 - 3.96	6	40	20	120	4.13-4.95	70/73
HWS50-3/A	3.3V	2.97 - 3.96	10	40	20	120	4.13-4.95	76/78
HWS100-3/A	3.3V	2.97 - 3.96	20	40	20	120	4.13-4.95	78/81
HWS150-3/A	3.3V	2.97 - 3.96	30	40	20	120	4.13-4.95	78/81
HWS15-5/A	5V	4.0 - 6.0	3	40	20	120	6.25-7.25	77/79
HWS30-5/A	5V	4.0 - 6.0	6	40	20	120	6.25-7.25	77/80
HWS50-5/A	5V	4.0 - 6.0	10	40	20	120	6.25-7.25	82/84
HWS100-5/A	5V	4.0 - 6.0	20	40	20	120	6.25-7.25	83/86
HWS150-5/A	5V	4.0 - 6.0	30	40	20	120	6.25-7.25	83/86
HWS15-12/A	12V	9.6 - 14.4	1.3	96	48	150	15-17.4	80/81
HWS30-12/A	12V	9.6 - 14.4	2.5	96	48	150	15-17.4	81/83
HWS50-12/A	12V	9.6 - 14.4	4.3	96	48	150	15-17.4	81/83
HWS100-12/A	12V	9.6 - 14.4	8.5	96	48	150	15-17.4	83/86
HWS150-12/A	12V	9.6 - 14.4	13	96	48	150	15-17.4	83/86
HWS15-15/A	15V	12.0 - 18.0	1	120	60	150	18.8-21.8	80/81
HWS30-15/A	15V	12.0 - 18.0	2	120	60	150	18.8-21.8	81/83
HWS50-15/A	15V	12.0 - 18.0	3.5	120	60	150	18.8-21.8	81/83
HWS100-15/A	15V	12.0 - 18.0	7	120	60	150	18.8-21.8	83/86
HWS150-15/A	15V	12.0 - 18.0	10	120	60	150	18.8-21.8	83/86
HWS15-24/A	24V	19.2 - 28.8	0.65	192	96	200	30-34.8	82/83
HWS30-24/A	24V	19.2 - 28.8	1.3	192	96	200	30-34.8	83/86
HWS50-24/A	24V	19.2 - 28.8	2.2	192	96	150	30-34.8	82/84
HWS100-24/A	24V	19.2 - 28.8	4.5	192	96	150	30-34.8	84/87
HWS150-24/A	24V	19.2 - 28.8	6.5	192	96	150	30-34.8	85/88
HWS15-48/A	48V	38.4 - 52.8	0.33	384	192	200	55.2-64.8	80/80
HWS30-48/A	48V	38.4 - 52.8	0.65	384	192	200	55.2-64.8	82/83
HWS50-48/A	48V	38.4 - 52.8	1.1	384	192	200	55.2-64.8	83/85
HWS100-48/A	48V	38.4 - 52.8	2.1	384	192	200	55.2-64.8	84/87
HWS150-48/A	48V	38.4 - 52.8	3.3	384	192	200	55.2-64.8	85/88

Outline Drawing HWS15 Series

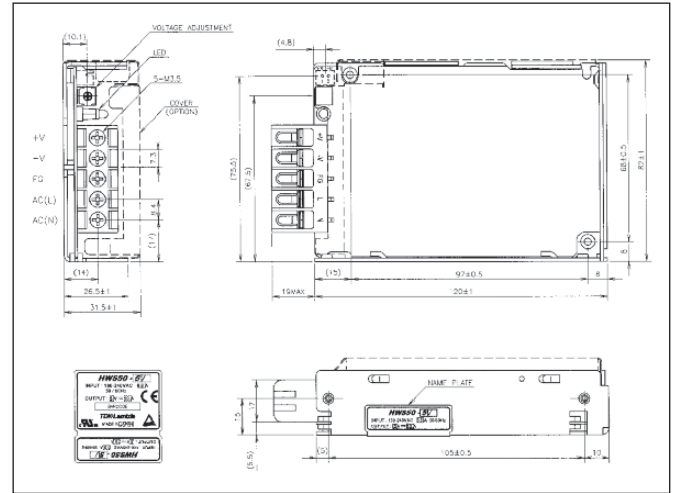


Options	
Suffix	Description
Blank	Screw terminals, no cover
/A	Screw terminals, cover
/ADIN	Cover and DinRail Mounting Bracket (24V Models only)
/R	Remote on/off (50-150W only) Example: HWS50-24/RA

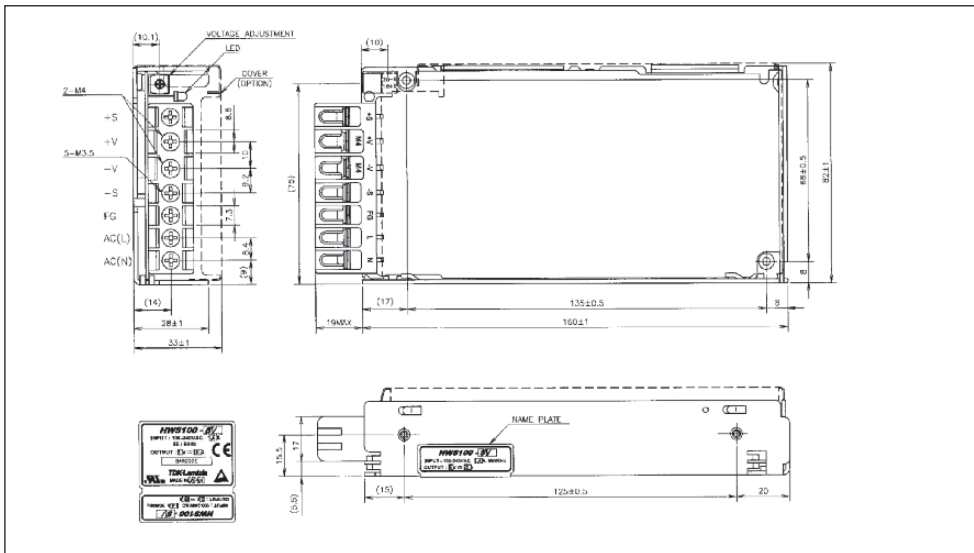
Outline Drawing HWS30 Series



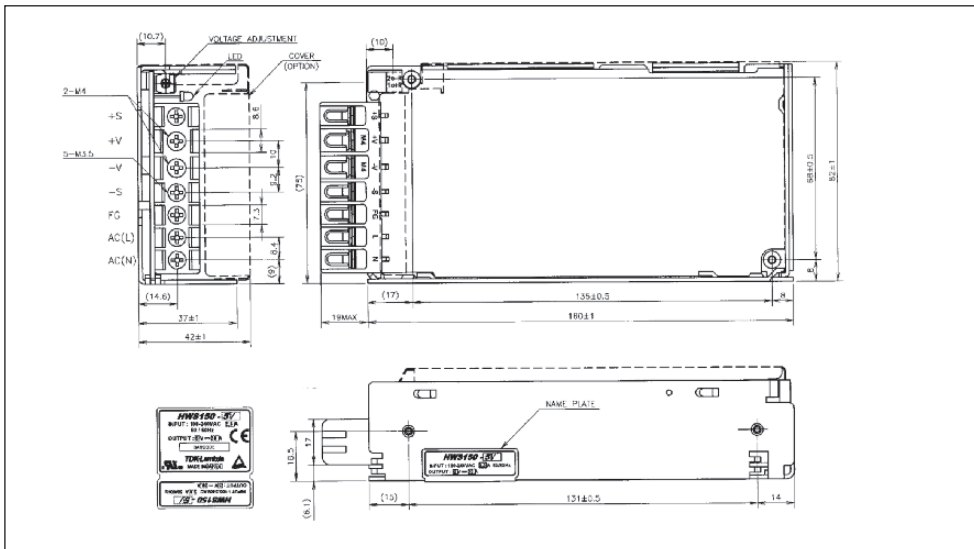
Outline Drawing HWS50 Series



Outline Drawing HWS100 Series



Outline Drawing HWS150 Series



Note: All fixing holes M3 tapped max. depth 6mm

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