



- 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	Burn-in & Test, Automated Test, Instrumentation, Measurement, Detection
Automated Service	

## HWS Series

15 -150W Single Output Industrial Power Supplies

### 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 to 70, derate linearly to 20% load from 50 to 70				
Storage Temperature	°C	-30 to 85				
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 <sup>2</sup> constant X, Y, Z 1 hour				
Shock	-	< 196.1m/s <sup>2</sup>				
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

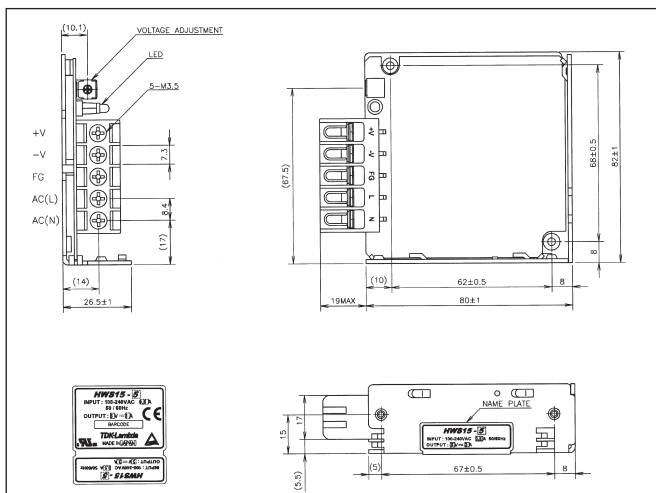
See website for HWS/ME medical EN/UL60601-1 approved models and HWS/HD heavy duty / harsh environment models with -40 °C startup. HWS80 is also available but no specification in this catalogue.



**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

For full data and drawings please visit [www.emea.tdk-lambda.com/www/hws](http://www.emea.tdk-lambda.com/www/hws)