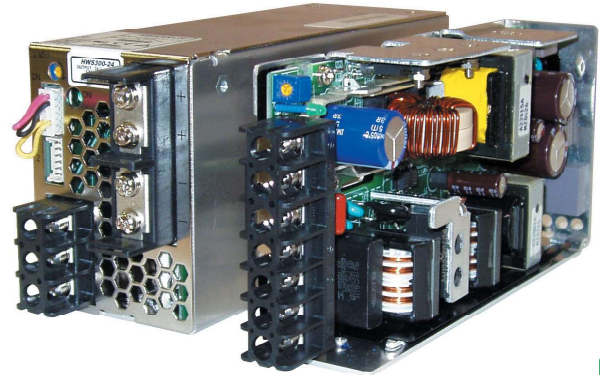


## Single Output Industrial Power Supplies

### Features

- ◆ Limited Lifetime Warranty
- ◆ Medical Approvals<sup>2</sup>
- ◆ Universal Input (85 - 265VAC)
- ◆ High Efficiency
- ◆ Broad 30W to 1500W product range
- ◆ Wide range AC Input



### Key Market Segments & Applications



Medical



RoHS

Specifications			HWS30	HWS100	HWS300	HWS600	HWS1500
Model			HWS50	HWS150			
Input Voltage range (47-63Hz) (2)	-	85 - 265VAC or 120 - 370VDC		85 - 265VAC or 120 - 330VDC		85 - 265VAC	
Input Current (Typ) (1)	A	0.8 / 0.4	1.3 / 0.65	4.1 / 2.1	8.1 / 3.9	19 / 10	
		0.7 / 0.35	1.9 / 0.95				
Inrush Current (1)	A	14 / 28			20 / 40		
Power Factor / Flicker	-	Meets EN61000-3-2, EN61000-3-3					
Temperature Coefficient	-	<0.02%/°C					
Overcurrent Protection	-	>104%					
Overvoltage Protection	V	Yes (See table on page 2)					
Hold Up Time (Typ)	ms	20					
Leakage Current (60Hz)	mA	<0.5mA					
Remote Sense	-	No			Yes		
Indicator	-	Green LED = ON					
Remote On/Off	-	No			Yes (Isolated from output)		
Parallel operation	-	No			Single wire connection (5 units max)		
DC Good	-	No			Yes		
Voltage Programming	-	No				Yes	
Operating Temperature & Derating	°C	HWS30-150: -10°C to +70°C, (-10 - +50°C: 100%, +60°C: 60%, +70°C: 20%) HWS300-1500: -10°C to +70°C, (-10 - +50°C: 100%, derate linearly to 50% load from +50 to +70°C)					
Storage Temperature	°C	-30 to +85°C					
Humidity (non condensing)	-	Operating: 30 - 90%RH (10 - 90% on HWS300-1500), Non operating 10 - 95%RH					
Cooling	-	Convection			Internal fan		
Withstand Voltage (3)	-	I/P to Gnd 2kVAC, I/P to O/P 3kVAC, O/P to Gnd 500VAC, O/P to Remote On/Off 100VAC for 1 min.					
Isolation Resistance	-	>100M at 25C & 70%RH, Output to Ground 500VDC, >10M Output to remote on/off 100VDC					
Vibration (non operating)	-	10 - 55Hz (1 min sweep), 19.6m/s <sup>2</sup> constant, X, Y, Z axis, one hour each					
Shock	-	< 196.1m/s <sup>2</sup>					
Safety Agency Approvals (2)	-	UL60601-1, EN60601, CSA-C22.2 No601.1-M90 (C-UL) (basic insulation), CE Mark					
Line Dip	-	Complies with SEMI F47 (200VAC line only)					
Conducted & Radiated EMI	-	EN55011 / EN55022-B, FCC-B, VCCI-B (HWS600 & 1500 Class A)					
Immunity	-	IEC61000-4-2 (Level 2,3), -3, -4, -6, (Level 3), -5 (Level 3,4), -8 (Level 4), -11					
Weight (Typ)	g	220	450	1000	1600	3800	
		280	500				
Size (WxHxD)	in	1.04x3.23x3.74	1.1x3.23x6.3	2.4x3.23x6.5	3.94x3.23x6.5	4.98x3.23x11.02	
		1.04x3.23x4.72	1.46x3.23x6.3				
Warranty	yrs	Limited lifetime warranty (See TDK-Lambda's terms & conditions)					

(1) 100/200VAC input

(3) HWS300-600 2.5kVAC Input to ground

(2) See conditions of acceptability and clause 19.5DV.2 of UL60601 for equipment in proximity of patient

The HWS50 to HWS150 is now obsolete,  
please see HWS-A series

Output Ratings									
Model	Voltage	Adjust Range	Max Curr(A) <sup>4</sup>	Max Power(W)	Load Reg(mV)	Line Reg(mV)	Ripple Noise(mV)	Overshoot (V)	Efficiency (typ)% <sup>1</sup>
HWS30-5/ME	5V	4.0 - 6.0	6	30	40	20	120	6.25-7.25	77/80
HWS50-5/ME	5V	4.0 - 6.0	10	50	40	20	120	6.25-7.25	82/84
HWS100-5/ME	5V	4.0 - 6.0	20	100	40	20	120	6.25-7.25	83/86
HWS150-5/ME	5V	4.0 - 6.0	30	150	40	20	120	6.25-7.25	83/86
HWS30-12/ME	12V	9.6 - 14.4	2.5	30	96	48	150	15-17.4	81/83
HWS50-12/ME	12V	9.6 - 14.4	4.3	51.6	96	48	150	15-17.4	81/83
HWS100-12/ME	12V	9.6 - 14.4	8.5	102	96	48	150	15-17.4	83/86
HWS150-12/ME	12V	9.6 - 14.4	13	156	96	48	150	15-17.4	83/86
HWS300-12/ME	12V	9.6 - 14.4	27	324	72	48	150	15-17.4	80/83
HWS30-15/ME	15V	12.0 - 18.0	2	30	120	60	150	18.8-21.8	81/83
HWS50-15/ME	15V	12.0 - 18.0	3.5	52.5	120	60	150	18.8-21.8	81/83
HWS100-15/ME	15V	12.0 - 18.0	7	105	120	60	150	18.8-21.8	83/86
HWS150-15/ME	15V	12.0 - 18.0	10	150	120	60	150	18.8-21.8	83/86
HWS300-15/ME <sup>(5)</sup>	15V	12.0 - 18.0	22	330	90	60	150	18.8-21.8	82/85
HWS30-24/ME	24V	19.2 - 28.8	1.3	31.2	192	96	200	30-34.8	83/86
HWS50-24/ME	24V	19.2 - 28.8	2.2	52.8	192	96	150	30-34.8	82/84
HWS100-24/ME	24V	19.2 - 28.8	4.5	108	192	96	150	30-34.8	84/87
HWS150-24/ME	24V	19.2 - 28.8	6.5	156	192	96	150	30-34.8	85/88
HWS300-24/ME	24V	19.2 - 28.8	14 (16.5 pk) <sup>(6)</sup>	336	144	96	150	30-34.8	82/85
HWS600-24/ME	24V	19.2 - 28.8	27 (31 pk) <sup>(6)</sup>	648	144	96	150	30-34.8	82/85
HWS1500-24/ME	24V	19.2 - 28.8, 4.8 - 28.8 <sup>(7)</sup>	65 (105 pk) <sup>(6)</sup>	1560(2520 pk) <sup>(6)</sup>	144	96	200	30-34.8	84/88
HWS1500-36/ME	36V	28.8 - 43.2, 7.2 - 43.2 <sup>(7)</sup>	42 (70 pk) <sup>(6)</sup>	1512(2520 pk) <sup>(6)</sup>	150	144	200	34-49.7	84/88
HWS30-48/ME	48V	38.4 - 52.8	0.65	31.2	384	192	200	55.2-64.8	82/83
HWS50-48/ME	48V	38.4 - 52.8	1.1	52.8	384	192	200	55.2-64.8	83/85
HWS100-48/ME	48V	38.4 - 52.8	2.1	100.8	384	192	200	55.2-64.8	84/87
HWS150-48/ME	48V	38.4 - 52.8	3.3	158.4	384	192	200	55.2-64.8	85/88
HWS300-48/ME <sup>(5)</sup>	48V	38.4 - 52.8	7	336	288	192	350	55.2-64.8	82/85
HWS1500-48/ME	48V	38.4 - 52.8, 9.6 - 52.8 <sup>(7)</sup>	32	1536	288	192	200	55.2-64.8	86/90

(4) Peak load for 10s maximum on time, 35% duty cycle

(5) Safety agency in progress - contact factory for status.

(6) 200-265AC Input

(7) Using voltage programming input - see installation manual for details

Options	
Suffix	Description
Blank	No Cover (HWS30-150/ME Only) HWS300-1500/ME the cover is always fitted
/MEA	The cover option for the HWS30-150/ME is special order only. HWS300-1500/ME the cover is always fitted

For Additional Information, please visit  
<https://product.tdk.com/info/en/products/power/index.html>



The HWS50 to HWS150 is now obsolete,  
 please see HWS-A series