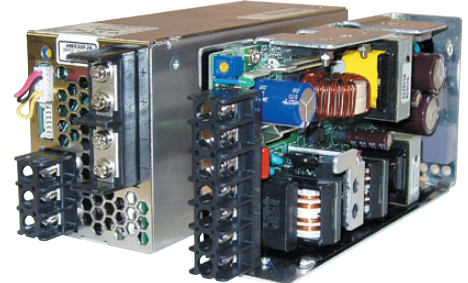




## Single Output Industrial Power Supplies

Features	Benefits
• Limited Lifetime Warranty	• Lower Cost of Ownership
• High Efficiency (up to 91%)	• Easier System Cooling
• Wide Range AC Input	• Supports Global Use



Specification		HWS30A	HWS50A	HWS100A	HWS150A	HWS300	HWS600	HWS1000	HWS1500	
Input Voltage Range	-	85 - 265VAC								
Input Current (Typ) (1)	A	0.65 / 0.40	0.70 / 0.35	1.30 / 1.65	1.90 / 0.95	4.10 / 2.10	8.10 / 3.90	13.50 / 7.0	19.0 / 10.0	
Inrush Current (1)	A	14/28				20/40				
Power Factor	-	Meets EN61000-3-2								
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				<0.75mA		<1.2mA	<1.5mA	
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							
Remote Adjust (PV)	-	No						Yes (3)		
Operating Temperature & Derating (operation to +74°C - contact factory)	-	HWS30-150: -10°C to +71°C, (-10 to +50°C: 100%, +60°C: 60%, +71°C: 20%) HWS300-1500: -10°C to +71°C, (-10 to +50°C: 100%, derate linearly to 50% load from +50 to +71°C) Guaranteed start up at -40°C (see specification sheets on website for details and derating)								
Storage Temperature	-	-40°C 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 (2)	-	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, >10M Output to remote on/off 100VDC								
Vibration (non operating)	-	MIL-STD-810F 514.5 Category 4, 10								
Shock (in packaging)	-	MIL-STD-810F 516.5 Procedure I, VI (<196.1m/s <sup>2</sup> )								
Safety Agency Approvals	-	IEC/EN/UL/CSA 60950-1 and 62368-1, EN50178, CE Mark								
Line Dip	-	Complies with SEMI F47 (200VAC line only)								
Conducted & Radiated EMI	-	EN55011 / EN55022-B, FCC-B, VCCI-B (Curve A for HWS1500)								
Immunity	-	IEC61000-4-2 (Level 2,3), -3, -4, -6, (Level 3), -5, -8 (Level 4), -11								
Weight (Typ)	g	200	260	420	470	1000	1600	3200	3800	
Size (HxWxD) (with cover)	mm	26x82x120	26.5x82x95	28x82x160	37x82x160	61x82x165	100x82x165	126.5x82x240	126.5x82x280	
Warranty	yrs	Limited Lifetime Warranty (See TDK-Lambda's terms and conditions)								

### Notes:

\* Safety certified for AC input only

(1) 100/200VAC.

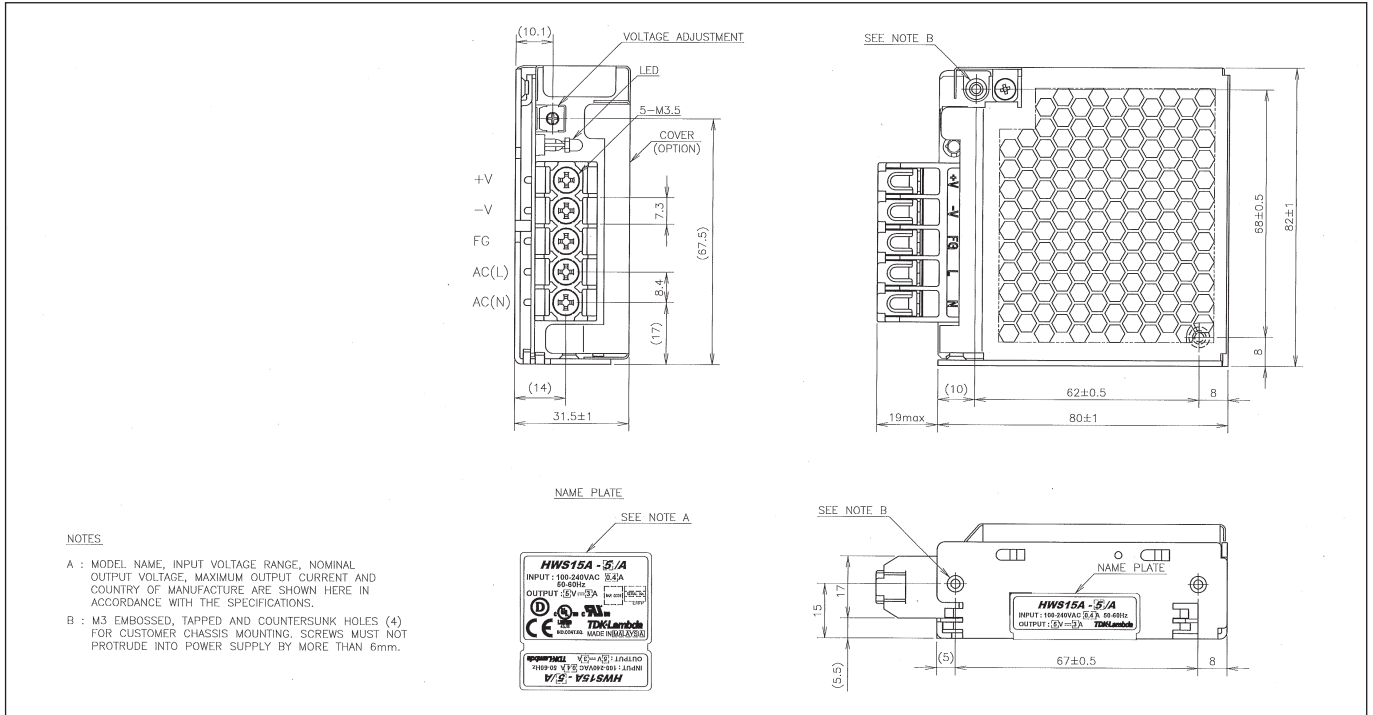
(2) Derating varies with model. Please refer to individual model specification for derating graphs.

(3) 1-6V program voltage input to adjust output 20-120% (typical) of nominal. See instruction manual for details & models with this feature.

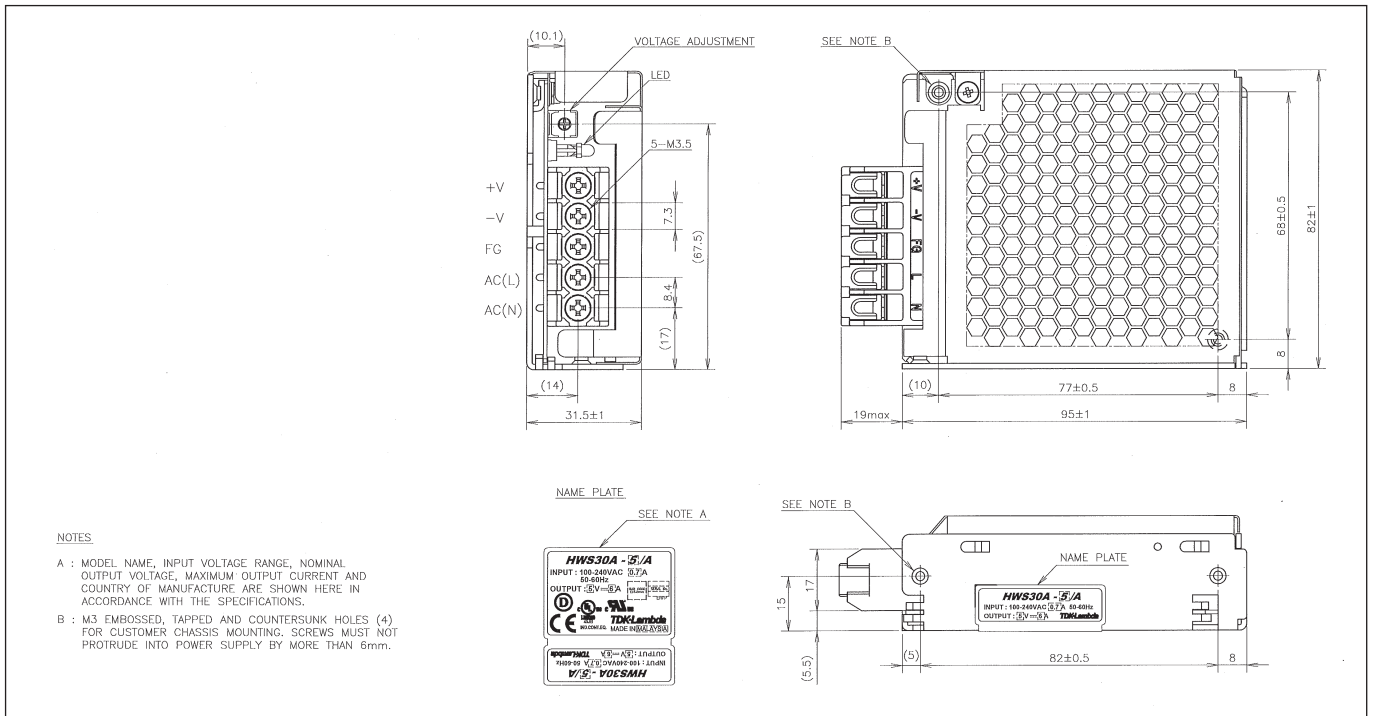
Model Selector								
Model	Voltage (V)	Adjust Range (V)	Max Current (A)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Over Voltage (V)	Efficiency (typ) %
HWS15A-3/A	3.3V	2.97 - 3.96	3	40	20	120	4.13-4.95	70/71
HWS30A-3/A	3.3V	2.97 - 3.96	6	40	20	120	4.13-4.95	75/77
HWS50A-3/A	3.3V	2.97 - 3.96	10	40	20	120	4.13-4.95	76/78
HWS100A-3/A	3.3V	2.97 - 3.96	20	40	20	120	4.13-4.95	82/84
HWS150A-3/A	3.3V	2.97 - 3.96	30	40	20	120	4.13-4.95	82/84
HWS15A-5/A	5V	4.0 - 6.0	3	40	20	120	6.25-7.25	77/79
HWS30A-5/A	5V	4.0 - 6.0	6	40	20	120	6.25-7.25	80/82
HWS50A-5/A	5V	4.0 - 6.0	10	40	20	120	6.25-7.25	82/84
HWS100A-5/A	5V	4.0 - 6.0	20	40	20	120	6.25-7.25	84/86
HWS150A-5/A	5V	4.0 - 6.0	30	40	20	120	6.25-7.25	85/87
HWS15A-12/A	12V	9.6 - 14.4	1.3	96	48	150	15-17.4	80/83
HWS30A-12/A	12V	9.6 - 14.4	2.5	96	48	150	15-17.4	84/86
HWS50A-12/A	12V	9.6 - 14.4	4.3	96	48	150	15-17.4	83/85
HWS100A-12/A	12V	9.6 - 14.4	8.5	96	48	150	15-17.4	86/88
HWS150A-12/A	12V	9.6 - 14.4	13	96	48	150	15-17.4	85/88
HWS15A-15/A	15V	12.0 - 18.0	1	120	60	150	18.8-21.8	81/84
HWS30A-15/A	15V	12.0 - 18.0	2	120	60	150	18.8-21.8	85/87
HWS50A-15/A	15V	12.0 - 18.0	3.5	120	60	150	18.8-21.8	83/86
HWS100A-15/A	15V	12.0 - 18.0	7	120	60	150	18.8-21.8	86/88
HWS150A-15/A	15V	12.0 - 18.0	10	120	60	150	18.8-21.8	86/89
HWS15A-24/A	24V	19.2 - 28.8	0.65	150	96	150	30-34.8	82/85
HWS30A-24/A	24V	19.2 - 28.8	1.3	150	96	150	30-34.8	86/88
HWS50A-24/A	24V	19.2 - 28.8	2.2	150	96	150	30-34.8	84/87
HWS100A-24/A	24V	19.2 - 28.8	4.5	150	96	150	30-34.8	87/89
HWS150A-24/A	24V	19.2 - 28.8	6.5	150	96	150	30-34.8	88/90
HWS15A-48/A	48V	38.4 - 52.8	0.33	240	192	200	55.2-64.8	80/80
HWS30A-48/A	48V	38.4 - 52.8	0.65	240	192	200	55.2-64.8	82/83
HWS50A-48/A	48V	38.4 - 52.8	1.1	240	192	200	55.2-64.8	84/86
HWS100A-48/A	48V	38.4 - 52.8	2.1	240	192	200	55.2-64.8	88/90
HWS150A-48/A	48V	38.4 - 52.8	3.3	240	192	200	55.2-64.8	89/91

Options	
Suffix	Description
<b>Blank</b>	No Cover
<b>/ A</b>	Cover
<b>/ R</b>	Remote on/off (available 50W, 100W & 150W models)

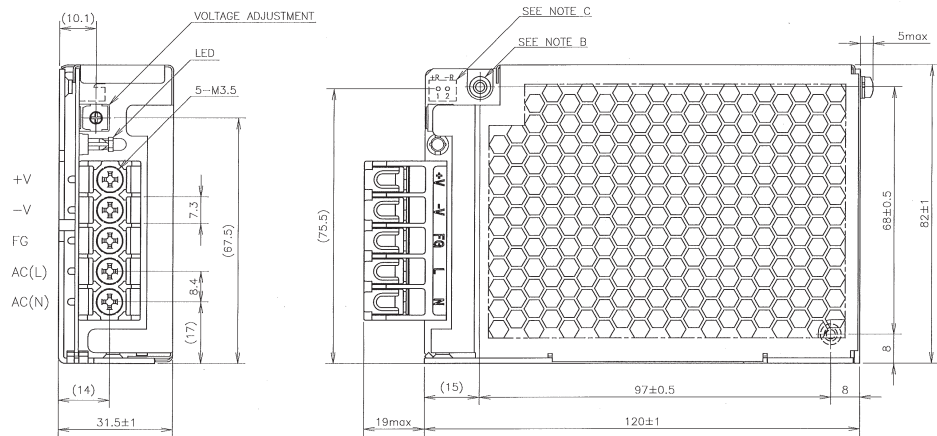
## HWS15A/A Outline Drawing



## HWS30A/A Outline Drawing



## HWS50A/A Outline Drawing



### NOTES

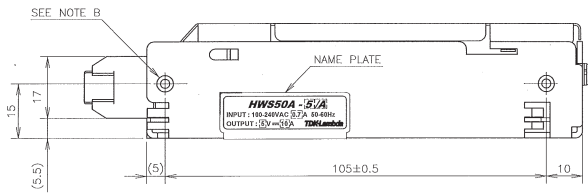
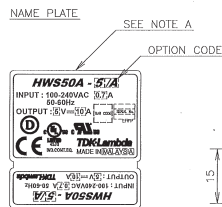
A : MODEL NAME, OPTION CODE, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT AND COUNTRY OF MANUFACTURE ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

B : M3 EMBOSSED, TAPPED AND COUNTERSUNK HOLES (4) FOR CUSTOMER CHASSIS MOUNTING. SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 6mm.

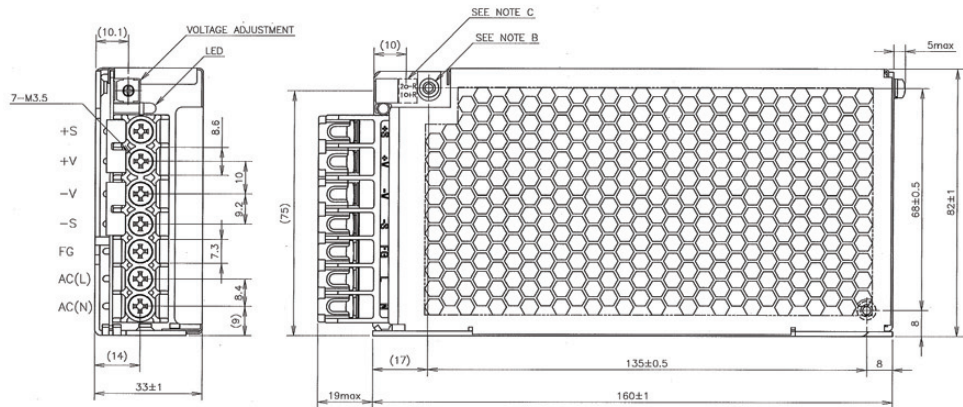
C : REMOTE ON/OFF CONTROL CONNECTOR --- OPTION B2B-XH-AM (JST)  
 MATCHING HOUSING : XHP-2 (JST)  
 MATCHING TERMINAL PIN : BXH-001T-P0.6 (JST) OR SXH-001T-P0.6 (JST)  
 HAND CRIMPING TOOL : YC-110R (JST) OR YRS-110 (JST)  
 MATCHING HOUSING AND TERMINAL PIN --- NOT INCLUDED WITH THE PRODUCT

### OPTIONAL MODELS

MODEL	COVER	REMOTE ON/OFF CONTROL
HWS50A-*/[A]	○	—
HWS50A-*/[RA]	○	○



## HWS100A/A Outline Drawing



### NOTES

A : MODEL NAME, OPTION CODE, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT AND COUNTRY OF MANUFACTURE ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.

B : M3 EMBOSSED, TAPPED AND COUNTERSUNK HOLES (4) FOR CUSTOMER CHASSIS MOUNTING. SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 6mm.

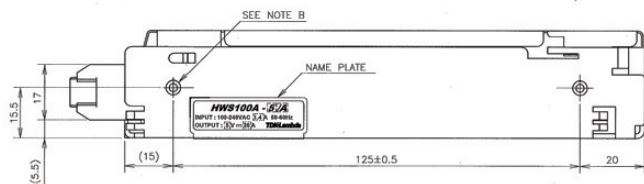
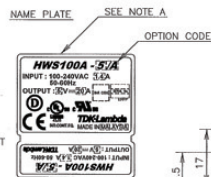
C : REMOTE ON/OFF CONTROL CONNECTOR --- OPTION B2B-XH-AM (JST)  
 MATCHING HOUSING : XHP-2 (JST)  
 MATCHING TERMINAL PIN : BXH-001T-P0.6 (JST) OR SXH-001T-P0.6 (JST)  
 HAND CRIMPING TOOL : YC-110R (JST) OR YRS-110 (JST)  
 MATCHING HOUSING AND TERMINAL PIN --- NOT INCLUDED WITH THE PRODUCT

### ACCESSORIES

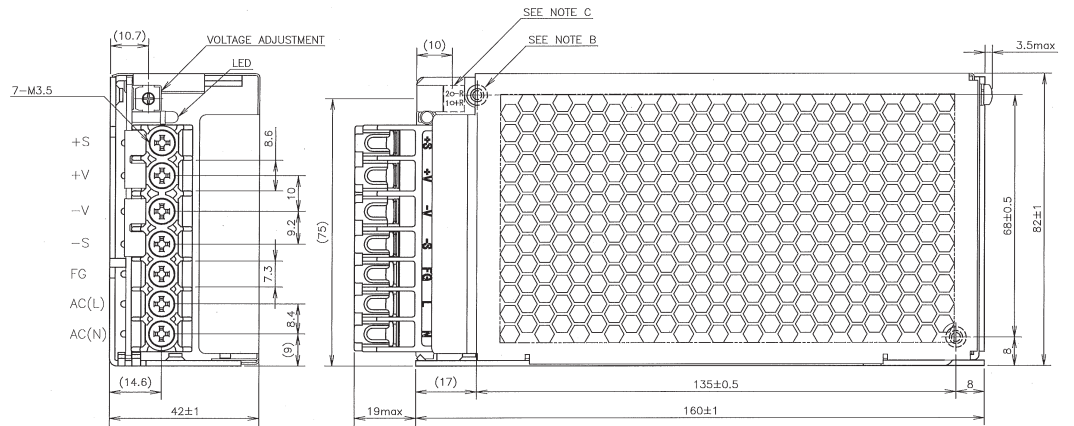
\* SHORT PIECE (NET 2) FOR SHORTING PURPOSE (+S~+V, -S~-V) : MOUNTED AT TIME OF SHIPMENT.

### OPTIONAL MODELS

MODEL	COVER	REMOTE ON/OFF CONTROL
HWS100A-*/[A]	○	—
HWS100A-*/[RA]	○	○



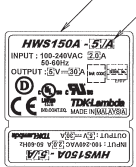
## HWS150A/A Outline Drawing



### NOTES

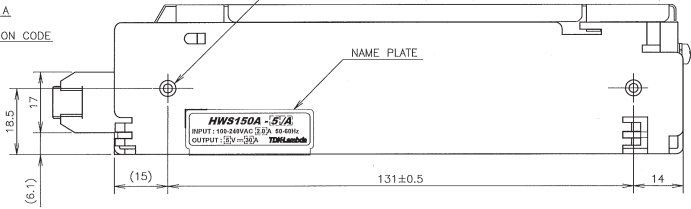
- A : MODEL NAME, OPTION CODE, INPUT VOLTAGE RANGE, NOMINAL OUTPUT VOLTAGE, MAXIMUM OUTPUT CURRENT AND COUNTRY OF MANUFACTURE ARE SHOWN HERE IN ACCORDANCE WITH THE SPECIFICATIONS.
- B : M3 EMBOSSED, TAPPED AND COUNTERSUNK HOLES (4) FOR CUSTOMER CHASSIS MOUNTING. SCREWS MUST NOT PROTRUDE INTO POWER SUPPLY BY MORE THAN 6mm.
- C : REMOTE ON/OFF CONTROL CONNECTOR --- OPTION B2B-XH-AM (JST)  
 MATCHING HOUSING : XHP-2 (JST)  
 MATCHING TERMINAL PIN : BXH-001T-P0.6 (JST) OR SXH-001T-P0.6 (JST)  
 HAND CRIMPING TOOL : YC-110R (JST) OR YRS-110 (JST)  
 MATCHING HOUSING AND TERMINAL PIN --- NOT INCLUDED WITH THE PRODUCT

NAME PLATE SEE NOTE A



OPTION CODE

SEE NOTE B



### ACCESSORIES

- \* SHORT PIECE (NET 2) FOR SHORTING PURPOSE (+S~+V, -S~-V) : MOUNTED AT TIME OF SHIPMENT.



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