Single Output 5W to 25W AC-DC PCB-Mount Power Supplies

Features

- Wide Temperature Range -40 (start up) to +85°C
- <0.5W Off-Load Power Draw
- Efficiencies up to 88%
- Compact Sizes
- Class II, No Ground Connection



Key Market Segments & Applications

Industrial Test COMM Broadcast

RoHS

Specifications

Model		KWS5A	KWS10A	KWS15A	KWS25A
AC Input Voltage	VAC	85 - 265VAC(1)			
Input Frequency	Hz	47 - 440Hz			
DC Input Voltage	VDC	120 - 370VDC (No safety certification)			
Inrush Current (cold start)	A	15A at 100VAC, 30A at 200VAC			
Power Factor	-	Meets EN61000-3-2			
Input Current (100/200VAC)	A	0.13 / 0.07A	0.25 / 0.13A	0.33 / 0.24A	0.56 / 0.34A
Output Voltage Accuracy	%	±5%			
Off-load Power Draw	W	<0.5W			
Temperature Coefficient	%/°C	<0.02%/°C			
Overcurrent Protection	-	> 1.05% of rated current			
Overvoltage Protection	V	5V: 5.75 - 7V, 12V: 13.8 - 18.3V, 15V: 17.25 - 22.4V, 24V: 27.6 - 34V			
Hold Up Time (100 / 200V input)	ms	15 / 30ms	10 / 20ms		
Leakage Current	mA	<0.25mA at 265VAC, 60Hz			
Operating Temperature (2)	°C	-40°C start-up; -10 to +85°C. Derate linearly to 10% load from +55 to +85°C (2)			
Storage Temperature	°C	-40 to +85°C			
Humidity (non condensing)	%RH	30 - 95%RH Operating, 20 - 95%RH Storage			
Cooling	-	Convection Cooled			
Withstand Voltage	VAC	Input to Output 3kVAC			
Isolation Resistance	MΩ	>100MΩ at 25°C & 70%RH, Input to Output 500VDC			
Vibration (non operating)	-	10 - 55Hz: 1.65mm p-p (Max 10G) sweep for 1 min X, Y, Z for 1 hour			
Shock	-	< 50G for 11 ±5ms on (X,Y,Z) each axis 3 times			
Immunity	-	IEC61000-4-2, -3, -4, -5, -6, -8, -11; IEC61000-6-2			
Safety Agency Certifications	-	EN60950-1, UL/CSA60950-1, CE Mark LVD & RoHS2			
Conducted & Radiated EMI	-	EN55011-A, EN55022-A, FCC Class A (Requires external X capacitor to meet -B)			
Weight (Typ)	g	35	35	60	85
Size (LxWxH)	mm	38.1 x 25.4 x 21.5mm		50.8 x 25.4 x 24mm	63.5 x 25.4 x 29mm
Warranty	yrs	Three Years			

Notes:

(1) Derate to 80% load from 100 to 85VAC input (KWS5A 90% load from 90 to 85VAC)

(2) KWS10A-5, KWS15A-5, KWS25A-5: Derate linearly to 10% load from +45 to +85°C

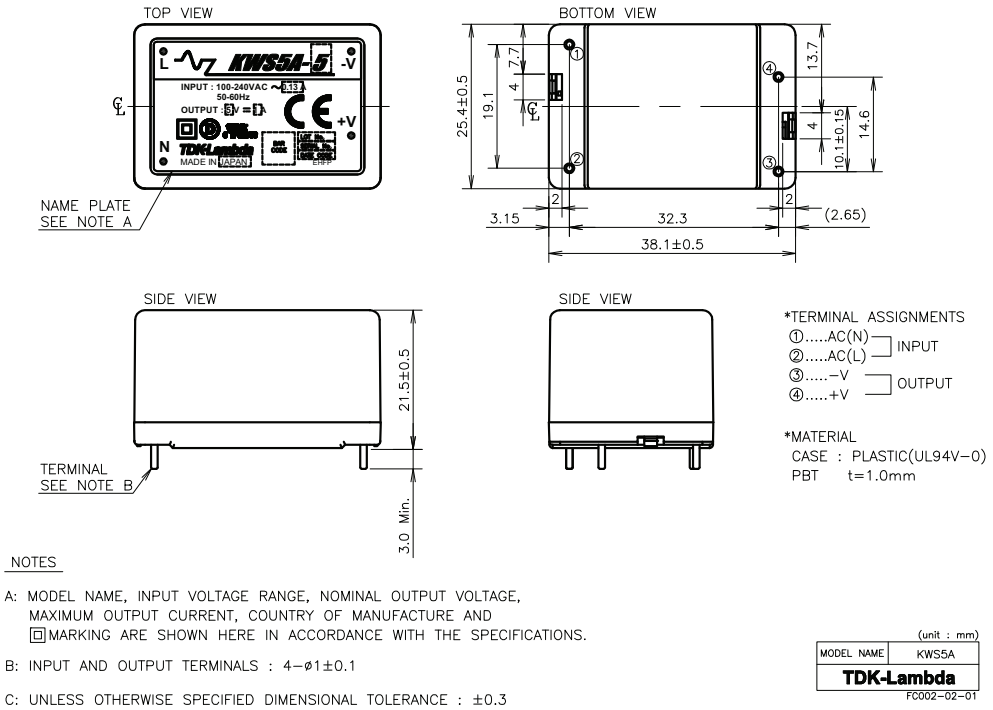
Model Selector

Model	Voltage (V)	Max Current (A)	Max Power (W)	Load Reg (mV)	Line Reg (mV)	Ripple Noise (mV)	Efficiency (typ) % (3)
KWS5A-5	5	1.0	5.0	40	20	200	72 / 74
KWS10A-5	5	2.0	10.0	40	20	200	76 / 77
KWS15A-5	5	3.0	15.0	40	20	200	76 / 77
KWS25A-5	5	5.0	25.0	40	20	200	80 / 82
KWS5A-12	12	0.45	5.4	96	48	240	73 / 75
KWS10A-12	12	0.9	10.8	96	48	240	80 / 81
KWS15A-12	12	1.3	15.6	96	48	240	80 / 83
KWS25A-12	12	2.2	26.4	96	48	240	84 / 86
KWS5A-15	15	0.35	5.3	120	60	240	73 / 75
KWS10A-15	15	0.7	10.5	120	60	240	81 / 82
KWS15A-15	15	1.0	15.0	120	60	240	81 / 84
KWS25A-15	15	1.7	25.5	120	60	240	85 / 87
KWS5A-24	24	0.22	5.3	150	96	240	75 / 77
KWS10A-24	24	0.5	12.0	150	96	240	82 / 84
KWS15A-24	24	0.7	16.8	150	96	240	82 / 85
KWS25A-24	24	1.1	26.4	150	96	240	86 / 88

Notes:

(3) 100 / 200VAC input. Full load

KWS5A, KWS10A Outline Drawing



Similar Models

KM	15 & 40W, single, dual and triple outputs, medical & ITE
KPSA	5, 10 & 15W, single output

For Additional Information, please visit
us.tdk-lambda.com/lp/products/kwsa-series.htm