



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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



Specifications		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	-	>103% 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 / 45ms	10 / 30ms		
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 - 90%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
MTBF - Telcordia SR-332 issue 3*	Hours	14,416,059	7,784,121	8,202,502	5,747,627
Warranty	yrs	Three Years			

Notes:

* 24V output model, 25°C ambient, full load, 230VAC input

(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	76 / 74
KWS10A-5	5	2.0	10.0	40	20	200	76 / 77
KWS15A-5	5	3.0	15.0	40	20	200	77 / 78
KWS25A-5	5	5.0	25.0	40	20	200	81 / 82
KWS5A-12	12	0.45	5.4	96	48	240	78 / 75
KWS10A-12	12	0.9	10.8	96	48	240	80 / 81
KWS15A-12	12	1.3	15.6	96	48	240	81 / 83
KWS25A-12	12	2.2	26.4	96	48	240	84 / 86
KWS5A-15	15	0.35	5.3	120	60	240	79 / 75
KWS10A-15	15	0.7	10.5	120	60	240	81 / 82
KWS15A-15	15	1.0	15.0	120	60	240	82 / 84
KWS25A-15	15	1.7	25.5	120	60	240	85 / 87
KWS5A-24	24	0.22	5.3	150	96	240	80 / 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) 115 / 230VAC input. Full load

KWS5A, KWS10A Outline Drawing

TOP VIEW

NAME PLATE SEE NOTE A

BOTTOM VIEW

SIDE VIEW

TERMINAL SEE NOTE B

***TERMINAL ASSIGNMENTS**

- ①.....AC(N) INPUT
- ②.....AC(L) INPUT
- ③.....-V OUTPUT
- ④.....+V OUTPUT

***MATERIAL**

CASE : PLASTIC(UL94V-0)
PBT t=1.0mm

NOTES

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

B: INPUT AND OUTPUT TERMINALS : 4- ϕ 1 \pm 0.1

C: UNLESS OTHERWISE SPECIFIED DIMENSIONAL TOLERANCE : \pm 0.3

(unit : mm)

MODEL NAME	KWS5A
TDK-Lambda	
F0002-02-01	

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

