

www.emea.tdk-lambda.com/kmsa











## 15-60W Medical AC-DC PCB-Mount Power Supplies

Features	Benefits
Medical certifications at 5000m	Suitable for B & BF applications worldwide
• I/O isolation 4KVAC, 2 x MoPP	Patient protection at 250VACrms working voltage
<ul> <li>Low off-load power draw</li> </ul>	Efficient environmental footprint
Class II (no ground needed)	Simple system integration



Specification					
Model		KMS15A	KMS30A	KMS60A	
Input Voltage Range (1)	-	90-264VAC 47-440Hz* or 120-370VDC*			
Inrush Current Limiting (115 / 230VAC) (2)	Α	20 / 40A	30 / 60A	55 / 95A	
Input Current (115 / 230VAC)	mA	385 / 250mA	650 / 400mA	1500 / 1000mA	
Off-load Power Draw	W	<0.1W	<0.15W	<0.3W	
Recommended External Fuse	-	3.15A (slow blow type)			
Temperature Coefficient	-		±0.05%/°C		
Voltage Set Accuracy	%	±2%			
Minimum Load	-	None			
Overcurrent Protection	-	Hiccup mode, automatic recovery			
Overvoltage Protection	%	Yes, Zener diode clamp			
Hold-up Time (115 / 230VAC)	ms	15 / 56ms (typ) >10ms			
Leakage Current (Touch)	mA	<0.1mA at 264VAC			
Series or parallel operation	-	Yes, see application note for details			
Operating Temperature (3)	-	-40°C to +85°	C, derate linearly to 30% load from	150°C to 80°C	
Maximum Case Temperature	-	90°C (83°C <115VAC)	90°C (83°C <115VAC) 85°C (78°C <115VAC) 80°C (73°C <115V		
Storage Temperature	-	-40°C to +90°C			
Humidity	%RH	10% to 95% RH (non-condensing)			
Cooling	-	Convection			
Withstand Voltage	VAC	Input to output: 4kVAC, 2 x MOPPs			
Immunity	-	EN61000-4-2, -3, -4, -5, -6, -8, -11			
Altitude	m	5000m			
Safety Agency Certification	-	UL/CSA/IEC/EN 60950-1, ANSI/AAMI ES60601-1, IEC/EN 60601-1 (2xMOPPs)			
Conducted and Radiated EMI	-	EN55011 Class B			
Weight	g	59g	130g	280g	
Size (LxWxH)	mm	52.5 x 27.5 x 23.5	64.0 x 45.0 x 23.5	89.0 x 63.5 x 27.0	
Mounting & Case	-	PC board mountable. Plastic resin fiberglass case (UL 94V-0)			
MTBF	hrs	200,000 to 400,000 hours, model dependant			
Warranty	yrs	3 years			

<sup>(1)</sup> Derate linearly to 80% load below 110VAC (100VAC for KMS15A)

<sup>(3)</sup> Derate linearly to 80% load below -30C.

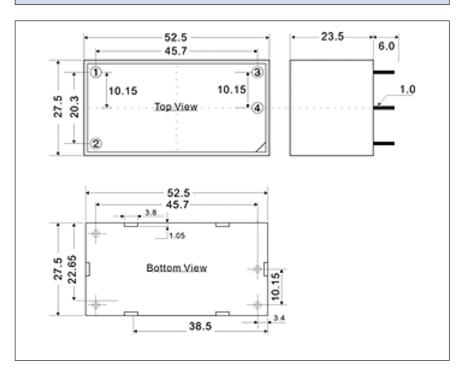
<sup>(2)</sup> Cold start, 25°C ambient

<sup>\*</sup> Safety certified for AC input, 47-63Hz only



Model Selec	tor Single (	Output						
MODEL	Output Voltage (V)	Maximum Current (A)	Power (W)	Output Ripple & Noise (mV)	Line Regulation (%)	Load Regulation (%)	Efficiency (%)	Maximum Capacitive Load (μF)
KMS15A-5	5V	3A	15W	120mV	±25mV	±50mV	79%	7000
KMS30A-5	5V	5A	25W	100mV	±25mV	±50mV	84%	6800
KMS60A-5	5.1V	10A	51W	100mV	±25mV	±75mV	86%	10000
KMS15A-9	9V	1.666A	15W	120mV	±45mV	±90mV	80%	5000
KMS60A-9	9V	6.666A	60W	100mV	±45mV	±135mV	87%	5000
KMS15A-12	12V	1.25	15W	120mV	±60mV	±120mV	84%	1500
KMS30A-12	12V	2.5A	30W	150mV	±60mV	±120mV	89%	1600
KMS60A-12	12V	5A	60W	120mV	±60mV	±120mV	88%	5000
KMS15A-15	15V	1A	15W	150mV	±75mV	±150mV	84%	1000
KMS30A-15	15V	2A	30W	150mV	±75mV	±150mV	86%	1200
KMS60A-15	15V	4A	60W	150mV	±75mV	±150mV	86%	4000
KMS15A-24	24V	0.625	15W	240mV	±120mV	±240mV	85%	470
KMS30A-24	24V	1.25A	30W	240mV	±120mV	±240mV	86%	470
KMS60A-24	24V	2.5A	60W	240mV	±120mV	±240mV	87%	2000

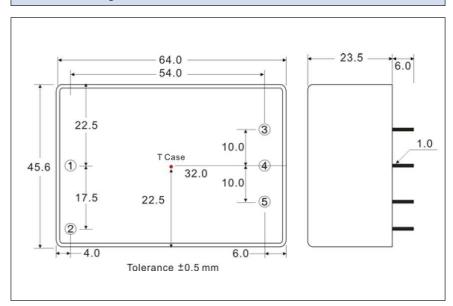
### **Outline Drawing KMSA15**



# KMSA15 Pin No. Function 1 AC in (L) 2 AC in (N) 3 +DC Out 4 -DC Out

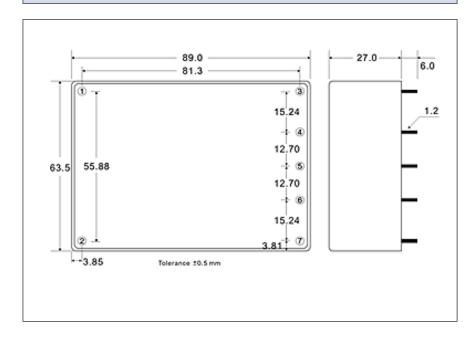
## **TDK·Lambda**

#### **Outline Drawing KMSA30**



KMSA30		
Pin No.	Function	
1	AC in (N)	
2	AC in (L)	
3	-DC Out	
4	No Pin	
5	+DC Out	

#### **Outline Drawing KMSA60**



KMSA60		
Pin No.	Function	
1	AC in (L)	
2	AC in (N)	
3	+DC Out	
4	No Pin	
5	-DC Out	
6	No Pin	
7	No Pin	

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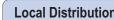


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