



- Small Size & Lightweight
- PCB Board Mountable
- Wide Range Input
- Medical Safety Certifications (4kVAC Input - Output)
- Class II (No ground needed)

**Key Market Segments & Applications**

Portable Medical Equipment  
General Low Power Applications

# KM Series

15 to 40W Medical AC-DC  
PCB - Mount Power Supplies

**KM Features and Benefits**

Features	Benefits
<ul style="list-style-type: none"> <li>• Small Size</li> <li>• Wide Input Range</li> <li>• High efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Minimises PCB Space</li> <li>• Global use with no manual intervention</li> <li>• Lower Heat Dissipated in System</li> </ul>

Specifications		MODELS	KMS15	KMD15	KMT15	KMS40	KMD40	KMT40
ITEMS								
Input Voltage Range	-	90-264VAC 47-440Hz or 100-375VDC						
Inrush Current Limiting	A	10 / 20A, cold start, 25°C ambient (115 / 230VAC)						
Input Current (115 / 230VAC)	mA	220 / 118mA			860 / 460mA			
Internal Fuse (live line) <sup>(1)</sup>	-	250V/T2A			250V/T3.15A			
Temperature Coefficient (O/PV)	-	±0.01%/°C						
Ripple and Noise (pk-pk)	mV	50mV or 1%, whichever is greater						
Overcurrent Protection	-	> 105%, hiccup mode, automatic recovery						
Overvoltage Protection	%	Yes, Zener diode clamp						
Hold-up Time (typical)	ms	20ms			18ms			
Enclosure Leakage 240Vac, 63Hz	mA	0.055 max			0.08 max			
	264Vac, 63Hz	mA	0.06 max			0.085 max		
Operating Temperature	-	-25°C to 70°C, derate linearly to 50% load from 50°C to 70°C. Max case temperature 95°C						
Storage Temperature	-	-40°C to 100°C						
Humidity	%RH	20% to 95% RH (non-condensing)						
Cooling	-	Convection, over temperature protected ~100°C case temperature)						
Withstand Voltage	VAC	Input to output: 4kVAC						
Immunity	-	EN60601-1-2						
Safety Agency Certification	-	UL60601-1, IEC60601-1, CE Mark						
Conducted EMI	-	EN55011 Class B			EN55011 Class A <sup>(2)</sup>			
Switching Frequency	kHz				132kHz			
Weight	g	120			280			
Size (LxWxH)	mm	64 x 46 x 24			89 x 64 x 27			
Mounting & Case	-	PC board mountable. Plastic resin fibreglass case (UL 94V-0)						
MTBF	hrs	200,000 to 400,000 hours, model dependent						
Warranty	yrs	2						

**Notes:**

- (1) For medical applications an equivalent external fuse should be installed in the neutral line
- (2) Class I Applications: An external filter can be added to meet EN55011 Class B - see application notes



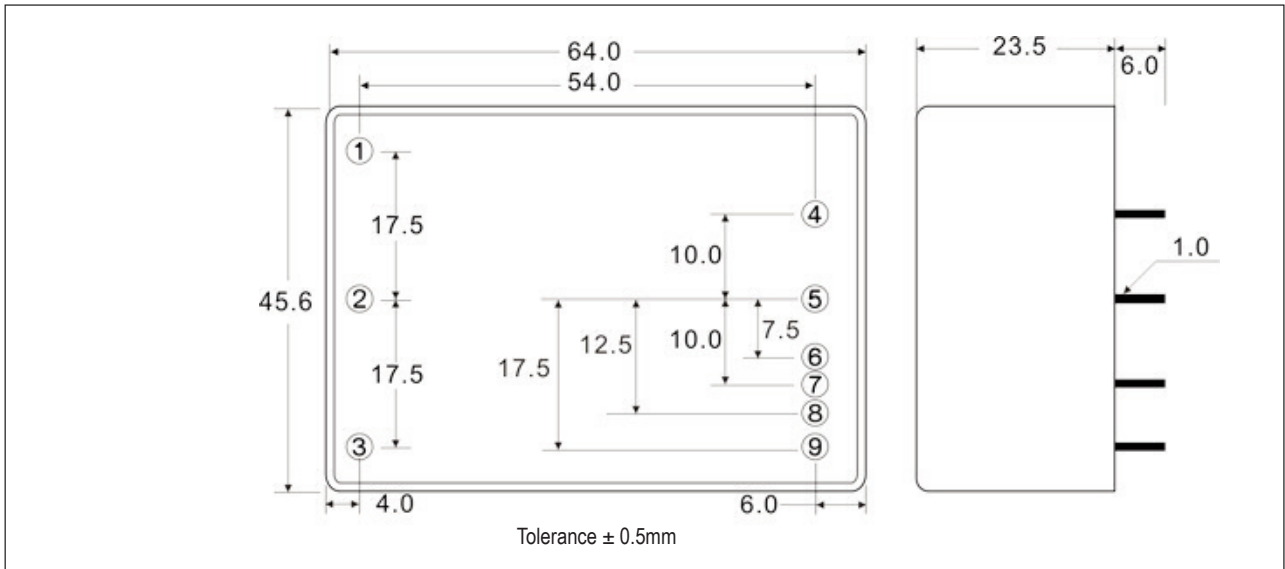
Model Selector										
Model		Output Voltage (V)	Minimum Current (A)	Maximum Current (A)	Power (W)	Output Set Accuracy (%)	Line Regulation (%)	Load Regulation (1) (%)	Cross Regulation	Efficiency (%)
<b>Single Output</b>										
KMS15-3P3	V1	3.3V	0A	3.00A	9.9W	±2%	0.5%	1%	-	74%
KMS40-3P3	V1	3.3V	80mA	8.00A	26.4W	±2%	0.5%	1%	-	75%
KMS15-5	V1	5V	0A	3.00A	15W	±2%	0.5%	1%	-	78%
KMS40-5	V1	5V	80mA	8.00A	40W	±2%	0.5%	1%	-	79%
KMS15-9	V1	9V	0A	1.67A	15W	±2%	0.5%	1%	-	79%
KMS40-9	V1	9V	44mA	4.44A	40W	±2%	0.5%	1%	-	82%
KMS15-12	V1	12V	0A	1.25A	15W	±2%	0.5%	1%	-	81%
KMS40-12	V1	12V	33mA	3.33A	40W	±2%	0.5%	1%	-	83%
KMS15-15	V1	15V	0A	1.00A	15W	±2%	0.5%	1%	-	81%
KMS40-15	V1	15V	26.7mA	2.67A	40W	±2%	0.5%	1%	-	83%
KMS15-24	V1	24V	0A	0.62A	15W	±2%	0.5%	1%	-	83%
KMS40-24	V1	24V	16.7mA	1.67A	40W	±2%	0.5%	1%	-	83%
<b>Dual Output</b>										
KMD15-55	V1	+5V	150mA	1.5A	15W	±2%	0.5%	1%	5%	78%
	V2	-5V	150mA	1.5A		±2%	0.5%	1%	5%	
KMD40-55	V1	+5V	400mA	4A	40W	±2%	0.5%	1%	5%	79%
	V2	-5V	400mA	4A		±2%	0.5%	1%	5%	
KMD40-512	V1	5V(2)	1250mA	5A	40W	±3%	0.5%	2%	1%	80%
	V2	12V(2)	312mA	1.25A		±5%	5.0%	6%	7%	
KMD40-524	V1	5V(2)	1250mA	5A	40W	±3%	0.5%	2%	1%	80%
	V2	24V(2)	156mA	0.625A		±5%	5.0%	6%	7%	
KMD15-1212	V1	+12V	62.5mA	0.625A	15W	±2%	0.5%	1%	3%	80%
	V2	-12V	62.5mA	0.625A		±2%	0.5%	1%	3%	
KMD40-1212	V1	+12V	166mA	1.66A	40W	±2%	0.5%	1%	5%	83%
	V2	-12V	166mA	1.66A		±2%	0.5%	1%	5%	
KMD15-1515	V1	+15V	50mA	0.5A	15W	±2%	0.5%	1%	3%	81%
	V2	-15V	50mA	0.5A		±2%	0.5%	1%	3%	
KMD40-1515	V1	+15V	133mA	1.33A	40W	±2%	0.5%	1%	5%	81%
	V2	-15V	133mA	1.33A		±2%	0.5%	1%	5%	
<b>Triple Output</b>										
KMT15-51212	V1	5V(3)	500mA	2A	15W	±2%	0.5%	1%	1%	78%
	V2	+12V	50mA	0.2A		±3%	2.0%	5%	5%	
	V3	-12V	50mA	0.2A		±3%	2.0%	5%	5%	
KMT40-51212	V1	5V(3)	1250mA	5A	40W	±3%	0.5%	3%	3%	80%
	V2	+12V	150mA	0.6A		±5%	5.0%	7%	7%	
	V3	-12V	150mA	0.6A		±5%	5.0%	7%	7%	
KMT15-51515	V1	5V(3)	500mA	2A	15W	±2%	0.5%	1%	1%	78%
	V2	+15V	37.5mA	0.15A		±3%	2.0%	5%	5%	
	V3	-15V	37.5mA	0.15A		±3%	2.0%	5%	5%	
KMT40-51515	V1	5V(3)	1250mA	5A	40W	±3%	0.5%	3%	3%	80%
	V2	+15V	125mA	0.5A		±5%	5.0%	7%	7%	
	V3	-15V	125mA	0.5A		±5%	5.0%	7%	7%	

Pinout KM15			
PIN #	Function		
	Single O/P	Dual O/P	Triple O/P
1	No Pin	No Pin	No Pin
2	AC (L)	AC (L)	AC (L)
3	AC (N)	AC (N)	AC (N)
4	-DC	-DC	+5V GND
5	No Pin	GND	+5V
6	No Pin	No Pin	-DC
7	+DC	+DC	No Pin
8	No Pin	No Pin	GND
9	No Pin	No Pin	+DC

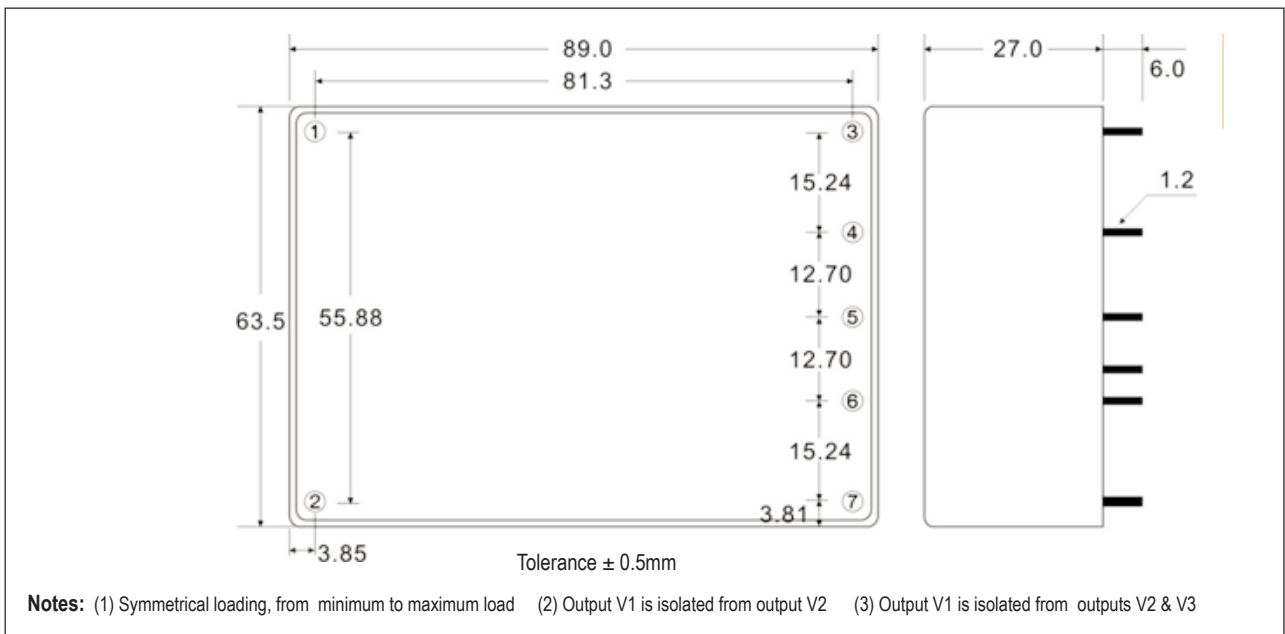
Pinout KM40				
PIN #	Function			
	Single O/P	Dual O/P	5S/12&24S	Triple O/P
1	AC (L)	AC (L)	AC (L)	AC (L)
2	AC (N)	AC (N)	AC (N)	AC (N)
3	+DC	+DC	+O/P2	+DC
4	No Pin	No Pin	+O/P1	+5V
5	-DC	GND	GND1	GND
6	No Pin	No Pin	GND2	+5V GND
7	No Connection	-DC	No Connection	-DC



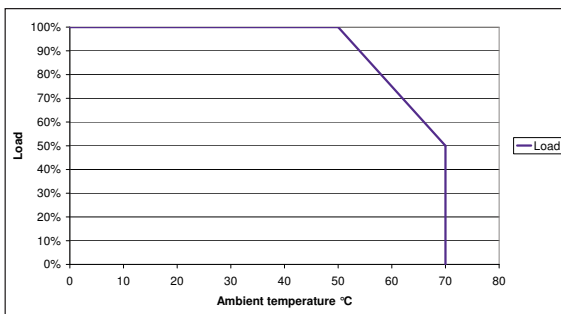
Outline Drawing KM15 Series



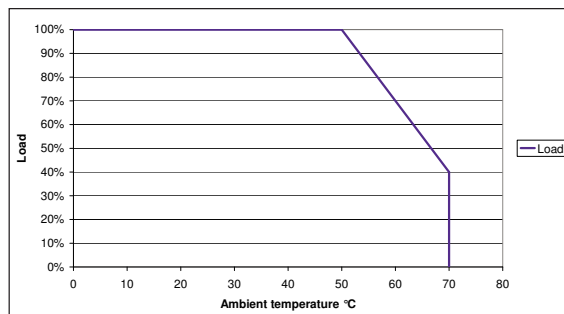
Outline Drawing KM40 Series



Derating Curves KM15 Series



Derating Curves KM40 Series





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