



- 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

Not Recommended for New Designs

KM Features and Benefits

Features

- Small Size
- Wide Input Range
- High efficiency

Benefits

- Minimises PCB Space
- Global use with no manual intervention
- Lower Heat Dissipated in System

Specifications

ITEMS	MODELS	KMS15	KMD15	KMT15	KMS40	KMD40	KMT40
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) ⁽¹⁾	-	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	-	105-200%, hiccup mode, automatic recovery					
Overvoltage Protection	%	Yes, Zener diode clamp					
Hold-up Time (typical)	ms	20ms			18ms		
Touch Current	mA	< 0.1					
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	-	IEC/EN62368-1, IEC/EN60950-1, ANSI/AAMI ES60601-1, IEC/EN60601-1, CE Mark					
Conducted EMI	-	EN55011, EN55032 Class B			EN55011, EN55032 Class A ⁽²⁾		
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:

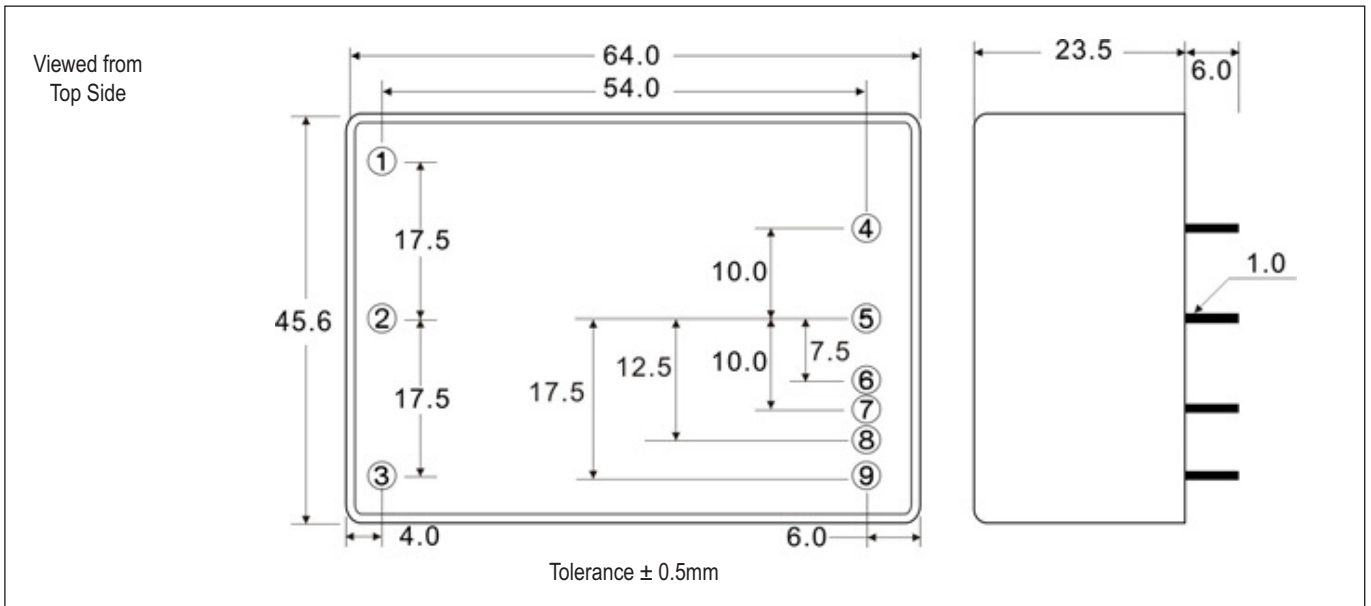
- (1) For medical applications an equivalent external fuse should be installed in the neutral line
 (2) Class I Applications: An external filter can be added to meet EN55011 Class B - see application notes

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 (%)		
Single Output												
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%		
Dual Output												
KMD15-55	V1	+5V	150mA	1.5A	15W	±2%	0.5%	1%	5%	78%		
	V2	-5V	150mA	1.5A		5%						
KMD40-55	V1	+5V	400mA	4A	40W	±2%	0.5%	1%	5%	79%		
	V2	-5V	400mA	4A		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%
Triple Output												
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%

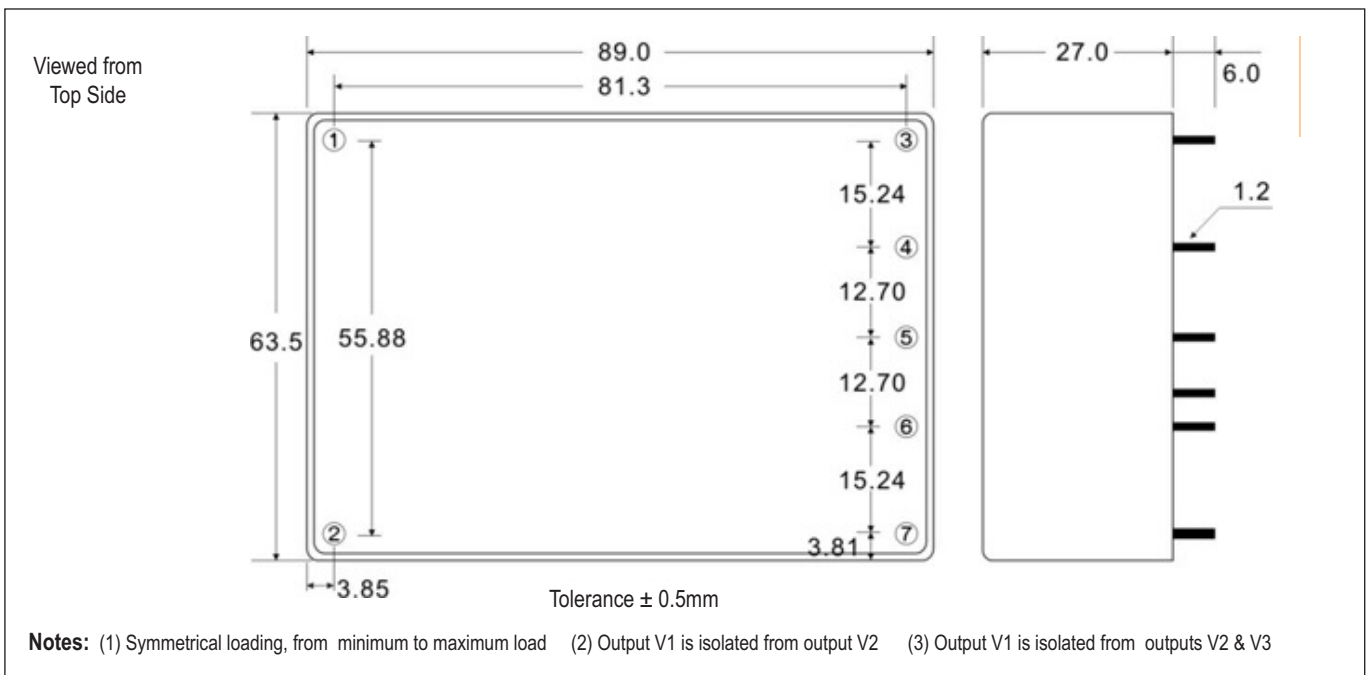
Pinout KM15			
PIN #	Function		
	Single O/P	Dual O/P	Triple O/P
1	No Pin	No Pin	No Pin
2	AC (L)	AC (L)	AC (L)
3	AC (N)	AC (N)	AC (N)
4	-DC	-DC	+5V GND
5	No Pin	GND	+5V
6	No Pin	No Pin	-DC
7	+DC	+DC	No Pin
8	No Pin	No Pin	GND
9	No Pin	No Pin	+DC

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

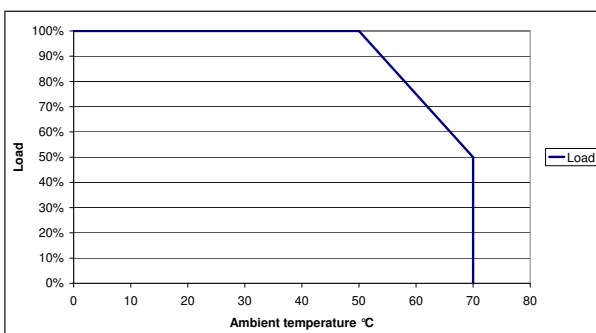
Outline Drawing KM15 Series



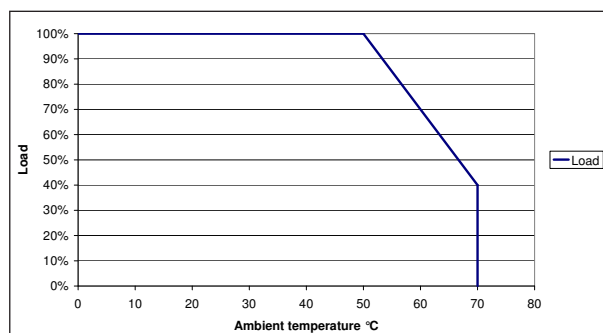
Outline Drawing KM40 Series



Derating Curves KM15 Series



Derating Curves KM40 Series





TDK-Lambda France SAS

3 Avenue du Canada
 Parc Technopolis
 Bâtiment Sigma
 91940 les Ulis
 France
 Tel: +33 1 60 12 71 65
 Fax: +33 1 60 12 71 66
 france@fr.tdk-lambda.com
 www.emea.lambda.tdk.com/fr



Italy Sales Office

Via Giacomo Matteotti 62
 20092 Cinisello Balsamo (MI)
 Italy
 Tel: +39 02 61 29 38 63
 Fax: +39 02 61 29 09 00
 info.italia@it.tdk-lambda.com
 www.emea.lambda.tdk.com/it



Netherlands

info@nl.tdk-lambda.com
 www.emea.lambda.tdk.com/nl



TDK-Lambda Germany GmbH

Karl-Bold-Strasse 40
 77855 Achern
 Germany
 Tel: +49 7841 666 0
 Fax: +49 7841 5000
 info.germany@de.tdk-lambda.com
 www.emea.lambda.tdk.com/de



Austria Sales Office

Aredstrasse 22
 2544 Leobersdorf
 Austria
 Tel: +43 2256 655 84
 Fax: +43 2256 645 12
 info@at.tdk-lambda.com
 www.emea.lambda.tdk.com/at



Switzerland Sales Office

Eichtalstrasse 55
 8634 Hombrechtikon
 Switzerland
 Tel: +41 44 850 53 53
 Fax: +41 44 850 53 50
 info@ch.tdk-lambda.com
 www.emea.lambda.tdk.com/ch



Nordic Sales Office

Haderslevvej 36B
 DK-6000 Kolding
 Denmark
 Tel: +45 8853 8086
 info@dk.tdk-lambda.com
 www.emea.lambda.tdk.com/dk



TDK-Lambda UK Ltd.

Kingsley Avenue
 Ilfracombe
 Devon EX34 8ES
 United Kingdom
 Tel: +44 (0) 12 71 85 66 66
 Fax: +44 (0) 12 71 86 48 94
 info@uk.tdk-lambda.com
 www.emea.lambda.tdk.com/uk



TDK-Lambda Ltd.

1 Alexander Yanai
 Segula
 Petah-Tikva
 Israel
 Tel: +9 723 902 4333
 Fax: +9 723 902 4777
 info@tdk-lambda.co.il
 www.emea.lambda.tdk.com/il



C.I.S.

Commercial Support:
 Tel: +7 (495) 665 2627
Technical Support:
 Tel: +7 (812) 658 0463
 info@tdk-lambda.ru
 www.emea.lambda.tdk.com/ru

Local Distribution

