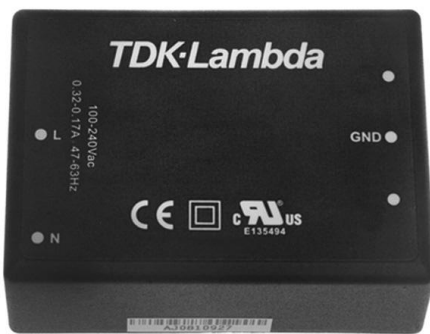


KMS40-9 Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	KMS40-9-DG
Manufacturer	TDK-Lambda Americas Inc
Manufacturer Product Number	KMS40-9
Description	AC/DC CONVERTER 9V 40W
Detailed Description	Enclosed AC DC Converters 1 Output 9V 4.44A 90 ~ 264 VAC, 100 ~ 375 VDC Input

This model KMS40-9 is available at DiGi Electronics.

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DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

KMS40-9

Series:

KM (40W)

Type:

Enclosed

Voltage - Input:

90 ~ 264 VAC, 100 ~ 375 VDC

Voltage - Output 2:

-

Voltage - Output 4:

-

Power (Watts):

40 W

Features:

Universal Input

Efficiency:

82%

Package / Case:

7-DIP Module, 5 Leads

Approval Agency:

CE, EN, IEC, UL

Line Regulation:

0.5%

Weight:

0.618 lb (280.32 g)

Manufacturer:

TDK-Lambda Americas Inc

Product Status:

Not For New Designs

Number of Outputs:

1

Voltage - Output 1:

9V

Voltage - Output 3:

-

Current - Output (Max):

4.44A

Applications:

Medical

Operating Temperature:

-25°C ~ 70°C (With Derating)

Mounting Type:

Through Hole

Size / Dimension:

3.50" L x 2.50" W x 1.06" H (89.0mm x 63.5mm x 27.0mm)

Standard Number:

60601-1; 60950-1; 62368-1

Load Regulation:

1%

Base Product Number:

KMS40

Environmental & Export classification

RoHS Status:

RoHS Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.40.9510

Moisture Sensitivity Level (MSL):

Not Applicable

ECCN:

EAR99



KM Series

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

- 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

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	SPECIFICATIONS					
		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			89.0 x 63.5 x 27.6		
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:

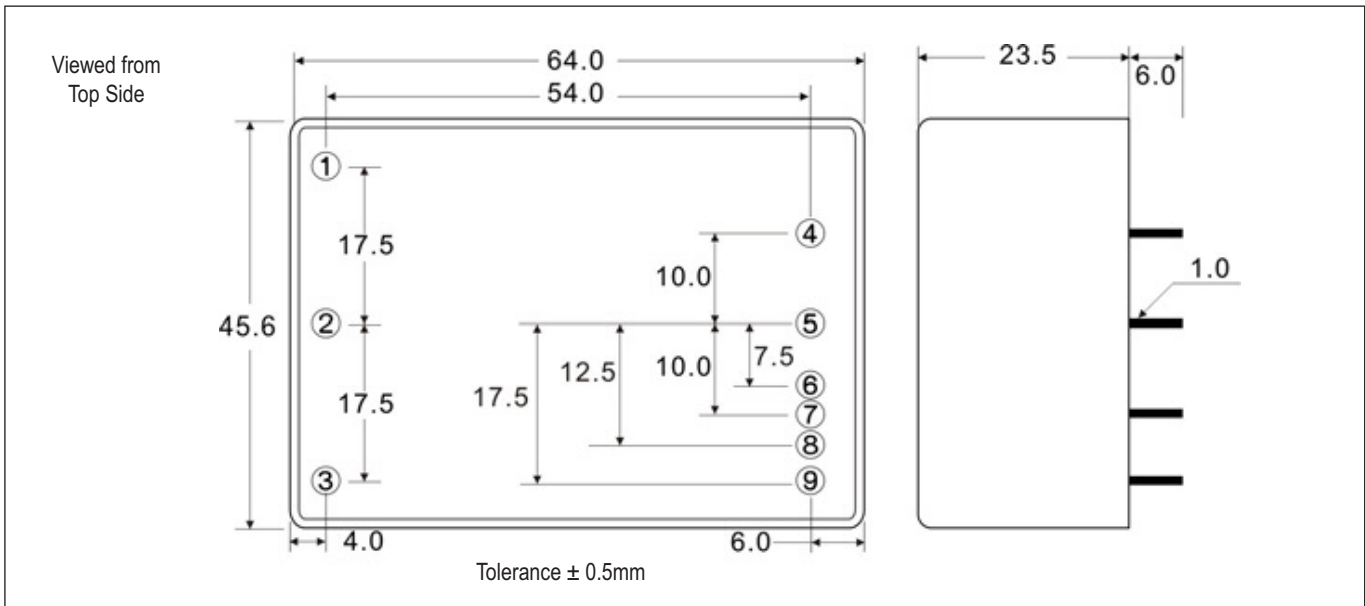
- (1) For medical applications an equivalent external fuse should be installed in the neutral line
(2) Class I Applications: An external filter can be added to meet EN55011 Class B - see application notes

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		±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%	
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%	

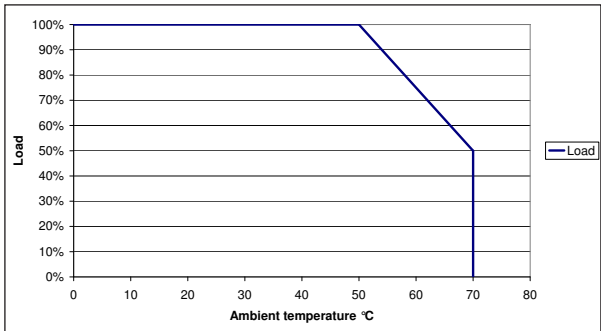
Pinout KM15			
PIN #	Function		
	Single O/P	Dual O/P	Triple O/P
1	No Pin	No Pin	No Pin
2	AC (L)	AC (L)	AC (L)
3	AC (N)	AC (N)	AC (N)
4	-DC	-DC	+5V GND
5	No Pin	GND	+5V
6	No Pin	No Pin	-DC
7	+DC	+DC	No Pin
8	No Pin	No Pin	GND
9	No Pin	No Pin	+DC

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

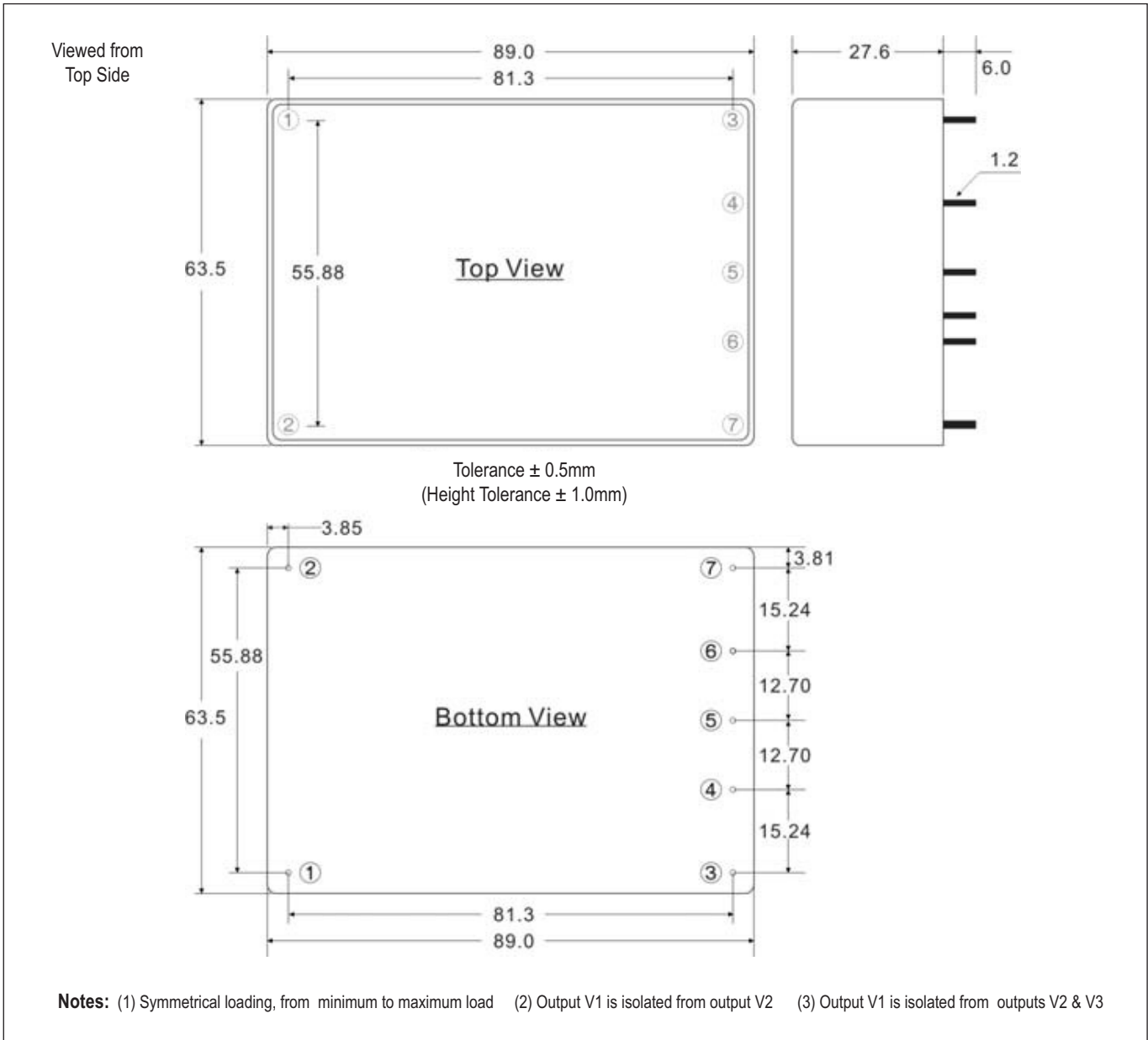
Outline Drawing KM15 Series



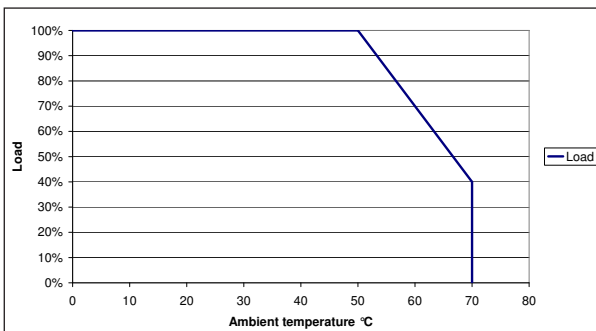
Derating Curves KM15 Series



Outline Drawing KM40 Series



Derating Curves KM40 Series



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