

KDD25 SERIES



DC - DC CONVERTER

21.5 ~ 25W SINGLE & DUAL OUTPUT

FEATURES

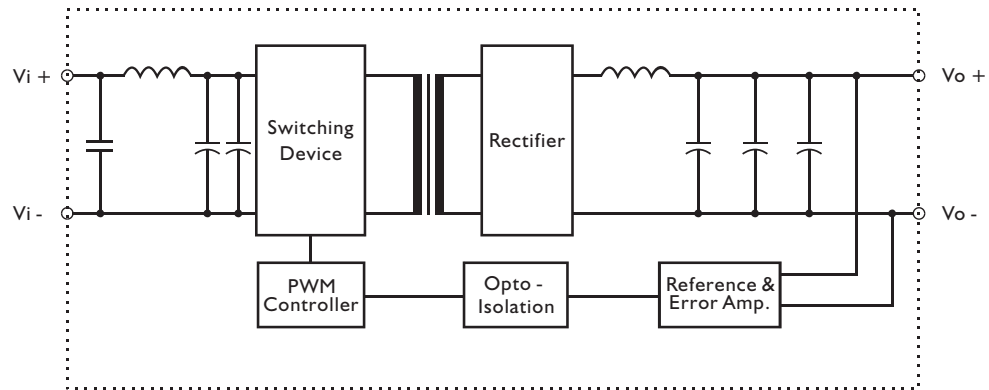
- 2:1 INPUT RANGE
- ISOLATION INPUT AND OUTPUT 1.5KV DC
- HIGH PERFORMANCE UP TO 84%
- SHORT CIRCUIT PROTECTION
- 2 YEARS WARRANTY

MODEL LIST

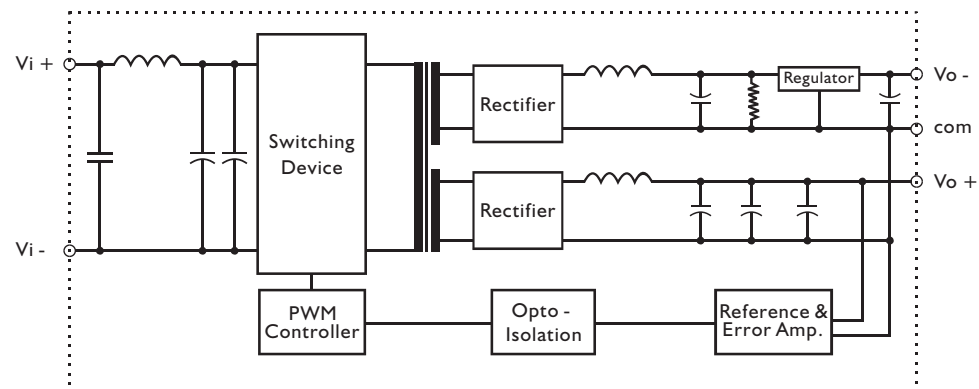
MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (min.)
Single Output Models					
KDD25 - 12S01	9~18 VDC	25 WATTS	+ 5 VDC	5000 mA	77%
KDD25 - 12S02	9~18 VDC	25 WATTS	+ 12 VDC	2100 mA	80%
KDD25 - 12S03	9~18 VDC	25 WATTS	+ 15 VDC	1700 mA	80%
KDD25 - 12S05	9~18 VDC	21.5 WATTS	+3.3 VDC	6500 mA	75%
KDD25 - 24S01	18~36 VDC	25 WATTS	+ 5 VDC	5000 mA	79%
KDD25 - 24S02	18~36 VDC	25 WATTS	+ 12 VDC	2100 mA	81%
KDD25 - 24S03	18~36 VDC	25 WATTS	+ 15 VDC	1700 mA	81%
KDD25 - 24S05	18~36 VDC	21.5 WATTS	+3.3 VDC	6500 mA	77%
KDD25 - 48S01	36~72 VDC	25 WATTS	+ 5 VDC	5000 mA	80%
KDD25 - 48S02	36~72 VDC	25 WATTS	+ 12 VDC	2100 mA	83%
KDD25 - 48S03	36~72 VDC	25 WATTS	+ 15 VDC	1700 mA	83%
KDD25 - 48S05	36~72 VDC	21.5 WATTS	+3.3 VDC	6500 mA	78%
Dual Output Models					
KDD25 - 12D01	9~18 VDC	25 WATTS	± 5 VDC	+4700/-300 mA	77%
KDD25 - 12D02	9~18 VDC	25 WATTS	± 12 VDC	+1800/-300 mA	80%
KDD25 - 12D03	9~18 VDC	25 WATTS	± 15 VDC	+1400/-300 mA	80%
KDD25 - 24D01	18~36 VDC	25 WATTS	± 5 VDC	+4700/-300 mA	79%
KDD25 - 24D02	18~36 VDC	25 WATTS	± 12 VDC	+1800/-300 mA	81%
KDD25 - 24D03	18~36 VDC	25 WATTS	± 15 VDC	+1400/-300 mA	81%
KDD25 - 48D01	36~72 VDC	25 WATTS	± 5 VDC	+4700/-300 mA	80%
KDD25 - 48D02	36~72 VDC	25 WATTS	± 12 VDC	+1800/-300 mA	83%
KDD25 - 48D03	36~72 VDC	25 WATTS	± 15 VDC	+1400/-300 mA	83%

CIRCUIT SCHEMATIC

- Block diagram for KDD25 series with single output



- Block diagram for KDD25 series with dual output



SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

GENERAL

Characteristics	Conditions	min.	typ.	max.	unit
Switching frequency	Vi nom, Io nom		80		KHz
Isolation voltage	Input / Output	1,500			VDC
Isolation resistance	Input / Output, @ 500VDC	1G			Ω
Ambient temperature	Operating at Vi nom, Io nom	-25		+ 71	°C
Case temperature	Operating at Vi nom, Io nom			+ 90	°C
Derating	Vi nom	See derating curve			% / °C
Storage temperature	Non operational	-40		+ 100	°C
Dimension	L70 x W70 x H23				mm
Cooling	Free air convection				
Case material	Metal				

INPUT SPECIFICATIONS

Characteristics	Conditions	min.	typ.	max.	unit
Input voltage range	Ta min ... Ta max, Io nom	19	12	18	VDC
		18	24	36	VDC
		36	48	72	VDC
No load input current	Vi nom, Io=0	12V models		35	mA
		24V models		30	mA
		48V models		25	mA
Input voltage w/o damage	Io nom	12V models		20	VDC
		24V models		40	VDC
		48V models		75	VDC
Input filter	Pi type				

OUTPUT SPECIFICATIONS

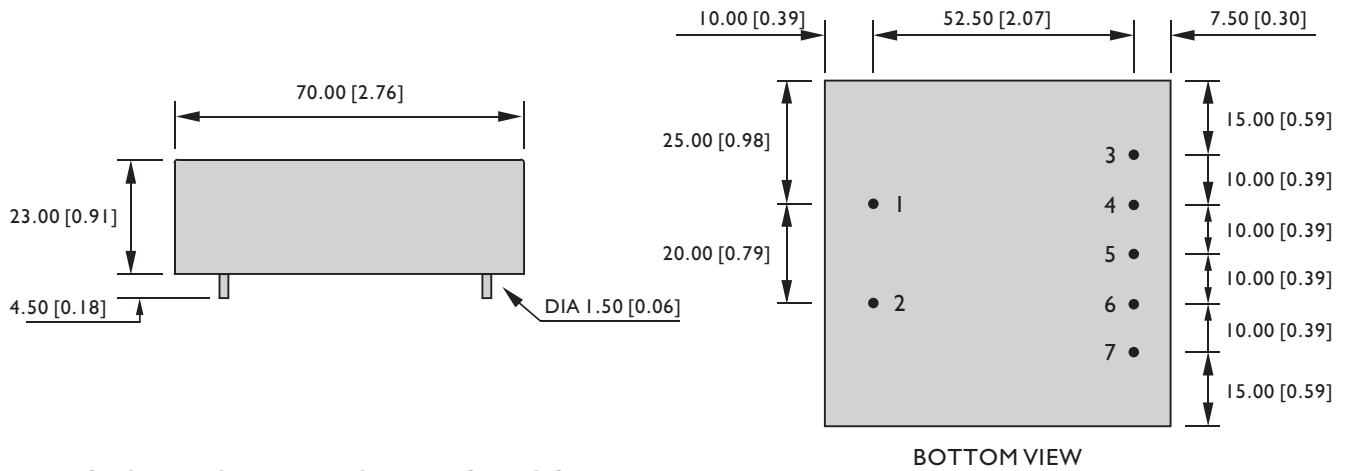
Characteristics	Conditions	min.	typ.	max.	unit
Output voltage accuracy	Vi nom, Io nom			± 1	%
Minimum load	Vi nom single output models	0			%
	dual output models (each output)	20			%
Line regulation	Io nom, Vi min ... Vi max			± 1	%
Load regulation	Vi nom, Io 0 ... Io nom, single output models			± 2	%
	Vi nom, Io min ... Io nom, dual output models			± 5	%
Transient recovery time	25% load, step changed		500		μs
Temperature coefficient	Vi nom, Io nom			± 0.02	% / °C
Ripple & noise	Vi nom, Io nom, BW = 20MHz			Vout x ± 2%	mV
Efficiency	Vi nom, Io nom, Po / Pi	Up to 83%, See model list			

CONTROL AND PROTECTION

Input reversed	Shunt diode built in, external fuse recommended
Output short circuit	Continuous

MECHANISM & PIN CONFIGURATION

mm [inch]



PHYSICAL CHARACTERISTICS

CASE SIZE	70 x 70 x 23 mm 2.76 x 2.76 x 0.91 inches
CASE MATERIAL	Metal
WEIGHT	180 g

PIN ASSIGNMENT

GENERAL

PIN NO.	1	2	3	4	5	6	7
SINGLE	Vi+	Vi-	Vo+	Vo+	Vo-	Vo-	N. C.
DUAL	Vi+	Vi-	Vo+	Vo+	com	com	Vo-

DERATING

