

Features

- Input PI filter
- High Density
- 2:1 input range
- High reliability
- Easy Installation
- Rugged
- Compact
- Built in heat sink
- Built in over-temperature protection
- OCP, OVP
- Under-voltage protection
- Six side metal shielding
- Low EMI interference
- Able to withstand high vibration and shock
- Perfectly suited for: transportation, base station, telecom, and test equipment



Model Number	Nominal Input	Input Range	Output Voltage	Output Current	Output ¹ Power	Ripple & Noise	Typical Efficiency
VKD1000-D24-S12(MM)	24	18-36 Vdc	12V	62.5 A	750W	120 (mVpp)	86%
VKD1000-D24-S15(MM)	24	18-36 Vdc	15V	50 A	750W	150 (mVpp)	86%
VKD1000-D24-S24(MM)	24	18-36 Vdc	24V	31.25 A	750W	200 (mVpp)	87%
VKD1000-D24-S28(MM)	24	18-36 Vdc	28V	26.79 A	750W	280 (mVpp)	86%
VKD1000-D24-S48(MM)	24	18-36 Vdc	48V	20.83 A	1000W	400 (mVpp)	85%
VKD1000-D48-S12(MM)	48	36-72 Vdc	12V	62.5 A	750W	120 (mVpp)	86%
VKD1000-D48-S15(MM)	48	36-72 Vdc	15V	50 A	750W	150 (mVpp)	86%
VKD1000-D48-S24(MM)	48	36-72 Vdc	24V	41.66 A	1000W	200 (mVpp)	85%
VKD1000-D48-S28(MM)	48	36-72 Vdc	28V	35.71 A	1000W	280 (mVpp)	85%
VKD1000-D48-S48(MM)	48	36-72 Vdc	48V	20.83 A	1000W	400 (mVpp)	85%
VKD1000-D110-S12(MM)	110	80-180 Vdc	12V	62.5 A	750W	120 (mVpp)	86%
VKD1000-D110-S15(MM)	110	80-180 Vdc	15V	50A	750W	150 (mVpp)	86%
VKD1000-D110-S24(MM)	110	80-180 Vdc	24V	41.66 A	1000W	200 (mVpp)	85%
VKD1000-D110-S28(MM)	110	80-180 Vdc	28V	35.71 A	1000W	280 (mVpp)	87%
VKD1000-D110-S48(MM)	110	80-180 Vdc	48V	20.83 A	1000W	400 (mVpp)	89%
VKD1000-D300-S12(MM)	300	200-400 Vdc	12V	62.5 A	750W	120 (mVpp)	85%
VKD1000-D300-S15(MM)	300	200-400 Vdc	15V	50A	750W	150 (mVpp)	86%
VKD1000-D300-S24(MM)	300	200-400 Vdc	24V	41.66 A	1000W	200 (mVpp)	87%
VKD1000-D300-S28(MM)	300	200-400 Vdc	28V	35.71 A	1000W	280 (mVpp)	88%
VKD1000-D300-S48(MM)	300	200-400 Vdc	48V	20.83 A	1000W	400 (mVpp)	85%
VKD1000-D600-S12(MM)	600	400-800 Vdc	12V	62.5 A	750W	120 (mVpp)	84%
VKD1000-D600-S15(MM)	600	400-800 Vdc	15V	50 A	750W	150 (mVpp)	84%
VKD1000-D600-S24(MM)	600	400-800 Vdc	24V	41.66 A	1000W	200 (mVpp)	85%
VKD1000-D600-S28(MM)	600	400-800 Vdc	28V	35.71A	1000W	280 (mVpp)	85%
VKD1000-D600-S48(MM)	600	400-800 Vdc	48V	20.83 A	1000W	400 (mVpp)	86%

Notes:

1. Must use external forced airflow min of 2.0 M/S to achieve maximum power.
2. Suffix "M" for -40~85°C operating temperature range.
3. Suffix "MM" for -55~85°C operating temperature range.

Input

Specification	Typical	Range	Units
Input Voltage Range	24V	18~36	Vdc
	48V	36~72	Vdc
	100V	80~180	Vdc
	300V	200~400	Vdc
	600V	400~800	Vdc

Output

Specification	Min.	Typ.	Max.	Units
Voltage Accuracy			±1%	
Ripple and Noise(@ 20MHz Bandwidth)			<1%	mVpp
Line Regulation			±0.2%	
Load Regulation			±0.4%	
Temperature Coefficient			±0.01	%/°C
OCP Limit			120% of Nominal Output Current	
Transient Response (25%-50%-25% & 50%-75%-50%)			200	µs

General Specifications

Specification	Min.	Typ.	Max.	Units
Switching Frequency	160K	180K	200K	Hz
Isolation Resistance	500M			Ohm
MTBF	200K			hours
Isolation Voltage	Input-Output		1000	Vdc
	Input-Case		1000	Vdc
	Output-Case		1000	Vdc

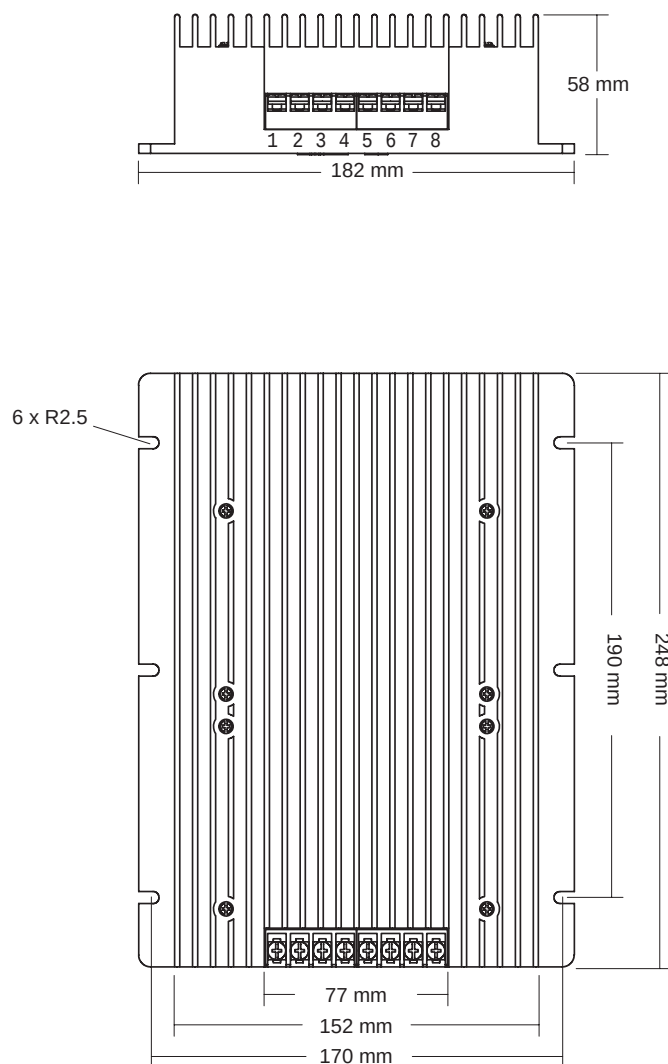
Environmental Specifications

Specification	Min.	Typ.	Max.	Units
Working Temperature (Industrial Grade)	-25		+85	°C
	(Military Grade I)		+85	°C
	(Military Grade II)		+85	°C
Storage Temperature (Industrial Grade)	-45		+105	°C
	(Industrial Grade)		+105	°C
Working Humidity (Non-condensing)	5%		85%	RH
Storage Humidity (Non-condensing)	5%		95%	RH

Thermal Characteristics

Cooling Method	Thermal Impedance
Natural convection	0.86°C/W
0.5 (M/S) 1.64 (LF/S)	0.72°C/W
1.0 (M/S) 3.28 (LF/S)	0.54°C/W
1.5 (M/S) 4.92 (LF/S)	0.39°C/W
2.0 (M/S) 6.56 (LF/S)	0.33°C/W

Dimensions



Pin	Function
1	-Vout
2	-Vout
3	+Vout
4	+Vout
5	-Vin
6	-Vin
7	+Vin
8	+Vin

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