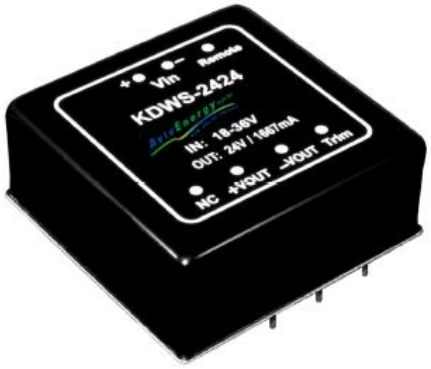
KDW SERIES

30W-40W WIDE INPUT RANGE

AvivEnergy tech ltd.

FEATURES

- 30-40W DIL PACKAGE
- SIX-SIDE SHIELDED CASE
- INDUSTRY STANDARD PACKAGE
- 9-18V,18-36V,36-72V WIDE INPUT RANGE
- 100% BURNED IN
- HIGH EFFICIENCY
- RoHS COMPLIANT
- 3 YEARS PRODUCT WARRANTY



OUTPUT SPECIFICATIONS	
Voltage Setpoint Accuracy	+/-2% max
Temperature Coefficient	+/-0.03%/°C
Ripple & Noise(20MHz BW)[1]	100mVp-p max
Line Regulation[2]	+/-0.5% max
Load Regulation[3]	+/-0.5% max
Minimum load	10% of Full Load
Short Circuit Protection	Continuous
OverVoltage Protection	Built-in
External Trim Adj. Range	+/-10%

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature	-40°C to +71 °C
Storage Temperature	-55 °C to +100 °C
Cooling	Free-Air Convection

INPUT SPECIFICATIONS	
Input Voltage Range	2:1 INPUT RANGE
Input Filter	Pi Network

GENERAL SPECIFICATIONS	
Efficiency	80% min
Isolation Voltage[4]	1000 VDC min
Isolation Resistance	10^9 ohms min
Isolation Capacitance	1200pF max
Switching Frequency	100 KHz min
MTBF[5]	>700,000 Hours
Weight	110g Typ
Case Material	Six-Side Shielded Case
Case Size	50.8mm*50.8mm*21mm
Potting Material	Epoxy(UL94-V0)
Conducted Emissions	EN55022 Class A
Radiated Emissions	EN55022 Class A

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD , AND 25°C UNLESS OTHERWISE NOTED.

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[1] *Measured with 1uF ceramic capacitor connect to the output pins.*
[2] *High Line to Low Line.*
[3] *Load Regulation is for output load current change from 10% to 100%.*
[4] *For 10 seconds.*
[5] *MIL-HDBK-217F @25°C , Ground Benign.*

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SELECTION GUIDE
2:1 30W~40W OUTPUT

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT[6] CURRENT(mA)		EFF (%)[7]	ISOLATION (VDC)
				FULL LOAD	NO LOAD		
KDWS-1212	9-18	12	3000	3650	40	82	1000
KDWS-1224	9-18	24	1500	3640	40	82	1000
KDWS-1230	9-18	30	1200	3645	40	82	1000
KDWS-2412	18-36	12	3000	1820	18	82	1000
KDWS-2415	18-36	15	2400	1810	18	83	1000
KDWS-2424	18-36	24	1667	1950	18	85	1000
KDWD-2412	18-36	+/-12	+/-1650	1960	18	85	1000
KDWD-2415	18-36	+/-15	+/-1300	1960	18	83	1000
KDWS-4812	36-72	12	3000	910	9	82	1000
KDWS-4815	36-72	15	2400	902	9	83	1000
KDWS-4824	36-72	24	1667	976	9	85	1000
KDWD-4812	36-72	+/-12	+/-1650	980	9	85	1000
KDWD-4815	36-72	+/-15	+/-1300	980	9	83	1000

Note: Other input to output voltages may be available. Please contact factory.

[6] *NOMINAL INPUT VOLTAGE.*

[7] *NOMINAL INPUT VOLTAGE,FULL LOAD.*

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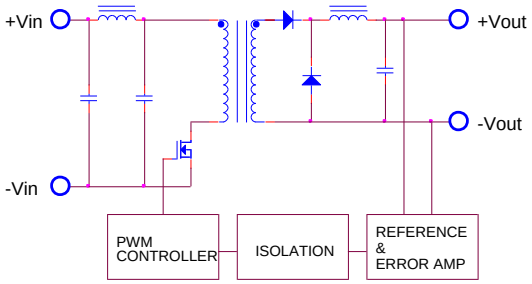
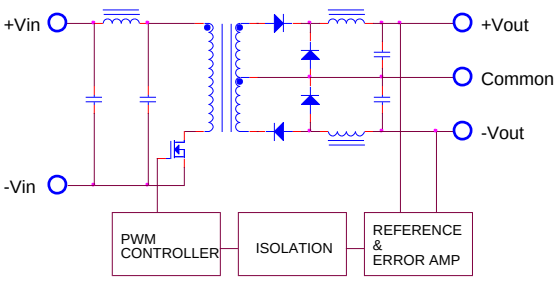
SIMPLIFIED SCHEMATIC

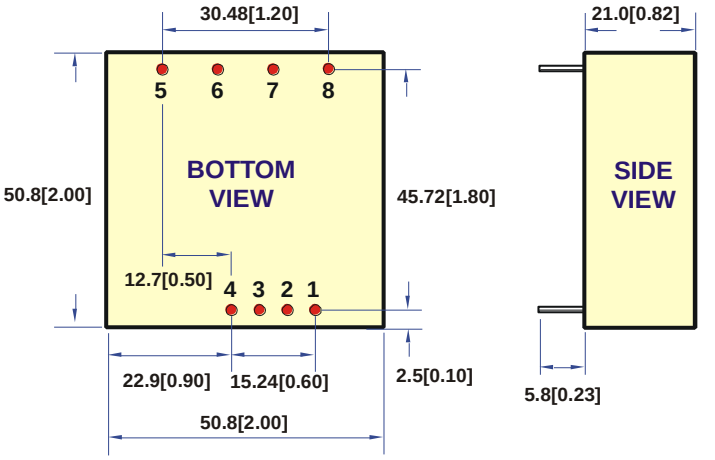
SINGLE OUTPUT



DUAL OUTPUT



MECHANICAL DIMENSIONS

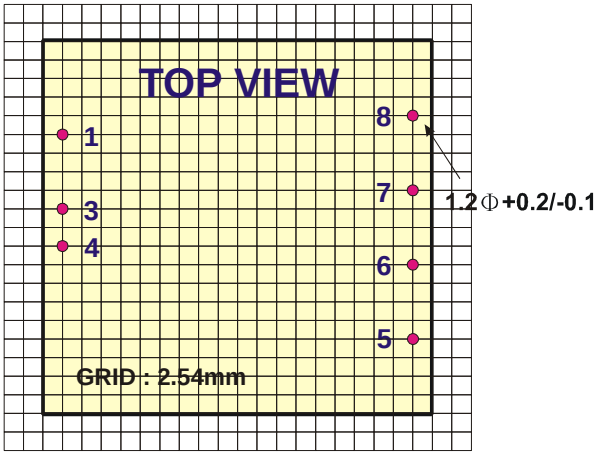


All dimensions are in millimeters[inches]

PIN	SINGLE	DUAL	TRIPLE
1	Remote On/Off		
2	NO PIN		
3	-Vin	-Vin	-Vin
4	+Vin	+Vin	+Vin
5	NC	+Vout	+Aux. out
6	+Vout	Common	+5V out
7	-Vout	-Vout	Common
8	TRIM	TRIM	-Aux. out

Remote On/Off Control			
Control Input	PIN1	Control Common	PIN3
Control Voltage		Converter Shutdown Idle Current	10mA
ON	>+2.5VDC or Open Circuit	Logic Compatibility	CMOS or Open Collector TTL
OFF	<+0.8VDC or Jumper to PIN3		

RECOMMENDED FOOTPRINT DETAILS



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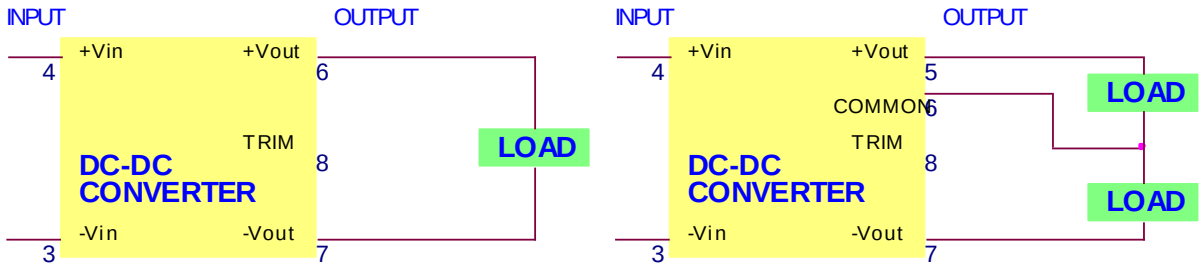
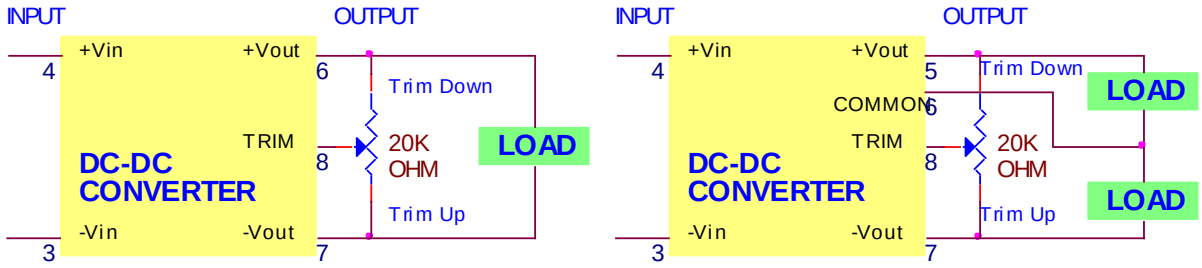
TYPICAL APPLICATIONS

SINGLE OUTPUT DUAL OUTPUT

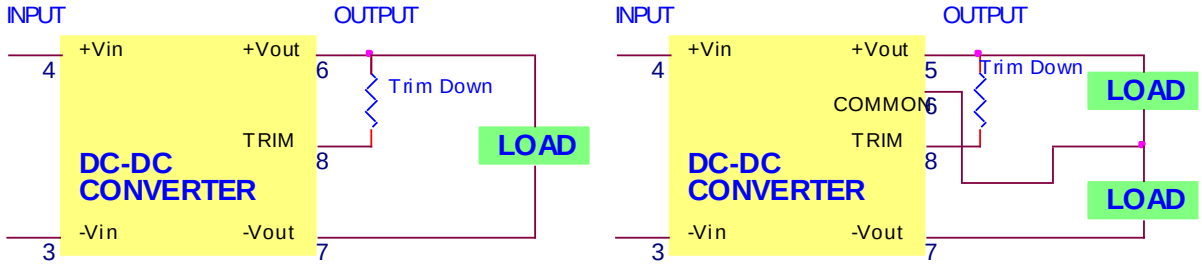
FIXED VOLTAGE OUTPUT



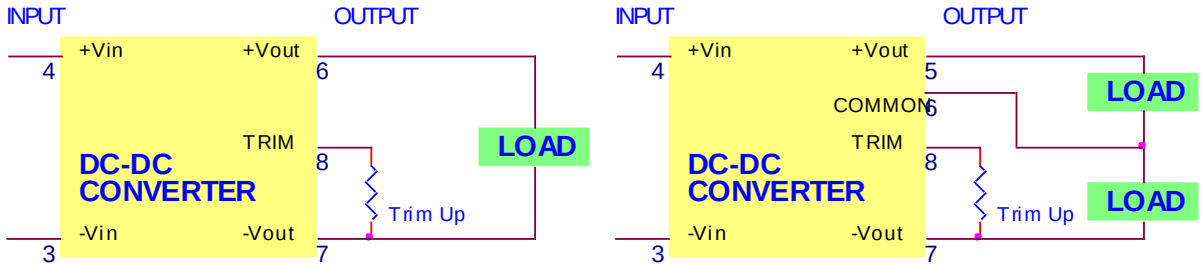
TRIM CONNECTIONS USING A TRIMPOT



FIXED-VALUE TRIM DOWN RESISTOR



FIXED-VALUE TRIM UP RESISTOR



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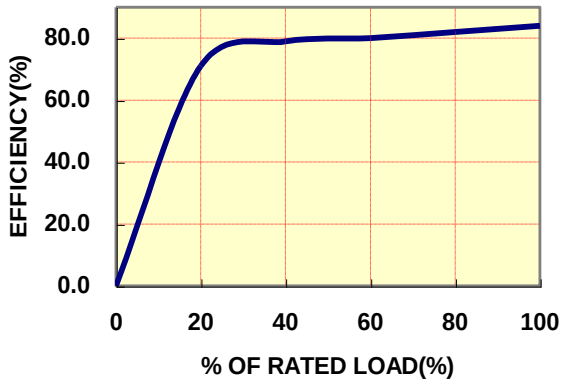
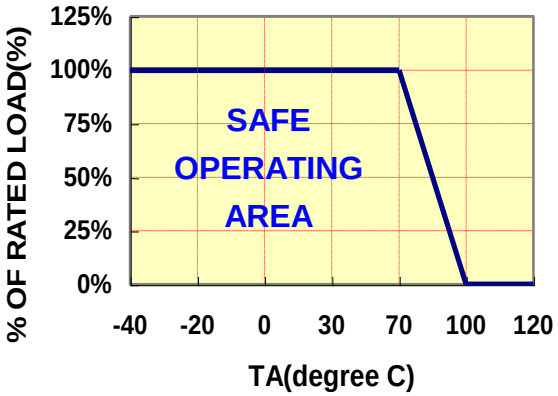
● TYPICAL PERFORMANCE CUREVES

Specifications typical at ta=25°C,nominal input voltage , rated output current unless otherwise specified.

OUTPUT LOAD VS EFFICIENCY



TEMPERATURE DERATING



KDW SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the KDW series.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 220KHz is required.

External output capacitance is not required for operation, however it is recommended that 10uF tantalum and 0.1uF ceramic capacitance be selected for reduced system noise.

Additional output capacitance may be added for increased filtering, but should not exceed 2200uF.

We Can Offer EMC-Filter According To EN55011/22 Class B

Negative Outputs:

A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting –OUT as the negative output.

Remote ON/OFF:

The remote ON/OFF pin may be left floating if this function is not use. It is recommended to drive this pin with an open collector arrangement or a relay contact. When the ON/OFF pin is pulled low with respect to the –Vin , the converter is placed in a low power drain state.

Output TRIM:

The TRIM pin may be used to adjust the output +/-10% from the nominal setting .this function allows adjustment for voltage drops in the system wiring. If the TRIM function is not required the pin may be left floating.

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