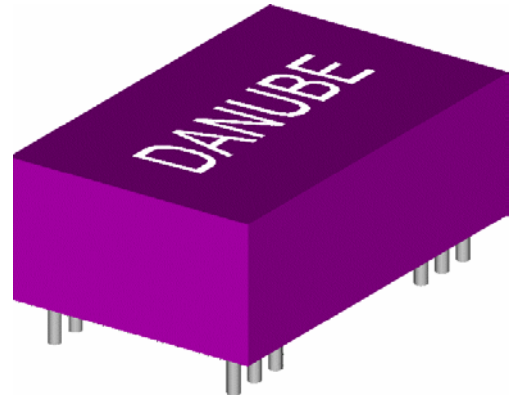


DC-DC Converter UNIT

CER Series (1.5 W REGULATED DC-DC CONVERTER)

FEATURES

- 1000VDC ISOLATION
- HIGH EFFICIENCY
- SIX-SIDED SHIELD TO REDUCE EMI
- LOW COST
- NO EXTERNAL COMPONENTS REQUIRED
- UP TO 1.5W REGULATED OUTPUT POWER
- DUAL IN LINE PACKAGE
- 100% BURNED IN
- LOW NOISE
- MTBF > 850,000 HOURS



● OUTPUT SPECIFICATIONS

Voltage Setpoint Accuracy	+/-2% max
Temperature Coefficient	+/-0.03%/°C
Ripple & Noise (20MHz BW)	100mVp-p max
Line Regulation ¹	+/-0.5% max
Load Regulation ²	+/-0.5% max
Short Circuit Protection	Current Limit Protection
Short Circuit Restart	Automatic

● ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25 °C to +71 °C
Storage Temperature	-55 °C to +125 °C
Cooling	Free-Air Convection

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

● INPUT SPECIFICATIONS

Input Voltage Range	+/-10% max
Input Filter	Pi Network

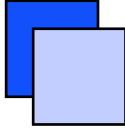
● GENERAL SPECIFICATIONS

Efficiency	58% min
Isolation Voltage ³	1000 VDC min
Isolation Resistance	10 ⁹ ohms min
Switching Frequency	50 KHz min
Isolation Capacitance	80pF max
MTBF	850,000 Hours
Weight	12.0g-14.4g
Case Material	Six-Sided Shield Case
Case Size	31.8mm*20.3mm*10.2mm

¹ High Line to Low Line.

² Load Regulation is for output load current change from 10% to 100%.

³ For 60 seconds



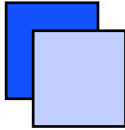
DC-DC Converter UNIT

CER Series (1.5 W REGULATED DC-DC CONVERTER)

● SELECTION GUIDE 1.5W OUTPUT

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT CURRENT(mA)		EFF (%)	ISOLATION (VDC)
				FULL LOAD	NO LOAD		
CERS-0505M	4.5-5.5	5	300	500	40	60	1000
CERS-0512M	4.5-5.5	12	125	490	40	61	1000
CERS-0515M	4.5-5.5	15	100	490	40	61	1000
CERD-0512M	4.5-5.5	+/-12	+/-63	490	40	61	1000
CERD-0515M	4.5-5.5	+/-15	+/-50	490	40	61	1000
CERS-1205M	10.8-13.2	5	300	205	15	61	1000
CERS-1212M	10.8-13.2	12	125	195	15	64	1000
CERS-1215M	10.8-13.2	15	100	195	15	64	1000
CERD-1212M	10.8-13.2	+/-12	+/-63	195	15	64	1000
CERD-1215M	10.8-13.2	+/-15	+/-50	190	15	66	1000
CERS-2405M	21.6-26.4	5	300	100	10	63	1000
CERS-2412M	21.6-26.4	12	125	95	10	66	1000
CERS-2415M	21.6-26.4	15	100	95	10	66	1000
CERD-2412M	21.6-26.4	+/-12	+/-63	95	10	66	1000
CERD-2415M	21.6-26.4	+/-15	+/-50	93	10	67	1000

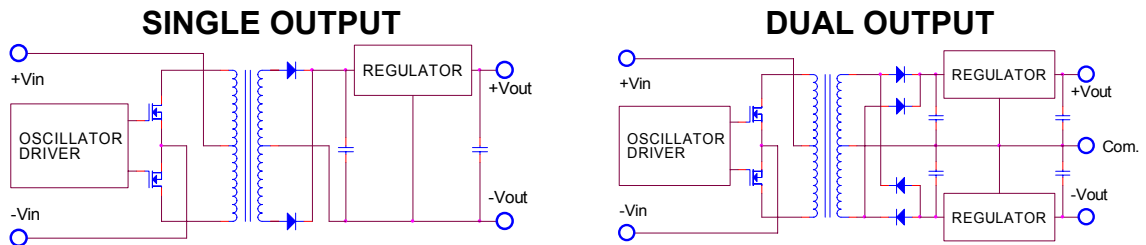
Note: Other input to output voltages may be available. Please contact factory.



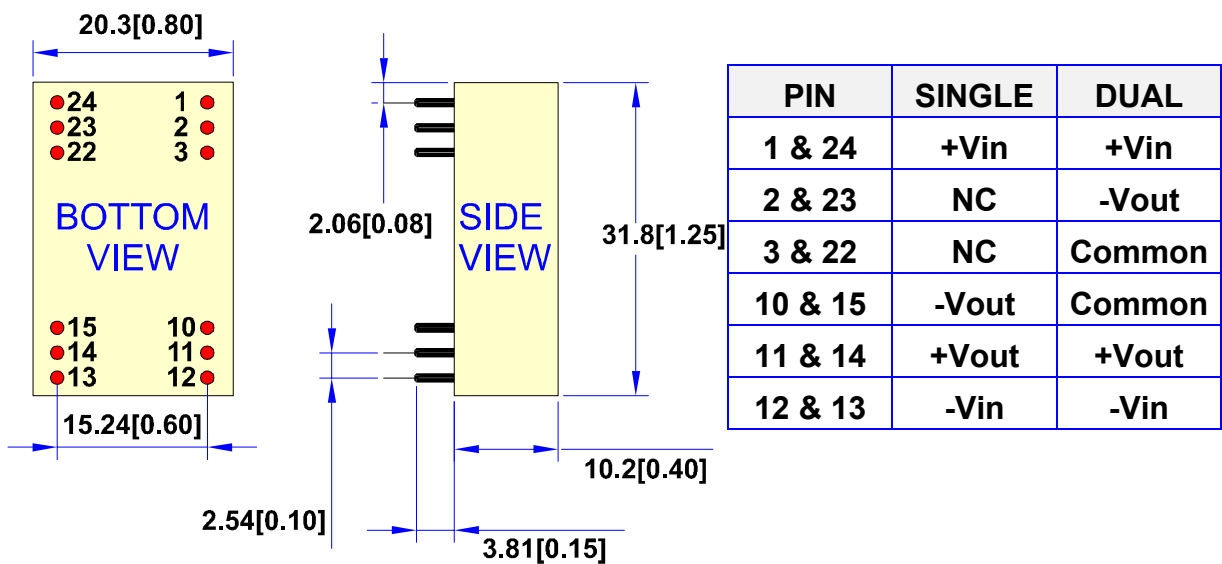
DC-DC Converter UNIT

CER Series (1.5 W REGULATED DC-DC CONVERTER)

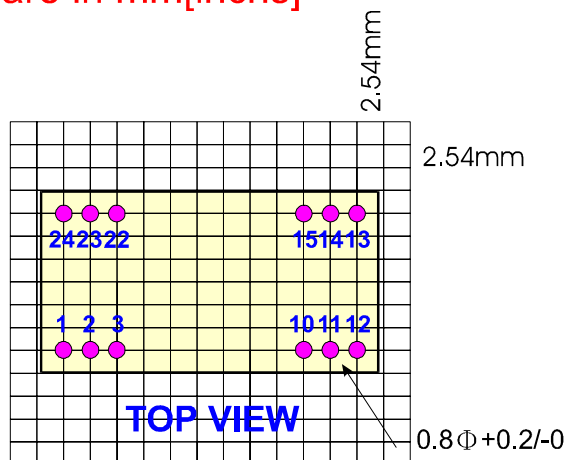
● SIMPLIFIED SCHEMATIC

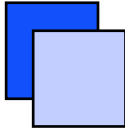


● MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS



All dimensions are in mm[inches]



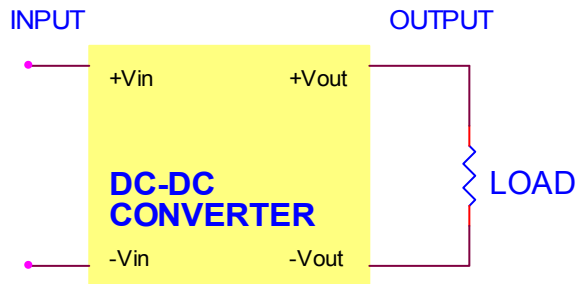


DC-DC Converter UNIT

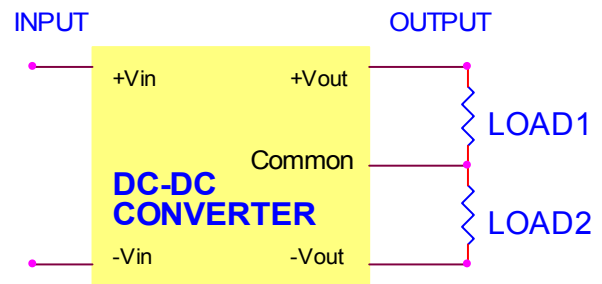
CER Series (1.5 W REGULATED DC-DC CONVERTER)

TYPICAL APPLICATIONS

SINGLE OUTPUT



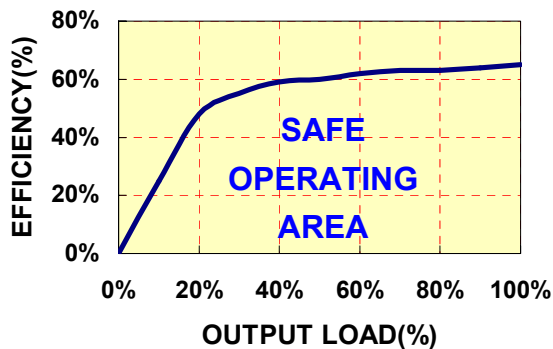
DUAL OUTPUT



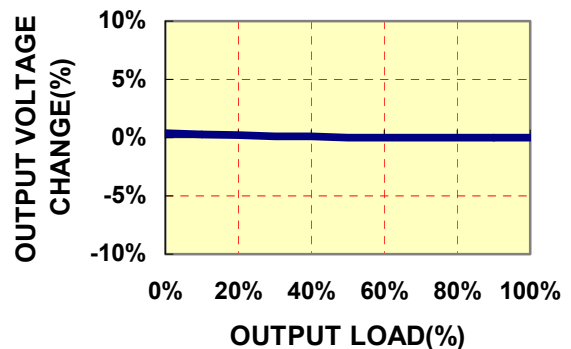
TYPICAL PERFORMANCE CURVES

Specifications typical at $t_a=25^\circ\text{C}$, nominal input voltage, rated output current unless otherwise specified.

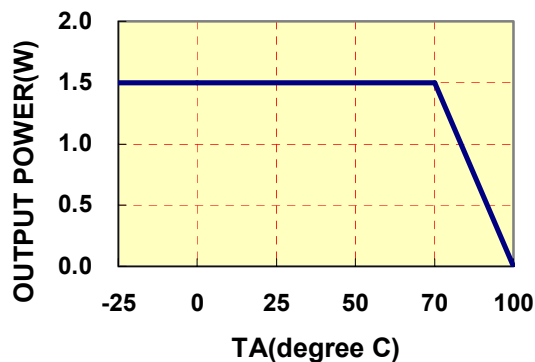
OUTPUT LOAD vs EFFICIENCY



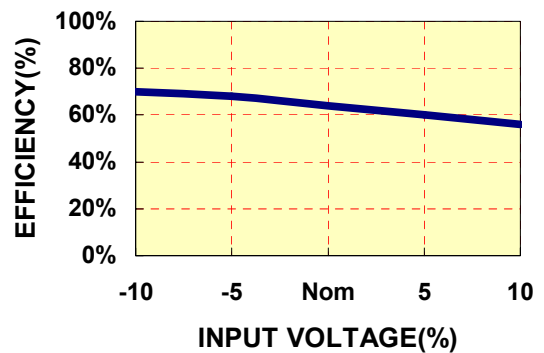
OUTPUT LOAD vs OUTPUT VOLTAGE

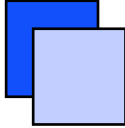


TEMPERATURE DERATING



INPUT VOLTAGE vs EFFICIENCY





DC-DC Converter UNIT

CER Series (1.5 W REGULATED DC-DC CONVERTER)

CER SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

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

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 100KHz 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 220uF.

Negative Outputs:

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

FOR MORE INFORMATION CALL:

Power Systems – The Power Solution

Ilfeld-Auenstein (Germany) Dörnet 8 Tel: + 49 / 70 62 / 67 59 – 6 Fax: + 49 / 70 62 / 67 59 -80

E-mail: Info@Power-Systems.de Home Page: www.Power-Systems.de
