

7.5 WATT DC/DC CONVERTERS CEM2300 SERIES

- 2:1 Input Range
- Efficiency to 82%
- Pi Input Filter
- Short Circuit Protection
- 200 kHz Switching Frequency
- Six-Sided Shield
- Conductive EMI Meets VDE0871 A

SPECIFICATIONS

All Specifications Typical At Nominal Line, and 25°C Unless Otherwise Noted.

INPUT SPECIFICATIONS

Input Voltage Range, 12V 9-18V
 24V 18-36V
 48V 36-72V
 Input Filter Pi Type

OUTPUT SPECIFICATIONS

Voltage Accuracy Single Output $\pm 1\%$ max.
 Dual + Output $\pm 1\%$ max.
 - Output $\pm 1\%$ max.
 Voltage Balance, Dual output at Full load $\pm 1.0\%$ max.
 Transient Response
 Single, 25% step load change $< 200\mu$ sec.
 Dual, FL-1/2 $\pm 1\%$ Error Band $< 200\mu$ sec.
 Ripple and Noise, 20MHz BW 75mV P-P max.
 Temperature Coefficient $\pm 0.2\%/^{\circ}\text{C}$ max.
 Short Circuit Protection Continuous
 Line Regulation¹ Single/Dual/Output $\pm 0.2\%$ max.
 Load Regulation² Single output $\pm 0.2\%$ max.
 Dual Output $\pm 1\%$ max.

GENERAL SPECIFICATIONS

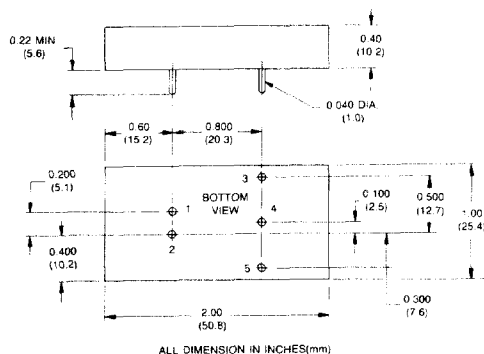
Efficiency See Table
 Isolation Voltage 1500 VDC min.
 Isolation Resistance 10^9 ohms min.
 Switching Frequency 200 KHz
 Operating Temperature Range -25°C to $+71^{\circ}\text{C}$
 Storage Temperature Range -55°C to $+105^{\circ}\text{C}$
 EMI/RFI Six-Sided Continuous Shield
 Dimensions $2 \times 1 \times 0.4$ inches
 (50.8 $\times$ 25.4 $\times$ 10.2mm)
 Case Material³ Black Coated Copper with
 Non-Conductive Base

MODEL NUMBER	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT ¹		% EFF	CASE
				NO LOAD	FULL LOAD		
CEM2301	9-18 VDC	5 VDC	1500 mA	45 mA	850 mA	74	B
CEM2302	9-18 VDC	12 VDC	625 mA	45 mA	815 mA	77	B
CEM2303	9-18 VDC	15 VDC	500 mA	45 mA	815 mA	77	B
CEM2305	9-18 VDC	± 12 VDC	± 310 mA	45 mA	810 mA	77	B
CEM2306	9-18 VDC	± 15 VDC	± 250 mA	45 mA	810 mA	77	B
CEM2311	18-36 VDC	5 VDC	1500 mA	30 mA	400 mA	78	B
CEM2312	18-36 VDC	12 VDC	625 mA	30 mA	380 mA	82	B
CEM2313	18-36 VDC	15 VDC	500 mA	30 mA	380 mA	82	B
CEM2315	18-36 VDC	± 12 VDC	± 310 mA	30 mA	385 mA	81	B
CEM2316	18-36 VDC	± 15 VDC	± 250 mA	30 mA	385 mA	81	B
CEM2321	36-72 VDC	5 VDC	1500 mA	25 mA	195 mA	80	B
CEM2322	36-72 VDC	12 VDC	625 mA	25 mA	195 mA	81	B
CEM2323	36-72 VDC	15 VDC	500 mA	25 mA	195 mA	81	B
CEM2325	36-72 VDC	± 12 VDC	± 310 mA	25 mA	190 mA	82	B
CEM2326	36-72 VDC	± 15 VDC	± 250 mA	25 mA	190 mA	82	B

NOTE: 1. Nominal Input Voltage 12, 24 or 48 VDC Voltage

2. Maximum Capacitive Load Used ON The Output Port Should Not Be Over Following Indicated values.

MODEL NUMBER	CEM 2301	CEM 2302	CEM 2303	CEM 2305	CEM 2306	CEM 2311	CEM 2312	CEM 2313	CEM 2315	CEM 2316	CEM 2321	CEM 2322	CEM 2323	CEM 2325	CEM 2326
MAXIMUM CAPACITIVE LOAD ²	+1500	+220	+150	+47	+47	+1500	+220	+150	+47	+47	+1500	+220	+150	+47	+47
	UF	UF	UF	UF	UF	UF	UF	UF	UF	UF	UF	UF	UF	UF	UF



Pin Connections	
Pin	Function
1	+ Input
2	- Input
3	+ Output
4	Common/NP*
5	- Output

Tolerance x x = ± 0.02

x x x = ± 0.005

*NP (NO PIN) ON SINGLE OUTPUT MODELS

NOTE

1. Measured From High Line to Low Line
2. Measured From Full Load to $1/4$ Load (Single)
 Measured From Full Load to $1/2$ Load (Dual)
3. Metal Case Only