Eaton's single and double output flexible isolated power converters for electronic applications

Eaton power modules (EPM) isolated DC-DC converters comprising of 5 family offerings: EPM6-1V (24 SKUs), EPM6-2V (24 SKUs), EPM7-1V (24 SKUs), EPM25-1V 15 W (12 SKUs) and 30 W (14 SKUs), EPM25-2V 40 W (12 SKUs) and 60 W (14 SKUs)

Product description

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Eaton's EPM are offered in single and double outputs with high voltage isolation of up to 4 kV for flexible and reliable performance. Eaton's EPM Isolated DC-DC converters are packaged in standard SIP4, SIP7 (1 W designs), and through-hole 1" x 2" and 2" x 2" (15 W to 60 W designs). They can withstand high operating temperatures ranging from -40 °C and up to +105 °C and meet EN 55032 & 35, EN 62368-1/IEC 62368-1 safety standards.

Features and benefits

- Provides an optimal balance between design flexibility, performance and solution costs
- High isolation voltages from 1 kV to 4 kV, ideal for isolating primary and secondary circuits and avoiding unwanted EMC/electrical interference
- Wide input voltage range: **5, 12, and 24 Vdc** (EPM6-1V, EPM6-2V, and EPM7-1V) **9 to 36 Vdc and 18 to 75 Vdc** (EPM25-1V 15 W and 30 W), EPM25-2V 40 W and 60 W)
- Continuous short circuit protection
- Single and double outputs
- Wide range selection on output voltage and output current ratings

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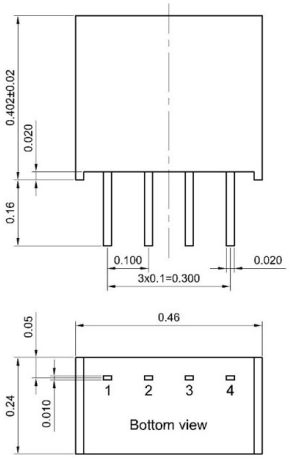
Product specifications

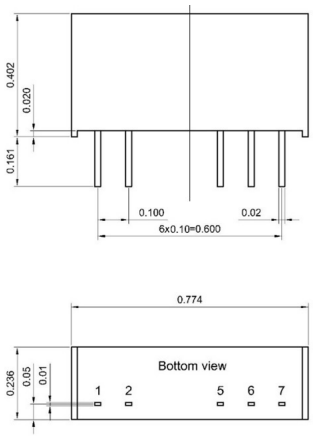
Part number	Input voltage (Vdc)	Output voltage (Vdc)	Output current @ full load (mA)	Isolation voltage	Efficiency[1] minimum	Efficiency[1] typical	Capacitive load[2] maximum (µF)
EPM6-1V	5, 12, 24	3.3-15	67-303	1 and 2 kVdc	71%	74%-84%	1500
EPM6-2V	5, 12, 24	3.3-15	34-303	3 kVdc	71%	74%-85%	1500
EPM7-1V	5, 12, 24	3.3-15	34-303	4 kVdc	71%	74%-81%	1500
EPM25-1V 15 W	9-36 and 18-75	3.3-24	625-4000	1.6 kVdc	84%	85%-90%	12000
EPM25-1V 30 W	9-36 and 18-75	3.3-24	1000-7000	1.6 kVdc	87%	88%-91%	10000
EPM25-2V 40 W	9-36 and 18-75	3.3-15	1333-10000	1.6 kVdc	88%	89%-92%	26600
EPM25-2V 60 W	9-36 and 18-75	3.3-24	2000-12000	1.6 kVdc	88%	89%-92%	28000

1. Efficiency is nominal input voltage and full load @ +25 °C.
2. Capacitive load tested at minimum input voltage and a constant resistive load.
3. All specifications valid at nominal input voltage, full load and +25 °C after warm-up time unless otherwise stated.

EPM6-1V



EPM6-2V



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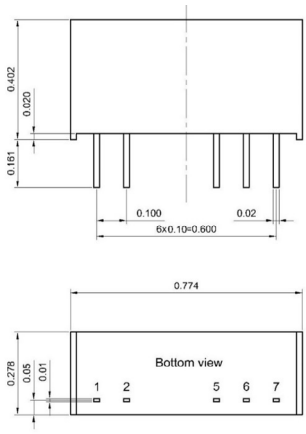
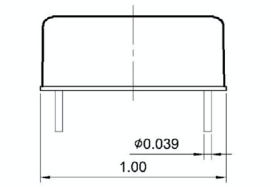
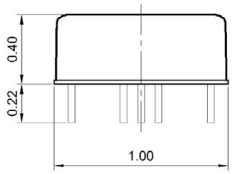
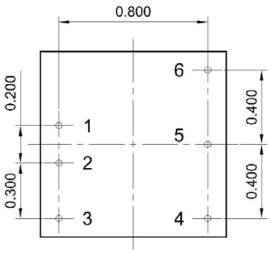


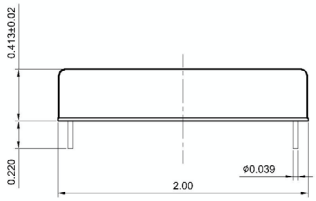
EPM25-1V 15 W and 30 W

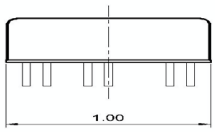


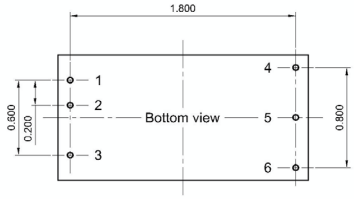




EPM25-2V 40 W and 60 W







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