

IMR Series

3...15 Watt DC-DC Converter



Input voltage range up to 72 V DC
1, 2 and 3 outputs up to 30 V DC
500 V DC I/O electric strength test voltage

- Low cost
- Short circuit proof
- Efficiency up to 82%

Selection chart

Output 1		Output 2		Output 3		Type	Type	Type
U_o nom	I_o nom	U_o nom	I_o nom	U_o nom	I_o nom	Input voltage ¹	Input voltage	Input voltage
[V DC]	[mA]	[V DC]	[mA]	[V DC]	[mA]	9...18 V DC	18...36 V DC	36...72 V DC
3.3	1500	-	-	-	-	12 IMR 6-03-2	24 IMR 6-03-2	48 IMR 6-03-2
3.3	3000	-	-	-	-	12 IMR 15-03-2	24 IMR 15-03-2	48 IMR 15-03-2
5	500	-	-	-	-	12 IMR 3-05-2	24 IMR 3-05-2	48 IMR 3-05-2
5	1000	-	-	-	-	12 IMR 6-05-2	24 IMR 6-05-2	48 IMR 6-05-2
5	3000	-	-	-	-	12 IMR 15-05-2	24 IMR 15-05-2	48 IMR 15-05-2
12	250	-	-	-	-	12 IMR 3-12-2	24 IMR 3-12-2	48 IMR 3-12-2
12	500	-	-	-	-	12 IMR 6-12-2	24 IMR 6-12-2	48 IMR 6-12-2
12	834	-	-	-	-	12 IMR 15-12-2	24 IMR 15-12-2	48 IMR 15-12-2
15	200	-	-	-	-	12 IMR 3-15-2	24 IMR 3-15-2	48 IMR 3-15-2
15	400	-	-	-	-	12 IMR 6-15-2	24 IMR 6-15-2	48 IMR 6-15-2
15	1000	-	-	-	-	12 IMR 15-15-2	24 IMR 15-15-2	48 IMR 15-15-2
+5	250	-5	250	-	-	12 IMR 3-0505-2	24 IMR 3-0505-2	48 IMR 3-0505-2
+5	500	-5	500	-	-	12 IMR 6-0505-2	24 IMR 6-0505-2	48 IMR 6-0505-2
+12	125	-12	125	-	-	12 IMR 3-1212-2	24 IMR 3-1212-2	48 IMR 3-1212-2
+12	250	-12	250	-	-	12 IMR 6-1212-2	24 IMR 6-1212-2	48 IMR 6-1212-2
+12	625	-12	625	-	-	12 IMR 15-1212-2	24 IMR 15-1212-2	48 IMR 15-1212-2
+15	100	-15	100	-	-	12 IMR 3-1515-2	24 IMR 3-1515-2	48 IMR 3-1515-2
+15	200	-15	200	-	-	12 IMR 6-1515-2	24 IMR 6-1515-2	48 IMR 6-1515-2
+15	500	-15	500	-	-	12 IMR 15-1515-2	24 IMR 15-1515-2	48 IMR 15-1515-2
5	2000	+12	200	-12	200	12 IMR 15-051212-2	24 IMR 15-051212-2	48 IMR 15-051212-2
5	2000	+15	200	-15	200	12 IMR 15-051515-2	24 IMR 15-051515-2	48 IMR 15-051515-2

¹ 12 IMR 3 and 12 IMR 15 types have reduced output currents of approx. 80% see: Application Note - Output Data

NUCLEAR AND MEDICAL APPLICATIONS - Power-One products are not authorized for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems without the express written consent of the respective divisional president of Power-One, Inc.

TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

Input

Input voltage	continuous range, 12 V	9...18 V DC
	continuous range, 24 V	18...36 V DC
	continuous range, 48 V	36...72 V DC
Protection	reverse input voltage, current limitation	

Output

Efficiency		up to 82%
Minimum load	recommended	20% $I_{o\ nom}$
Line regulation	$U_{i\ min}...U_{i\ max}$, $I_{o\ nom}$	$\pm 1\%$
Load regulation	$U_{i\ nom}$, 0...100% $I_{o\ nom}$, single output models	2%
	dual output models (traching)	5%
	triple output models (traching)	6%
Ripple and noise	$U_{i\ nom}$, (20...100%) $I_{o\ nom}$	2% $U_{o\ nom}$

Protection

Overload protection	$U_{i\ nom}$, full load	125% $P_{i\ nom}$
No-load protection		

Safety

I/O electric strength test	per EN 60950	500 V DC
Electromagnetic interference	conducted per EN 55022 with external filter	class B

Environmental

Operating temperature	$U_{i\ nom}$, $I_{o\ nom}$	-10...50°C
Storage temperature	non operational	-40...100°C
Relative humidity	non condensing	95%
MTBF	per MIL-HDBK-217F, N2	>3'000'000 h

Options

Extended temperature range	-25...71 °C, ambient, operating, IMR 3, IMR 6	-7
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IMR Series

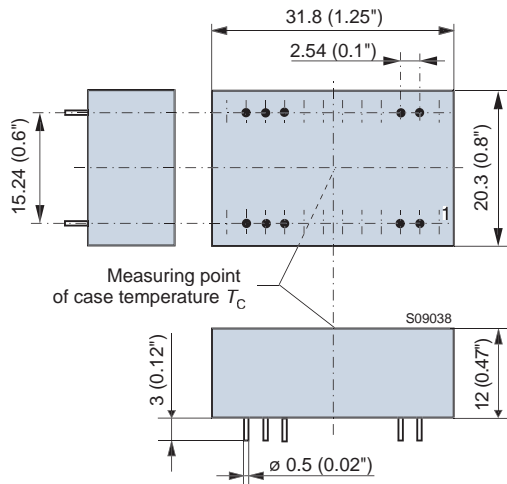
3...15 Watt DC-DC Converter

Mechanical data

Tolerances ± 0.3 mm (0.012") unless otherwise indicated.



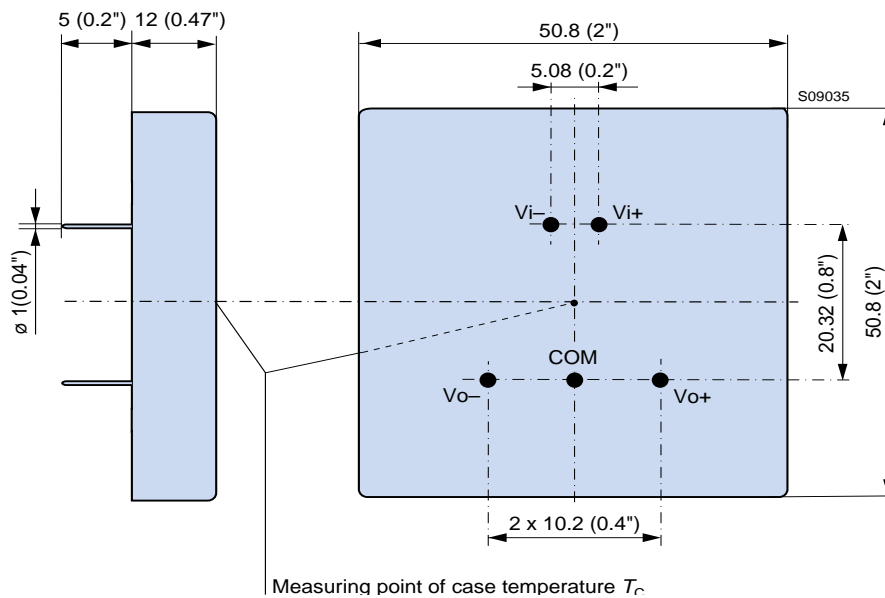
IMR 3



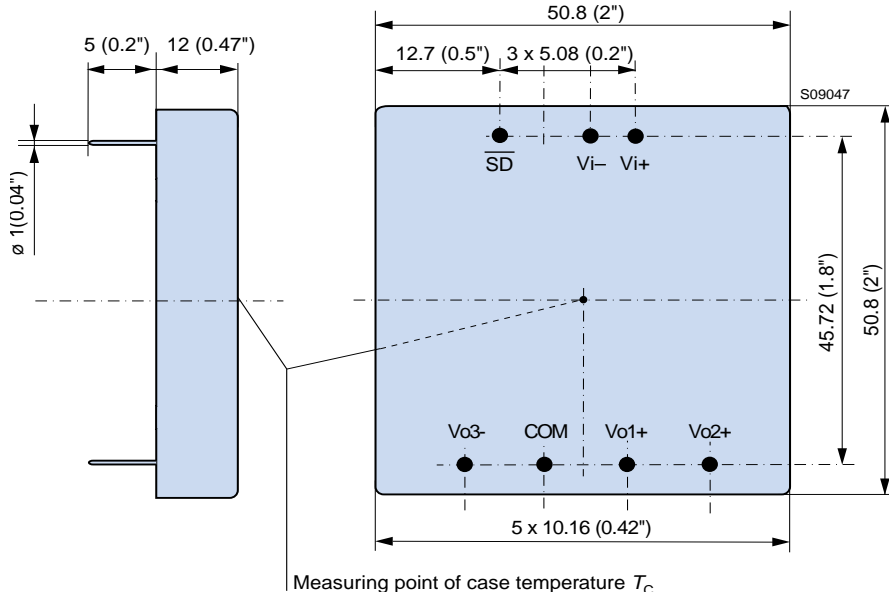
Pin allocation IMR 3

Pin	Single output unit	Dual output unit
2	Vi-	Vi-
3	Vi-	Vi-
9	n.c.	COM
11	n.c.	Vo-
14	Vo+	Vo+
16	Vo-	COM
22	Vi+	Vi+
23	Vi+	Vi+

IMR 6/IMR 15 Single and Dual Output



IMR 15 Triple Output



Accessories

DIN and chassis mounting bracket.