

IMR 25...40 Series

25...40 Watt DC-DC Converters



Input voltage range up to 72 V DC
1, 2 or 3 outputs up to 30 V DC
1500 V DC I/O electric strength test voltage

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

Selection chart

Output 1 $U_o \text{ nom}$ [V DC] $I_o \text{ nom}$ [A]		Output 2 $U_o \text{ nom}$ [V DC] $I_o \text{ nom}$ [A]		Output 3 $U_o \text{ nom}$ [V DC] $I_o \text{ nom}$ [A]		Type Input voltage 9...18 V DC	Type Input voltage 18...36 V DC	Type Input voltage 36...72 V DC
3.3	6.5	-	-	-	-	12 IMR 25-03-2	24 IMR 25-03-2	48 IMR 25-03-2
3.3	10	-	-	-	-	12 IMR 40-03-2	24 IMR 40-03-2	48 IMR 40-03-2
5	5	-	-	-	-	12 IMR 25-05-2	24 IMR 25-05-2	48 IMR 25-05-2
5	8	-	-	-	-	12 IMR 40-05-2	24 IMR 40-05-2	48 IMR 40-05-2
12	2.1	-	-	-	-	12 IMR 25-12-2	24 IMR 25-12-2	48 IMR 25-12-2
12	3.5	-	-	-	-	12 IMR 40-12-2	24 IMR 40-12-2	48 IMR 40-12-2
15	1.7	-	-	-	-	12 IMR 25-15-2	24 IMR 25-15-2	48 IMR 25-15-2
15	3	-	-	-	-	12 IMR 40-15-2	24 IMR 40-15-2	48 IMR 40-15-2
24	2	-	-	-	-	12 IMR 40-24-2	24 IMR 40-24-2	48 IMR 40-24-2
+5	4.7	-5	0.3	-	-	12 IMR 25-0505-2	24 IMR 25-0505-2	48 IMR 25-0505-2
+5	8	-5	0.5	-	-	12 IMR 40-0505-2	24 IMR 40-0505-2	48 IMR 40-0505-2
+12	1.8	-12	0.3	-	-	12 IMR 25-1212-2	24 IMR 25-1212-2	48 IMR 25-1212-2
+12	3	-12	0.5	-	-	12 IMR 40-1212-2	24 IMR 40-1212-2	48 IMR 40-1212-2
+15	1.4	-15	0.3	-	-	12 IMR 25-1515-2	24 IMR 25-1515-2	48 IMR 25-1515-2
+15	2	-15	0.5	-	-	12 IMR 40-1515-2	24 IMR 40-1515-2	48 IMR 40-1515-2
+5	4	+12	0.3	-12	0.3	12 IMR 25-051212-2	24 IMR 25-051212-2	48 IMR 25-051212-2
+5	6	+12	0.5	-12	0.5	12 IMR 40-051212-2	24 IMR 40-051212-2	48 IMR 40-051212-2
+5	3.5	+15	0.3	-15	0.3	12 IMR 25-051515-2	24 IMR 25-051515-2	48 IMR 25-051515-2
+5	6	+15	0.5	-15	0.5	12 IMR 40-051515-2	24 IMR 40-051515-2	48 IMR 40-051515-2
+5	12	-5	0.5	+12	0.5	-	24 IMR 40-050512-2	48 IMR 40-050512-2

Board Mountable

IMR 25...40 Series

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
Reverse voltage protection	shunt diode	

Output

Output voltage setting accuracy	$U_{i \text{ nom}}, I_{o \text{ nom}}$	$\pm 2\% U_{o \text{ nom}}$
Minimum load	recommended	20% $I_{o \text{ nom}}$
Line regulation	$U_{i \text{ min}} \dots U_{i \text{ max}}, I_{o \text{ nom}}$	$\pm 1\% U_{o \text{ nom}}$
Load regulation	$U_{i \text{ nom}}, 0 \dots 100\% I_{o \text{ nom}}, \text{single output models}$	$\pm 2\% U_{o \text{ nom}}$
	dual and triple output models (tracking)	5% $U_{o \text{ nom}}$
Output voltage switching noise	$U_{i \text{ nom}}, 20 \dots 100 I_{o \text{ nom}}, \text{peak-peak, total}$	max. 2% $U_{o \text{ nom}}$

Control and protection

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

Safety and EMC

Electric strength test voltage	I/O	1500 V DC
Electromagnetic interference	conducted with external filter	class B

Environmental

Operating ambient temperature	$U_{i \text{ nom}}, I_{o \text{ nom}}$	-10...50°C
Storage temperature	non operational	-25...85°C
Relative humidity	non condensing	95%
MTBF	MIL-HDBK-217F, N2	2'000'000 h

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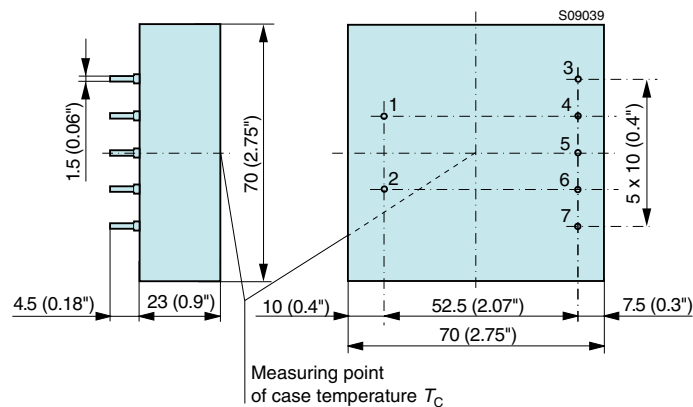
25...40 Watt DC-DC Converters

Mechanical data

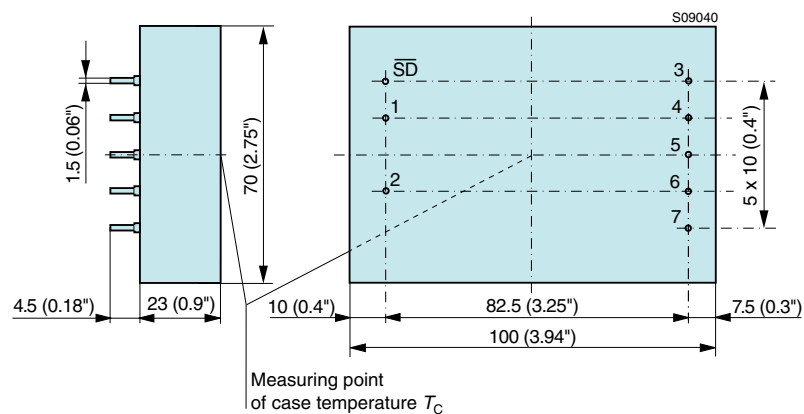
Tolerances ± 0.3 mm (0.012") unless otherwise indicated.



IMR 25 single and dual outputs units



IMR 25 triple output units and IMR 40



Pin allocation

Pin	Single output	Dual output	Triple output
1	V_{i+}	V_{i+}	V_{i+}
2	V_{i-}	V_{i-}	V_{i-}
3	V_{o+}	V_{o+}	V_{o1+}
4	V_{o+}	V_{o+}	COM
5	V_{o-}	COM	V_{o2+}
6	V_{o-}	COM	COM
7	n.c.	V_{o-}	V_{o3-}