

IML 10 Series

10 Watt DC-DC Converters



Wide input voltage ranges up to 75 V DC
1 or 2 outputs up to 30 V DC
1500 V DC I/O electric strength test voltage



- Magnetic feedback for single output models
- Short circuit protection
- Industry standard 2" x 1" case with 10.5 mm profile

Selection chart

Output 1		Output 2		Input voltage U_i [V DC]	Type ¹	Options ¹
$U_{o \text{ nom}}$ [V DC]	$I_{o \text{ nom}}$ [A]	$U_{o \text{ nom}}$ [V DC]	$I_{o \text{ nom}}$ [A]			
3.3	2	-	-	18...36	24 IML 10-03-3	C, Z
3.3	2	-	-	36...75	48 IML 10-03-3	C, Z
5	1.9	-	-	18...36	24 IML 10-05-3	C, Z
5	1.9	-	-	36...75	48 IML 10-05-3	C, Z
12	0.9	-	-	18...36	24 IML 10-12-3C	
12	0.9	-	-	36...75	48 IML 10-12-3C	
15	0.7	-	-	18...36	24 IML 10-15-3C	
15	0.7	-	-	36...75	48 IML 10-15-3C	
5.1	1	3.3	1	36...75	48 IML 10-0503-3	C, Z
12	0.45	12	0.45	18...36	24 IML 10-12-12-3	C, Z
12	0.45	12	0.45	36...75	48 IML 10-12-12-3	C, Z
15	0.35	15	0.35	18...36	24 IML 10-15-15-3	C, Z
15	0.35	15	0.35	36...75	48 IML 10-15-15-3	C, Z

¹ For availability contact Power-One.

Input

Input voltage range	24 IML 10	18...36 V DC
	48 IML 10	36...75 V DC

Output

Output voltage setting accuracy	$U_{i \text{ nom}}$, 50% $I_{o \text{ nom}}$, single output models	$\pm 1.5\%$ $U_{o \text{ nom}}$
	$U_{i \text{ nom}}$, 50% $I_{o \text{ nom}}$, double outp., main/aux. outp.	$\pm 1.5\%/\pm 1.5\%$ $U_{o \text{ nom}}$
Minimum load	recommended	10% $I_{o \text{ nom}}$
Line/load regulation	$U_{i \text{ min}}...U_{i \text{ max}}$, 50% $I_{o \text{ nom}}$, single output models	$\pm 3\%$ $U_{o \text{ nom}}$
Line regulation	$U_{i \text{ nom}}$, 50% $I_{o \text{ nom}}$, double output models, main output	$\pm 1\%$ $U_{o \text{ nom}}$
Load regulation	$U_{i \text{ nom}}$, 10...100% $I_{o \text{ nom}}$, double outp. mod., main outp.	$\pm 3\%$ $U_{o \text{ nom}}$
	tracking output	$\pm 3\%$ $U_{o \text{ nom}}$
Output voltage switching noise	$U_{i \text{ nom}}$, 0...100% $I_{o \text{ nom}}$, peak-peak, total	max. 1.5% $U_{o \text{ nom}}$
Efficiency	$U_{i \text{ nom}}$, $I_{o \text{ nom}}$	up to 84%

Control and protection

Input protection		none
Overload protection	$U_{i \text{ min}}...U_{i \text{ max}}$, any load	fully protected, hiccup mode
No-load protection		yes

Safety and EMC

Electric strength test voltage	I/O	1500 V DC
Electromagnetic interference		class A

Environmental

Operating ambient temperature	$U_{i \text{ nom}}$, $I_{o \text{ nom}}$	-25...60°C
Storage temperature	non operational	-40...100°C
Relative humidity	non condensing	93%

Options

Open version without housing	Z
C-pinout	C

Accessories

DIN and chassis mounting bracket	
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IML 10 Series

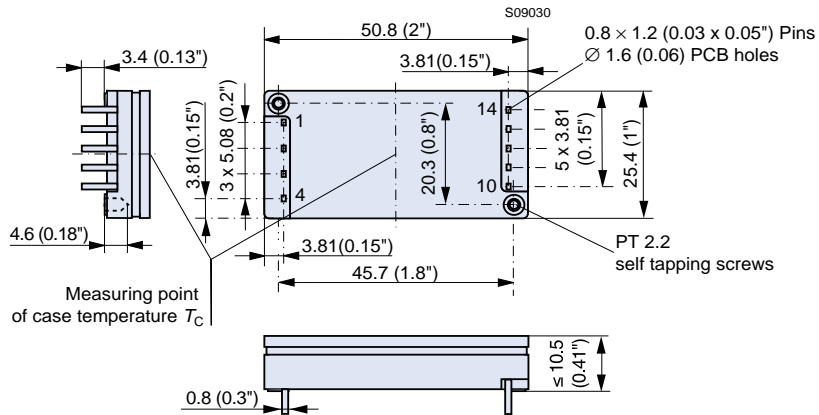
10 Watt DC-DC Converters

Mechanical data

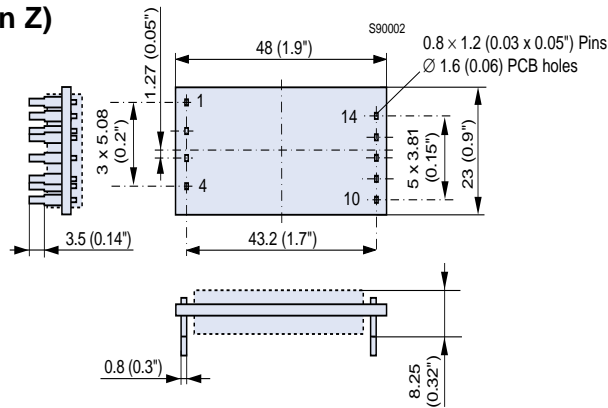
Tolerances ± 0.3 mm (0.012") unless otherwise indicated.



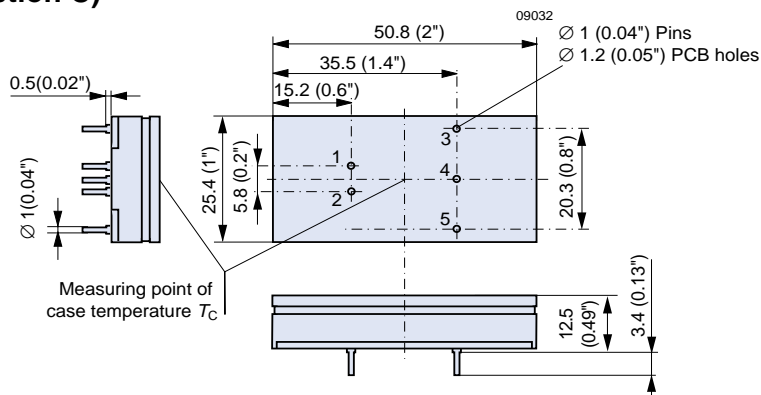
IML 10



IML 10 (option Z)



IML 10 (option C)



Pin allocation IML 10

Pin	Single output	0503 types	Double output
1	Vi+	Vi+	Vi+
2	Vi-	Vi-	Vi-
3	n.c.	n.c.	n.c.
4	n.c.	n.c.	n.c.
10	Vo-	Go	Vo1-
11	Vo+	Vo1+	Vo1+
12	Vo-	Go	Vo2-
13	n.c.	Vo2+	Vo2+
14	n.c.	n.c.	n.c.

C pinout (option C)

Pin	Single output	Dual output
1	Vi+	Vi+
2	Vi-	Vi-
3	Vo+	Vo+
4	no pin	Go
5	Vo-	Vo-