



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

- Wide input range
- Short circuit protection
- Low cost

**Model Selection**

Output 1 $V_o$ nom $I_o$ nom [VDC][mA]		Output 2 $V_o$ nom $I_o$ nom [VDC][mA]		Output 3 $V_o$ nom $I_o$ nom [VDC][mA]		Type Input voltage 4.5 - 5.5 VDC	Type Input voltage 10 - 36 VDC <sup>1</sup>	Type Input voltage 18 - 72 VDC	Opt.
3.3 1500	- -	- -	- -	- -	- -	5 IMP 6-03-7	24 IMP 6-03-7	48 IMP 6-03-7	-
3.3 3000	- -	- -	- -	- -	- -	-	24 IMP 12-03-7	48 IMP 12-03-7	-
5 200	- -	- -	- -	- -	- -	5 IMP 1-05-7	-	-	S
5 500	- -	- -	- -	- -	- -	-	24 IMP 3-05-7	48 IMP 3-05-7	S
5 1000	- -	- -	- -	- -	- -	5 IMP 6-05-7	24 IMP 6-05-7	48 IMP 6-05-7	-
5 2400	- -	- -	- -	- -	- -	-	24 IMP 12-05-7	48 IMP 12-05-7	-
12 84	- -	- -	- -	- -	- -	5 IMP 1-12-7	-	-	S
12 250	- -	- -	- -	- -	- -	-	24 IMP 3-12-7	48 IMP 3-12-7	S
12 500	- -	- -	- -	- -	- -	5 IMP 6-12-7	24 IMP 6-12-7	48 IMP 6-12-7	-
12 1000	- -	- -	- -	- -	- -	-	24 IMP 12-12-7	48 IMP 12-12-7	-
15 66	- -	- -	- -	- -	- -	5 IMP 1-15-7	-	-	S
15 200	- -	- -	- -	- -	- -	-	24 IMP 3-15-7	48 IMP 3-15-7	S
15 400	- -	- -	- -	- -	- -	5 IMP 6-15-7	24 IMP 6-15-7	48 IMP 6-15-7	-
15 800	- -	- -	- -	- -	- -	-	24 IMP 12-15-7	48 IMP 12-15-7	-
+5 100	-5 100	- -	- -	- -	- -	5 IMP 1-0505-7	-	-	S
+5 250	-5 250	- -	- -	- -	- -	-	24 IMP 3-0505-7	48 IMP 3-0505-7	S
+5 500	-5 500	- -	- -	- -	- -	5 IMP 6-0505-7	24 IMP 6-0505-7	48 IMP 6-0505-7	-
+5 1200	-5 1200	- -	- -	- -	- -	-	24 IMP 12-0505-7	48 IMP 12-0505-7	-
+12 42	-12 42	- -	- -	- -	- -	5 IMP 1-1212-7	-	-	S
+12 125	-12 125	- -	- -	- -	- -	-	24 IMP 3-1212-7	48 IMP 3-1212-7	S
12 125	12 125	- -	- -	- -	- -	-	24 IMP 3-12-12-7	48 IMP 3-12-12-7	-
+12 250	-12 250	- -	- -	- -	- -	5 IMP 6-1212-7	24 IMP 6-1212-7	48 IMP 6-1212-7	-
+12 500	-12 500	- -	- -	- -	- -	-	24 IMP 12-1212-7	48 IMP 12-1212-7	-
+15 33	-15 33	- -	- -	- -	- -	5 IMP 1-1515-7	-	-	S
15 100	15 100	- -	- -	- -	- -	-	24 IMP 3-15-15-7	48 IMP 3-15-15-7	-
+15 100	-15 100	- -	- -	- -	- -	-	24 IMP 3-1515-7	48 IMP 3-1515-7	S
+15 200	-15 200	- -	- -	- -	- -	5 IMP 6-1515-7	24 IMP 6-1515-7	48 IMP 6-1515-7	-
+15 400	-15 400	- -	- -	- -	- -	-	24 IMP 12-1515-7	48 IMP 12-1515-7	-
5 250	5 250	- -	- -	- -	- -	-	24 IMP 3-05-05-7	48 IMP 3-05-05-7	-
5 1500	+12 200	-12 200	- -	- -	- -	-	24 IMP 12-051212-7	48 IMP 12-051212-7	-
5 1500	+15 160	-15 160	- -	- -	- -	-	24 IMP 12-051515-7	48 IMP 12-051515-7	-

<sup>1</sup> 9 - 36 VDC for IMP 3 series

Model numbers highlighted in yellow or shaded are not recommended for new designs.

### Input

Input voltage	continuous range, 5 V (IMP 1, IMP 6)	4.5 - 5.5 VDC
	continuous range, 24 V (IMP 3)	9 - 36 VDC
	continuous range, 24 V (IMP 6, IMP 12)	10 - 36 VDC
	continuous range, 48 V	18 - 72 VDC
Reverse voltage protection	shunt diode	

### Output

Output voltage setting accuracy	$V_{i\ nom}, I_{o\ nom}$	$\pm 2\% V_{o\ nom}$
Minimum load	recommended	$20\% I_{o\ nom}$
Line regulation	$V_{i\ min} - V_{i\ max}, I_{o\ nom}$	$\pm 1\% V_{o\ nom}$
Load regulation	$V_{i\ nom}, 0 - 100\% I_{o\ nom},$ regulated outputs	$2\% V_{o\ nom}$
	tracking outputs	max. $6\% V_{o\ nom}$
Output voltage switching noise	$V_{i\ nom}, 20 - 100\% I_{o\ nom},$ peak-peak, total	max. $3\% V_{o\ nom}$
Efficiency	$V_{i\ nom}, I_{o\ nom}$	up to 83%

### Control and protection

Overload protection	$V_{i\ min},$ full load	$125\% P_{i\ nom}$
No-load protection		
Remote shut down	positive logic (floating or high signal = on)	

### Safety and EMC

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

### Environmental

Operating ambient temperature	$V_{i\ nom}, I_{o\ nom}$	-25 to 71°C
Storage temperature	non operational	-40 to 100°C
Relative humidity	non condensing	95%
MTBF	MIL-HDBK-217F, N2	>3'700'000 h

### Options

Industry standard pinout	IMP 1 and IMP 3	S
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### Accessories

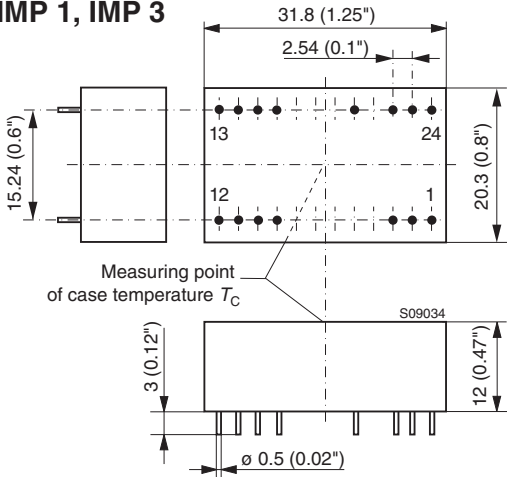
DIN and chassis mounting bracket		
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**Mechanical data**

Tolerances  $\pm 0.3$  mm (0.012") unless otherwise indicated.



**IMP 1, IMP 3**



**Pin allocation IMP 1**

Pin	Single output unit	Dual output unit
1	Vi+	Vi+
2	Vi+	Vi+
10	-	COM
11	-	COM
12	Vo-	-
13	Vo+	Vo-
15	-	Vo+
23	Vi-	Vi-
24	Vi-	Vi-

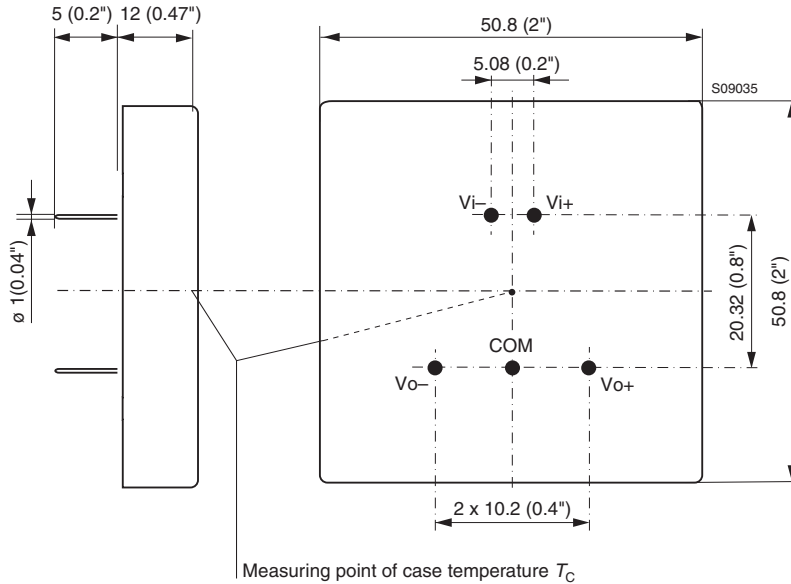
**Industry standard pinout (option S)**

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

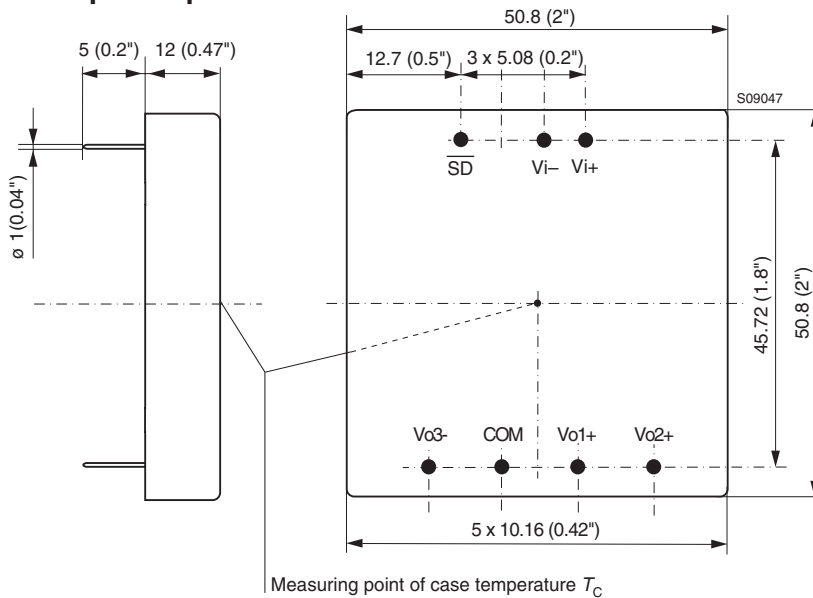
**Alternative pinout IMP 3**

Pin	Single output	Dual output	Double output
1	Vi+	Vi+	Vi+
2	Vi+	Vi+	Vi+
9	-	-	Go1
10	-	COM	-
11	-	COM	-
12	Vo-	-	Vo1
13	Vo+	Vo-	Vo2
15	-	Vo+	-
16	-	-	Go2
20	SD	SD	SD
23	Vi-	Vi-	Vi-
24	Vi-	Vi-	Vi-

**IMP 6, IMP 12 with single or dual output**



**IMP 12 with triple output**



**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.

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