



Input voltage up to 144 V DC  
Single output of 5.1 to 48 V DC  
No input-to-output isolation



**Features**

- RoHS lead solder exemption compliant
- Efficiency up to 97%
- Low input-output differential voltage
- No derating over temperature

**Model Selection**

Output		Input voltage $V_i$ [V DC]	Rated power $P_{o\ tot}$ [W]	Efficiency $\eta_{typ}$ [%]	Type	Options
$V_{o\ nom}$ [V DC]	$I_{o\ nom}$ [A]					
5.1	10	8 - 80	51	79	PSL 5A10-7R	-9, L, i, P, C, D D1, A
5.1	11	8 - 40	56.1	79	PSL 5A11-2R	
5.1	12	7 - 40	61.2	83	PSL 5A12-7R	
12	6	18 - 144	72	89	PSL 126-7R	
12	8	15 - 80	96	90	PSL 128-7R	
12	9	15 - 40	108	90	PSL 129-2R	
15	6	22 - 144	90	90	PSL 156-7R	
15	8	19 - 80	120	91	PSL 158-7R	
15	9	19 - 40	135	91	PSL 159-2R	
24	6	31 - 144	144	94	PSL 246-7R	
24	8	29 - 80	192	94	PSL 248-7R	
24	9	29 - 60	216	94	PSL 249-2R	
36	6	44 - 144	216	96	PSL 366-7R	
36	8	42 - 80	288	96	PSL 368-7R	
48	6	58 - 144	288	97	PSL 486-7R	

### Input

Input voltage	refer to selection chart
No load input current	-50 mA

### Output

Efficiency	$V_{i\text{ nom}}, I_{o\text{ nom}}$	up to 97%
Output voltage setting accuracy	$V_{i\text{ nom}}, I_{o\text{ nom}}$	$\pm 0.6\% V_{o\text{ nom}}$
Output voltage switching noise	IEC/EN 61204, total	typ. 0.4%
Line regulation	$V_{i\text{ min}} - V_{i\text{ max}}, I_{o\text{ nom}}$	typ. $\pm 0.3\%$
Load regulation	$V_{i\text{ nom}}, 0 - I_{o\text{ nom}}$	typ. 0.3%
Minimum load	not required	0 A
Current limitation	rectangular U/I characteristic	typ. 110% $I_{o\text{ nom}}$
Operation in parallel	by current limitation	

### Protection

Input reverse polarity	with external fuse (built-in fuse with option C installed)
Input undervoltage lockout	typ. 80% $V_{i\text{ min}}$
Input transient protection	suppressor diode
Output	no-load, overload and short circuit proof
Output overvoltage	suppressor diode in each output typ. 150% $V_{o\text{ nom}}$

### Safety

Approvals	EN 60950, UL 1950, CSA C22.2 No. 950
Protection degree	IP 20
Electric strength test voltage	I/case and O/case 500/750/1500 V DC

### EMC

Electrostatic discharge	IEC/EN 61000-4-2
Electromagnetic field	IEC/EN 61000-4-3
Electr. fast transients/bursts	IEC/EN 61000-4-4
Surge	IEC/EN 61000-4-5
Conducted disturbances	IEC/EN 61000-4-6
Electromagnetic emissions	CISPR 22/EN 55022

### Environmental

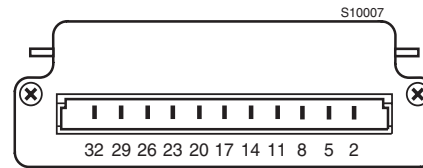
Operating ambient temperature	-2, $V_{i\text{ nom}}, I_{o\text{ nom}}$ , convection cooled	-10 to 50°C
Operating case temperature $T_C$	-2, $V_{i\text{ nom}}, I_{o\text{ nom}}$	-10 to 80°C
Storage temperature	-2, non operational	-25 to 100°C
Operating ambient temperature	-7, $V_{i\text{ nom}}, I_{o\text{ nom}}$ , convection cooled	-25 to 71°C
Operating case temperature $T_C$	-7, $V_{i\text{ nom}}, I_{o\text{ nom}}$	-25 to 95°C
Storage temperature	-7, non operational	-40 to 100°C
Damp heat	IEC/EN 60068-2-3	
Vibration, sinusoidal	IEC/EN 60068-2-6	
Shock	IEC/EN 60068-2-27	
Bump	IEC/EN 60068-2-29	
Random vibration	IEC/EN 60068-2-64	
MTBF	MIL-HDBK-217	

### Options

Extended temperature range	-40 - 71°C, ambient, operating	-9
Inhibit, TTL input, output(s) enabled if left open		i
Output voltage adjustment	0 - 108% $V_{o\ nom}$	R
Additional internal input filter		L
Output voltage adjustment	$\pm 8\%$ $V_{o\ nom}$	P
Thyristor crowbar on output		C
Input or output undervoltage monitoring		D/D1
Test sockets for check of output voltage		A

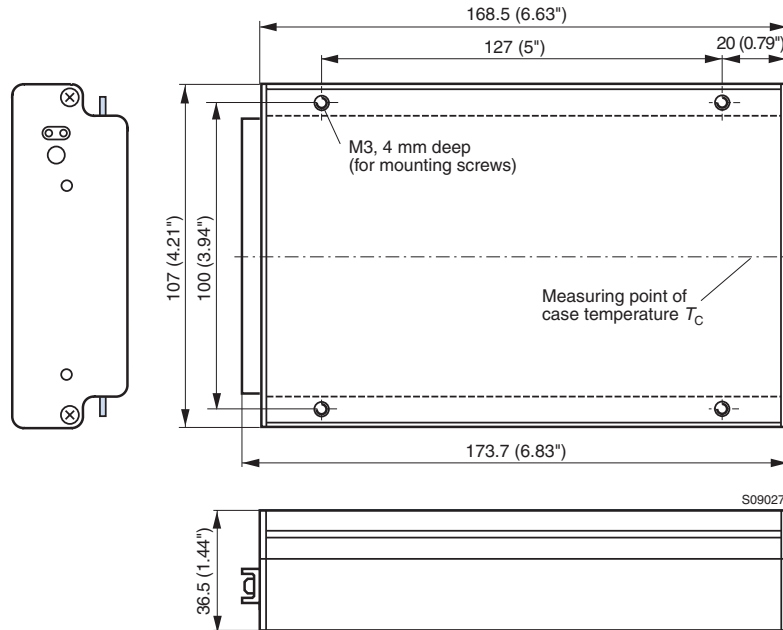
### Pin allocation

Pin	Electrical determination	Design.
2	R-input (or inhibit input)	R (i)
5	Undervoltage monitor (Option D)	D
8	Output voltage (negative)	Go-
11	Output voltage (negative)	Go-
14	Output voltage (positive)	Vo+
17	Output voltage (positive)	Vo+
20	Input voltage (negative)	Gi-
23	Input voltage (negative)	Gi-
26	Input voltage (positive)	Vi+
29	Input voltage (positive)	Vi+
32	Protective ground (leading pin)	⊕



**Mechanical data**

The regulators are designed to be inserted into 19" rack according to IEC60297-3.  
Dimensions in mm.



**Accessories**

Isolation pads for easy and safe PCB mounting.  
Ring core chokes for ripple and interference reduction.

NUCLEAR AND MEDICAL APPLICATIONS - Power-One products are not designed, intended for use in, or 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.