

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



**Features**

- RoHS lead solder exemption compliant
- Efficiency up to 96%
- Low input-output differential voltage
- No derating over temperature



**Model Selection**

Output		Input voltage $V_i$ [VDC]	Rated power $P_{otot}$ [W]	Efficiency $\eta$ [%]	Type	Options
$V_{onom}$ [VDC]	$I_{onom}$ [A]					
5.1	4 (5) <sup>1</sup>	15 - 144	25.5	80	PSB 5A4-7iR	-9, L, P, C
5.1	6	8 - 80	30.6	81	PSB 5A6-7iR	-9, L, P, C
5.1	7	7 - 40	35.7	84	PSB 5A7-7iR	-9, L, P, C
5.1	8	7 - 40	40.8	81	PSB 5A8-2	iR-Package
12	3 (4) <sup>1</sup>	18 - 144	48	89	PSB 123-7iR	-9, L, P, C
12	5	15 - 80	60	90	PSB 125-7iR	-9, L, P, C
12	6	15 - 40	72	90	PSB 126-2	iR-Package
15	3 (4) <sup>1</sup>	22 - 144	60	90	PSB 153-7iR	-9, L, P, C
15	5	19 - 80	75	92	PSB 155-7iR	-9, L, P, C
15	6	15 - 40	90	92	PSB 156-2	iR-Package
24	3 (4) <sup>1</sup>	31 - 144	96	94	PSB 243-7iR	-9, L, P, C
24	5	29 - 80	120	95	PSB 245-7iR	-9, L, P, C
24	6	29 - 60	144	95	PSB 246-2	iR-Package
36	3 (4) <sup>1</sup>	44 - 144	144	90	PSB 153-7iR	-9, L, P, C
36	5	42 - 80	180	92	PSB 155-7iR	-9, L, P, C
48	3 (4) <sup>1</sup>	58 - 144	192	96	PSB 483-7iR	-9, L, P, C

<sup>1</sup> For  $V_i \leq 80V$

## 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 96%
Output voltage setting accuracy	$V_{i\text{nom}}, I_{o\text{nom}}$	±0.6% $V_{o\text{nom}}$
Output voltage switching noise	IEC/EN 61204, total	typ. 0.3%
Line regulation	$V_{i\text{min}} - V_{i\text{max}}, I_{o\text{nom}}$	typ. ±0.3%
Load regulation	$V_{i\text{nom}}, 0 - I_{o\text{nom}}$	typ. 0.25%
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 VDC

## 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

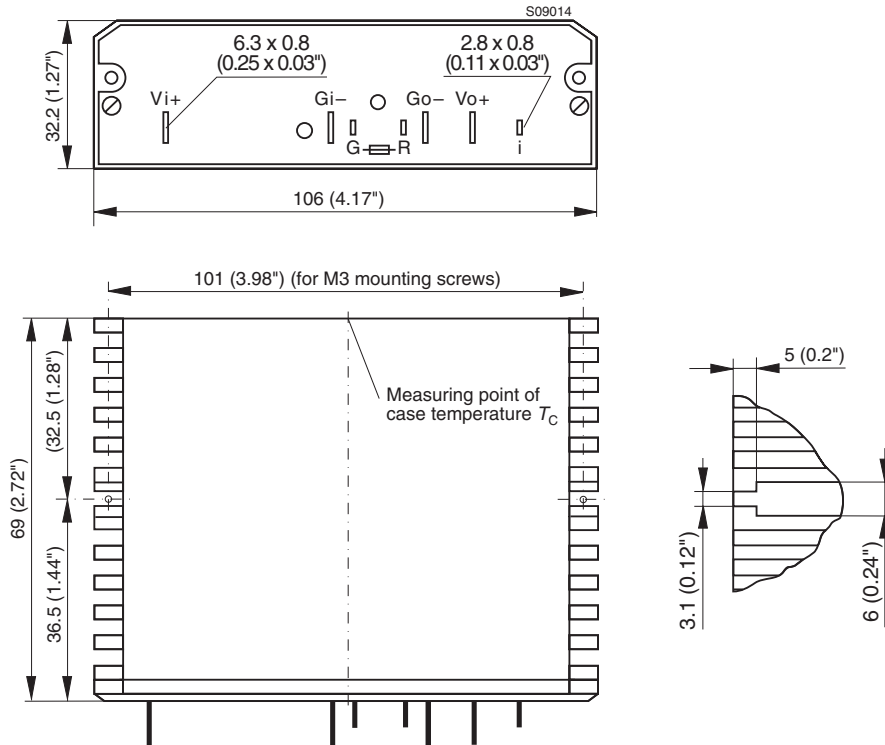
Operating ambient temperature	-2, $V_{i\text{nom}}, I_{o\text{nom}}$ , convection cooled	-10 to 50°C
Operating case temperature $T_C$	-2, $V_{i\text{nom}}, I_{o\text{nom}}$	-10 to 80°C
Storage temperature	-2, non operational	-25 to 100°C
Operating ambient temperature	-7, $V_{i\text{nom}}, I_{o\text{nom}}$ , 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 to 71°C, ambient, operating	-9
Inhibit, TTL input, output enabled if left open		i
Output voltage adjustment	0 - 108% $V_{o\text{nom}}$	R
Additional internal input filter		L
Output voltage adjustment	±8% $V_{o\text{nom}}$	P
Thyristor crowbar on output		C

**Mechanical data**

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



**Accessories**

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

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