RoHS Compliant

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

c UL us CE

Features

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

Model Selection

Output $V_{o\,nom}$ [V DC]	Output $I_{o\,nom}$ [A]	Input voltage V_i [V DC]	Rated power $P_{o\,tot}$ [W]	Efficiency η_{typ} [%]	Type	Options
5.1	10	8 - 80	51	79	PSL 5A10-7R	
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	-9, L, i, P, C, D
15	8	19 - 80	120	91	PSL 158-7R	D1, A
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	$V_{i\ nom}$, $I_{o\ nom}$	up to 97%
Output voltage setting accuracy	$V_{i\ nom}$, $I_{o\ nom}$	±0.6% $V_{o\ nom}$
Output voltage switching noise	IEC/EN 61204, total	typ. 0.4%
Line regulation	$V_{i\ min}$ - $V_{i\ max}$, $I_{o\ nom}$	typ. ±0.3%
Load regulation	$V_{i\ nom}$, 0 - $I_{o\ nom}$	typ. 0.3%
Minimum load	not required	0 A
Current limitation	rectangular U/I characteristic	typ. 110% $I_{o\ nom}$
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% $V_{i\ min}$
Input transient protection	suppressor diode	
Output	no-load, overload and short circuit proof	
Output overvoltage	suppressor diode in each output	typ. 150% $V_{o\ nom}$

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

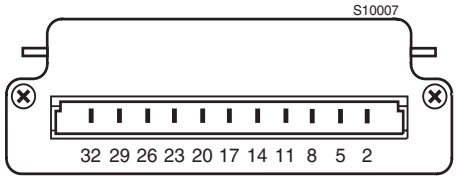
Operating ambient temperature	-2, $V_{i\ nom}$, $I_{o\ nom}$, convection cooled	–10 to 50°C
Operating case temperature T_C	-2, $V_{i\ nom}$, $I_{o\ nom}$	–10 to 80°C
Storage temperature	-2, non operational	–25 to 100°C
Operating ambient temperature	-7, $V_{i\ nom}$, $I_{o\ nom}$, convection cooled	–25 to 71°C
Operating case temperature T_C	-7, $V_{i\ nom}$, $I_{o\ nom}$	–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	±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

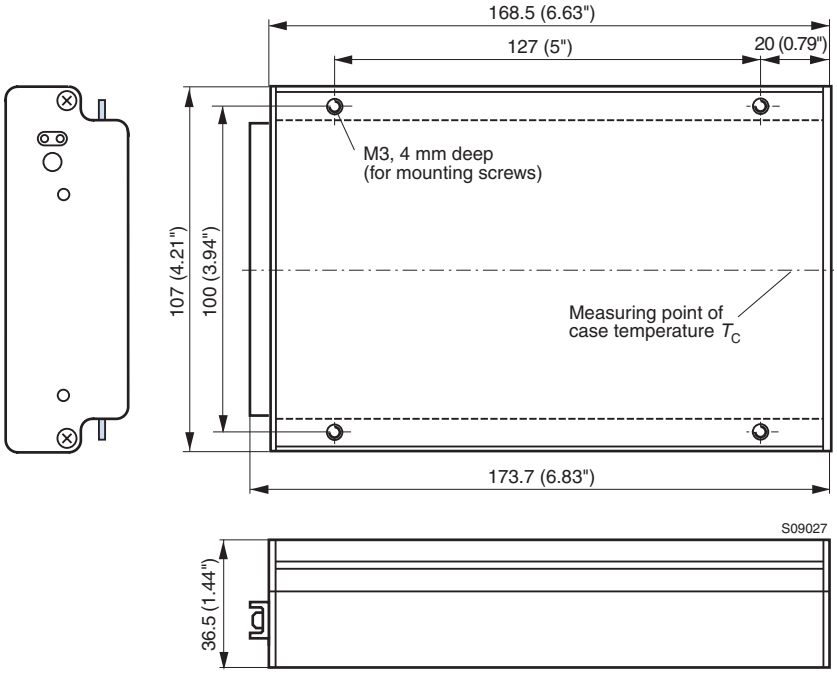
Pin	Electrical determination	Design.
2	R-input (or inhibit input)	R (i)
5	Undervoltage monitor (Option D)	D
8	Output voltage (negative)	Go–
11	Output voltage (negative)	Go–
14	Output voltage (positive)	Vo+
17	Output voltage (positive)	Vo+
20	Input voltage (negative)	Gi–
23	Input voltage (negative)	Gi–
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.

European Projection



Accessories

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