



Input voltage up to 144 VDC
Single output of 3.3 to 48 VDC
No input-to-output isolation



Features

- RoHS lead solder exemption compliant
- Efficiency up to 95%
- Low input-output differential voltage
- No derating over temperature
- Board or chassis mountable

Model Selection

Output		Input voltage	Rated power	Efficiency	Type	Options
$V_{o\ nom}$ [VDC]	$I_{o\ nom}$ [A]	V_i [VDC]	$P_{o\ tot}$ [W]	η [%]		
5	2	8 - 80	10	74	PSR 52-7	Y
5	3	8 - 80	15	79	PSR 53-7	-9, i, P, R, Y
5	4	7 - 40	20	83	PSR 54-7	-9, i, P, R, Y
5	5	7 - 35	25	83	PSA 55-7	-9, i, P, R, Y
5.1	2	8 - 40	10.2	75	PSA 5A2-2	iRY-Package
5.1	5	7 - 35	25.5	83	PSA 5A5-2	iRY-Package
12	1.5	18 - 144	18	87	PSA 121.5-7iR	-9, P, Y
12	2.5	15 - 80	30	87	PSR 122.5-7	-9, i, P, R, Y
12	3	15 - 40	36	89	PSA 123-2	iRY-Package
15	1.5	22 - 144	22.5	89	PSA 151.5-7iR	-9, P, Y
15	2.5	19 - 80	37.5	89	PSR 152.5-7	-9, i, P, R, Y
15	3	19 - 40	45	90	PSA 153-2	iRY-Package
24	1.5	31 - 144	36	93	PSA 241.5-7iR	-9, P, Y
24	2	29 - 80	48	92	PSR 242-7	-9, i, P, R, Y
24	2.5	29 - 60	60	93	PSA 242.5-2	iRY-Package
36	1.2	44 - 144	43.2	95	PSA 361-7iR	-9, P, Y
36	2	42 - 80	72	94	PSR 362-7	-9, i, P, R, Y
48	1	58 - 144	48	95	PSA 481-7iR	-9, P, Y

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 95%
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. 0.3%
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	
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	typ. 150% $V_{o\text{ nom}}$

Safety

Approvals	EN 60950, UL 1950, CSA C22.2 No. 950	
Protection degree		IP 20/40
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

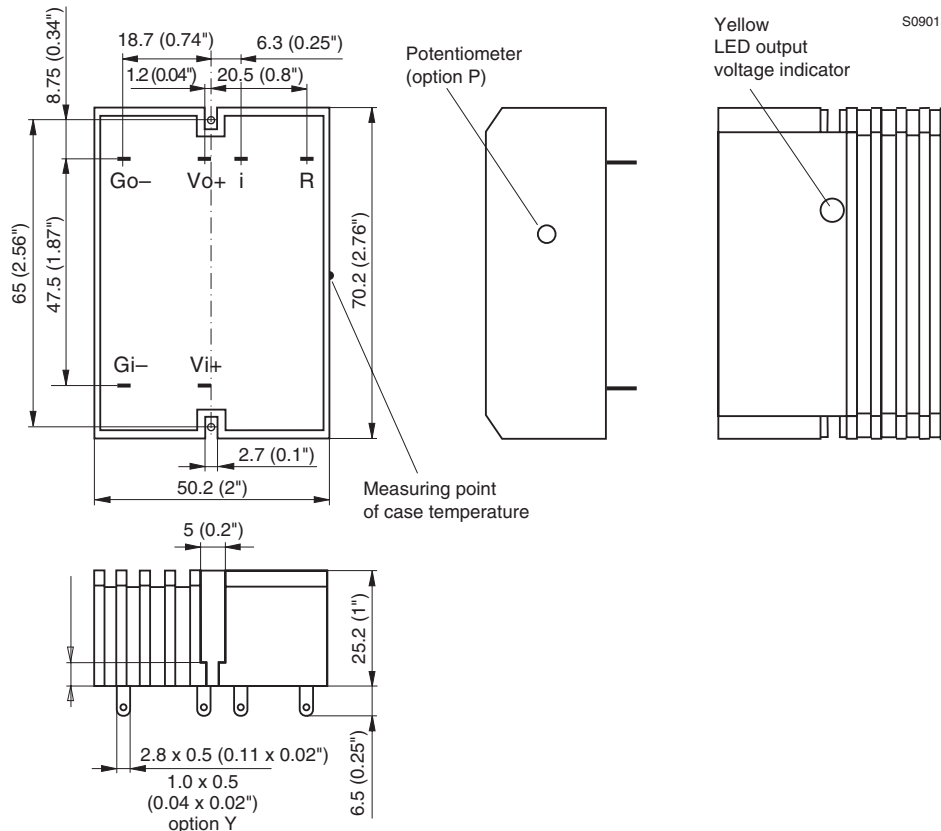
Operating ambient temperature	-2, $V_{i\text{ nom}}, I_{o\text{ nom}}$, convection cooled	-10 to 50 °C
Operating case temperature T_C	-2, $V_{i\text{ nom}}, I_{o\text{ nom}}$	-10 to 80 °C
Storage temperature	-2, non operational	-25 to 100 °C
Operating ambient temperature	-7, $V_{i\text{ nom}}, I_{o\text{ nom}}$, 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 - 71 °C, ambient, operating	-9
Inhibit, TTL input, output(s) enabled if left open		i
Output voltage adjustment	0 - 108% $V_{o\text{ nom}}$	R
Output voltage adjustment	±8% $V_{o\text{ nom}}$	P
Soldering pins 0.5 x 1.0 mm for PCB mounting		Y

Mechanical data

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



Accessories

Isolation pads for easy and safe PCB mounting
Filters and ring core chokes for ripple and interference reduction
Adapter kits for DIN-rail and chassis mounting

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