

Input voltage up to 144 V DC
Single output of 3.3...48 V DC
No input to output isolation

- Efficiency up to 95%
- Low input-output differential voltage
- No derating over temperature
- Board or chassis mountable

Selection chart

Output $U_{o\,nom}$ [V DC]	Output $I_{o\,nom}$ [A]	Input voltage U_i [V DC]	Rated power $P_{o\,tot}$ [W]	Efficiency η_{typ} [%]	Type	Options
3.3	6	5...35	19.8	80	PSA 3E6-2	iRY-Package
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	$U_{i\ nom}$, $I_{o\ nom}$	up to 95%
Output voltage setting accuracy	$U_{i\ nom}$, $I_{o\ nom}$	±0.6% $U_{o\ nom}$
Output voltage switching noise	IEC/EN 61204, total	typ. 0.3%
Line regulation	$U_{i\ min}$...$U_{i\ max}$, $I_{o\ nom}$	typ. ±0.3%
Load regulation	$U_{i\ nom}$, 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	
Input undervoltage lockout		typ. 80% $U_{i\ min}$
Input transient protection	suppressor diode	
Output	no-load, overload and short circuit proof	
Output overvoltage	suppressor diode	typ. 150% $U_{o\ nom}$

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 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, $U_{i\,nom}$, $I_{o\,nom}$, convection cooled	–10...50°C
Operating case temperature T_C	-2, $U_{i\,nom}$, $I_{o\,nom}$	–10...80°C
Storage temperature	-2, non operational	–25...100°C
Operating ambient temperature	-7, $U_{i\,nom}$, $I_{o\,nom}$, convection cooled	–25...71°C
Operating case temperature T_C	-7, $U_{i\,nom}$, $I_{o\,nom}$	–25...95°C
Storage temperature	-7, non operational	–40...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	

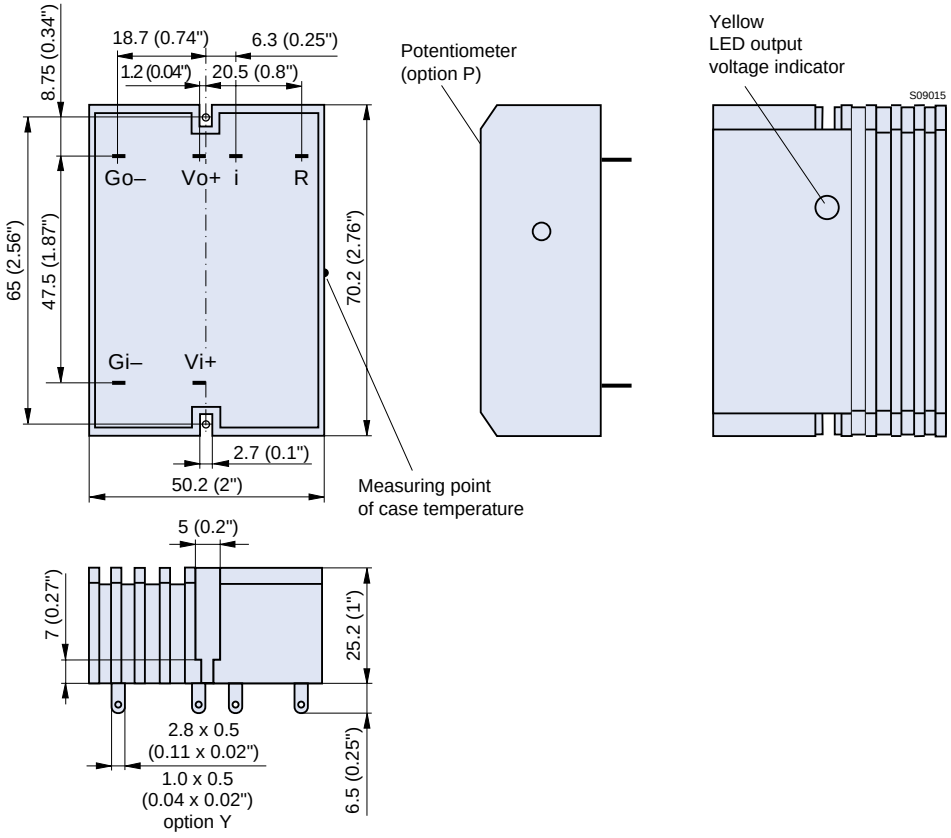
Options

Extended temperature range	–40...71°C, ambient, operating	-9
Inhibit, TTL input, output(s) enabled if left open		i
Output voltage adjustment	0...108% $U_{o\,nom}$	R
Output voltage adjustment	±8% $U_{o\,nom}$	P
Small soldering pins 0.5 x 1.0 mm		Y

Mechanical data

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

European Projection



Accessories

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