



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 V_i [VDC] | Rated power $P_{o\ tot}$ [W] | Efficiency η [%] | Type | Options |
|---------------------|-------------------|---------------------------------|------------------------------------|-----------------------------|---------------|----------------|
| $V_o\ nom$ [VDC] | $I_o\ nom$ [A] | | | | | |
| 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 | $V_{i\ nom}, I_{o\ nom}$ | up to 95% |
| Output voltage setting accuracy | $V_{i\ nom}, I_{o\ nom}$ | ±0.6% $V_{o\ nom}$ |
| Output voltage switching noise | IEC/EN 61204, total | typ. 0.3% |
| 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 | |
| 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 | typ. 150% $V_{o\ nom}$ |

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 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

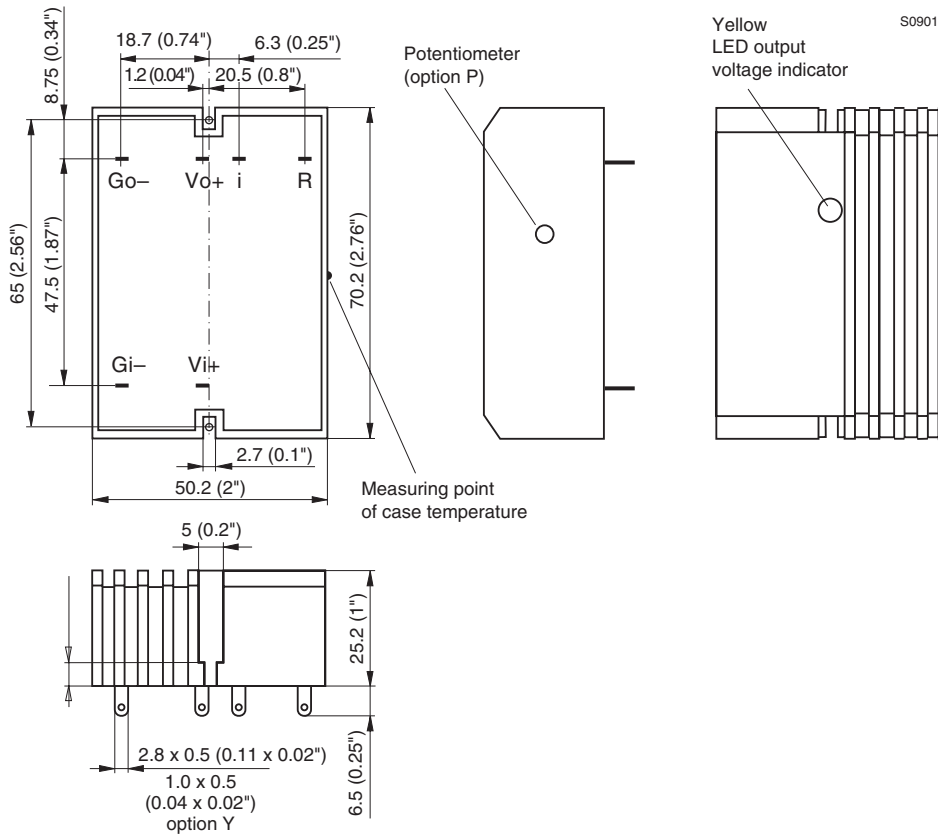
| | | |
|----------------------------------|--|---------------|
| Operating ambient temperature | -2, $V_{i\ nom}, I_{o\ nom}$, convection cooled | -10 to 50 °C |
| Operating case temperature T_C | -2, $V_{i\ nom}, I_{o\ nom}$ | -10 to 80 °C |
| Storage temperature | -2, non operational | -25 to 100 °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 |
| Output voltage adjustment | ±8% $V_{o\ nom}$ | 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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