

Features

Regulated Converters

- 7.5W DIP24 Package
- 1kVDC, 2kVDC and 3kVDC Isolation Options
- Approved for Medical Applications (/H3)
- UL and EN Safety Approvals
- Continuous Short Circuit Protection (power limiting)
- 5 Side Shielded Metal Case
- Full SMD design
- 2 Case Style Options
- Remote Pin Option
- Efficiency to 86 %

Description

The REC7.5-xxxSRW/DRW-series offer single and dual regulated outputs in a DIP24 package with 1kV, 2kV or 3kV options and are suitable for higher power industrial or medical applications. Remote on/off control is possible with the /CTRL option and SMD pinning is offered with the /SMD option. The converters can deliver 140% rated power for short periods of time to cope with applications with large capacitive loads or high start up currents.

Selection Guide

| Part Number | Input Voltage (VDC) | Output Voltage (VDC) | Output Current (mA) | Efficiency (%) | Max. Cap. Load |
|------------------------|---------------------|----------------------|---------------------|----------------|----------------|
| REC7.5-xx3.3SRW/H*/A/M | 9-18, 18-36, 36-72 | 3.3 | 1800 | 78 | 3300µF |
| REC7.5-xx05SRW/H*/A/M | 9-18, 18-36, 36-72 | 5 | 1500 | 79-82 | 2200µF |
| REC7.5-xx09SRW/H*/A/M | 9-18, 18-36, 36-72 | 9 | 833 | 81-84 | 680µF |
| REC7.5-xx12SRW/H*/A/M | 9-18, 18-36, 36-72 | 12 | 625 | 82-85 | 330µF |
| REC7.5-xx15SRW/H*/A/M | 9-18, 18-36, 36-72 | 15 | 500 | 83-86 | 220µF |
| REC7.5-xx05DRW/H*/A/M | 9-18, 18-36, 36-72 | ±5 | ±750 | 79-82 | ±1000µF |
| REC7.5-xx09DRW/H*/A/M | 9-18, 18-36, 36-72 | ±9 | ±417 | 81-84 | ±330µF |
| REC7.5-xx12DRW/H*/A/M | 9-18, 18-36, 36-72 | ±12 | ±312 | 82-85 | ±160µF |
| REC7.5-xx15DRW/H*/A/M | 9-18, 18-36, 36-72 | ±15 | ±250 | 83-86 | ±100µF |

2:1

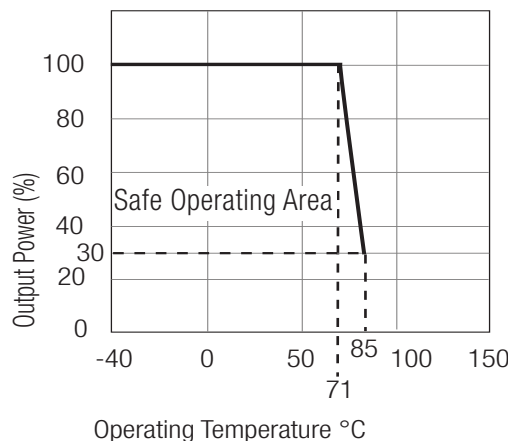
xx = 9-18Vin = 12V,
xx = 18-36Vin = 24,
xx = 36-72Vin = 48

- * add suffix /H1 for 1kVDC Isolation, /H2 for 2kVDC isolation or /H3 for 3kVDC Isolation (not available in H3/A/M/SMD combination)
- * add suffix "/SMD" for SMD package, e.g. REC7.5-2405DRW/H1/A/M/SMD
- * add suffix "/CTRL" for Remote Pin option
- * add suffix -R for Tape and Reel packaging
- * no plastic case is available for REC7.5

Derating

Derating-Graph

(Ambient Temperature)



ECONOLINE

DC/DC-Converter

RECOM

7.5 Watt DIP24 & SMD Single & Dual Output



EN-60950-1 Certified
EN-60601-1 Certified
(Suffix H3)
UL-60950-1 Certified

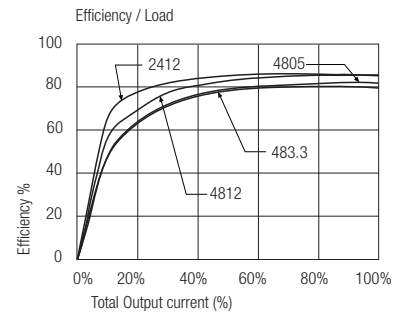
REC 7.5

Refer to Application Notes

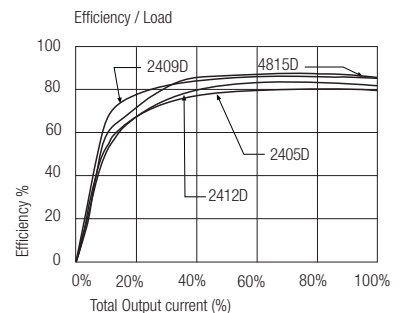
Specifications (measured at $T_A = 25^\circ\text{C}$, nominal input voltage, full load and after warm-up)

| | | | |
|---|--|--------------------------------------|------------------------------|
| Input Voltage Range | 2:1 | | |
| Output Voltage Accuracy | $\pm 2\%$ max. | | |
| Line Voltage Regulation | 0.4% max. | | |
| Load Voltage Regulation (25% to 100% full load) | 0.8% max. | | |
| Output Ripple and Noise (at 20MHz BW) | 3.3V output type | 100mVp-p max. | |
| | 5, 9, 12 and 15V output types | 50mVp-p max. | |
| Operating Frequency (Full Load) | 150kHz min. / 240kHz max. | | |
| Input Filter | PI Network | | |
| Efficiency at Full Load | see Selection Guide | | |
| No Load Power Consumption | 300mW max. | | |
| Isolation Voltage | H1 types | (tested for 1 second) | 1000VDC min. |
| Isolation Voltage | H2 types | (tested for 1 second) | 2000VDC min. |
| Isolation Voltage | H3 types | (tested for 1 second) | 3000VDC min. |
| Rated Working Voltage | (long term isolation) | | see Application Note |
| Isolation Capacitance | 50pFtyp. | | |
| Isolation Resistance | 1 G Ω min. | | |
| Short Circuit Protection (Max temp. = 50°C during short circuit conditions) | Continuous, Auto Restart | | |
| Operating Temperature Range (free air convection) | -40°C to +71°C (see Graph) | | |
| Storage Temperature Range | -55°C to +125°C | | |
| Relative Humidity | 95% RH | | |
| Case Material | Nickel Plated Metal with Non-Conductive Base | | |
| Thermal Impedance | Natural convection | | 12°C/W |
| Package Weight | 16g | | |
| Packing Quantity | | | 15 pcs per Tube |
| | | | 100 pcs per Reel |
| MTBF (+25°C) | } Detailed Information see | using MIL-HDBK 217F | 800 x 10 ³ hours |
| | | using MIL-HDBK 217F | >200 x 10 ³ hours |
| Certifications | UL General Safety Report: E248550 | UL 60950-1 1st Ed. | |
| | | C22.2 No. 60950-1-03 | |
| | EN General Safety Report: LVD-2K05230 | EN60950-1:2001 | |
| | EN Medical Safety Report: ETS-060065 | EN60601-1:1988 + A1: 1991 + A2: 1995 | |

Single



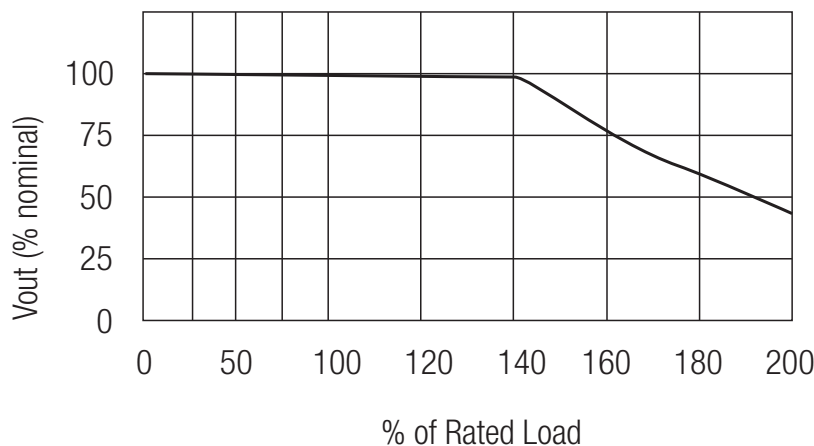
Dual



REC7.5

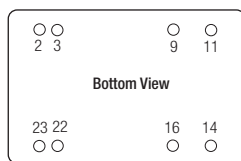
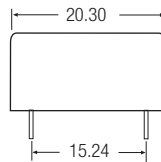
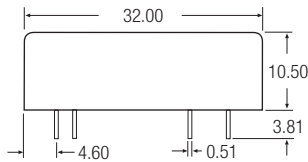
Typical Characteristics

Overload Response

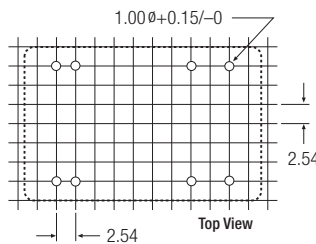




24 PIN DIP Package



Recommended Footprint Details



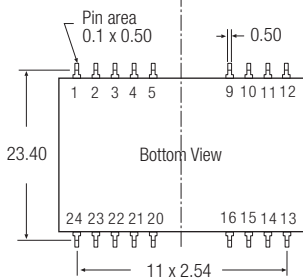
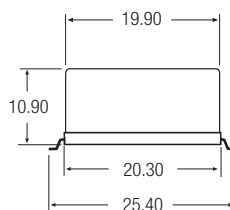
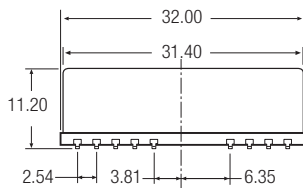
Pin Connections DIP24

| Pin # | Single | Dual |
|-------------|--------|-------|
| 1(Optional) | CTRL | CTRL |
| 2 | -Vin | -Vin |
| 3 | -Vin | -Vin |
| 9 | NC | Com |
| 11 | NC | -Vout |
| 14 | +Vout | +Vout |
| 16 | -Vout | Com |
| 22 | +Vin | +Vin |
| 23 | +Vin | +Vin |

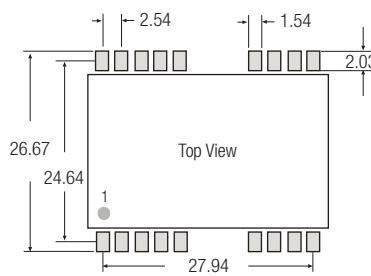
XX.X ± 0.5 mm
XX.XX ± 0.25 mm

24 PIN SMD Package

/H3/A/M/SMD combination is not allowed



Recommended Footprint Details



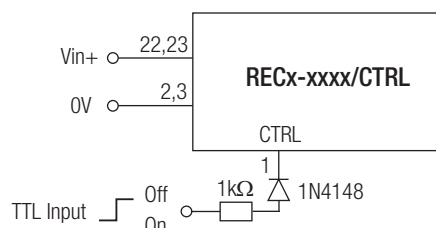
Pin Connections DIP24 SMD

| Pin # | Single | Dual |
|----------------|--------|-------|
| 1(Optional) | CTRL | CTRL |
| 2 | -Vin | -Vin |
| 3 | -Vin | -Vin |
| 9 | NC | Com |
| 11 | NC | -Vout |
| 14 | +Vout | +Vout |
| 16 | -Vout | Com |
| 22 | +Vin | +Vin |
| 23 | +Vin | +Vin |
| 1,4,5,10,12 | NC | NC |
| 13,15,20,21,24 | NC | NC |

NC = No Connection
XX.X ± 0.5 mm
XX.XX ± 0.25 mm

CTRL Option

ON = Open or $0V < V_{ctrl} < 1.2V$
OFF = $2.2V < V_{ctrl} < 12V$





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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