

Features

Regulated Converters

- Class B EMC Filter built-in
- Reverse Polarity Protected
- Inrush Current Limiting (Soft Start)
- Output Trim Potentiometer
- Output LED Indicator
- DIN Rail Mounting or Panel Mount Options

RECOM

DC/DC Converter

Power Module

Power Modules

15-60 Watt
Single,
Dual & Triple
Outputs



Description

The Recom Power Module takes a standard 15W-60W converter and mounts it on a PCB with screw terminals, an EMC filter, input protection circuitry and a built-in heatsink to offer a complete power module that can be mounted on a bulkhead or on a standard DIN rail. The Power Module is primarily designed for transport applications such as a GPS vehicle tracking power supply or a radio communications power supply, but will also find many uses in industrial, communications or battery-powered applications.

How to use this datasheet:

1. Select the converter that suits your application from the converter series list below
2. Decide on DIN Mount (RPM) or bulkhead (RPM) version

Ordering example: 40W, 18-75 VDC in, single 12V out, DIN Mount = RPMD40-4812SGW

xx = Output Voltage Options Single Outputs: 3.3S = 3.3V 05S = 5V 12S = 12V 15S = 15V

Dual Outputs: 12D = $\pm 12V$ 15D = $\pm 15V$

Refer to converter series datasheets for detailed information.



Selection Guide Single and Dual Outputs - Panel Mount Version

Power Module Part Number (Bulkhead Version)	Input Range (VDC)	Output Power (W)	Internal Fuse (Replaceable)	Converter Series
RPM15-24xxS_DFW ^(1,2)	9.5-36	15	T6A	RP15-24xxS_DFW
RPM15-48xxS_DFW ^(1,2)	18-75	15	T4A	RP15-48xxS_DFW
RPM20-24xxS_DFW ^(1,3)	9.5-36	20	T6A	RP20-24xxS_DFW
RPM20-48xxS_DFW ^(1,3)	18-75	20	T4A	RP20-48xxS_DFW
RPM30-12xxS_DE ⁽³⁾	9.5-18	30	T6A	RP30-12xxS_DE
RPM30-24xxS_DE ⁽³⁾	18-36	30	T6A	RP30-24xxS_DE
RPM30-24xxS_DEW ^(1,3)	10-40	30	T6A	RP30-24xxS_DEW
RPM30-48xxS_DE ⁽³⁾	36-75	30	T4A	RP30-48xxS_DE
RPM30-48xxS_DEW ^(1,3)	18-75	30	T4A	RP30-48xxS_DEW
RPM40-12xxS_DG ⁽³⁾	9.5-18	40	T8A	RP40-12xxS_DG
RPM40-24xxS_DG ⁽³⁾	18-36	40	T8A	RP40-24xxS_DG
RPM40-24xxS_DGW ^(1,3)	9.5-36	40	T8A	RP40-24xxS_DGW
RPM40-48xxS_DG ⁽³⁾	36-75	40	T4A	RP40-48xxS_DG
RPM40-48xxS_DGW ^(1,3)	18-75	40	T4A	RP40-48xxS_DGW
RPM60-24xxSG ^(1,3)	18-36	60	T8A	RP60-24xxSG
RPM60-48xxSG ^(1,3)	36-75	60	T4A	RP60-48xxSG

Notes:

Note1: add „/N“ for Negative CTRL Logic

Note2: add „/P“ for Positive CTRL Logic

Note3: no suffix for Positive CTRL Logic

IEC60950-1 Certified
EN60950-1 Certified

Selection Guide Single and Dual Outputs - DIN Rail Version

Power Module Part Number (DIN rail Version)	Input Range (VDC)	Output Power (W)	Internal Fuse (Replaceable)	Converter Series
RPMD15-24xxS_DFW ^(1,2)	9.5-36	15	T6A	RP15-24xxS_DFW
RPMD15-48xxS_DFW ^(1,2)	18-75	15	T4A	RP15-48xxS_DFW
RPMD20-24xxS_DFW ^(1,3)	9.5-36	20	T6A	RP20-24xxS_DFW
RPMD20-48xxS_DFW ^(1,3)	18-75	20	T4A	RP20-48xxS_DFW
RPMD30-12xxS_DE ⁽³⁾	9.5-18	30	T6A	RP30-12xxS_DE
RPMD30-24xxS_DE ⁽³⁾	18-36	30	T6A	RP30-24xxS_DE
RPMD30-48xxS_DE ⁽³⁾	36-75	30	T4A	RP30-48xxS_DE
RPMD30-24xxS_DEW ^(1,3)	10-40	30	T6A	RP30-24xxS_DEW
RPMD30-48xxS_DEW ^(1,3)	18-75	30	T4A	RP30-48xxS_DEW
RPMD40-12xxS_DG ⁽³⁾	9.5-18	40	T8A	RP40-12xxS_DG
RPMD40-24xxS_DG ⁽³⁾	18-36	40	T8A	RP40-24xxS_DG
RPMD40-24xxS_DGW ^(1,3)	9.5-36	40	T8A	RP40-24xxS_DGW
RPMD40-48xxS_DG ⁽³⁾	36-75	40	T4A	RP40-48xxS_DG
RPMD40-48xxS_DGW ^(1,3)	18-75	40	T4A	RP40-48xxS_DGW
RPMD60-24xxSG ^(1,3)	18-36	60	T8A	RP60-24xxSG
RPMD60-48xxSG ^(1,3)	36-75	60	T4A	RP60-48xxSG

Notes:

Note1: add „/N“ for Negative CTRL Logic

Note2: add „/P“ for Positive CTRL Logic

Note3: no suffix for Positive CTRL Logic

Selection Guide Triple Outputs - Panel Mount Version

Power Module Part Number (Bulkhead Version)	Input Range (VDC)	Output Power (W)	Internal Fuse (Replaceable)	Converter Series
RPM40-120512TG ⁽³⁾	9.5-18	40	T8A	RP40-120512TG
RPM40-120515TG ⁽³⁾	9.5-18	40	T8A	RP40-120515TG
RPM40-240512TG ⁽³⁾	18-36	40	T8A	RP40-240512TG
RPM40-240515TG ⁽³⁾	18-36	40	T8A	RP40-240515TG
RPM40-480512TG ⁽³⁾	36-75	40	T4A	RP40-480512TG
RPM40-480515TG ⁽³⁾	36-75	40	T4A	RP40-480515TG

Notes:

Note3: no suffix for Positive CTRL Logic

Selection Guide Triple Outputs - DIN Rail Version

Power Module Part Number (Bulkhead Version)	Input Range (VDC)	Output Power (W)	Internal Fuse (Replaceable)	Converter Series
RPMD40-120512TG ⁽³⁾	9.5-18	40	T8A	RP40-120512TG
RPMD40-120515TG ⁽³⁾	9.5-18	40	T8A	RP40-120515TG
RPMD40-240512TG ⁽³⁾	18-36	40	T8A	RP40-240512TG
RPMD40-240515TG ⁽³⁾	18-36	40	T8A	RP40-240515TG
RPMD40-480512TG ⁽³⁾	36-75	40	T4A	RP40-480512TG
RPMD40-480515TG ⁽³⁾	36-75	40	T4A	RP40-480515TG

Notes:

Note3: no suffix for Positive CTRL Logic

Specifications measured at $T_a = 25^\circ\text{C}$, nominal input voltage, full load otherwise noted

Specifications are as in individual converter datasheets with the following exceptions:

Bulkhead Version

BASIC CHARACTERISTICS

Parameter	Condition	Min.	Typ.	Max.
Inrush current	nominal V_{in} and full load			soft start
Start-up time	Power up CTRL Pin		100ms 20ms	

ENVIRONMENTAL

Parameter	Condition	Value
Thermal Impedance		8.5°C/Watt

SAFETY AND CERTIFICATIONS

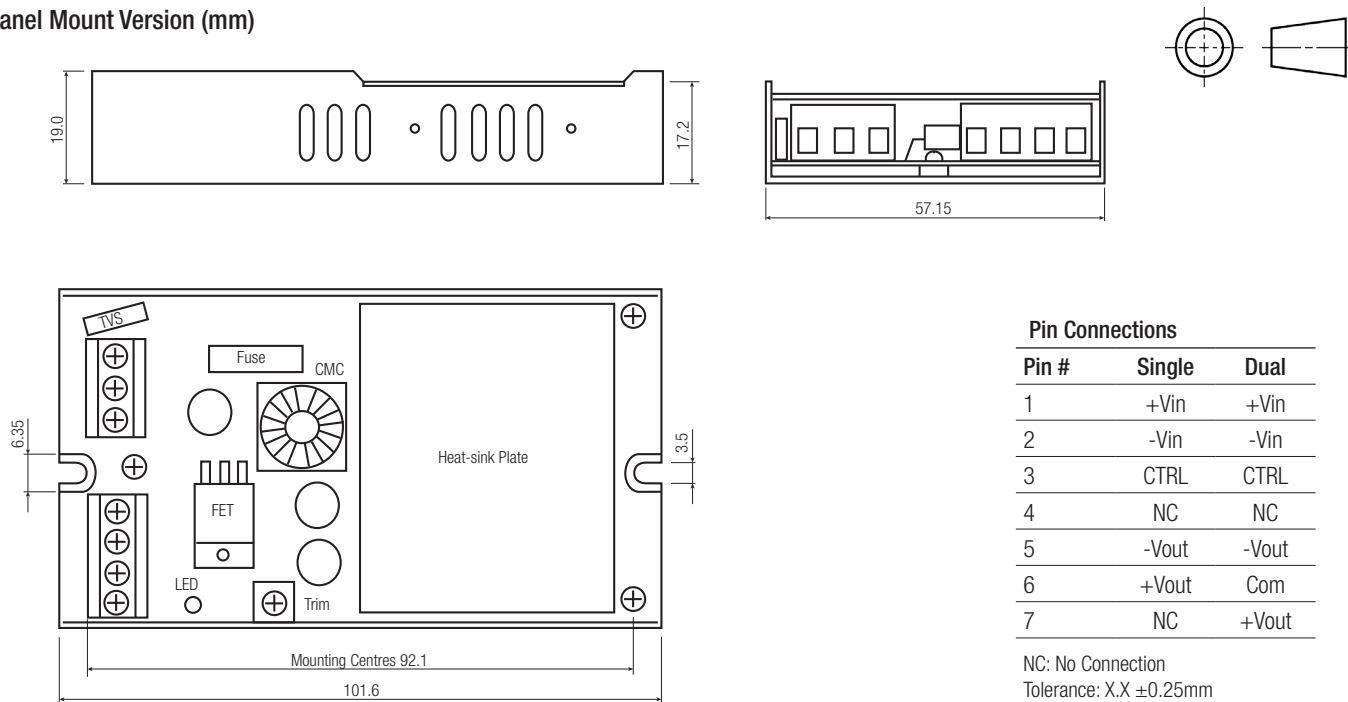
IEC General Safety EN General Safety	LVD20110124	IEC60950-1, 2nd Edition, 2005 + A1:2009 EN60950-1:2006 + A11:2009 + A1:2010;
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EMC Compliance	Condition	Standard / Criterion
EMI Standard		EN55022, Class B
ESD		EN61000-4-2, Criteria A
Radiated Immunity		EN61000-4-3, Criteria A
Fast Transient		EN61000-4-4, Criteria A
Surge		EN61000-4-5, Criteria A
Conducted Immunity		EN61000-4-6, Criteria A

DIMENSIONS and PHYSICAL CHARACTERISTICS

Parameter	Type	Value
Material	Chassis	Aluminium
Package Dimensions (LxWxH)		101.6 x 57.15 x 19.0mm
Package Weight		134g
Connectors		Screw Terminal

Panel Mount Version (mm)



Pin Connections

Pin #	Single	Dual
1	+Vin	+Vin
2	-Vin	-Vin
3	CTRL	CTRL
4	NC	NC
5	-Vout	-Vout
6	+Vout	Com
7	NC	+Vout

NC: No Connection
Tolerance: $\text{X.X} \pm 0.25\text{mm}$

Selection Guide typical at nominal input and 25°C unless otherwise noted

Specifications are as in individual converter datasheets with the following exceptions:

PACKAGING INFORMATION

Parameter	Type	Value
Packaging Dimensions	Cardboard Box	146 x 75 x 29mm
Packaging Quantity		1pc

DIN-Rail Version

BASIC CHARACTERISTICS

Parameter	Condition	Min.	Typ.	Max.
Inrush current	nominal Vin and full load			15A
Start-up time	Power up CTRL Pin		100ms 20ms	

ENVIRONMENTAL

Parameter	Condition	Value
Thermal Impedance		4.2°C/Watt

SAFETY AND CERTIFICATIONS

IEC General Safety EN General Safety	LVD20110124	IEC60950-1, 2nd Edition, 2005 + A1:2009 EN60950-1:2006 + A11:2009 +A1:2010;
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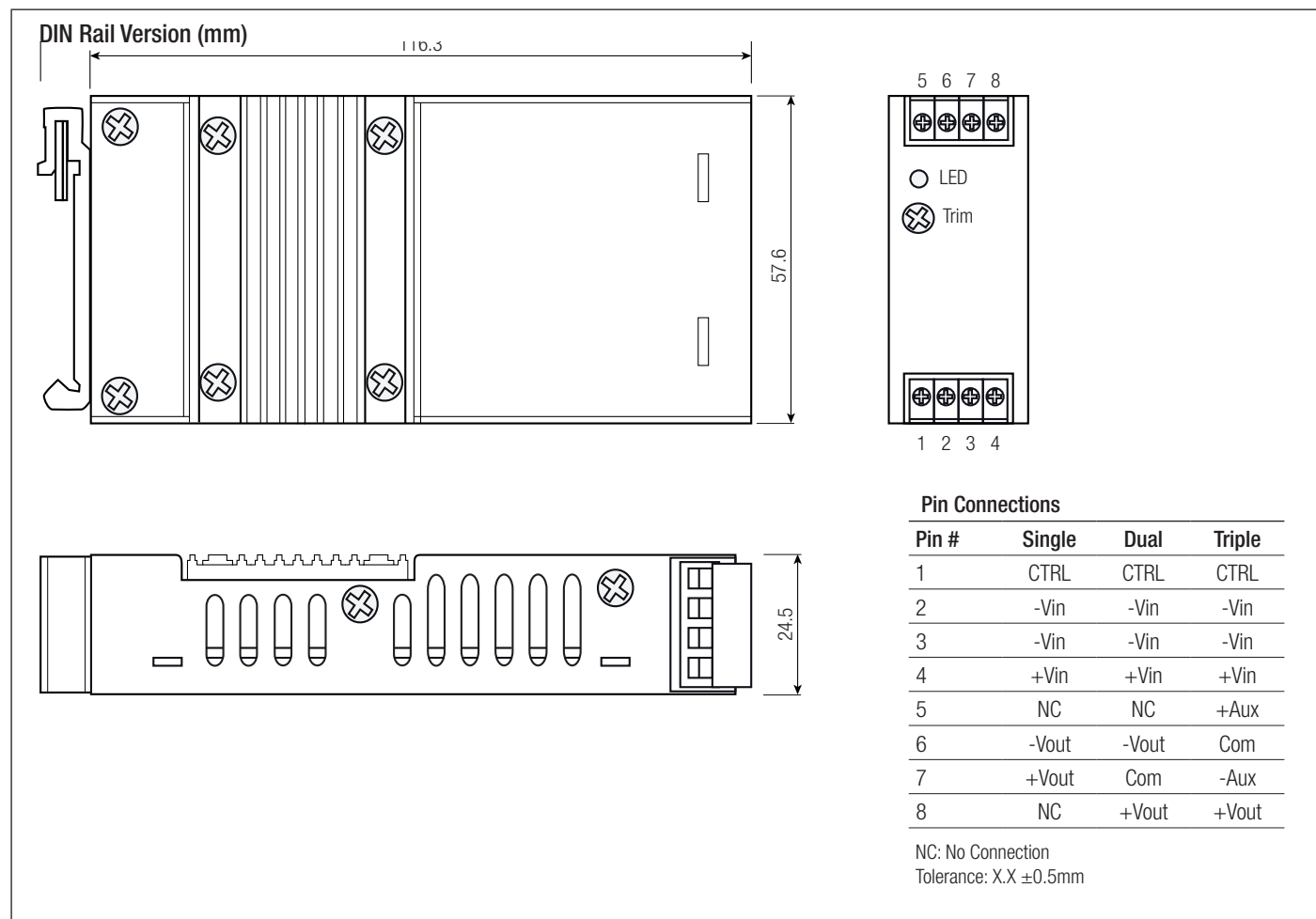
EMC Compliance	Condition	Standard / Criterion
EMI Standard		EN55022, Class B
ESD		EN61000-4-2, Criteria A
Radiated Immunity		EN61000-4-3, Criteria A
Fast Transient		EN61000-4-4, Criteria A
Surge		EN61000-4-5, Criteria A
Conducted Immunity		EN61000-4-6, Criteria A

DIMENSIONS and PHYSICAL CHARACTERISTICS

Parameter	Type	Value
Material	Chassis	Aluminium
Package Dimensions (LxWxH)		125.0 x 57.6 x 24.5mm
Package Weight		182g
Connectors		Screw Terminal

continued on next page

Specifications measured at Ta = 25°C, nominal input voltage, full load otherwise noted



PACKAGING INFORMATION

Parameter	Type	Value
Packaging Dimensions	Cardboard Box	146 x 75 x 29mm
Packaging Quantity		1pc