

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## **Features**

# Regulated Converters

- Compact AC-DC Power Supply
- 15 Watt PCB Mount Package
- Universal Input Voltage Range
- 3000VAC Isolation
- Low Output Ripple and Noise
- Short Circuit Protected
- UL Certified, CE Marked

#### **Description**

Compact UL certified switching AC/DC power module for PCB, screw-terminal connection or DIN-rail mounting.

Selection Guide					
Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)	Max. Capacitive Load
RAC15-05SA	90-264	5	3000	74	31000µF
RAC15-12SA	90-264	12	1250	79	4500μF
RAC15-15SA	90-264	15	1000	78	2700µF
RAC15-24SA	90-264	24	625	80	900µF
RAC15-05DA	90-264	±5	±1500	76	±13500µF
RAC15-12DA	90-264	±12	±650	79	±2700μF
RAC15-15DA	90-264	±15	±500	77	±1400μF
RAC15-0512TA	90-264	5/±12	2000/±200	73	14000/±900μF
RAC15-0515TA	90-264	5/±15	2000/±150	73	14000/±680µF

<sup>\*</sup>add suffix "-E" for extended temperature range, e.g. RAC15-05SA-E

#### **Specifications** (typical at 25°C and after warm up time unless otherwise specified) Input Voltage Range 90-264VAC or 120-370VDC Rated Power 15 Watts max. 47-440Hz Input Frequency Range (for AC Input) Input Current (full load) 115VAC/230VAC 310mA / 170mA max. No Load Power Consumption 115VAC/230VAC 1.37W max. Inrush Current (<2ms) 115VAC 10A max. (-E = 23A max.)230VAC 20A max. (-E = 46A max.)Leakage Current 0.75mA max. Output Voltage Accuracy (Full load) Single, Dual Line Voltage Regul. (low line, high line at full load) ±0.5% typ. Triple $\pm 1\%/\pm 5\%$ typ. Load Voltage Regulation (5% to 100% full load) Single ±0.5% typ. Dual ±3% typ. Triple $\pm 2\%/\pm 5\%$ typ. $\overline{0.5}$ % Vout + 50mVp-p max. Output Ripple and Noise (20MHz limited) Noise Ripple <0.2% Vout + 40mVp-p max. 100kHz typ. Operating Frequency Efficiency at Full Load see table RMS Isolation Voltage (input to output) 3kVAC / 1minute Temperature Coefficient ±0.02%/°C typ. Isolation Resistance 100 MΩ max. Short Circuit Protection Hiccup, Automatic Restart Operating Temperature Range \* Standard -25°C to +70°C (free air convection, with derating) Suffix -E -40°C to +70°C Storage Temperature Range -40°C to +85°C Humidity 95% RH max. Case Material Epoxy with Fibreglass (UL94V-0) Package Weight Packing Quantity 3 pcs (-ST Version: 1 pc) **EMC** EN 55022 Class B / EN 55024 using MIL-HDBK-217F 200 x 103 hours MTBF (+25°C)

# **POWERLINE**

AC/DC-Converter with 3 year Warranty



# 15 Watt Single/Dual & Triple Output

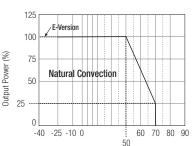






# **Derating-Graph**

(Ambient Temperature)



Ambient Temperature Range (°C)

**Refer to Application Notes** 

<sup>\*</sup>add suffix "-ST" for screw terminal module e.g. RAC15-05DA-ST, RAC10-0512TA-E-ST

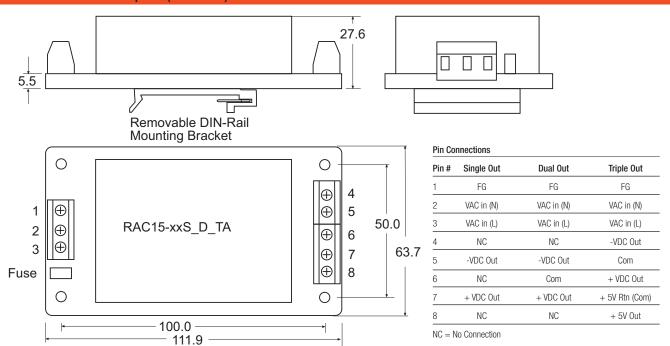
<sup>\*</sup> Start up only is guaranteed at temperatures down to -25°C. Other specifications may not be met.

# **POWERLINE**

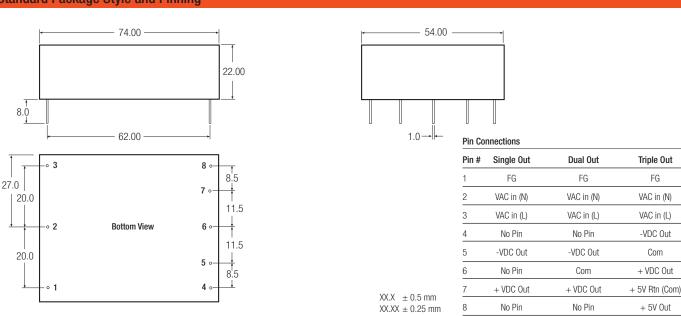
AC/DC-Converter

# RAC15-S\_D\_TA Series

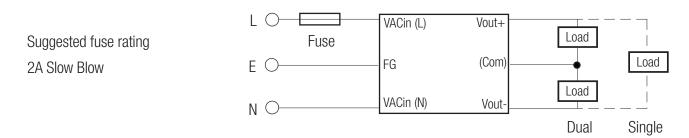
#### Screw Terminal Module Option (suffix -ST)



#### Standard Package Style and Pinning



### **Standard Application Circuit**



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