

Features

Regulated Converters

Rev. 0

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

Description

Compact switching AC/DC power module for PCB, screw-terminal connection or DIN-rail mounting with cUL and UL Safety Approvals

Selection Guide

Part Number	Input Range (VAC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
RAC30-3.3SA	90-264	3.3	6000	70
RAC30-05SA	90-264	5	6000	75
RAC30-12SA	90-264	12	2500	80
RAC30-15SA	90-264	15	2000	80
RAC30-24SA	90-264	24	1250	77
RAC30-05DA	90-264	±5	±3000	73
RAC30-12DA	90-264	±12	±1250	78
RAC30-15DA	90-264	±15	±1000	76
RAC30-0512DA	90-264	5/12	3000/1250	77
RAC30-0512TA	90-264	5/±12	3000/±630	77
RAC30-0515TA	90-264	5/±15	3000/±500	76

*add suffix "-E" for extended temperature range, e.g. RAC30-05SA-E

*add suffix "-ST" for screw terminal module e.g. RAC30-05DA-ST, RAC30-0512TA-E-ST

Specifications (typical at 25°C and after warm up time unless otherwise specified)

Input Voltage Range	90-264VAC or 120-370VDC	
Rated Power	30 Watts max.	
Input Frequency Range (for AC Input)	47-440Hz	
Input Current (full load)	520mA max. (115VAC) / 320mA max. (230VAC)	
Inrush Current (<2ms)	115VAC 230VAC	10A max. (-E = 23A max.) 20A max. (-E = 46A max.)
Leakage Current	0.75mA max.	
Output Voltage Accuracy (Full load)	±2%	
Line Voltage Regul. (low line, high line at full load)	Single, Dual Double, Triple	±1% typ. ±1%/±5% typ.
Load Voltage Regulation (5% to 100% full load)	Single, Dual Double, Triple	±1%, ±3%typ. ±2%/±6% typ.
Minimum Load	Single Dual Double, Triple	5% 3% 20%
Output Ripple and Noise (20MHz limited)	0.5% Vout + 50mVp-p max.	
Operating Frequency	100kHz typ.	
Efficiency at Full Load	see table	
Isolation Voltage (input to output)	3000VAC min.	
Temperature Coefficient	±0.02%/°C typ.	
Isolation Resistance	100 MΩ max.	
Short Circuit Protection	Continuous, Automatic Restart	

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POWERLINE

AC/DC-Converter

RAC30-S_D_TA Series

30 Watt Single, Dual, Double & Triple Output

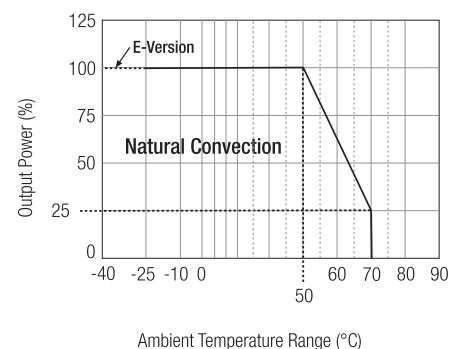


UL-60950-1 Certified

RECOM

Derating Graph

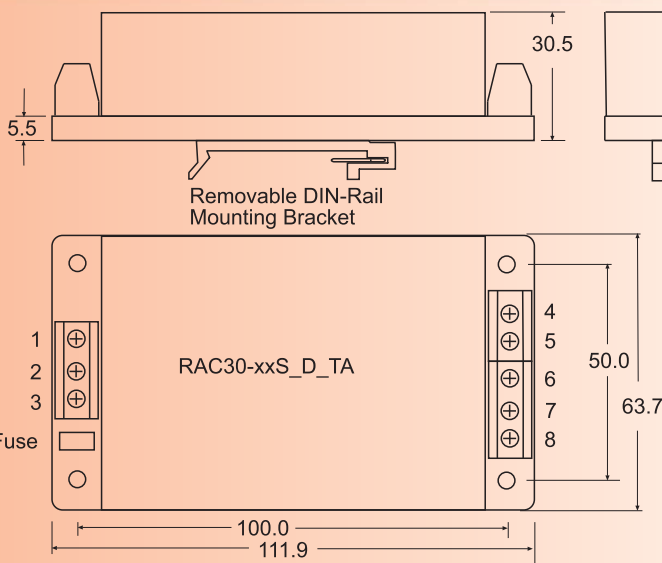
(Ambient Temperature)



Specifications continued

Operating Temperature Range (free air convection, with derating)	Standard Suffix -E	-25°C to +70°C -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		220g
EMC		EN 55022 Class B / EN 55024
MTBF (+25°C)	using MIL-HDBK-217F	200 x 10 ³ hours

Screw Terminal Module Option (suffix -ST)

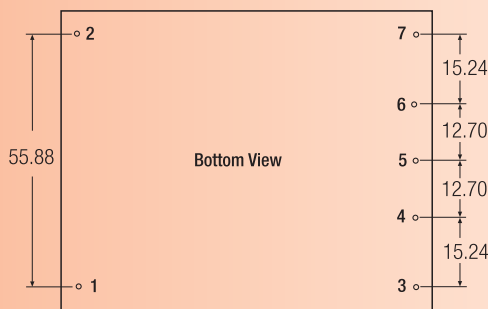
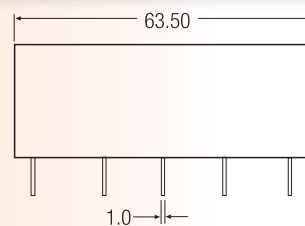


Pin Connections

Pin #	Single Out	Dual Out	0512DA	Triple Out
1	NC	NC	NC	NC
2	VAC in (N)	VAC in (N)	VAC in (N)	VAC in (N)
3	VAC in (L)	VAC in (L)	VAC in (L)	VAC in (L)
4	+ VDC Out	+VDC Out	+12V Out	+ VDC Out
5	NC	NC	+5V Out	+5V Out
6	-VDC Out	Com	+12V Rtn	Com
7	NC	NC	+5V Rtn	+5V Rtn
8	NC	-VDC Out	NC	-VDC Out

NC = No Connection

Standard Package Style and Pinning



Pin Connections

Pin #	Single Out	Dual Out	0512DA	Triple Out
1	VAC in (N)	VAC in (N)	VAC in (N)	VAC in (N)
2	VAC in (L)	VAC in (L)	VAC in (L)	VAC in (L)
3	+ VDC Out	+VDC Out	+12V Out	+ VDC Out
4	No Pin	No Pin	+5V Out	+5V Out
5	-VDC Out	Com	+12V Rtn	Com
6	No Pin	No Pin	+5V Rtn	+5V Rtn (Com)
7	NC	-VDC Out	No Pin	-VDC Out

XX.X ± 0.5 mm
XX.XX ± 0.25 mm