

**FEATURES:**

- 30 Watt DIL Package
- 4:1 Wide Input Voltages
- Efficiency to 86%
- PI Input Filter
- 100% Burned In
- UL 94V-0 Package Material
- Custom Solutions Available
- Regulated Output Types
- UL Recognized



**30 Watt DC-DC Converter**  
**RQ9S-48S04R**

**Wide Input Voltage Range**  
**30 Watt DC/DC Converter**

**Input Specifications**

<b>Input Voltage:</b>	48Vdc	
<b>Input Voltage Range:</b>	18~75Vdc	@18Vin Min ; 75Vin Max
<b>Under Voltage Shutdown (lock-out circuit)</b>	16Vdc Typ	
<b>Remote On/Off</b>	Open or 3~15Vdc(DC/DC ON) Short or 0~1.2Vdc(DC/DC OFF) -0.5 ~ +1.0 mA 2.0 mA TYP	@Positive logic (Standard) (Refer to -Vin PIN) @Input current of Ctrl pin @Remote off input current

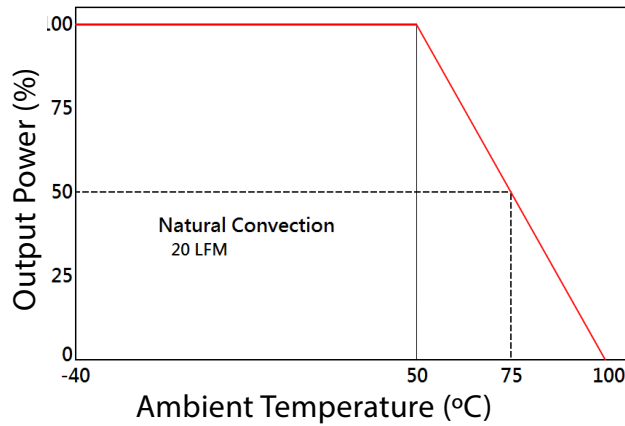
**Output Specifications**

<b>Output Voltage:</b>	4.2Vdc	
<b>Output Voltage Accuracy:</b>	±2%	@4.116~4.284Vdc @Vin 18~75Vdc
<b>Output Current:</b>	6500mA	
<b>Efficiency:</b>	86% TYP	@Vin= 48Vdc
<b>Ripple / Noise:</b>	100mVp-p MAX	@20MHz Band width , with 22uF*1 MLCC
<b>Short Circuit Protection:</b>	Continuous	@Hiccup,auto-recovery
<b>Line Regulation:</b>	±0.5% MAX	@LL to HL at full Load
<b>Load Regulation:</b>	±5.0% MAX	@25% to 100% Load
<b>Over Voltage Protection</b>	6.3V TYP	@5.6V MIN; 7V MAX
<b>Over Load Protection</b>	170% MAX	@% of lout rated; Hiccup mode

**General Specifications**

<b>Operating Temperature Range:</b>	-40°C ~ +75°C (with derating)	Output load derate 2% per degree Celsius above 50°C as refer to temperature derating graph.
<b>Storage Temperature:</b>	-55°C ~ +125°C	
<b>Switching Frequency:</b>	275KHz TYP	
<b>Humidity:</b>	95% MAX	
<b>Isolation Voltage:</b>	1500Vdc	
<b>Isolation Resistance:</b>	1000MΩ MIN	
<b>Cooling:</b>	Natural convection	@20LFM
<b>MTBF:</b>	>=1,200,000 Hours	MIL-HDBK-217F@25°C, Ground Benign
<b>Case Material:</b>	Six-side shielded case	
<b>Weight:</b>	22g TYP	
<b>Conducted Emission</b>	EN55032 Class B	(with external components)
<b>Radiated Emission</b>	EN55032 Class B	(with external components)

**Temperature Derating Graph**

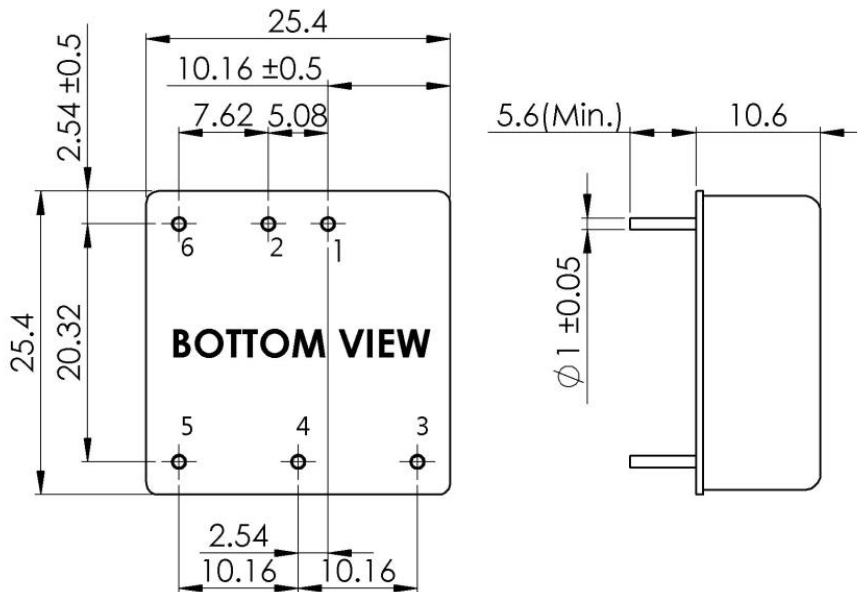


**Part Number**

RQ9 S - 48 S 04 R  
A B C D E F

- A: Series
- B: Package
- C: Input Voltage
- D: Single Output (S)
- E: Output Voltage
- F: Regulated (R)

**Outline Dimensions**



**External Output Trimming**

Output can be externally trimmed by using the method shown below.

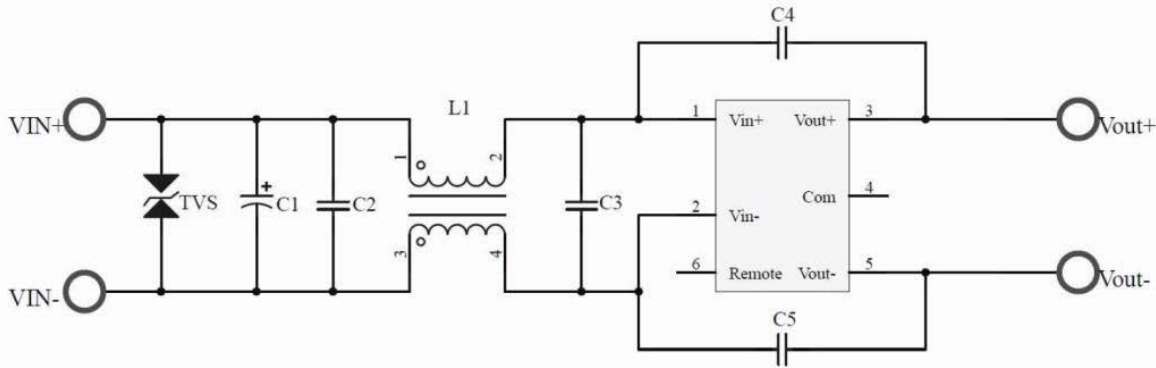


UNIT: mm

Tolerance : XX.X ±0.50, XX.XX ±0.25

Pin	1	2	3	4	5	6
Function	+Vin	-Vin	+Vout	Trim	-Vout	Remote ON/ OFF

**Recommended Test Circuit Meets EN55024 Criterion A and EN55032 Class B**



24V	C1 220uF/100V	C2&C3 4.7uF/50V	C4&C5 2200pF/2kV	L1 0.94mH	TVS 3.0SMCJ58AG
48V	C1 220uF/100V	C2&C3 4.7uF/100V	C4&C5 3200pF/2kV	L1 6.20mH	TVS 3.0SMCJ120AG

**Packaging Information**

