

### FEATURES

1. Universal AC input 85~264VAC
2. Protections: Short circuit /Over load /Over voltage
3. Can be installed on DIN rail TS-35/7.5 or 15
4. The body width is only 17.5mm
5. Isolation class II
6. LED indicator for power on
7. High reliability
8. 3 years warranty
9. Compliance to IEC/EN/UL 62368-1



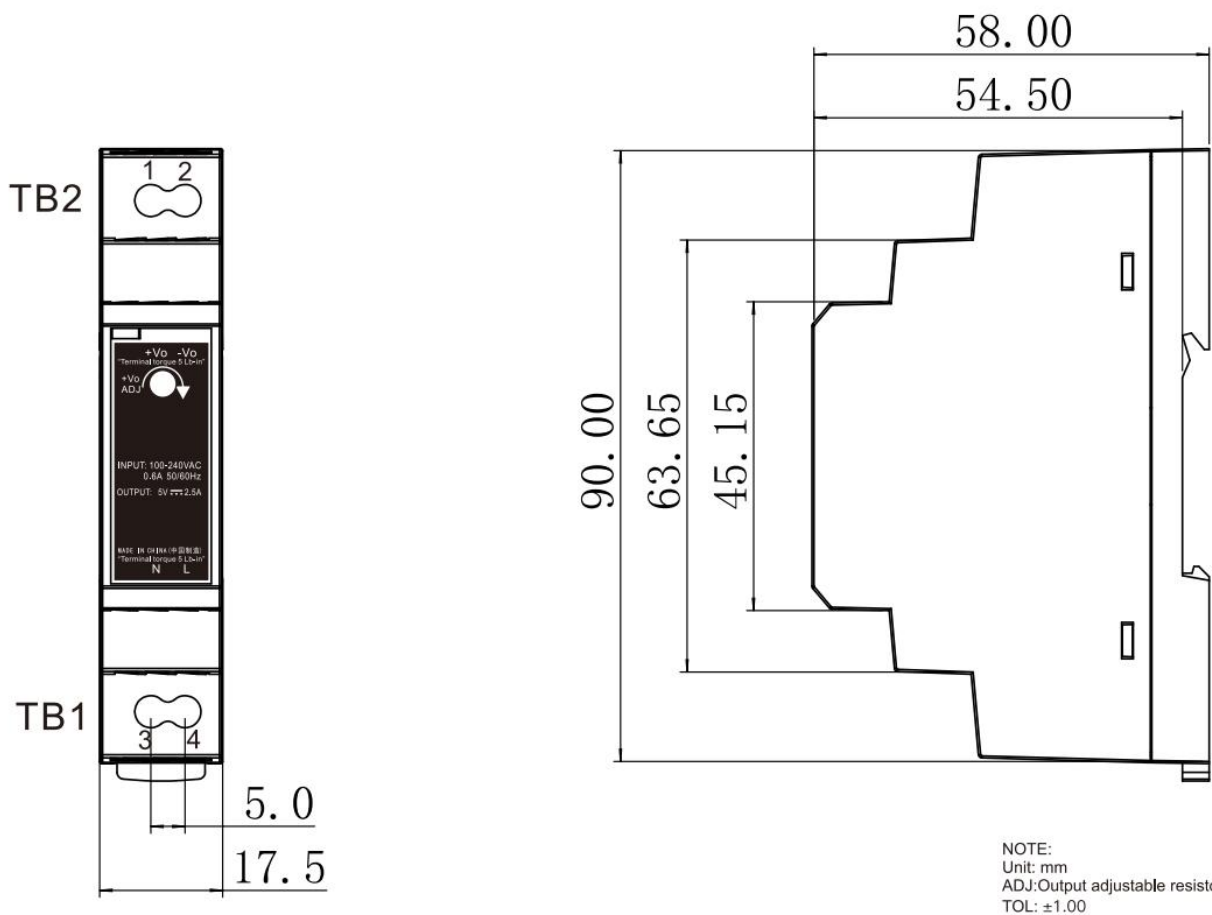
3 years  
Warranty

### Specification

MODEL		RAI20-05-PR2	RAI20-12-PR2	RAI20-24-PR2	RAI20-48-PR2
INPUT	VOLTAGE RANGE	85~264VAC 120~370VDC(Refer to "Static characteristics")			
	FREQUENCY RANGE	47~63Hz			
	EFFICIENCY(Typ.)	80%	85%	86%	87%
	AC CURRENT(Typ.)	0.5A/115VAC 0.3A/230VAC			
	INRUSH CURRENT(Typ.)	25A/115VAC 45A/230VAC (cold start)			
OUTPUT	DC VOLTAGE	5V	12V	24V	48V
	RATED CURRENT	2.5A	1.5A	0.84A	0.42A
	CURRENT RANGE	0~2.5A	0~1.5A	0~0.84A	0~0.42A
	RATED POWER	12.5W	18W	20.16W	20.16W
	RIPPLE&NOISE(max.)	80mVp-p	100mVp-p	100mVp-p	100mVp-p
	VOLTAGE ADJ.RANGE	5~5.5V	10.8~13.8V	21.6~28.8V	43.2~57.6V
	VOLTAGE TOLERANCE	±2%	±1%	±1%	±1%
	LINE REGULATION	±1%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1%	±1%	±1%	±1%
	SET UP, RISE TIME	500ms,50ms/230VAC 500ms,50ms/115VAC			
	HOLD UP TIME(Typ.)	30ms/230VAC 12ms/115VAC			
PROTECTION	OVER LOAD	110%~160%rated output power Protection type: hiccup mode, recovers automatically after fault condition removed			
	OVER VOLTAGE	5.75~6.75V	14.2~15.8V	30~36V	58.9~66V
		Protection type: Clamping by zener diode			
ENVIRONMENT	WORKING TEMP, HUMIDITY	-40~+70°C(Refer to "Derating curve"),20~90%RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40~+85°C,10~95%RH			
	TEMP.COEFFICIENT	±0.03%/°C(0~50°C)			
	VIBRATION	10~500Hz,2G 10min./1 cycle,each along X、Y、Z axes			

Safety and electromagnetic compatibility	Safety standards	Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1		
	Withstand voltage and isolation resistance	I/P-O/P:4KVac;100M $\Omega$ /500Vdc/25°C/70%RH		
		<b>Parameter</b>	<b>Standard</b>	<b>Test Level/Note</b>
	Electromagnetic compatibility emission	Conducted emission	BS EN/EN55032(CISPR32),FCC PART 15/CIS-PR22, GB9254.1	Class B
		Radiated emission	BS EN/EN55032(CISPR32),FCC PART 15/CIS-PR22,GB9254.1	Class B
		Harmonic current	BS EN/EN61000-3-2,GB17625.1	Class A
		Voltage flicker	BS EN/EN61000-3-3	
	Electromagnetic compatibility immunity	BS EN/EN55035		
		<b>Parameter</b>	<b>Standard</b>	<b>Test Level / Note</b>
		ESD	BS EN/EN61000-4-2	Level 4,8KV air,Level 2,4KV contact,criteria A
		RF field susceptibility	BS EN/EN61000-4-3	Level 3,criteria A
		EFT bursts	BS EN/EN61000-4-4	Level 3,criteria A
		Surge susceptibility	BS EN/EN61000-4-5	Level 3,1KV/L-N criteria A
Conducted susceptibility		BS EN/EN61000-4-6	Level 3,criteria A	
Magnetic field immunity		BS EN/EN61000-4-8	Level 4,criteria A	
Voltage dips and interruptions	BS EN/EN61000-4-11	>95%dip 0.5 periods,30%dip 25 periods,>95%interruptions 250 periods		
OTHERS	MTBF	$\geq 1000$ Khrs MIL-HDBK-217F(25°C)		
	DIMENSION	17.5*90*54.5mm(W*H*D)		
	PACKING	0.08Kg;180pcs/15.4Kg/1.1CUFT		
NOTE	<p>1.All parameters NOT specially mentioned are measured at 230VAC input,rated load and 25°C of ambient temperature.</p> <p>2.Ripple &amp;noise are measured at 20MHz of bandwidth by using a 12"twisted pair-wire terminated with a 0.1uF &amp;47uF parallel capacitor.</p> <p>3.Tolerance:includes set up tolerance,line regulation and load regulation.</p> <p>4.Line regulation is measured from low line to high line at rated load. 5.Load regulation is measured from 0%to 100%rated load</p> <p>6.Length of set up time is measured at cold first start,Turning ON/OFF the power supply very quickly may lead to increase of the set up time. 7.The ambient temperature derating of 5°C/1000m is needed for operating altitude great than 2000m(6500ft).</p> <p>8.The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives.</p> <p>9.Installation clearances:40mm on top,20mm on the bottom,5mm on the left and right side are recommended when loaded permanently with full power In case the adjacent device is a heat source,15mm clearance is recommended.</p>			

### Mechanical specification

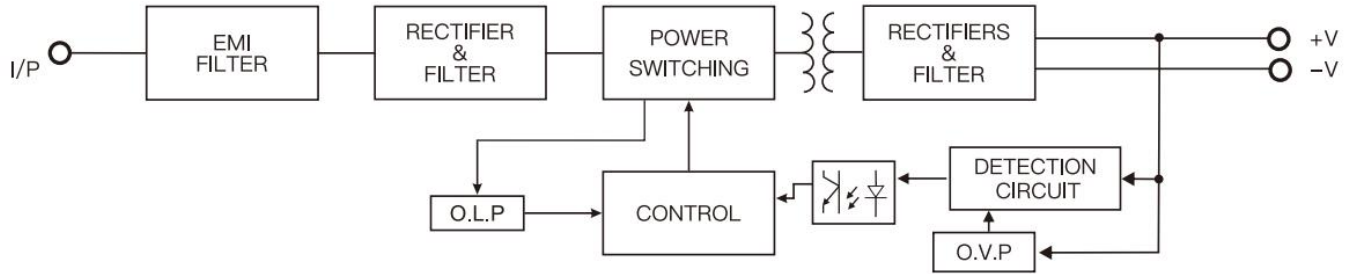


NOTE:  
Unit: mm  
ADJ: Output adjustable resistor  
TOL: ±1.00

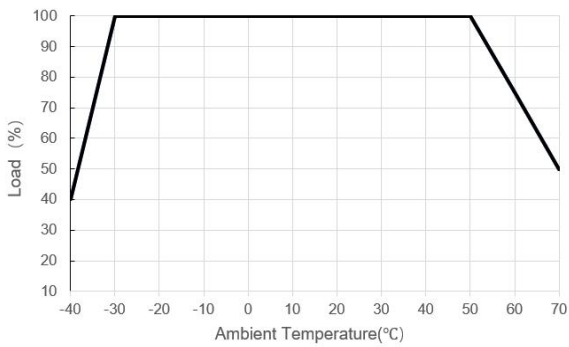
ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15  
Terminal Pin No. Assignment

TB1		TB2	
Pin No.	Assignment	Pin No.	Assignment
3	AC/N	2	DC output -V
4	AC/L	1	DC output +V

### Block diagram



Derating curve



Static characteristics

