

## R50A



### Features

- Built-in Inrush Current Protection
- Small size and light
- Built-in Over Current Protection
- Built-in Over Voltage Protection
- RoHS Compliant

### Safety Agency Approvals

- UL1950 (10W - 150W)
- C-UL (10W - 50W)
- CSA C22.2 No.234 (100W, 150W)
- EN60950, VDE0160 (100W, 150W)
- Complies with DEN-AN (10W - 150W)

### EMI Compliance

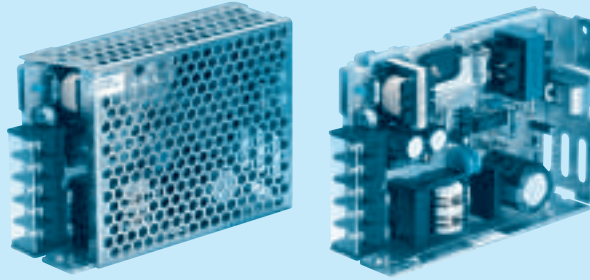
- FCC-B, VCCI-B (10W - 150W)

**3 year warranty(refer to Instruction Manual)**

Model	Input Voltage [V]	Output Wattage [W]	DC Output [V/A]
R50A-3	DC 110 - 170 AC 85 - 132	30	3V 10A
R50A-5	DC 110 - 170 AC 85 - 132	50	5V 10A
R50A-9	DC 110 - 170 AC 85 - 132	50.4	9V 5.6A
R50A-12	DC 110 - 170 AC 85 - 132	50.4	12V 4.2A
R50A-15	DC 110 - 170 AC 85 - 132	51	15V 3.4A
R50A-18	DC 110 - 170 AC 85 - 132	50.4	18V 2.8A
R50A-24	DC 110 - 170 AC 85 - 132	52.8	24V 2.2A



RoHS



- ① Series name
- ② Output wattage
- ③ Output voltage
- ④ Optional
- C : with Coating
- G : Low leakage current
- J : Connector type
- N : with Cover

MODEL	R50A-3	R50A-5	R50A-9	R50A-12	R50A-15	R50A-18	R50A-24
MAX OUTPUT WATTAGE[W]	30	50	50.4	50.4	51	50.4	52.8
DC OUTPUT	3V 10A	5V 10A	9V 5.6A	12V 4.2A	15V 3.4A	18V 2.8A	24V 2.2A

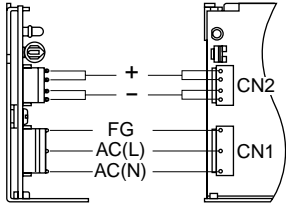
SPECIFICATIONS

	MODEL	R50A-3	R50A-5	R50A-9	R50A-12	R50A-15	R50A-18	R50A-24	
INPUT	VOLTAGE[V]	AC85 - 132 1 φ or DC110 - 170							
	CURRENT[A]	ACIN 100V	1.1typ (Io=100%)						
	FREQUENCY[Hz]	47 - 440 or DC							
	EFFICIENCY[%]		74typ	78typ	79typ	80typ	81typ	82typ	83typ
	INRUSH CURRENT[A]	ACIN 100V	30typ (Io=100%) (At cold start)						
	LEAKAGE CURRENT[ma]	0.5max (According to UL, CSA and DEN-AN)							
OUTPUT	VOLTAGE[V]	3	5	9	12	15	18	24	
	CURRENT[A]	10	10	5.6	4.2	3.4	2.8	2.2	
	LINE REGULATION[mV]	20max	20max	36max	48max	60max	72max	96max	
	LOAD REGULATION[mV]	40max	40max	100max	100max	120max	120max	150max	
	RIPPLE[mVp-p]	0 to +50°C	80max	80max	120max	120max	120max	120max	120max
		-10 - 0°C	140max	140max	160max	160max	160max	160max	160max
	RIPPLE NOISE[mVp-p]	0 to +50°C	120max	120max	150max	150max	150max	150max	150max
		-10 - 0°C	160max	160max	180max	180max	180max	180max	180max
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	50max	90max	120max	150max	180max	240max
		-10 to +50°C	60max	60max	120max	150max	180max	200max	290max
	DRIFT[mV]	*1	20max	20max	36max	48max	60max	72max	96max
START-UP TIME[ms]	200max (ACIN 85V, Io=100%)								
HOLD-UP TIME[ms]	10typ (ACIN 85V, Io=100%, 0 to +50°C) 20typ (ACIN 100V, Io=100%, 0 to +50°C)								
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	2.85 - 3.6	4.5 - 5.5	8.1 - 9.9	10.8 - 13.2	13.5 - 16.5	16.2 - 19.8	21.6 - 26.4		
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically (ACIN 100V)							
	OVERVOLTAGE PROTECTION	4.00 - 5.25V	Works at 115 - 140% of rating						
	OPERATING INDICATION	LED (Green)							
	REMOTE SENSING	Not provided							
	REMOTE ON/OFF	Not provided							
ISOLATION	INPUT-OUTPUT	AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)							
	INPUT-FG, COVER	AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)							
	OUTPUT-FG, COVER	AC500V 1minute, Cutoff current = 100mA max, DC500V 50MΩ min (At Room Temperature)							
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-10 to +60°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max							
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max							
	VIBRATION	10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis							
	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis							
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL Complies with DEN-AN							
	CONDUCTED NOISE	Complies with FCC-B, VCCI-B							
OTHERS	CASE SIZE/WEIGHT	33 × 85 × 119mm (W × H × D) / 300g max (without cover)							
	COOLING METHOD	Convection							

\*1 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.  
 \* Avoid prolonged use under over-load.  
 \* Parallel operation is not possible.  
 \* Derating is required when operated with case cover.

External view

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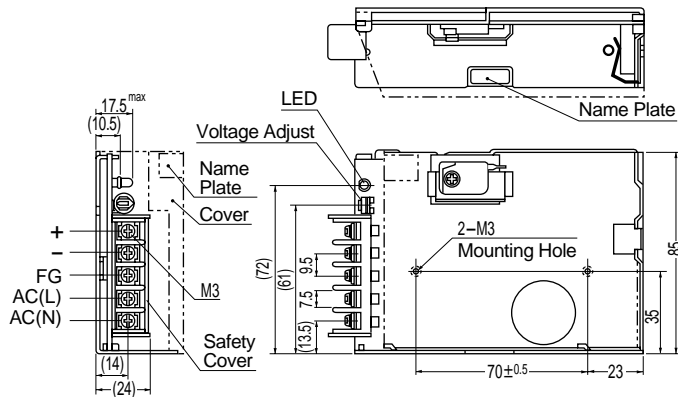
I/O Connector	Mating Housing
CN1	B3P5-VH VHR-5N
CN2	B4P-VH VHR-4N

(Mfr : J.S.T.)

Terminal
Chain: SVH-21-P1.1
Loose: BVH-21-P1.1

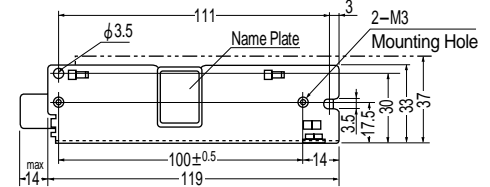
(Mfr : J.S.T.)

Connector type



- ※Weight : 300g or less (without cover)
- ※Cover is optional
- ※Tolerance : ±1
- ※Dimensions in mm.

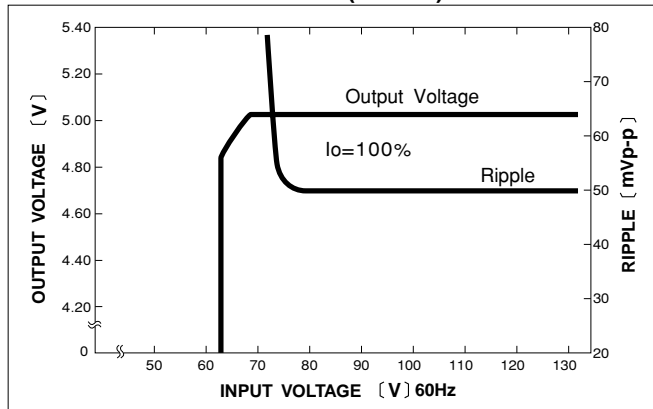
Barrier strip type



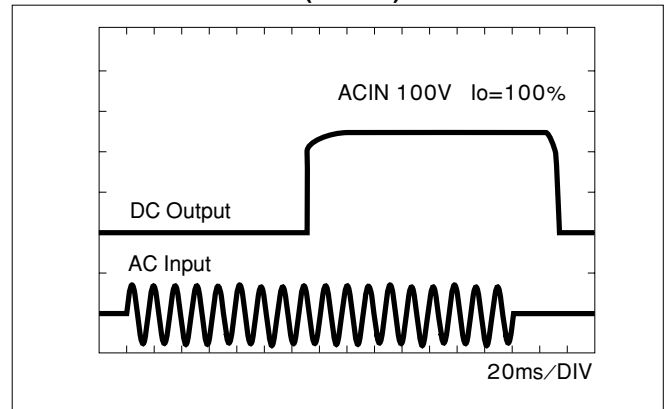
Mounting torque: 0.49N·m (5.0kgf·cm) max

Performance data

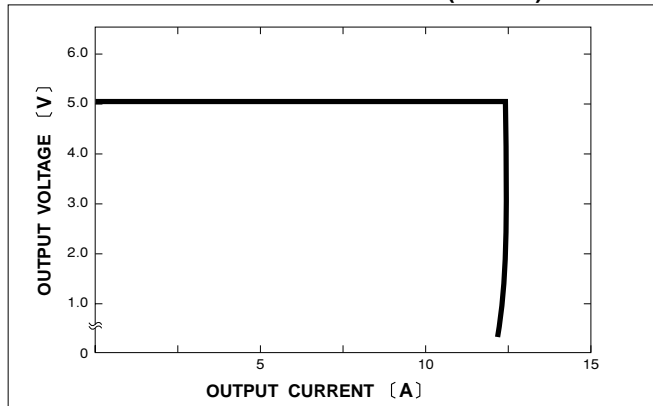
■STATIC CHARACTERISTICS (R50A-5)



■RISE TIME & FALL TIME (R50A-5)



■OVERCURRENT CHARACTERISTICS (R50A-5)



■INRUSH CURRENT (R50A-5)

