

Converters • DIN-Rail • AC/DC Power Supplies • Custom



Catalog 2018

Contents

1. Converters

RRD15 Series Islated DC-DC	Page 1-3
RRA5 Series Islated AC-DC	Page 4-6

2. DIN-Rail

RPB15 Series Single	Page 7-8
RP60 Series Single	Page 9-10
RP120 Series Single	Page 11-12

3. AC/DC Power Supplies

RPA30 Series Single	Page 13-14
RPA60 Series Single	Page 15-16
RPD60 Series Single	Page 17-18
RPA120 Series Single	Page 19-20
RPB150 Series Dual	Page 21-22
RPC120 Series Single	Page 23-24
RPC180 Series Dual	Page 25-26

4. Custom

RPE35 Series Triple	Page 29-30
RPE150 Series Bipolar	Page 31-33
RPE150 Series Quartic	Page 34-36
RPA500 Series Quartic	Page 37-38

KEY FEATURES

- ◆ RoHS Compliant
- ◆ Load Regulation $\leq \pm 1\%$
- ◆ 1500VDC Isolation
- ◆ Efficiency Up To 88%
- ◆ 1:4 Wide Voltage Input
- ◆ UL 94V-0 Package Material
- ◆ Continues Short Circuit Protect
- ◆ Metal Shell
- ◆ 12V,24V & 48V Input
- ◆ 3.3V,5V,12V,15V,±5V,±12V & ±15V Output
- ◆ Output Overvoltage Protection And Current Limiting
- ◆ 1X2 Inch Industry Standard Pins And Package



SELECTION GUIDE

Order Code	Input Voltage			Output Voltage	Output Current	Maximum Capacitive Load	Efficiency
	Nominal	Range	Max				
	V						
RRD12-H12S03B	12	9~18	22	3.3	3.6	6800	81%
RRD15-H12S05B	12	9~18	22	5	3	4700	82%
RRD15-H12S12B	12	9~18	22	12	1.25	690	83%
RRD15-H12S15B	12	9~18	22	15	1	470	84%
RRD15-H12B05B	12	9~18	22	±5	±1.5	±680	82%
RRD15-H12B12B	12	9~18	22	±12	±0.63	±330	84%
RRD15-H12B15B	12	9~18	22	±15	±0.5	±110	84%
RRD12-H24S03B	24	18~36	40	3.3	3.6	6800	81%
RRD15-H24S05B	24	18~36	40	5	3	4700	84%
RRD15-H24S12B	24	18~36	40	12	1.25	690	84%
RRD15-H24S15B	24	18~36	40	15	1	470	84%
RRD15-H24B05B	24	18~36	40	±5	±1.5	±680	83%
RRD15-H24B12B	24	18~36	40	±12	±0.63	±330	84%
RRD15-H24B15B	24	18~36	40	±15	±0.5	±110	84%
RRD12-H48S03B	48	36~72	80	3.3	3.6	6800	81%
RRD15-H48S05B	48	36~72	80	5	3	4700	84%
RRD15-H48S12B	48	36~72	80	12	1.25	690	85%
RRD15-H48S15B	48	36~72	80	15	1	470	85%
RRD15-H48B05B	48	36~72	80	±5	±1.5	±680	83%
RRD15-H48B12B	48	36~72	80	±12	±0.63	±330	84%
RRD15-H48B15B	48	36~72	80	±15	±0.5	±110	84%
RRD15-Q24S05B	24	9~36	40	5	3	4700	88%
RRD15-Q24S12B	24	9~36	40	12	1.25	690	87%
RRD15-Q24S15B	24	9~36	40	15	1	470	88%
RRD15-Q24B05B	24	9~36	40	±5	±1	±680	84%
RRD15-Q24B12B	24	9~36	40	±12	±0.62	±330	86%
RRD15-Q24B15B	24	9~36	40	±15	±0.5	±110	86%
RRD15-Q48S05B	48	18~72	80	5	3	4700	88%
RRD15-Q48S12B	48	18~72	80	12	1.25	690	87%
RRD15-Q48S15B	48	18~72	80	15	1	470	88%
RRD15-Q48B05B	48	18~72	80	±5	±1	±680	84%
RRD15-Q48B12B	48	18~72	80	±12	±0.62	±330	86%
RRD15-Q48B15B	48	18~72	80	±15	±0.5	±110	87%

All specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified.

RoHS COMPLIANCE INFORMATION



This series is compatible with RoHS soldering systems with a peak wave solder temperature of 300°C for 10 seconds. The pin termination finish on the SIP package type is Tin Plate, Hot Dipped over Matte Tin with Nickel Preplate.

INPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Starting Voltage	48V(18~72V) input types	9.2	9.5	9.8	V
	24V(9~36V) input types	---	---	18	
Under Voltage Protection	24V(9~36V) input types	---	---	8.5	
	48V(18~72V) input types	---	---	17	
Starting Time	Output Voltage Rise Time 5%~100%	20	---	---	mS

OUTPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Rated Power	TA=-25°C to +55°C, Full Load, RRD15 Series	---	---	15	W
Voltage Set Point Accuracy	Positive Output (10%-100% Load, Vin=Rated Input)	---	±0.5	±1	%
	Negative Output (+Vout=100% Load, -Vin=25%~100% Load)	---	±1	±3	
Line Regulation	High Vin to Low Vin	---	±0.1	±0.2	
Load Regulation	10%-100% Load, Single Output Types	---	±0.25	±0.5	
	10%-100% Load, Bipolar Output Types	---	±0.5	±1	
Ripple & Noise	BW=DC to 20MHz, 3.3V Output Types	---	30	50	mV p-p
	BW=DC to 20MHz, All Other Output Types	---	50	120	
Over Current Protection	High Vin to Low Vin	120% Rated Max Current, Auto-Recovery			
Over Voltage Protection	High Vin to Low Vin	Zener/Transorb Clamp			
Transient Overshoot Scope	25%-50%-25%; 50%-75%-50%; 75%-100%-75% Load	---	---	±5	%
Transient Recovery Time	25%-50%-25%; 50%-75%-50%; 75%-100%-75% Load	---	---	400	uS

ISOLATION CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation test voltage	Flash tested for 60 second, leakage current < 2mA	1500	---	---	VDC
Resistance	Viso= 500VDC	100	---	---	MΩ

TEMPERATURE CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Storage Humidity	All output types	5	---	95	%
Specification Temperature	All output types, without derating	-25	---	+55	°C
Storage Temperature	All output types	-40	---	+105	
Case temperature	All output types	---	---	85	
Temperature drift ratio	All output types	---	0.02	---	%/°C
Cooling	Free air convection				

GENERAL CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Switching frequency	All input types	---	200	---	KHz
Shell material	Achieve UL94-V0	6-Side Metal			

ABSOLUTE MAXIMUM RATINGS

Short-circuit protection		Continue , Self Recovery
Lead temperature 1.5mm from case for 10 seconds		300°C
Internal power dissipation	RLDJ15 Series	<1.5W

PACKAGE SPECIFICATIONS

MECHANICAL DIMENSIONS

All dimensions in inches ± 0.01 (mm ± 0.25 mm). All pins on a 0.1 (2.54) pitch and within ± 0.01 (0.25) of true position.

PIN CONNECTIONS

Pin	Function	
	Single	Bipolar
1	-Vin	-Vin
2	+Vin	+Vin
3	+Vout	+Vout
4	No Pin	COM
5	-Vout	-Vout
6*	CTRL	CTRL

Notes:***Option

RECOMMENDED FOOTPRINT DETAILS

6 Through Holes $\varnothing 1.5(0.059)$

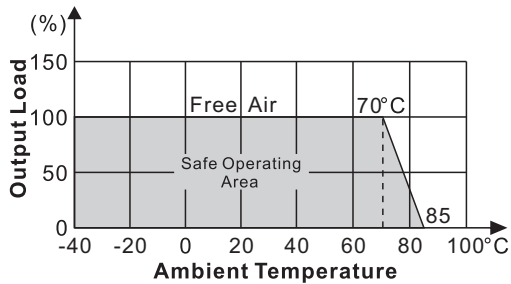
Top View

TUBE OUTLINE DIMENSIONS

Unless otherwise stated all dimensions in inches (mm) ± 0.5 mm.
Tube Length : 20.47(520mm ± 2 mm) Tube Quantity : 18PCS

*CTRL:You can option positive & negative polarity. If you have any questions,please visit www.rodtech.cn or contact us.

TEMPERATURE DERATING GRAPHS



PART NUMBER STRUCTURE

RRD15-Q05S05B

- Product Series (Package): R:Regulated RD:Rectangle DIP
- Rated Output Power: 15=15Watt
- Input Voltage: Q24=9~36Vdc Q48=18~72Vdc
- Output Type: S=Single
- Isolated Voltage: B=1500Vdc
- Output Voltage: 03=3.3Vdc 05=5Vdc 12=12Vdc 15=15Vdc

KEY FEATURES

- ◆ RoHS Compliant
- ◆ AC Or DC Wide Voltage Input
- ◆ Single ,Bipolar & Dual Output
- ◆ 2000VAC Basic Isolation(1Minute)
- ◆ Efficiency Up To 86%
- ◆ Over Current Protect
- ◆ Continues Short Circuit Protect
- ◆ Operating Temperature Range -25°C To +70°C
- ◆ Small Size Plastic Shell
- ◆ UL 94V-0 Package Material
- ◆ No-load Loss As Low As 50mW



SELECTION GUIDE

Order Code	Input Voltage		Output Voltage	Output Current	Efficiency	Output Capacitive	
	Nominal	Range				C1,C3	C2,C4
	VAC					uF	
RRA5-W220S05A	220	85~265	5	1	82%	330/16V	0.1/25V
RRA5-W220S12A	220	85~265	12	0.42	85%	220/25V	0.1/25V
RRA5-W220S15A	220	85~265	15	0.33	86%	220/25V	0.1/25V
RRA5-W220S24A	220	85~265	24	0.21	86%	100/35V	0.1/35V
RRA5-W220B05A	220	85~265	±5	±0.5	78%	220/16V	0.1/25V
RRA5-W220B12A	220	85~265	±12	±0.21	79%	100/25V	0.1/25V
RRA5-W220B15A	220	85~265	±15	±0.17	79%	100/25V	0.1/25V
RRA5-W220D0505A	220	85~265	5/5	0.2/0.8	75%	330/16V	0.1/25V
RRA5-W220D0512A	220	85~265	12/5	0.2/0.5	76%	220/25V	0.1/25V
RRA5-W220D0515A	220	85~265	15/5	0.2/0.4	76%	220/25V	0.1/25V
RRA5-W220D0524A	220	85~265	24/5	0.1/0.5	76%	100/35V	0.1/35V

All specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified.

INPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Starting Voltage	High Vin to Low Vin,0~100% Load	85	----	265	Vac
	High Vin to Low Vin,0~100% Load	100	----	380	Vdc
Starting Time	Output Voltage Rise 5%~100%	20	----	----	mS
Frequency		47	----	63	Hz

OUTPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Rated Power	TA=-25°C to +70°C, Full Load	----	----	5	W
Voltage Set Point Accuracy	10%-100% Load, Vin=Rated Input	----	±1	±3	%
Line Regulation	High Vin to Low Vin, 10%-100% Load	----	±0.5	±1	
Load Regulation	10%-100% Load, All Output Types(First Output)	----	±1	±3	
	10%-100% Load, Bipolar Output Types(Second Output)	----	±1	±2	
Ripple & Noise	10%-100% Load, Dual Output Types(Second Output)	----	±0.5	±1	
	BW=DC to 20MHz, Output Voltage <9V Types	----	50	60	mV p-p
	BW=DC to 20MHz, 12V & 15V Output Types	----	50	120	
BW=DC to 20MHz, 24V Output Types	----	100	200		
Over Current Protection	High Vin to Low Vin	120% Rated Max Current, Auto-Recovery			
Transient Overshoot Scope	25%-50%-25%;50%-75%-50%;75%-100%-75%Load	----	----	±5	%
Transient Recovery Time	25%-50%-25%;50%-75%-50%;75%-100%-75%Load	----	----	400	uS

ABSOLUTE MAXIMUM RATINGS

Short-circuit protection	Continue, Self Recovery
Lead temperature 1.5mm from case for 10 seconds	300°C
Internal power dissipation	<50mW

ISOLATION CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation test voltage	Input-Output, 1 Minute, Leakage Current<2mA	2000	----	----	VAC
	Input-Shell, 1 Minute, Leakage Current<2mA	2000	----	----	
	Output-Shell, 1 Minute, Leakage Current<2mA	500	----	----	
Resistance	Viso= 500VDC	100	----	----	MΩ

TEMPERATURE CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Storage Humidity	All output types	25	----	95	%
Specification Temperature	All output types, without derating	-25	----	+70	°C
Storage Temperature	All output types	-30	----	+105	
Case temperature	All output types	----	----	95	
Temperature drift ratio	All output types	----	0.02	----	%/°C
Cooling	Free air convection				

GENERAL CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Switching frequency	All input types	----	65	----	KHz
Shell material	Achieve UL94-V0	Black Flame Plastic			

TEMPERATURE DERATING GRAPHS	PART NUMBER STRUCTURE
	<p>RRA5-W220S05A</p> <ul style="list-style-type: none"> Product Series (Package): RRA:AC Input DIP Package Rated Output Power: 5=5Watt Input Voltage: W220=85~265Vac Output Type: S=Single, B=Bipolar, D=Dual Isolated Voltage: A=2000Vac Output Voltage: 05=5Vdc, 12=12Vdc, 15=15Vdc, 24=24Vdc 0505=5Vdc & 5Vdc, 0512=5Vdc & 12Vdc, 0515=5Vdc & 15Vdc, 0524=5Vdc & 24Vdc

APPLICATION NOTES

Recommended Circuit

Single

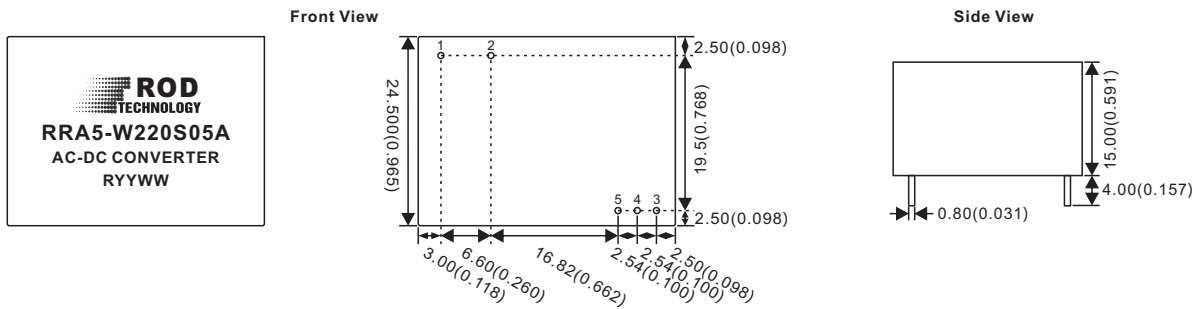
Bipolar

Notes:

- Suggest C1&C3 using high frequency & low resistance capacitors, capacitance pressure drop frontal is 80%, the value is 10~47uF;
- C2&C4 use ceramic capacitors, the value is 0.1uF.

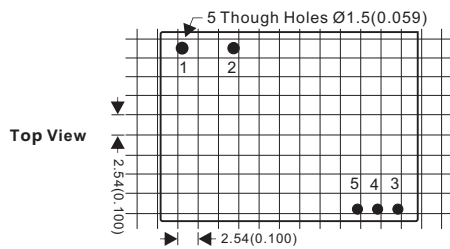
PACKAGE SPECIFICATIONS

MECHANICAL DIMENSIONS



All dimensions in inches ± 0.01 (mm ± 0.25 mm). All pins on a 0.1 (2.54) pitch and within ± 0.01 (0.25) of true position.

RECOMMENDED FOOTPRINT DETAILS



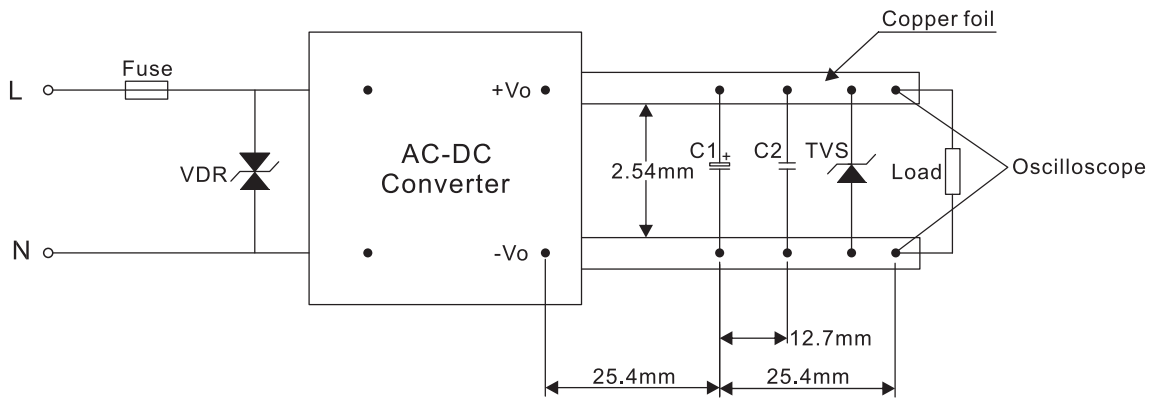
PIN CONNECTIONS

Pin	Function		
	Single	Bipolar	Dual
1	AC-L	AC-L	AC-L
2	AC-N	AC-N	AC-N
3	+Vout	+Vout	+Vout1
4	NC	COM	COM
5	-Vout	-Vout	+Vout2

Weight: 30g

If you have any questions, please visit www.rodtech.cn, or contact us.

RIPPLE & NOISE TEST



C1:47uF Electrolytic capacitor;C2:0.1uF MKP capacitor
TVS:3.3V P6KE6.8A/5V P6KE7.5A/12V P6KE18A/15V P6KE22A/24V P6KE33A

RoHS COMPLIANCE INFORMATION



This series is compatible with RoHS soldering systems with a peak wave solder temperature of 300°C for 10 seconds. The pin termination finish on the DIP package type is Tin Plate, Hot Dipped over Matte Tin with Nickel Preplate.



KEY FEATURES

- ◆ Designed For Power Industry Applications
- ◆ The Rated Output Power Of Up To 15W
- ◆ Input Voltage:90~265VAC
- ◆ Output Voltage:+12V,+24V or +36Vdc
- ◆ Efficiency Up To 87%
- ◆ Isolation Voltage > 3000VAC/1min/5mA
- ◆ Output Over Current & Output Short Current Protection
- ◆ Free Air Cooling
- ◆ 1-Years Product Warranty
- ◆ Dimension: 88(L) x 37(W) x 59(H) mm

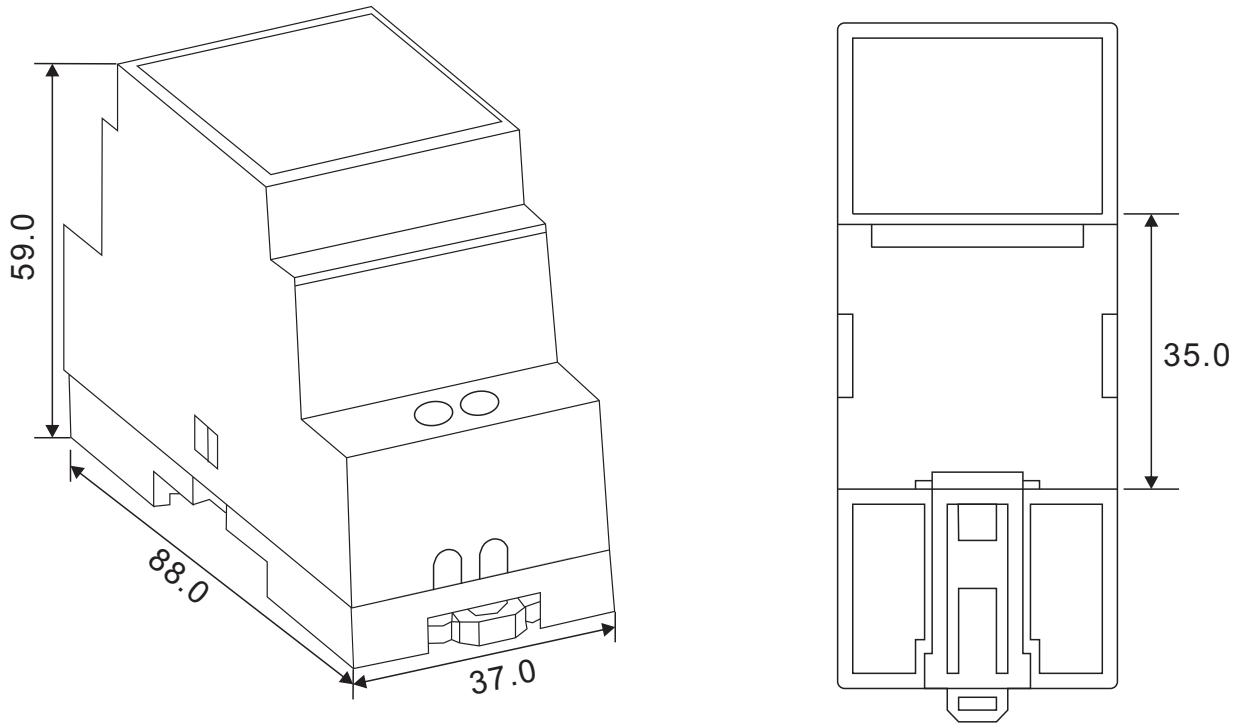
ELECTRICAL SPECIFICATIONS

Model No.		RPB15-W220S12B	RPB15-W220S24B	RPB15-W220S36B	Units
Input	Rating Voltage	220			VAC
	Voltage Range	90~265			VAC
	Frequency	47~63			Hz
	Current(Full Load)	<1.0			A
	Power Factor(Full Load at 220VAC)	>0.5			
Output	Inrush Current(at 220VAC /Cold start)	<5 / Full Load			A
	Rating Voltage	12	24	36	VDC
	Voltage Range	12.0~12.6	24.0~24.6	36.0~36.6	VDC
	Minimum Current	0	0	0	A
	Maximum Current	1.25	0.63	0.42	A
	Line Regulation(Max)	±1	±1	±1	%
	Load Regulation(Max)	±1	±1	±1	%
	Ripple&Noise*(Max)	100	150	200	mVp-p
	Efficiency (at 220VAC / Full Load)	>84	>86	>87	%
Hold-Up Time (at 230VAC / Full Load)	15			mS	
Protection	Overshoot at Turn-on and Turn-off	<10%Vo			
	Output Over Current Protection	Automatic Power Limited			
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery			
Isolation Voltage	Input-Output	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)			
	Input-Earth	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)			
	Output-Earth	500VAC/<5mA/60S (Without Arcing, Without Breakdown)			
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)			
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Leakage Current(Vin=220Vac,50Hz)	≤3mA			
Environment	Operating Temperature	-40°C~+70°C(See Derating Graphs)			
	Storage Temperature	-55°C~+105°C			
	Altitude	≤3000M			
	Humidity	10%~90% RH			
Physical	Case Material	Option Aluminum			
	Vibration Testing	20G,5~100Hz,3axes			
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)			
	Dimension	88(L) x 37(W) x 59(H) mm			
	Weight	230g			
	Cooling Method	Free Air Cooling			
Safety	Agency Approvals	Design Refer To EN60950,CE			
EMC	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A			
	EMS(Noise Immunity)	Design Refer To EN 55024			
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11			

Notes :

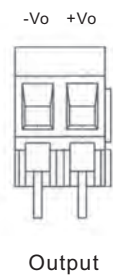
1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS



Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.

INTERFACE DEFINITION





KEY FEATURES

- ◆ Designed For Power Industry Applications
- ◆ The Rated Output Power Of Up To 60W
- ◆ Input Voltage:90~265VAC
- ◆ Output Voltage:+12V,+24V, +48V or +60Vdc
- ◆ Efficiency Up To 90%
- ◆ Isolation Voltage > 3000VAC/1min/5mA
- ◆ Output Over Current & Output Short Current Protection
- ◆ Free Air Cooling
- ◆ 2-Years Product Warranty
- ◆ Dimension: 110(L) x 48(W) x 75(H) mm

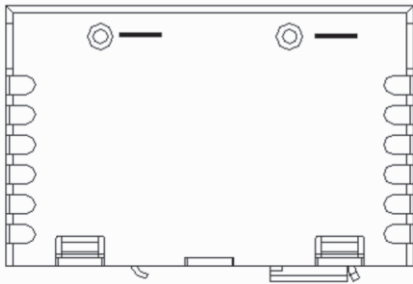
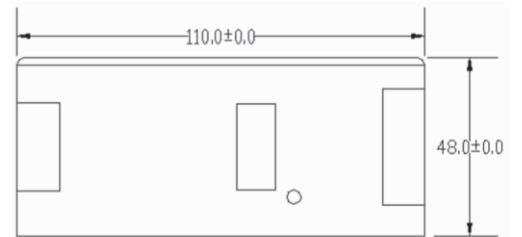
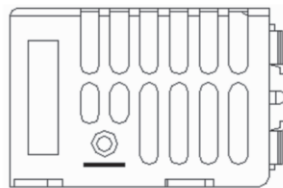
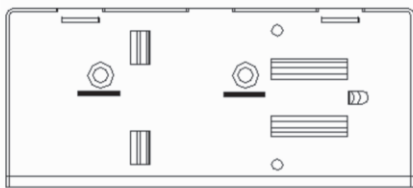
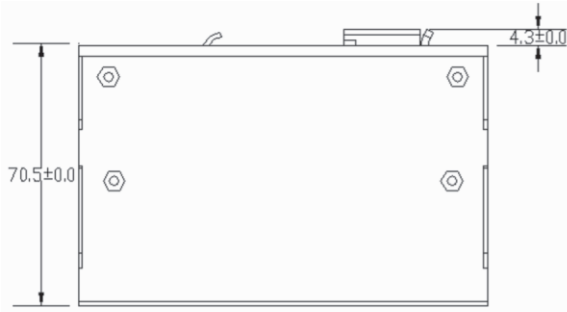
ELECTRICAL SPECIFICATIONS

Model No.		RP60-W220S12B	RP60-W220S24B	RP60-W220S48B	RP60-W220S60B	Units
Input	Rating Voltage	220(110~240)				VAC
	Voltage Range	90~265				VAC
	Frequency	47~63				Hz
	Current(Full Load)	<1.5				A
	Power Factor	>0.5				
Output	Inrush Current(at 220VAC /Cold start)	<5 / Full Load				A
	Rating Voltage	12	24	48	60	VDC
	Voltage Range	11.8~12.2	23.5~24.5	47.5~48.5	59.5~60.5	VDC
	Trim	±10				%
	Minimum Current	0	0	0	0	A
	Maximum Current	5.0	2.5	1.25	1.0	A
	Line Regulation(Max)	±1	±1	±1	±1	%
	Load Regulation(Max)	±1	±1	±1	±1	%
	Ripple&Noise*(Max)	50	120	200	200	mVp-p
	Efficiency (at 220VAC / Full Load)	>85	>87	>88	>90	%
Hold-Up Time (at 230VAC / Full Load)	15				mS	
Protection	Overshoot at Turn-on and Turn-off	<10%Vo				
	Output Over Current Protection	Automatic Power Limited				
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery				
Isolation Voltage	Input-Output	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)				
	Input-Earth	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)				
	Output-Earth	500VAC/<5mA/60S (Without Arcing, Without Breakdown)				
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)				
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)				
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)				
	Leakage Current(Vin=220Vac,50Hz)	≤3mA				
Environment	Operating Temperature	-40°C~+70°C(See Derating Graphs)				
	Storage Temperature	-55°C~+105°C				
	Altitude	≤3000M				
	Humidity	10%~90% RH				
Physical	Case Material	Aluminium and Iron				
	Vibration Testing	20G,5~100Hz,3axes				
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)				
	Dimension	110(L) x 48(W) x 75(H) mm				
	Weight	400g				
	Cooling Method	Free Air Cooling				
Safety	Agency Approvals	Design Refer To EN60950,CE				
EMC	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A				
	EMS(Noise Immunity)	Design Refer To EN 55024				
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11				

Notes :

- 1.All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
- 2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS



Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.



KEY FEATURES

- ◆ Designed For Power Industry Applications
- ◆ The Rated Output Power Of Up To 120W
- ◆ Input Voltage:90~265VAC
- ◆ Output Voltage:+12V,+24V, +48V or +60Vdc
- ◆ Efficiency Up To 91%
- ◆ Isolation Voltage > 3000VAC/1min/5mA
- ◆ Output Over Current & Output Short Current Protection
- ◆ Free Air Cooling
- ◆ 2-Years Product Warranty
- ◆ Dimension: 110(L) x 48(W) x 90(H) mm

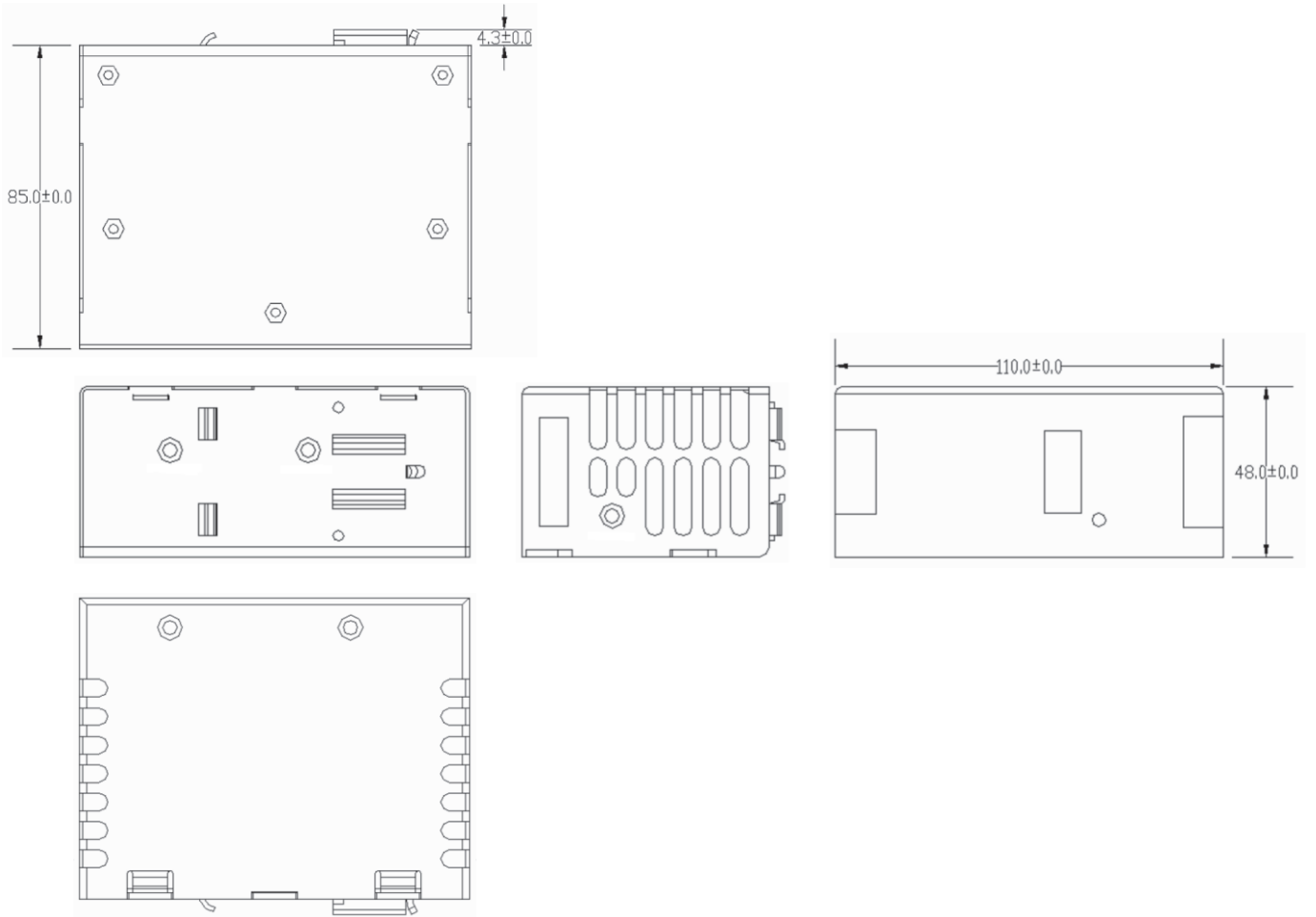
ELECTRICAL SPECIFICATIONS

Model No.		RP120-W220S12B	RP120-W220S24B	RP120-W220S48B	RP120-W220S60B	Units
Input	Rating Voltage	220(110~240)				VAC
	Voltage Range	90~265				VAC
	Frequency	47~63				Hz
	Current(Full Load)	<1.5				A
	Power Factor	>0.5				
Output	Inrush Current(at 220VAC /Cold start)	<5 / Full Load				A
	Rating Voltage	12	24	48	60	VDC
	Voltage Range	11.8~12.2	23.5~24.5	47.5~48.5	59.5~60.5	VDC
	Trim	±10				%
	Minimum Current	0	0	0	0	A
	Maximum Current	10.0	5.0	2.50	2.0	A
	Line Regulation(Max)	±1	±1	±1	±1	%
	Load Regulation(Max)	±1	±1	±1	±1	%
	Ripple&Noise*(Max)	50	120	200	200	mVp-p
	Efficiency (at 220VAC / Full Load)	>86	>88	>90	>91	%
Hold-Up Time (at 230VAC / Full Load)	20				mS	
Protection	Overshoot at Turn-on and Turn-off	<10%Vo				
	Output Over Current Protection	Automatic Power Limited				
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery				
Isolation Voltage	Input-Output	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)				
	Input-Earth	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)				
	Output-Earth	500VAC/<5mA/60S (Without Arcing, Without Breakdown)				
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)				
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)				
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)				
	Leakage Current(Vin=220Vac,50Hz)	≤3mA				
Environment	Operating Temperature	-40°C~+70°C(See Derating Graphs)				
	Storage Temperature	-55°C~+105°C				
	Altitude	≤3000M				
	Humidity	10%~90% RH				
Physical	Case Material	Aluminium and Iron				
	Vibration Testing	20G,5~100Hz,3axes				
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)				
	Dimension	110(L) x 48(W) x 90(H) mm				
	Weight	500g				
	Cooling Method	Free Air Cooling				
Safety	Agency Approvals	Design Refer To EN60950,CE				
EMC	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A				
	EMS(Noise Immunity)	Design Refer To EN 55024				
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11				

Notes :

1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS



Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.



KEY FEATURES

- ◆ Designed For Power Industry Applications
- ◆ The Rated Output Power Of Up To 30W
- ◆ Input Voltage:90~265VAC
- ◆ Output Voltage:+5V,+12V or +24Vdc
- ◆ Efficiency Up To 86%
- ◆ Isolation Voltage > 3000VAC/1min/5mA
- ◆ Output Over Current & Output Short Current Protection
- ◆ Free Air Cooling
- ◆ 1-Years Product Warranty
- ◆ Dimension: 112(L) x 56(W) x 32(H) mm

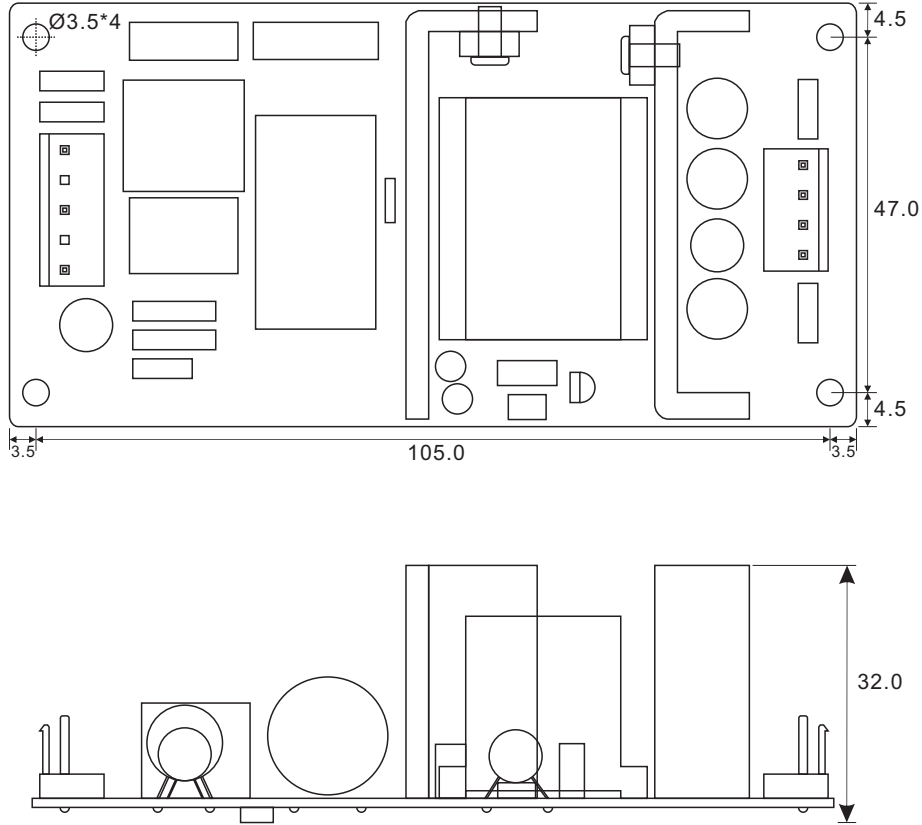
ELECTRICAL SPECIFICATIONS

Model No.		RPA30-W220S05B	RPA30-W220S12B	RPA30-W220S24B	Units
Input	Rating Voltage	220			VAC
	Voltage Range	90~265			VAC
	Frequency	47~63			Hz
	Current(Full Load)	<1.0			A
	Power Factor	>0.5			
Output	Inrush Current(at 220VAC /Cold start)	<5 / Full Load			A
	Rating Voltage	5	12	24	VDC
	Voltage Range	4.9~5.1	11.8~12.2	23.5~24.5	VDC
	Minimum Current	0	0	0	A
	Maximum Current	6.0	2.5	1.25	A
	Line Regulation(Max)	±1	±1	±1	%
	Load Regulation(Max)	±1	±1	±1	%
	Ripple&Noise*(Max)	50	120	200	mVp-p
	Efficiency (at 220VAC / Full Load)	>83	>85	>86	%
Hold-Up Time (at 230VAC / Full Load)	15			mS	
Protection	Overshoot at Turn-on and Turn-off	<10%Vo			
	Output Over Current Protection	Automatic Power Limited			
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery			
Isolation Voltage	Input-Output	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)			
	Input-Earth	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)			
	Output-Earth	500VAC/<5mA/60S (Without Arcing, Without Breakdown)			
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)			
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Leakage Current(Vin=220Vac,50Hz)	≤3mA			
Environment	Operating Temperature	-40°C~+70°C(See Derating Graphs)			
	Storage Temperature	-55°C~+105°C			
	Altitude	≤3000M			
	Humidity	10%~90% RH			
Physical	Case Material	Option Aluminum			
	Vibration Testing	20G,5~100Hz,3axes			
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)			
	Dimension	112(L) x 56(W) x 32(H) mm			
	Weight	230g			
	Cooling Method	Free Air Cooling			
Safety	Agency Approvals	Design Refer To EN60950,CE			
EMC	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A			
	EMS(Noise Immunity)	Design Refer To EN 55024			
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11			

Notes :

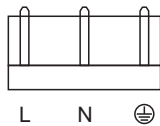
1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS

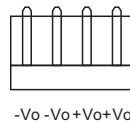
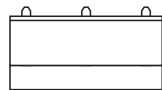


Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.

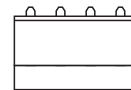
INTERFACE DEFINITION



Input
3.96-5P



-Vo -Vo +Vo +Vo



Output
3.96-4P



KEY FEATURES

- ◆ Designed For Power Industry Applications
- ◆ The Rated Output Power Of Up To 60W
- ◆ Input Voltage:90~265VAC
- ◆ Output Voltage:+5V,+12V or +24Vdc
- ◆ Efficiency Up To 87%
- ◆ Isolation Voltage > 3000VAC/1min/5mA
- ◆ Output Over Current & Output Short Current Protection
- ◆ Free Air Cooling
- ◆ 1-Years Product Warranty
- ◆ Dimension: 112(L) x 56(W) x 32(H) mm

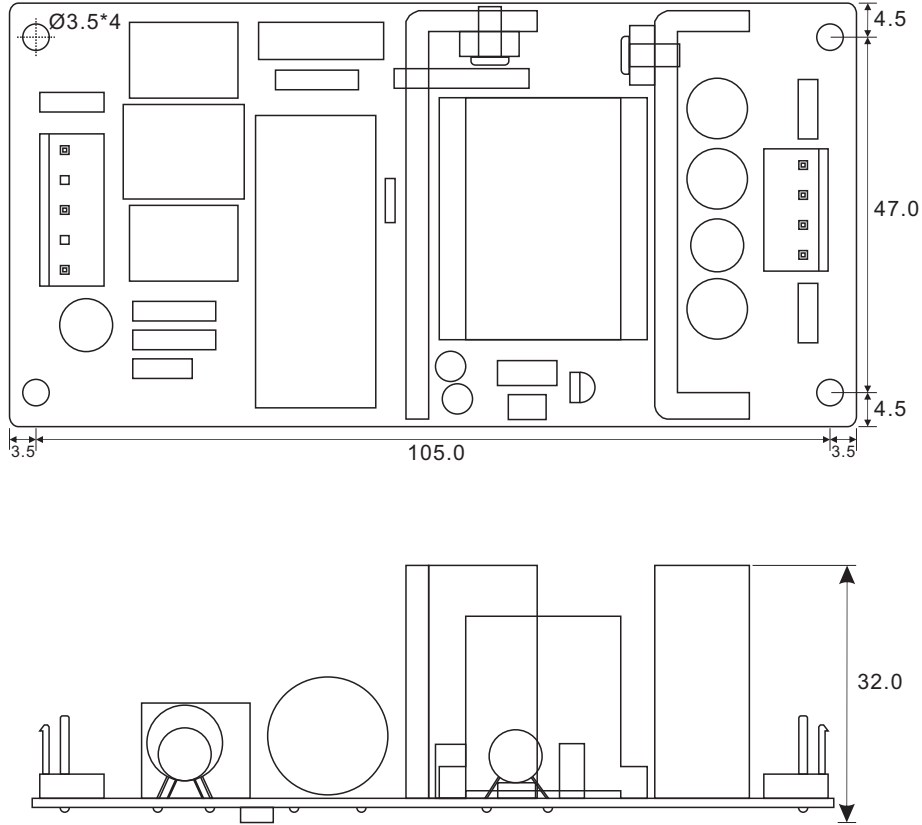
ELECTRICAL SPECIFICATIONS

Model No.		RPA60-W220S05B	RPA60-W220S12B	RPA60-W220S24B	Units
Input	Rating Voltage	220			VAC
	Voltage Range	90~265			VAC
	Frequency	47~63			Hz
	Current(Full Load)	<1.0			A
	Power Factor	>0.5			
Output	Inrush Current(at 220VAC /Cold start)	<5 / Full Load			A
	Rating Voltage	5	12	24	VDC
	Voltage Range	4.9~5.1	11.8~12.2	23.5~24.5	VDC
	Minimum Current	0	0	0	A
	Maximum Current	12.0	5.0	2.5	A
	Line Regulation(Max)	±1	±1	±1	%
	Load Regulation(Max)	±1	±1	±1	%
	Ripple&Noise*(Max)	50	120	200	mVp-p
	Efficiency (at 220VAC / Full Load)	>82	>85	>87	%
Hold-Up Time (at 230VAC / Full Load)	15			mS	
Protection	Overshoot at Turn-on and Turn-off	<10%Vo			
	Output Over Current Protection	Automatic Power Limited			
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery			
Isolation Voltage	Input-Output	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)			
	Input-Earth	3000VAC/<5mA/60S (Without Arcing, Without Breakdown)			
	Output-Earth	500VAC/<5mA/60S (Without Arcing, Without Breakdown)			
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)			
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Leakage Current(Vin=220Vac,50Hz)	≤3mA			
Environment	Operating Temperature	-40°C~+70°C(See Derating Graphs)			
	Storage Temperature	-55°C~+105°C			
	Altitude	≤3000M			
	Humidity	10%~90% RH			
Physical	Case Material	Option Aluminum			
	Vibration Testing	20G,5~100Hz,3axes			
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)			
	Dimension	112(L) x 56(W) x 32(H) mm			
	Weight	230g			
	Cooling Method	Free Air Cooling			
Safety	Agency Approvals	Design Refer To EN60950,CE			
EMC	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A			
	EMS(Noise Immunity)	Design Refer To EN 55024			
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11			

Notes :

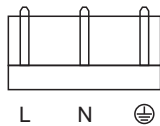
1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS

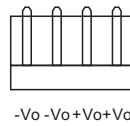
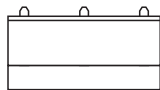


Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.

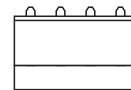
INTERFACE DEFINITION



Input
3.96-5P



-Vo -Vo +Vo +Vo



Output
3.96-4P



KEY FEATURES

- ◆ Designed For Power Industry Applications
- ◆ The Rated Output Power Up To 60W
- ◆ Input Voltage:90~265VAC
- ◆ Output Voltage:+5V,+12V or +24Vdc
- ◆ Efficiency Up To 87%
- ◆ Isolation Voltage \geq 4000VAC(1min/1mA)
- ◆ Output Over Current & Output Short Current Protection
- ◆ Free Air Cooling
- ◆ 2-Years Product Warranty
- ◆ Dimension: 141(L) x 56(W) x 32(H) mm

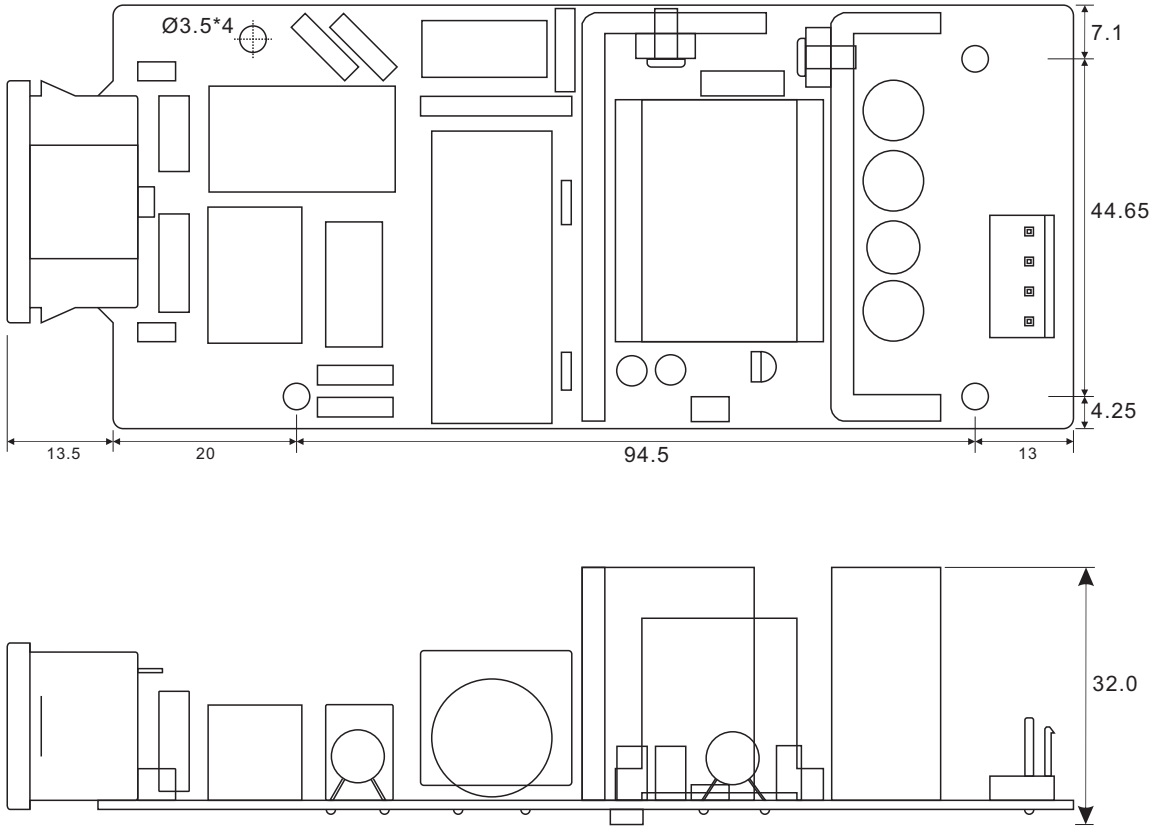
ELECTRICAL SPECIFICATIONS

Model No.		RPD60-W220S05D	RPD60-W220S12D	RPD60-W220S24D	Units
Input	Rating Voltage	220			VAC
	Voltage Range	90~265			VAC
	Frequency	47~63			Hz
	Current(Full Load)	<1.0			A
	Power Factor(Full Load)	>0.5			
Output	Inrush Current(at 220VAC /Cold start)	<5 / Full Load			A
	Rating Voltage	5	12	24	VDC
	Voltage Range	4.9~5.1	11.8~12.2	23.5~24.5	VDC
	Minimum Current	0	0	0	A
	Maximum Current	12.0	5.0	2.5	A
	Line Regulation(Max)	± 1	± 1	± 1	%
	Load Regulation(Max)	± 1	± 1	± 1	%
	Ripple&Noise*(Max)	50	120	200	mVp-p
	Efficiency (at 220VAC / Full Load)	>82	>85	>87	%
Hold-Up Time (at 230VAC / Full Load)	15			mS	
Protection	Overshoot at Turn-on and Turn-off	<10%Vo			
	Output Over Current Protection	Automatic Power Limited			
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery			
Isolation Voltage	Input-Output	4000VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Input-Earth	1500VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Output-Earth	500VAC/<1mA/60S (Without Arcing, Without Breakdown)			
Isolation Resistance	Input-Output	$\geq 10M\Omega$ (Isolation Voltage 500Vdc)			
	Input-Earth	$\geq 10M\Omega$ (Isolation Voltage 500Vdc)			
	Output-Earth	$\geq 10M\Omega$ (Isolation Voltage 500Vdc)			
	Leakage Current(Vin=220Vac,50Hz)	$\leq 1mA$			
Environment	Operating Temperature	-40°C~+70°C(See Derating Graphs)			
	Storage Temperature	-55°C~+105°C			
	Altitude	$\leq 3000M$			
	Humidity	10%~90% RH			
Physical	Case Material	Option Aluminum			
	Vibration Testing	20G,5~100Hz,3axes			
	MTBF	≥ 100000 Hr @ 25°C (MIL-HDBK-217F)			
	Dimension	141(L) x 56(W) x 32(H) mm			
	Weight	240g			
	Cooling Method	Free Air Cooling			
Safety	Agency Approvals	Design Refer To EN60950,CE			
EMC	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A			
	EMS(Noise Immunity)	Design Refer To EN 55024			
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11			

Notes :

1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS

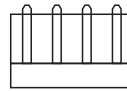


Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.

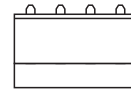
INTERFACE DEFINITION



Input
3Pin



-Vo -Vo +Vo +Vo



Output
3.96-4P



KEY FEATURES

- ◆ Designed For Power Industry Applications
- ◆ The Rated Output Power Of Up To 120W
- ◆ Input Voltage:90~265VAC
- ◆ Output Voltage:+20V,+24V or +48Vdc
- ◆ Efficiency Up To 91%
- ◆ Isolation Voltage > 4000VAC/1min/1mA
- ◆ Output Over Current & Output Short Circuit Protection
- ◆ Free Air Cooling
- ◆ 1-Years Product Warranty
- ◆ Dimension: 141.6(L) x 78.1(W) x 30(H) mm

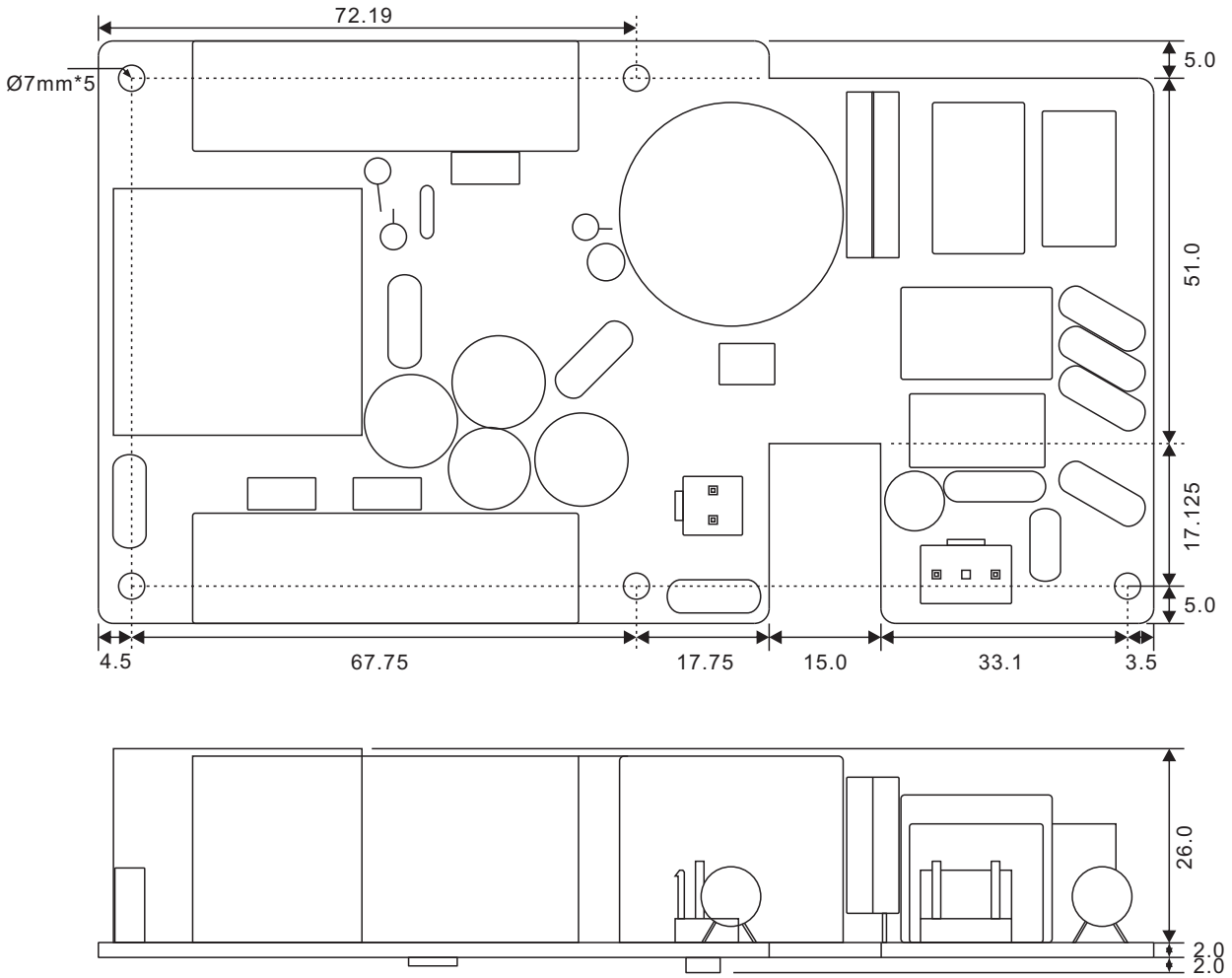
ELECTRICAL SPECIFICATIONS

Model No.		RPA120-W220S20B	RPA120-W220S24B	RPA120-W220S48B	Units
Input	Rating Voltage	220			VAC
	Voltage Range	90~265			VAC
	Frequency	47~63			Hz
	Current(Full Load)	<1.0			A
	Power Factor	>0.5			
	Inrush Current(at 220VAC /Cold start)	<30 / Full Load			A
	Leakage Current	<1			mA
Output	Rating Voltage	20	24	48	VDC
	Voltage Range	20~20.5	24~24.5	48~49	VDC
	Minimum Current	0	0	0	A
	Maximum Current	6.0	5.0	2.5	A
	Line Regulation(Max)	±0.5	±0.5	±0.5	%
	Load Regulation(Max)	±1	±1	±1	%
	Ripple&Noise*(Max)	100	120	200	mVp-p
	Efficiency (at 220VAC / Full Load)	>85	>86	>88	%
	Hold-Up Time (at 230VAC / Full Load)	20			mS
Protection	Overshoot at Turn-on and Turn-off	<10%Vo			
	Output Over Current Protection	Auto Recovery, 130~160% Rated Output Current			
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery			
	Over Temperature Protection	Option(110°C±3°C)			
Isolation Voltage	Input-Output	4000VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Input-Earth	1500VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Output-Earth	500VAC/<1mA/60S (Without Arcing, Without Breakdown)			
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)			
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Leakage Current(Vin=220Vac,50Hz)	≤1mA			
Environment	Operating Temperature	-25°C~+70°C(See Derating Graphs)			
	Storage Temperature	-40°C~+105°C			
	Altitude	≤3000M			
	Humidity	10%~90% RH			
Physical	Case Material	Option Aluminum			
	Vibration Testing	20G,5~100Hz,3axes			
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)			
	Dimension	141.6(L) x 78.1(W) x 30(H) mm			
	Weight	400g			
	Cooling Method	Free Air Cooling			
Safety	Agency Approvals	Design Refer To EN60950, CE, YY0505			
EMC	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A, YY0505			
	EMS(Noise Immunity)	Design Refer To EN 55024, YY0505			
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A, EN61000-3-3, IEC61000-4-2/3/4/5/6/8/11			

Notes :

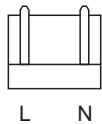
1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS

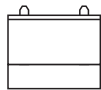


Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.

INTERFACE DEFINITION



L N



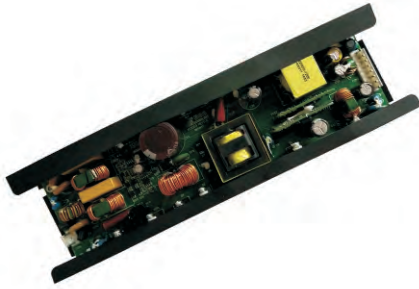
Input
3.96-3P



+Vo -Vo



Output
3.96-2P



KEY FEATURES

- ◆ EMI Filter
- ◆ The Rated Output Power Of Up To 180W
- ◆ Input Voltage:90~264VAC
- ◆ Output Voltage:+48V/+12V
- ◆ Efficiency Up To 89%
- ◆ Isolation Voltage > 3000VAC/1min/1mA
- ◆ Output Over Current & Output Short Circuit Protection
- ◆ Free Air Cooling
- ◆ 2-Years Product Warranty
- ◆ Dimension: 250(L) x 75(W) x 38(H) mm

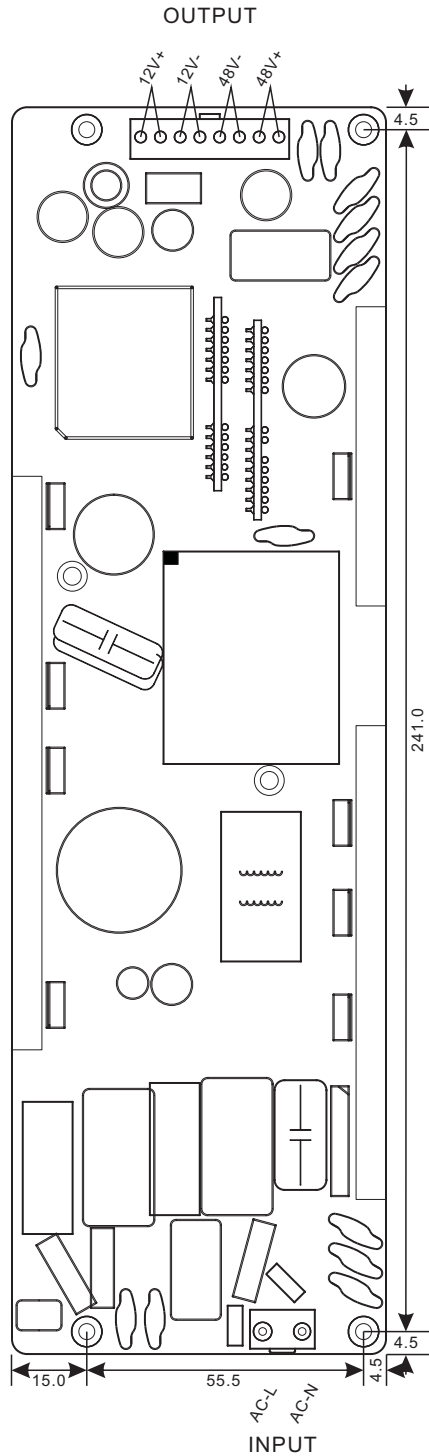
ELECTRICAL SPECIFICATIONS

Model No.		RPB150-W220D4812B		Units
Input	Rating Voltage	110~220		VAC
	Voltage Range	90~264		VAC
	Frequency	47~63		Hz
	Current(Full Load)	<2.5		A
	Power Factor(Full load)	>0.96		
	Inrush Current(at 220VAC /Cold start)	<40 / Full Load		A
	Leakage Current	<1		mA
Output	Rating Voltage(Vo1/Vo2)	+48/+12		VDC
	Trim Range			
	Minimum Current	0/0		A
	Maximum Current	2.5/3		A
	Line Regulation(Max)	±1/±1		%
	Load Regulation(Max)	±1/±1		%
	Ripple&Noise*(Max)	150/100		mVp-p
	Efficiency (at 220VAC / Full Load)	>89		%
Hold-Up Time (at 230VAC / Full Load)	>20		mS	
Protection	Output Over Current Protection	Auto Recovery,120~150% Rated Output Current		
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery		
	Over Temperature Protection	Option(110°C±5°C)		
Isolation Voltage	Input-Output	3000VAC/<1mA/60S (Without Arcing, Without Breakdown)		
	Input-Earth	1500VAC/<1mA/60S (Without Arcing, Without Breakdown)		
	Output-Earth	500VAC/<0.5mA/60S (Without Arcing, Without Breakdown)		
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)		
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)		
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)		
	Leakage Current(Vin=220Vac,50Hz)	≤1mA		
Environment	Operating Temperature	-25°C~+70°C(See Derating Graphs)		
	Storage Temperature	-40°C~+105°C		
	Altitude	≤3000M		
	Humidity	10%~90% RH		
	Case Material	Aluminum		
Physical	Vibration Testing	20G,5~100Hz,3axes		
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)		
	Dimension	250(L) x 75(W) x 38(H) mm		
	Weight	450g		
	Cooling Method	Free Air Cooling(See Derating Graphs)		
Safety	Agency Approvals	Design Refer To EN60950,CE,YY0505		
	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A,YY0505		
EMC	EMS(Noise Immunity)	Design Refer To EN 55024,YY0505		
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11		

Notes :

- 1.All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
- 2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS



Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.



KEY FEATURES

- ◆ EMI Filter
- ◆ The Rated Output Power Of Up To 120W
- ◆ Input Voltage:90~264VAC
- ◆ Output Voltage:+24V;+48V;+60V
- ◆ Efficiency Up To 88%
- ◆ Isolation Voltage > 3000VAC/1min/1mA
- ◆ Output Over Current & Output Short Circuit Protection
- ◆ Free Air Cooling
- ◆ 2-Years Product Warranty
- ◆ Dimension: 153(L) x 67(W) x 41(H) mm

ELECTRICAL SPECIFICATIONS

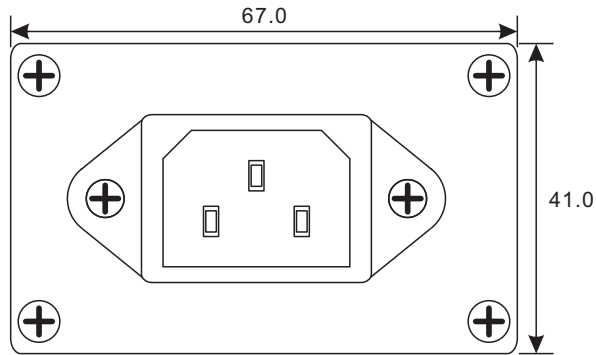
Model No.		RPC120-W220S24B	RPC120-W220S48B	RPC180-W220S60B	Units
Input	Rating Voltage	110~220			VAC
	Voltage Range	90~264			VAC
	Frequency	47~63			Hz
	Current(Full Load)	<1.6			A
	Power Factor(Full load)	>0.5			
	Inrush Current(at 220VAC /Cold start)	<40 / Full Load			A
	Leakage Current	<1			mA
Output	Rating Voltage(Vo1/Vo2)	+24	+48	+60	VDC
	Trim Range				
	Minimum Current	0/0			A
	Maximum Current	5	2.5	2	A
	Line Regulation(Max)	±1/±1			%
	Load Regulation(Max)	±1/±1			%
	Ripple&Noise*(Max)	150	200	200	mVp-p
	Efficiency (at 220VAC / Full Load)	>87	>87	>88	%
Hold-Up Time (at 230VAC / Full Load)	>20			mS	
Protection	Output Over Current Protection	Auto Recovery,120~150% Rated Output Current			
	Output Short Circuit Protection	Continue,No Damage, Auto Recovery			
	Over Temperature Protection	Option(110°C±5°C)			
Isolation Voltage	Input-Output	3000VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Input-Earth	1500VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Output-Earth	500VAC/<0.5mA/60S (Without Arcing, Without Breakdown)			
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)			
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Leakage Current(Vin=220Vac,50Hz)	≤1mA			
Environment	Operating Temperature	-25°C~+70°C(See Derating Graphs)			
	Storage Temperature	-40°C~+105°C			
	Altitude	≤3000M			
	Humidity	10%~90% RH			
	Case Material	Aluminum			
Physical	Vibration Testing	20G,5~100Hz,3axes			
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)			
	Dimension	153(L) x 67(W) x 41(H) mm			
	Weight	450g			
	Cooling Method	Free Air Cooling(See Derating Graphs)			
Safety	Agency Approvals	Design Refer To EN60950,CE,YY0505			
	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A,YY0505			
EMC	EMS(Noise Immunity)	Design Refer To EN 55024,YY0505			
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11			

Notes :

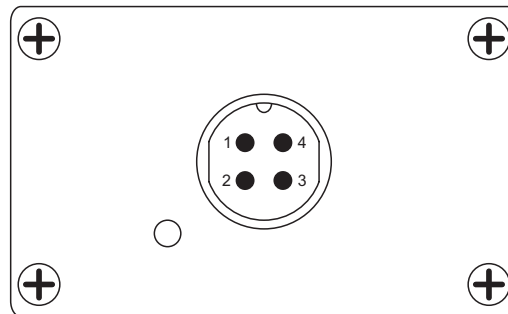
- 1.All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
- 2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS

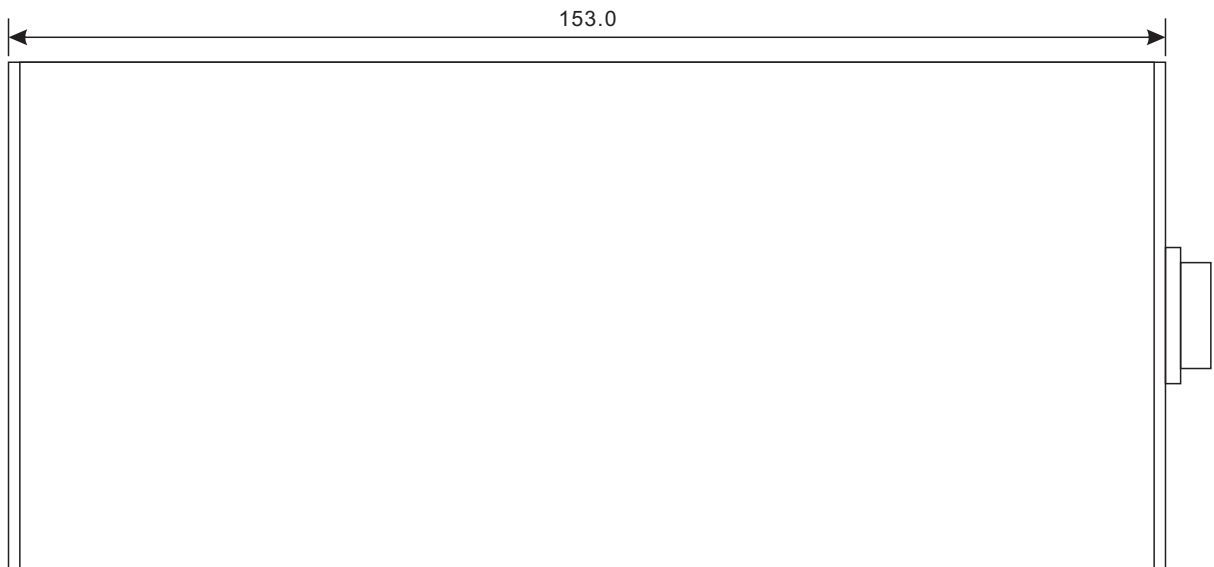
INPUT



OUTPUT



1	+Vo
2	-Vo
3	-Vo
4	+Vo



Notes: Dimensions are in mm, Tolerances are $\pm 0.5\text{mm}$.



KEY FEATURES

- ◆ EMI Filter
- ◆ The Rated Output Power Of Up To 180W
- ◆ Input Voltage:90~264VAC
- ◆ Output Voltage:+24V/+12V;+48V/+12V;+48V/+24V
- ◆ Efficiency Up To 87%
- ◆ Isolation Voltage > 3000VAC/1min/1mA
- ◆ Output Over Current & Output Short Circuit Protection
- ◆ Free Air Cooling
- ◆ 2-Years Product Warranty
- ◆ Dimension: 153(L) x 97(W) x 40(H) mm

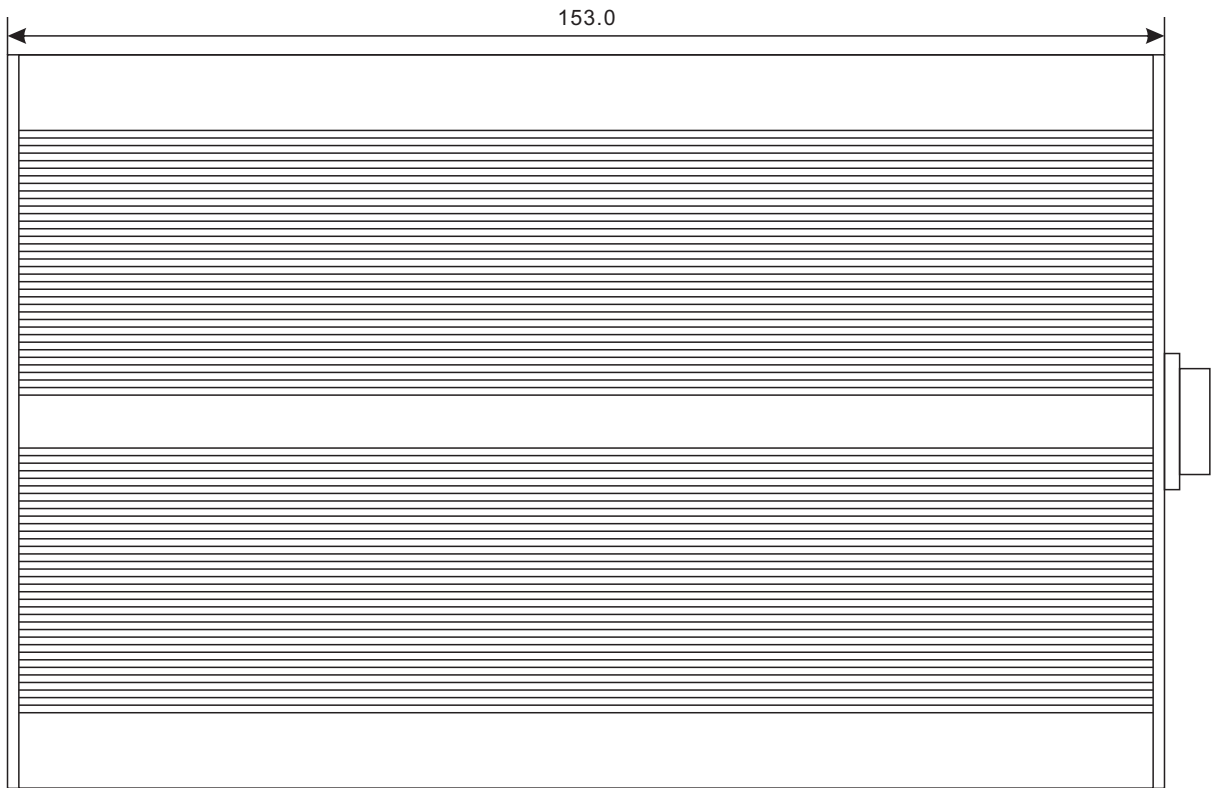
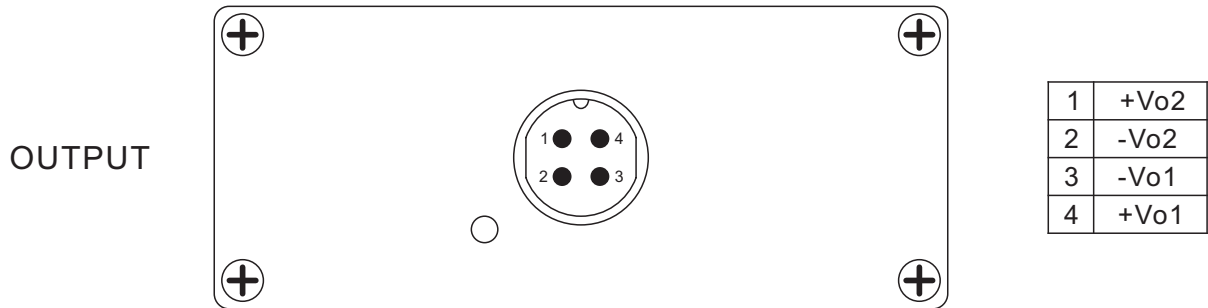
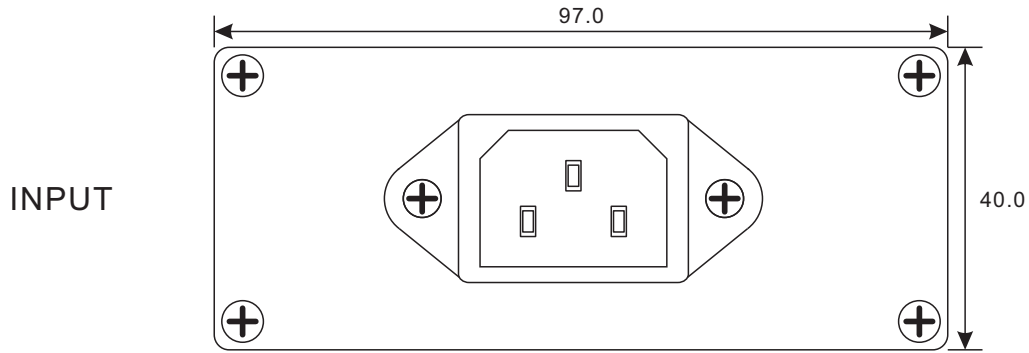
ELECTRICAL SPECIFICATIONS

Model No.		RPC180-W220D2412B	RPC180-W220D4812B	RPC180-W220D4824B	Units
Input	Rating Voltage	110~220			VAC
	Voltage Range	90~264			VAC
	Frequency	47~63			Hz
	Current(Full Load)	<2.5			A
	Power Factor(Full load)	>0.5			
	Inrush Current(at 220VAC /Cold start)	<40 / Full Load			A
	Leakage Current	<1			mA
Output	Rating Voltage(Vo1/Vo2)	+24/+12	+48/+12	+48/+24	VDC
	Trim Range				
	Minimum Current	0/0			A
	Maximum Current	5/5	2.5/5	2.5/2.5	A
	Line Regulation(Max)	±1/±1			%
	Load Regulation(Max)	±1/±1			%
	Ripple&Noise*(Max)	150/100	200/100	200/150	mVp-p
	Efficiency (at 220VAC / Full Load)	>85	>86	>87	%
Hold-Up Time (at 230VAC / Full Load)	>20			mS	
Protection	Output Over Current Protection	Auto Recovery,120~150% Rated Output Current			
	Output Short Circuit Protection	Continue,No Damage, Auto Recovery			
	Over Temperature Protection	Option(110°C±5°C)			
Isolation Voltage	Input-Output	3000VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Input-Earth	1500VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Output-Earth	500VAC/<0.5mA/60S (Without Arcing, Without Breakdown)			
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)			
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Leakage Current(Vin=220Vac,50Hz)	≤1mA			
Environment	Operating Temperature	-25°C~+70°C(See Derating Graphs)			
	Storage Temperature	-40°C~+105°C			
	Altitude	≤3000M			
	Humidity	10%~90% RH			
	Case Material	Aluminum			
Physical	Vibration Testing	20G,5~100Hz,3axes			
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)			
	Dimension	153(L) x 97(W) x 40(H) mm			
	Weight	750g			
	Cooling Method	Free Air Cooling(See Derating Graphs)			
Safety	Agency Approvals	Design Refer To EN60950,CE,YY0505			
	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A,YY0505			
EMC	EMS(Noise Immunity)	Design Refer To EN 55024,YY0505			
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11			

Notes :

- 1.All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
- 2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS



Notes: Dimensions are in mm, Tolerances are $\pm 0.5\text{mm}$.



KEY FEATURES

- ◆ Standard 1U Height Of Industrial Power
- ◆ The Maximum Output Power Of Up To 35W
- ◆ Input Voltage:90~264VAC
- ◆ Free Air Cooling
- ◆ Output Voltage:+5V/±12V;+5V/±15V;+7V/±12V;+7V/±15V;+12V/±5V
- ◆ Output Over Current & Output Short Current Protection
- ◆ Efficiency Up To 78%
- ◆ 2-Years Limited Warranty
- ◆ Dimension: 129(L) x 98(W) x 40(H) mm

SELECTION GUIDE

Model	Output Voltage	Output Current	Output Ripple&Noise	Line Regulation	Load Regulation	Cross Regulation	Efficiency
RPE35-W220T05B12B	+5V	1A	80mV	1%	1%	1%	75%
	±12V	±1.25A	120mV	1%	2%	5%	
RPE35-W220T05B15B	+5V	1A	80mV	1%	1%	1%	76%
	±15V	±1A	150mV	1%	2%	5%	
RPE35-W220T07B12B	+7V	1A	100mV	1%	1%	1%	76%
	±12V	±1.2A	120mV	1%	2%	5%	
RPE35-W220T07B15B	+7V	1V	100mV	1%	1%	1%	78%
	±15V	±1A	150mV	1%	2%	5%	
RPE35-W220T12B05B	+12V	1A	100mV	1%	1%	1%	74%
	±5V	±2.3A	80mV	1%	2%	5%	

ELECTRICAL SPECIFICATIONS

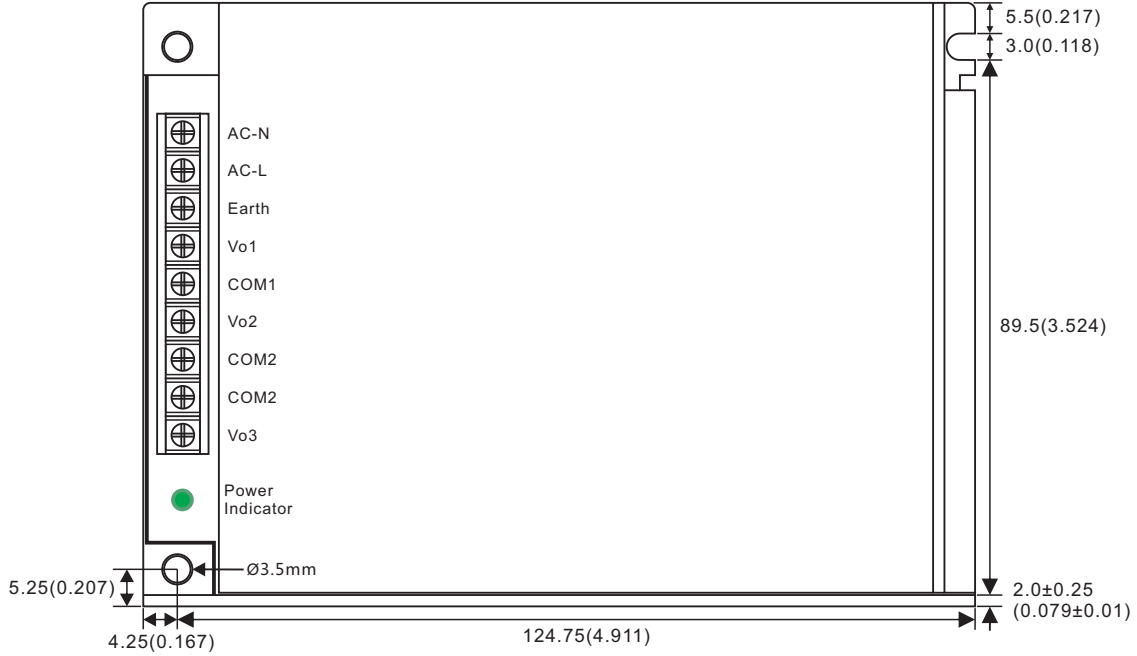
	Parameters	Content	Units
Input	Rating Voltage	220	VAC
	Voltage Range	90~264	VAC
	Frequency	47~63	Hz
	Current(Full Load)	<0.5	A
	Power Factor(Full Load)	>0.6	
	Inrush Current(at 220VAC /Cold start)	<20 / Full Load	A
Protection	Output Over Voltage Protection	5.6V(V _o =5V),8.1V(V _o =7V)	
	Output Over Current Protection	Auto Recovery, 110~130% Rated Output Current	
	Output Short Circuit Protection	Continue, No Damage, Auto-Recovery	
Isolation Voltage	Input-Output	3000VAC/<1mA/60S (Without Arcing, Without Breakdown)	
	Input-Earth	1500VAC/<1mA/60S (Without Arcing, Without Breakdown)	
	Output-Earth	500VAC/<0.5mA/60S (Without Arcing, Without Breakdown)	
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)	
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)	
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)	
Leakage Current	Vin=220Vac	≤500uA	
Environment	Operating Temperature	-25°C~+70°C(With Derating)	
	Storage Temperature	-40°C~+105°C	
	Altitude	≤3000M	
	Humidity	10%~90% RH	
Physical	Case Material	Ferroalloy & Aluminum	
	Vibration Testing	20G, 5~100Hz, 3axes	
	MTBF	≥300000 Hr @ 25°C (MIL-HDBK-217F)	
	Dimension	129(L) x 98(W) x 40(H) mm	
	Weight	320g	
	Cooling Method	Free Air Cooling	
Safety	Agency Approvals	Design Refer To EN60950, CE(Approvalled)	
EMC	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A	
	EMS(Noise Immunity)	Design Refer To EN 55024	
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A, EN61000-3-3, IEC61000-4-2/3/4/5/6/8/11	

Notes :

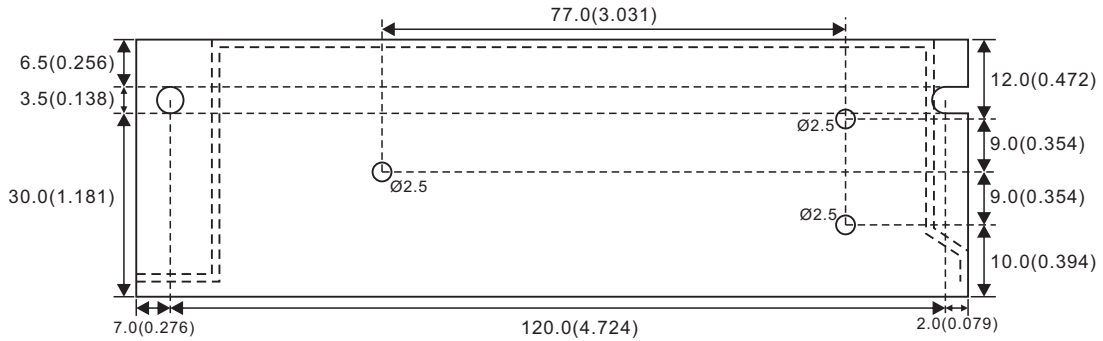
1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 10uF/50V(electrolytic capacitor).
3. Working long hours, the output current should not exceed the rated current.
4. This series isn't PFC function.

MECHANICAL SPECIFICATIONS

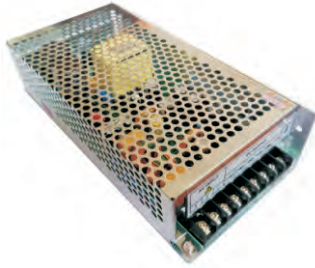
Top View



Side View



Notes: Dimensions are in mm(inch), Tolerances are $\pm 0.5\text{mm}$.



KEY FEATURES

- ◆ EMI Filter
- ◆ The Rated Output Power Of Up To 150W
- ◆ Input Voltage: 110VAC or 220VAC
- ◆ Output Voltage: ±12V; ±15V; ±24V
- ◆ Efficiency Up To 86%
- ◆ Isolation Voltage > 3000VAC/1min/1mA
- ◆ Output Over Current & Output Short Circuit Protection
- ◆ Free Air Cooling
- ◆ 2-Years Product Warranty
- ◆ Dimension: 199(L) x 98(W) x 50(H) mm

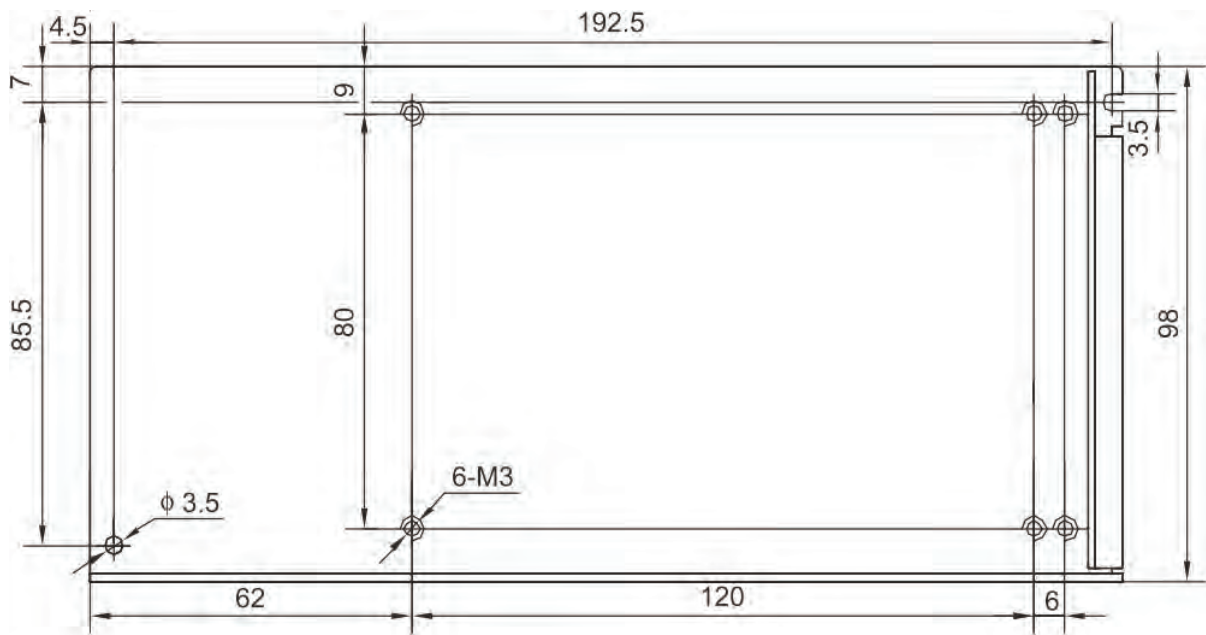
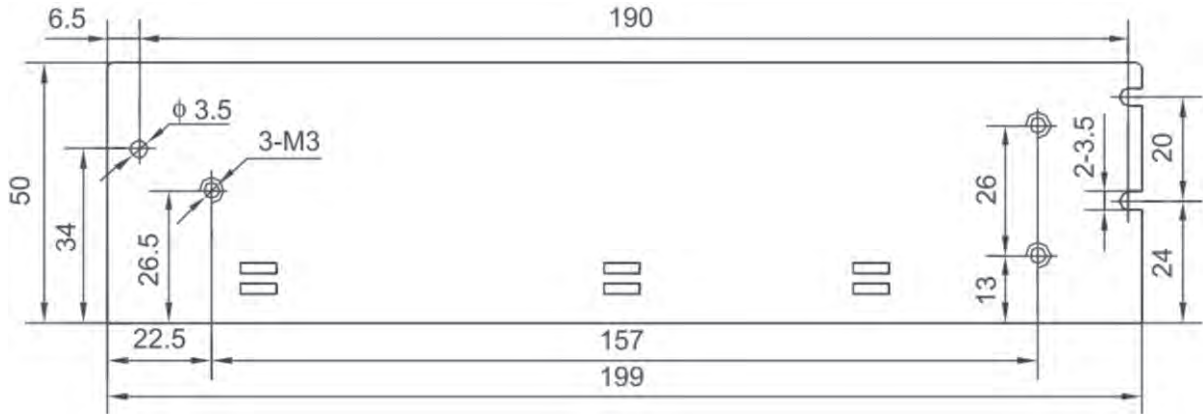
ELECTRICAL SPECIFICATIONS

Model No.		RPE150-S220B12B	RPE150-S220B15B	RPE150-S220B24B	Units
Input	Rating Voltage	110/220			VAC
	Voltage Range	90~132/180~264			VAC
	Frequency	47~63			Hz
	Current(Full Load)	<2.5			A
	Power Factor(Full load)	>0.5			
	Inrush Current(at 220VAC /Cold start)	<40 / Full Load			A
	Leakage Current	<1			mA
Output	Rating Voltage(V1/V2)	+12/-12	+15/-15	+24/-24	VDC
	Trim Range(V1+V2)	±10			VDC
	Minimum Current	0/0			A
	Maximum Current	6.25/6.25	5/5	3.125/3.125	A
	Line Regulation(Max)	±1/±3			%
	Load Regulation(Max)	±1/±3			%
	Ripple&Noise*(Max)	100/100	120/120	150/150	mVp-p
	Efficiency (at 220VAC / Full Load)	>84	>85	>86	%
	Hold-Up Time (at 230VAC / Full Load)	>20			mS
Protection	Output Over Current Protection	Auto Recovery, 110~130% Rated Output Current			
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery			
	Over Temperature Protection	Option(110°C±5°C)			
Isolation Voltage	Input-Output	3000VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Input-Earth	1500VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Output-Earth	500VAC/<0.5mA/60S (Without Arcing, Without Breakdown)			
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)			
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Leakage Current(Vin=220Vac,50Hz)	≤1mA			
Environment	Operating Temperature	-25°C~+70°C(See Derating Graphs)			
	Storage Temperature	-40°C~+105°C			
	Altitude	≤3000M			
	Humidity	10%~90% RH			
	Case Material	Aluminum			
Physical	Vibration Testing	20G,5~100Hz,3axes			
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)			
	Dimension	199(L) x 98(W) x 50(H) mm			
	Weight	500g			
	Cooling Method	Free Air Cooling(See Derating Graphs)			
Safety	Agency Approvals	Design Refer To EN60950, CE, YY0505			
	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A, YY0505			
EMC	EMS(Noise Immunity)	Design Refer To EN 55024, YY0505			
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A, EN61000-3-3, IEC61000-4-2/3/4/5/6/8/11			

Notes :

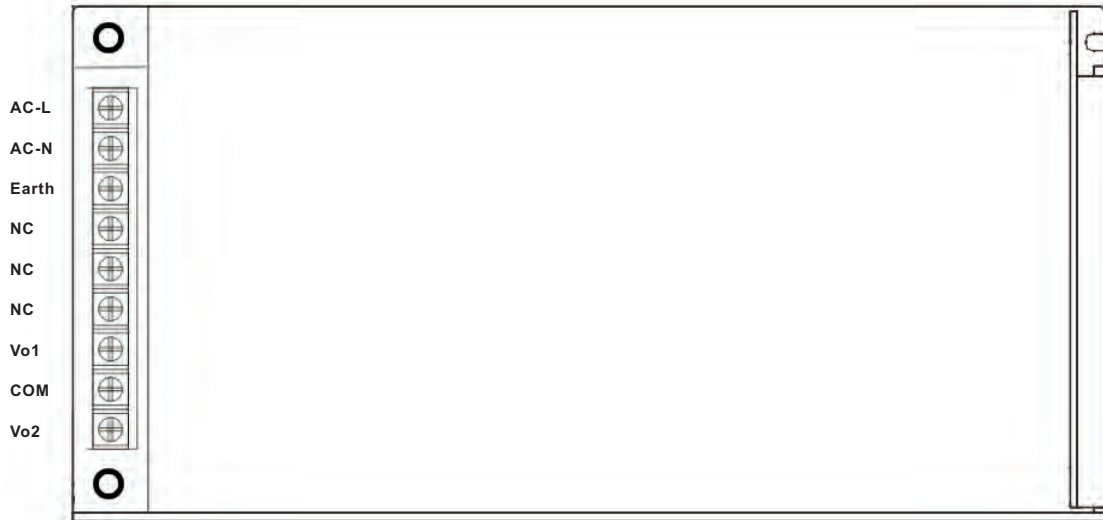
1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS



Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.

PIN CONNECTIONS





KEY FEATURES

- ◆ EMI Filter
- ◆ The Rated Output Power Of Up To 150W
- ◆ Input Voltage: 110VAC or 220VAC
- ◆ Output Voltage: +5V/+5V/±12V; +5V/+5V/±15V; +12V/+12V/±15V
- ◆ Efficiency Up To 84%
- ◆ Isolation Voltage > 3000VAC/1min/1mA
- ◆ Output Over Current & Output Short Circuit Protection
- ◆ Free Air Cooling
- ◆ 2-Years Product Warranty
- ◆ Dimension: 199(L) x 98(W) x 50(H) mm

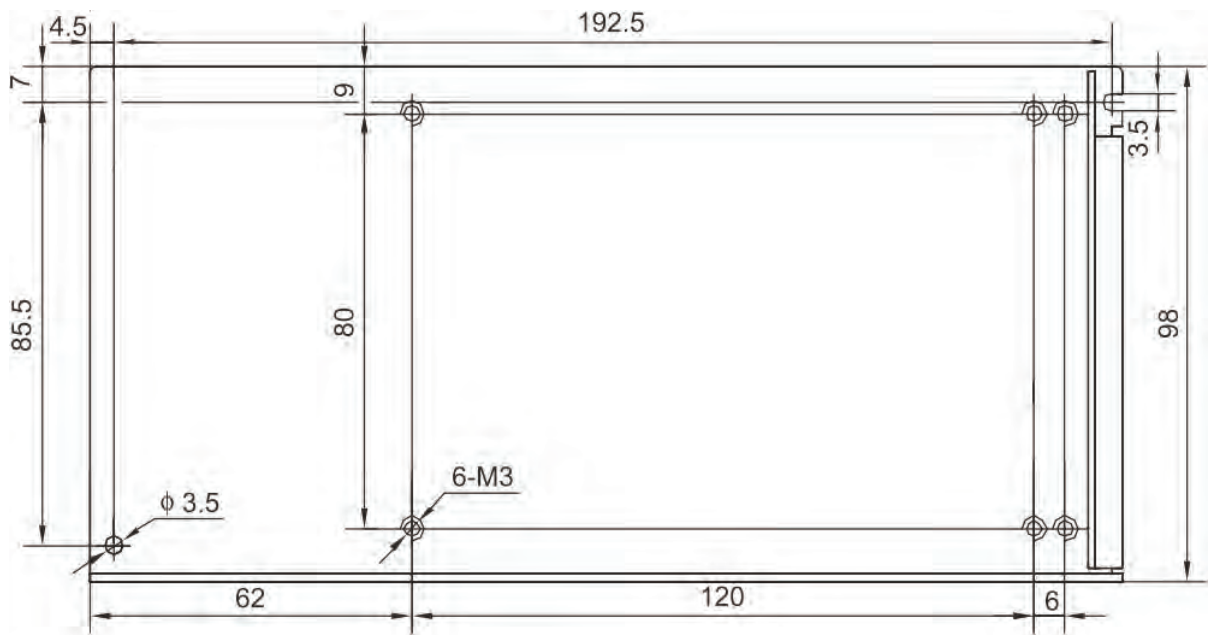
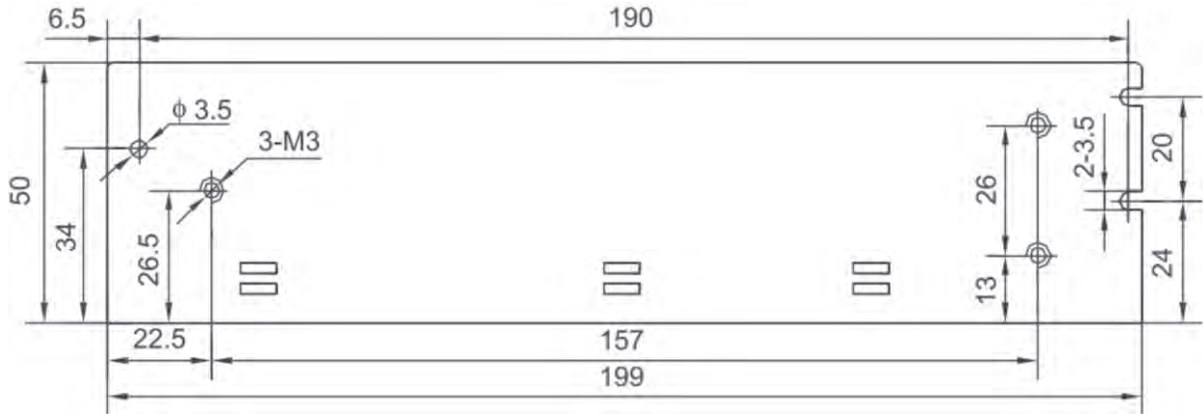
ELECTRICAL SPECIFICATIONS

Model No.		RPE150-S220Q12B15B	RPE150-S220Q05B12B	RPE150-S220Q05B15B	Units
Input	Rating Voltage	110/220			VAC
	Voltage Range	90~132/180~264			VAC
	Frequency	47~63			Hz
	Current(Full Load)	<2.5			A
	Power Factor(Full load)	>0.5			
	Inrush Current(at 220VAC /Cold start)	<40 / Full Load			A
	Leakage Current	<1			mA
Output	Rating Voltage	+12/+12/+15/-15	+5/+5/+12/-12	+5/+5/+15/-15	VDC
	Trim Range(V2)	±10			VDC
	Minimum Current	0/0/0.5/0.5			A
	Maximum Current	1/1/4/4	2/2/4/4	3/3/4/4	A
	Line Regulation(Max)	±1/±1/±1/±3			%
	Load Regulation(Max)	±1/±1/±1/±3			%
	Ripple&Noise*(Max)	120/120/120/120	50/50/100/100	50/50/120/120	mVp-p
	Efficiency (at 220VAC / Full Load)	>84	>79	>80	%
Hold-Up Time (at 230VAC / Full Load)	>20			mS	
Protection	Output Over Current Protection	Auto Recovery, 110~130% Rated Output Current			
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery			
	Over Temperature Protection	Option(110°C±5°C)			
Isolation Voltage	Input-Output	3000VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Input-Earth	1500VAC/<1mA/60S (Without Arcing, Without Breakdown)			
	Output-Earth	500VAC/<0.5mA/60S (Without Arcing, Without Breakdown)			
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)			
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)			
	Leakage Current(Vin=220Vac,50Hz)	≤1mA			
Environment	Operating Temperature	-25°C~+70°C(See Derating Graphs)			
	Storage Temperature	-40°C~+105°C			
	Altitude	≤3000M			
	Humidity	10%~90% RH			
	Case Material	Aluminum			
Physical	Vibration Testing	20G,5~100Hz,3axes			
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)			
	Dimension	199(L) x 98(W) x 50(H) mm			
	Weight	500g			
	Cooling Method	Free Air Cooling(See Derating Graphs)			
Safety	Agency Approvals	Design Refer To EN60950, CE, YY0505			
	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A, YY0505			
EMC	EMS(Noise Immunity)	Design Refer To EN 55024, YY0505			
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A, EN61000-3-3, IEC61000-4-2/3/4/5/6/8/11			

Notes :

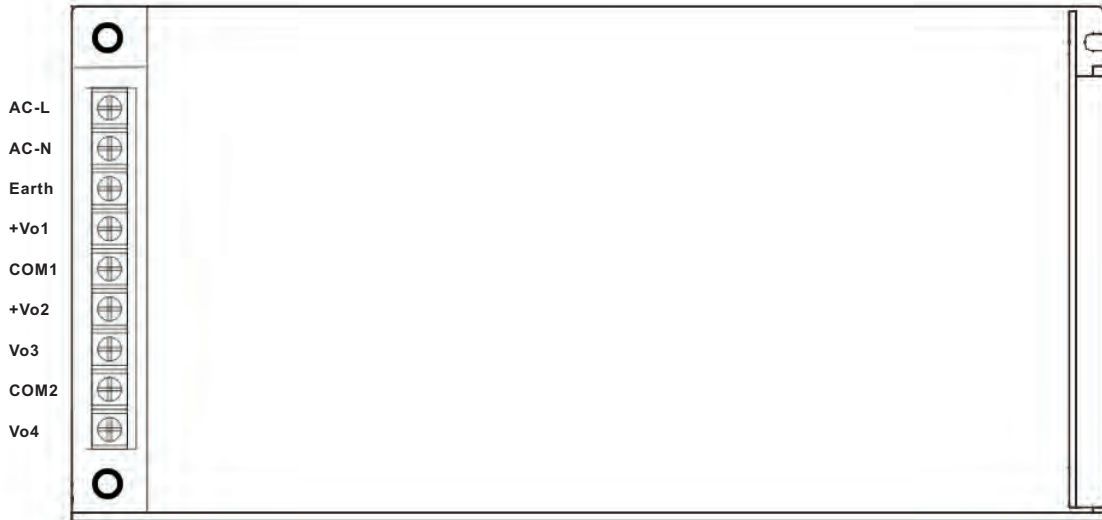
1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS



Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.

PIN CONNECTIONS





KEY FEATURES

- ◆ EMI Filter
- ◆ The Rated Output Power Of Up To 150W
- ◆ Input Voltage: 110VAC or 220VAC
- ◆ Output Voltage: +24V/±15V/+5V
- ◆ Efficiency Up To 81%
- ◆ Isolation Voltage > 3000VAC/1min/1mA
- ◆ Output Over Current & Output Short Circuit Protection
- ◆ Forced Air Cooling By Built-in Fan
- ◆ 2-Years Product Warranty
- ◆ Dimension: 240(L) x 124(W) x 65(H) mm

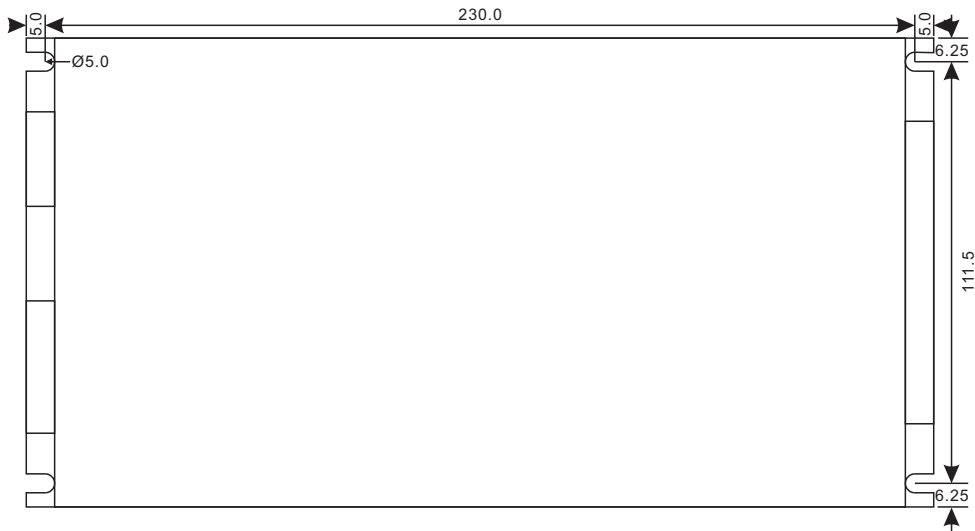
ELECTRICAL SPECIFICATIONS

Model No.		RPA500-S220Q24B15S05B	Units
Input	Rating Voltage	110/220	VAC
	Voltage Range	90~132/180~264	VAC
	Frequency	47~63	Hz
	Current(Full Load)	<60	A
	Power Factor(Full load)	>0.5	
	Inrush Current(at 220VAC /Cold start)	<40 / Full Load	A
	Leakage Current	<1	mA
Output	Rating Voltage	+24/+15/-15/+5	VDC
	Trim Range(V2)	±5	VDC
	Minimum Current	0/0/0/0	A
	Maximum Current	15/5/5/5	A
	Line Regulation(Max)	±1/±1/±1/±1	%
	Load Regulation(Max)	±1/±1/±1/±1	%
	Ripple&Noise*(Max)	200/150/150/50	mVp-p
	Efficiency (at 220VAC / Full Load)	>81	%
Hold-Up Time (at 230VAC / Full Load)	>20	mS	
Protection	Output Over Current Protection	Auto Recovery,110~130% Rated Output Current	
	Output Short Circuit Protection	Continue, No Damage, Auto Recovery	
	Over Temperature Protection	Option(110°C±5°C)	
Isolation Voltage	Input-Output	3000VAC/<1mA/60S (Without Arcing, Without Breakdown)	
	Input-Earth	1500VAC/<1mA/60S (Without Arcing, Without Breakdown)	
	Output-Earth	500VAC/<0.5mA/60S (Without Arcing, Without Breakdown)	
Isolation Resistance	Input-Output	≥10MΩ (Isolation Voltage 500Vdc)	
	Input-Earth	≥10MΩ (Isolation Voltage 500Vdc)	
	Output-Earth	≥10MΩ (Isolation Voltage 500Vdc)	
	Leakage Current(Vin=220Vac,50Hz)	≤1mA	
Environment	Operating Temperature	-25°C~+70°C(See Derating Graphs)	
	Storage Temperature	-40°C~+105°C	
	Altitude	≤3000M	
	Humidity	10%~90% RH	
	Case Material	Aluminum	
Physical	Vibration Testing	20G,5~100Hz,3axes	
	MTBF	≥100000 Hr @ 25°C (MIL-HDBK-217F)	
	Dimension	240(L) x 124(W) x 65(H) mm	
	Weight	500g	
	Cooling Method	Fan	
Safety	Agency Approvals	Design Refer To EN60950,CE,YY0505	
	EMI Conducted & Radiated	Design Refer To EN55022 CLASS A,YY0505	
EMC	EMS(Noise Immunity)	Design Refer To EN 55024,YY0505	
	Harmonic Current	Design Refer To EN61000-3-2 CLASS A,EN61000-3-3,IEC61000-4-2/3/4/5/6/8/11	

Notes :

1. All specifications valid at 220VAC input voltage, full load and +25°C after warm-up time unless otherwise stated.
2. Ripple & Noise are measured at 20MHz of bandwidth with 0.1uF/50V(metal film capacitors) & 47uF/50V(electrolytic capacitor).

MECHANICAL SPECIFICATIONS



Notes: Dimensions are in mm, Tolerances are ± 0.5 mm.

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ShenZhen ROD Technology Co.,Ltd

**Adr: 4 floor.Niu Cheng Road 218.Niu Cheng Village.
Xili Street.Nanshan District, ShenZhen**

Pho: 0755-86932459

fax: 0755-82964772

eMail: sales@rodtech.cn

Web: www.rodtech.cn