

BPS Series 15W - 240W

AC-DC DIN Rail Power Supplies



Technical Datasheet

Key Features

- Universal input 90-264VAC / 120-375VDC
- 12V & 24V DC output models
- High efficiency (up to 90%)
- 100% full load burn-in test
- Short circuit protection
- Parallel connection (back-up)



Technical Specification -24VDC (15W - 240W)

Model	BPS-1-15-24DC	BPS-1-30-24DC	BPS-1-70-24DC	BPS-1-120-24DC	BPS-1-180-24DC	BPS-1-240-24DC
Output Wattage	15W	30W	70W	120W	180W	240W
Output Voltage	24VDC					
Output Current	0.65A	1.3A	3A	5A	7.5A	10A
Efficiency (typ)	83%	87%	86%	85%	90%	
Stand-by Power Consumption	1.7W / 230VAC	1W / 230VAC	4W / 230VAC		7W / 230VAC	
Surge Voltage (L-N)	2kV					
Power Factor	0.98 ≤ / 115VAC, 0.96 ≤ / 230VAC					
General Specification						
Approvals	cURus, CE, CB, FCC					
Isolation Voltage	I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 1.5kVAC				I/P-O/P: 3kVAC, I/P-FG: 1.5kVAC, O/P-FG: 500VAC	
Insulation Resistance	100MQ max. / 500VDC					
Operating Temperature	-25 to +70°C					
Operating Relative Humidity	20 to 95% RH					
Storage Temperature	-40 to +85°C, RH 5 to 95%					
MTBF (Full Load)	min. 200khrs / 220VAC / 25°C				min. 230khrs / 220VAC / 25°C	
Cooling	Free air convection					
Dimensions (mm)	L95 x W22.5 x D108	L95 x W36 x D108	L130 x W33 x D125	L130 x W40 x D125	L130 x W50 x D125	L130 x W60 x D125
Weight	200g	250g	650g	800g	950g	1000g
Case Material	Plastic			Metal		
Input Specifications						
Input Voltage Range	90 to 264VAC, 127 to 370VDC					
Input Current (Full Load)	0.28A / 115 VAC, 0.15A / 230VAC	0.65A / 115VAC, 0.35A / 230VAC	1.6A / 115VAC, 0.8A / 230VAC	2.6A / 115VAC, 1.3A / 230VAC	1.8A / 115VAC, 0.9A / 230VAC	2.6A / 115VAC, 1.3A / 230VAC
Line Frequency	47 to 63Hz / -					
Inrush Current (Cold Start)	30A / 115VAC, 60A / 230VAC				35A / 115VAC, 65A / 230VAC	
Output Specifications						
Output Voltage Accuracy	±1%		±2%			
Output Voltage Adjustment	23.5 to 24.5V		23 to 28V		21 to 28V	22 to 28V
Line Regulation	1%		2%		1%	2%
Load Regulation	1%		3%		1%	3%
Turn-On Delay	100ms / 115VAC, full load		560ms / 115VAC, full load		3600ms / 115VAC, full load	
Hold Up Time	20ms / 115VAC					
Temperature Coefficient	± 0.03% / °C (0 to 50° C)					
Ripple & Noise	15mV	46mV	120mV		1%Vo mVp-p	
Indicator DC OK	LED (green)					
Indicator DC Low	LED (red)					
Control & Protection						
Rated Overload Protection	0.9A	2.2A	4A	6.6A	8.3A	11A
Over Voltage Protection	30V		33V			
Output Short Circuit	Hiccup mode, it will recover automatically after fault condition is removed		Shut off output voltage, the power supply will recover after the power is turned on again		Hiccup mode, it will recover automatically after fault condition is removed	
Over Temperature Protection	100 ± 10°C				110 ± 10°C	
Safety	Design refer to UL60950-1, EN60950-1					
EMC Standards	EN 55022: 2010 + AC:2011 (CISPR 22:2008) Class B; EN 61000-2-2:2014 (IEC 61000-3-2:2014); EN 61000-3-3:2013 (IEC61000-3-3:2013); EN55024:2010 (CISPR 24:2010)					

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Technical Specification -12VDC (15W - 100W)

Model	BPS-1-15-12DC	BPS-1-30-12DC	BPS-1-60-12DC	BPS-1-100-12DC
Output Wattage	15W	30W	60W	100W
Output Voltage	12VDC			
Output Current	1.2A	2.5A	5A	8A
Efficiency (typ)	80%	83%	84%	82%
Stand-by Power Consumption	1.7W / 230VAC	1W / 230VAC	4W / 230VAC	
Surge Voltage (L-N)	2kV			
Power Factor	0.98 ≤ / 115VAC, 0.96 ≤ / 230VAC			
General Specification				
Approvals	, CE, CB, FCC			
Isolation Voltage	I/P-O/P: 3000VAC, I/P-FG: 1500VAC, O/P-FG: 1500VAC			
Insulation Resistance	100MΩ max. / 500VDC			
Operating Temperature	-25 to +70°C			
Operating Relative Humidity	20 to 95% RH			
Storage Temperature	-40 to +85°C, RH 5 to 95%			
MTBF (Full Load)	min. 200khrs / 220VAC / 25°C			
Cooling	Free air convection			
Dimensions (mm)	L95 x W22.5 x D108	L95 x W36 x D108	L130 x W33 x D125	L130 x W40 x D125
Weight	200g	250g	650g	800g
Case Material	Plastic		Metal	
Input Specifications				
Input Voltage Range	90 to 264VAC, 127 to 370VDC			
Input Current (Full Load)	0.28A / 115VAC, 0.15A / 230VAC	0.65A / 115VAC, 0.35A / 230VAC	1.6A / 115VAC, 0.8A / 230VAC	2.6A / 115VAC, 1.3A / 230VAC
Line Frequency	47 to 63Hz / -			
Inrush Current (Cold Start)	30A / 115VAC, 60A / 230VAC			
Output Specifications				
Output Voltage Accuracy	±1%		±2%	
Output Voltage Adjustment	11.6 to 12.3V		11 to 14V	
Line Regulation	1%		2%	
Load Regulation	1%		3%	
Turn-On Delay	100ms / 115VAC, full load		560ms / 115VAC, full load	
Hold Up Time	20ms / 115VAC			
Temperature Coefficient	± 0.03% / °C (0 to 50°C)			
Ripple & Noise	12mV	42mV	100mV	
Indicator DC OK	LED (green)			
Indicator DC Low	LED (red)			
Control & Protection				
Rated Overload Protection	1.8A	4A	8A	10A
Over Voltage Protection	18V	16V	20V	
Output Short Circuit	Hiccup mode, it will recover automatically after fault condition is removed		Shut off output voltage, the power supply will recover after the power is turned on again	
Over Temperature Protection	100 ± 10°C			
Safety	Design refer to UL60950-1, EN60950-1			
EMC Standards	EN 55022: 2010 + AC:2011 (CISPR 22:2008) Class B; EN 61000-2-2:2014 (IEC 61000 -3-2:2014); EN 61000-3-3:2013 (IEC61000-3-3:2013); EN55024:2010 (CISPR 24:2010)			

BPS Series 15W - 240W

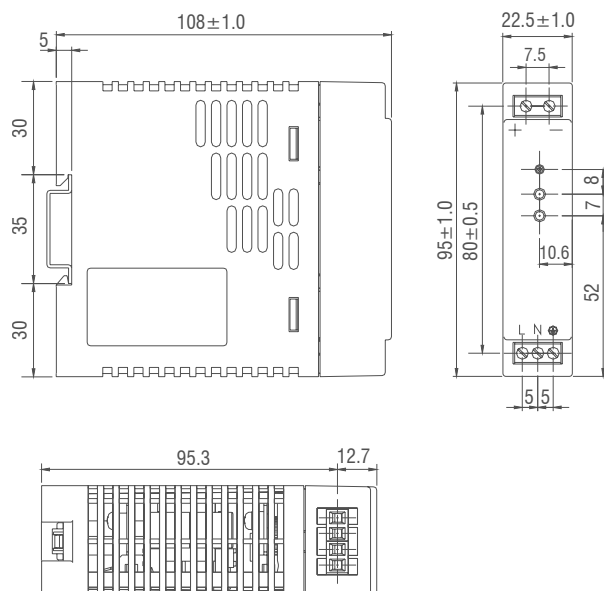
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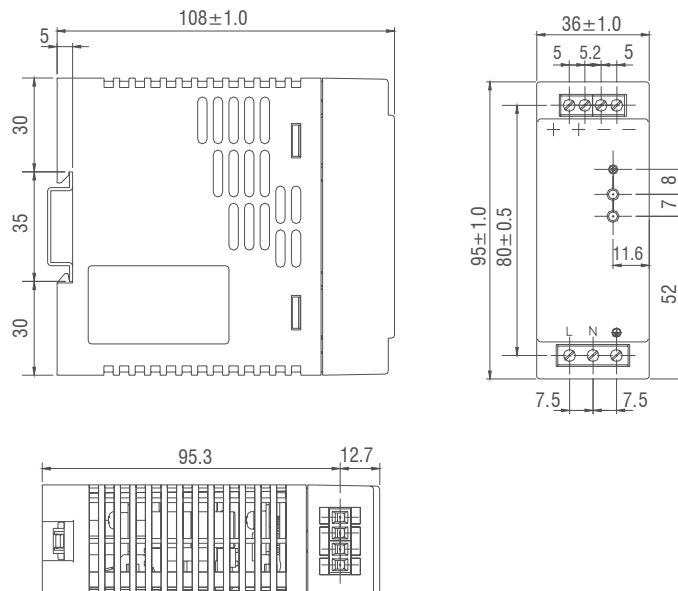
Technical Datasheet

Dimensions (mm)

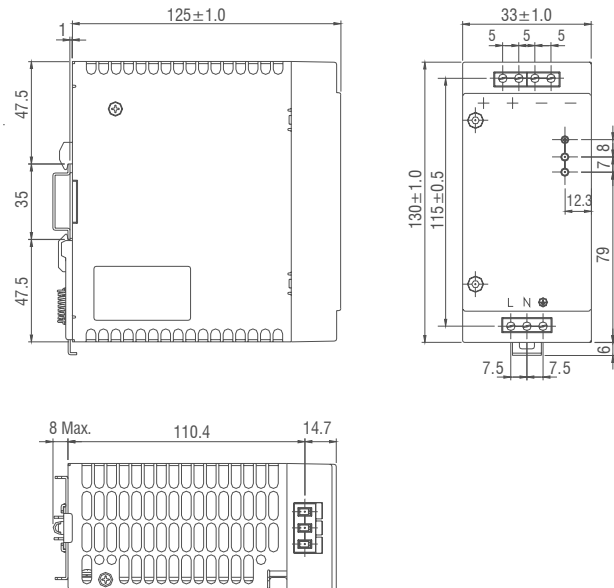
BPS-1-15-12DC & BPS-1-15-24DC



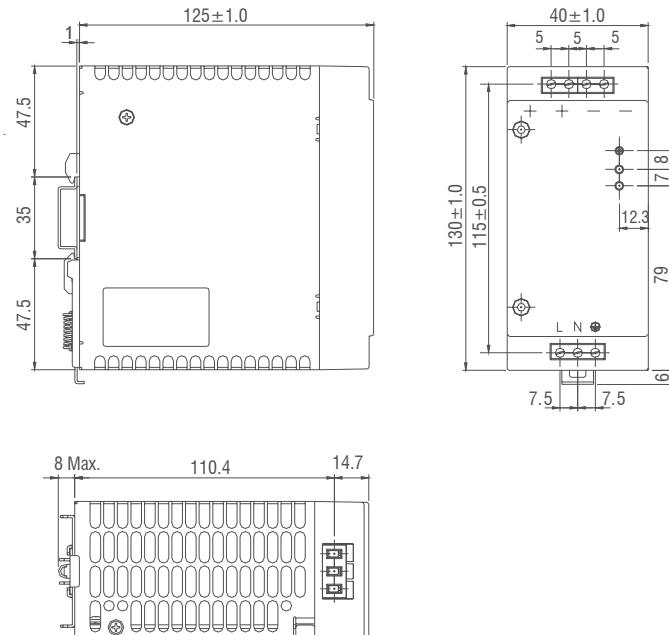
BPS-1-30-12DC & BPS-1-30-24DC



BPS-1-70-12DC & BPS-1-70-24DC



BPS-1-120-12DC & BPS-1-120-24DC



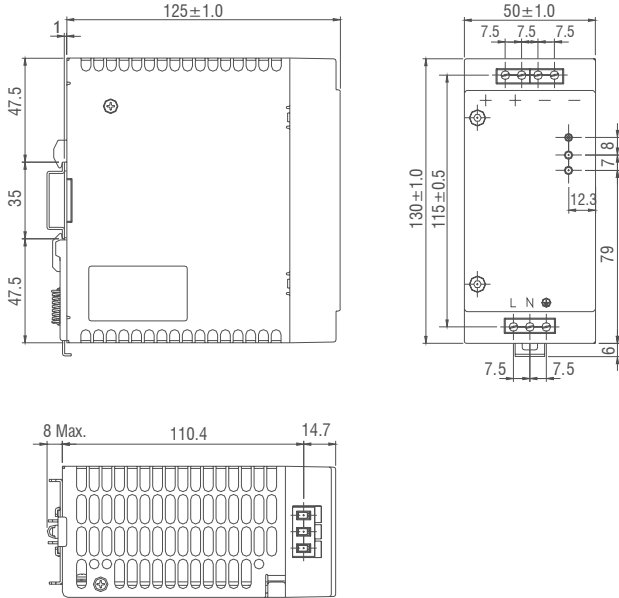
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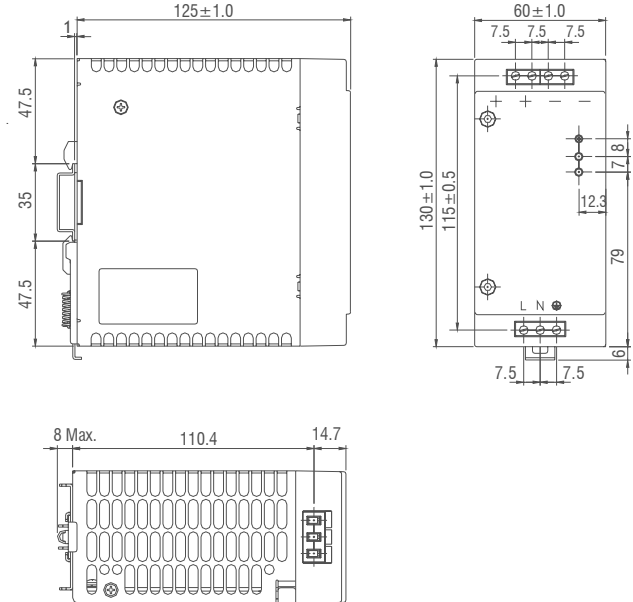


Dimensions (mm)

BPS-1-180-24DC



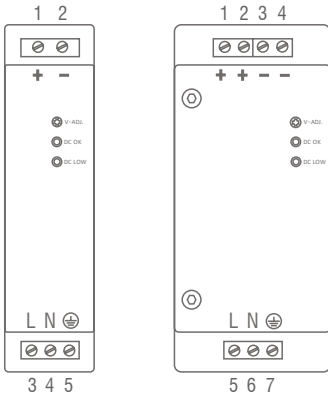
BPS-1-240-24DC



Terminal Assignment

BPS-1-15DC

BPS-1-30DC to BPS-1-240DC



Marking	BPS-1-15DC	BPS-1-30DC to BPS-1-240DC	Assignment
+	1	1	DC (+) output terminal
		2	
-	2	3	DC (-) output terminal
		4	
L	3	5	AC (L) input terminal
N	4	6	AC (N) input terminal
⊕	5	7	AC grounding terminal
V-ADJ.	-	-	DC output voltage adjustment trimmer
DC OK	-	-	DC output OK indication LED (green)
DC LOW	-	-	DC output Low indication LED (red)

Electrical Curve - All Models

