

# PBB2P-240W Series

AC/DC Din Rail Power Supply with IEC Input



## FEATURES

- 240W output power
- 12/24/48 Vdc output voltages
- Universal AC input voltage range
- Built-in constant current circuit for reactive loads
- High power density
- Operate from -30°C to +70°C with -40°C Cold Start
- Reduced no-load power consumption
- Compliance with DOE VI Energy Standard
- Compliance to SEMI F47 @ 200 Vac

## DESCRIPTION

Powerbox's PBB2P Series DIN rail power supply series is designed for cost sensitive users who need to fulfill essential features needed for many general industrial applications, without compromising on quality and reliability. The convection-cooled PBB2P Series will operate full power from -30°C to +50°C, then de-rating up to +70°C at 230 Vac. It can operate in constant current mode, making it suitable for inductive and capacitive loads.

## SPECIFICATIONS

MODEL	PBB2P-240W-IEC-12V	PBB2P-240W-IEC-24V	PBB2P-240W-IEC-48V
<b>INPUT</b>			
Input Voltage Range	90-264 Vac		
Nominal Input Frequency	50-60 Hz		
Input Current	2.5 A typ. @ 115 Vac, 1.3 A typ. @ 230 Vac		
Efficiency at 100% Load	86.5% typ. @ 230 Vac	90.0% typ. @ 230 Vac	90.5% typ. @ 230 Vac
Leakage Current	< 0.75 mA @ 240 Vac		
<b>OUTPUT</b>			
Output Voltage	12 Vdc	24 Vdc	48 Vdc
Output Voltage Range	10.8 - 13.2 Vdc	21.6 - 26.4 Vdc	43.2 - 52.8 Vdc
Output Current	20.0 A	10.0 A	5.0 A
Output Power	240 W max		
Line Regulation	± 0.5% @ 115 Vac & 230 Vac		
PAR (20MHz)	< 120 mVpp @ 0°C to +70°C < 360 mVpp @ -30°C to 0°C	< 150 mVpp @ 0°C to +70°C < 450 mVpp @ -30°C to 0°C	< 200 mVpp @ 0°C to +70°C < 600 mVpp @ -30°C to 0°C
Hold-up Time	20 ms typ. @ 115 Vac (100% load)   20 ms typ. @ 230 Vac (100% load)		

### Powerbox Australia Pty Ltd

4 Beaumont Road, Mount Kuring-Gai NSW 2080  
p: 1800 251 380 e: sales@powerbox.com.au  
[powerbox.com.au](http://powerbox.com.au)

### Powerbox Pacific

1a Henry Rose Pl, Albany, Auckland 0632  
p: +64 9 4158 320 e: sales@powerbox.co.nz  
[powerbox.co.nz](http://powerbox.co.nz)

# PBB2P-240W Series

AC/DC Din Rail Power Supply with IEC Input

## SPECIFICATIONS

MODEL	PBB2P-240W-IEC-12V	PBB2P-240W-IEC-24V	PBB2P-240W-IEC-48V
<b>MECHANICAL</b>			
Case Cover / Chassis	SGCC / Aluminum		
Dimensions (L x W x D)	151 x 46 x 159 mm (5.94 x 1.81 x 6.26 inch)		
Mounting Rail	Standard TS35 DIN Rail in accordance with EN 60715		
Input Connector	IEC Socket (with 2M IEC power cable)		
Output Connector	4 Pins (Rated 300 V / 20 A)		
Wire Output	AWG 18-12 (Current rating can refer to "AWG Wire Table")		
Unit Weight	0.71 kg (1.57 lb)		
<b>ENVIRONMENTAL</b>			
Operating Temperature	-30°C to +70°C (-40°C Cold Start)		
Storage Temperature	-40°C to +85°C		
Power De-rating	> 40°C de-rate power by 1.67 % / °C @ 115 Vac > 50°C de-rate power by 2.5 % / °C @ 230 Vac		
Cooling System	Convection		
Operating Humidity	20 to 90% RH (Non-Condensing)		
Operating Altitude	0 to 5,000 Meters (16,400 ft.)		
<b>PROTECTIONS</b>			
Overvoltage	< 17.4 V, SELV Output,Latch Mode	< 33.6 V, SELV Output,Latch Mode	< 64.8 V, SELV Output,Latch Mode
Overload / Overcurrent	105 - 150% of rated load current, Auto-recovery Continuous current limit Mode <sup>*5</sup> (Vo > 80%)		
Over Temperature	Latch Mode		
Short Circuit	Hiccup Mode, Non-Latching (Auto-Recovery when the fault is removed)		
Protection Against Shock	Class I with PE <sup>*6</sup> connection		
Galvanic Isolation	Input to Output	3.0 KVac	
	Input to Ground	2.0 KVac	
	Output to Ground	1.0 KVac	
<b>RELIABILITY</b>			
MTBF	Telcordia > 700,000 hrs   SR-332 I/P: 115 Vac & 230 Vac, O/P: 100% load, Ta: 25°C		
Expected Cap Life Time	10 years (230 Vac, 50% load @ 40°C)		

\*5 Constant current limit protection for inductive and capacitive load applications

\*6 PE: Primary Earth

### Powerbox Australia Pty Ltd

4 Beaumont Road, Mount Kuring-Gai NSW 2080  
p: 1800 251 380 e: sales@powerbox.com.au  
[powerbox.com.au](http://powerbox.com.au)

### Powerbox Pacific

1a Henry Rose Pl, Albany, Auckland 0632  
p: +64 9 4158 320 e: sales@powerbox.co.nz  
[powerbox.co.nz](http://powerbox.co.nz)

# PBB2P-240W Series

AC/DC Din Rail Power Supply with IEC Input

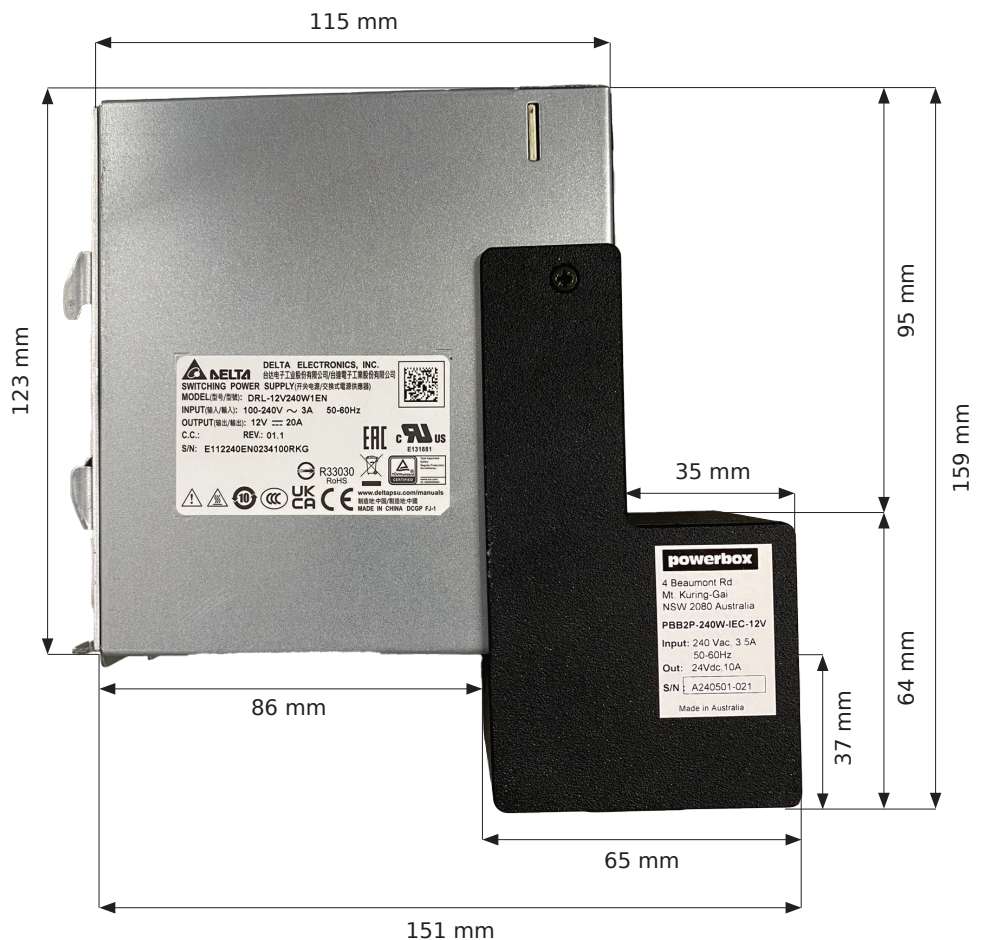
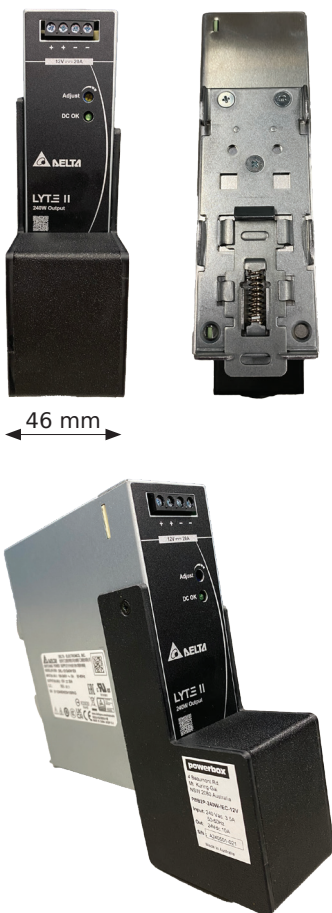
## SPECIFICATIONS

MODEL	PBB2P-240W-IEC-12V	PBB2P-240W-IEC-24V	PBB2P-240W-IEC-48V
STANDARDS			
EMC	AS/NZS CISPR32		
Electrical Safety	IEC 62368-1, IEC 61010-1 & -2 -201		
CE	In conformance with EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU		

## SELECTION TABLE

MODEL	OUTPUT	IEC SOCKET	DELTA POWER SUPPLY
PBB2P-240W-IEC-12V	12V / 20A	Y	DRL-12V240W1EN
PBB2P-240W-IEC-24V	24V / 10A	Y	DRL-24V240W1EN
PBB2P-240W-IEC-48V	48V / 5A	Y	DRL-48V240W1EN

## ILLUSTRATIONS



### Powerbox Australia Pty Ltd

4 Beaumont Road, Mount Kuring-Gai NSW 2080  
p: 1800 251 380 e: sales@powerbox.com.au  
[powerbox.com.au](http://powerbox.com.au)

### Powerbox Pacific

1a Henry Rose Pl, Albany, Auckland 0632  
p: +64 9 4158 320 e: sales@powerbox.co.nz  
[powerbox.co.nz](http://powerbox.co.nz)