



Industrial Power Supplies Range

Introducing the latest family of Industrial Power Supplies from IMO



We have the Power

A power supply unit (PSU) is an electrical device that converts an incoming AC or DC electrical supply, into the correct voltage and power needed for industrial equipment. IMO's range of UL Approved single and three phase industrial power supplies have all been engineered to deliver reliable, high quality DC power to a control panel or automation system with the introduction of a range of compact switching power supply with universal AC and DC voltage inputs, short circuit protection, and a range of output DC voltage options.

These power supplies operate at high efficiencies, making them an exceptionally reliable power source for control panels and components such as, Programmable Logic Controllers (PLC), sensors, relays, contactors, timers, temperature controllers, process controllers and HMIs, all of which are available from IMO and all benefit from our 3-year warranty.

SPS Series - 12W to 150W

Our new SPS series of single phase UL approved power supplies offers a step/modular solution that is ideal for use within a consumer unit, for domestic and industrial applications including building automation applications.

The entire series offers Class II isolation, protecting the user from electrical shock without the need for earthing (LPS certified).

LPS Series - 10W to 960W

Our new LPS series of single and three phase UL approved industrial power supply offers the largest range encompassing both plastic and metal cased PSUs, making them ideal for virtually every industrial application.

Featuring DC OK Relay on selected models, the LPS series offers the widest range of voltage outputs including 5V, 12V, 24V and 48V. All models up to 100W are supplied in slimline fanless plastic cases, whereas the models from 150W upwards are supplied in fanless metal cases. Additionally, the metal cased LPS PSUs offer Power Factor Correction for improved efficiency as well as a reduction in power demand, which not only reduces running costs, but allows for more load. Three phase models can also accept bi-phase power input and the 960W version offers current sharing to provide more load current to your application.

HPS Series - 120W to 480W

The HPS High Peak Power range features DC OK Relay across the entire range, and have been designed with higher peak performance of 150% in mind for more demanding applications that require greater power at start-up (fulfilling transient energy demands), removing the requirement to spend more money on PSUs with a higher rating. All HPS models are UL approved with the 480W version offering current sharing.

WPS Series - 60W to 480W

The WPS series of single and two phase UL approved industrial power supplies, offer a wide input range from 180VAC to 550VAC and 254VDC to 780VDC.

The series offers DC OK relays, Built-in constant current limiting circuit and active PFC functionality (except 120W). They can operate in a wide temperature range and can accept bi-phase power input. Suitable for industrial applications such as industrial controls, semiconductor fabrication equipment and factory automation.

REDMOD Series - 20W

The REDMOD series has been designed for redundancy operation within 24V applications and offers both N+1 and 1+1 redundancy. Providing higher peak current and 2 in-built channels, as well as DC OK signal and an alarm relay contact, the REDMOD can be used with another power supply to improve overall reliability for your application.

SPS, LPS, HPS & WPS Options & Ordering Information

PLEASE NOTE: The feasibility of a code number does not mean the effective availability of a product.

SPS - **1** - **015** - **5DC**

Output Voltage V

5DC	5V DC
12DC	12V DC
24DC	24V DC
48DC	48V DC

Series

SPS Modular PSUs	SPS
LPS Standard PSUs	LPS
HPS High Performance PSUs	HPS
WPS High Performance PSUs	WPS

Phase

Single Phase	1
Three Phase (LPS Series only)	3

Output Power W

010	10W	-	✓	-	-	-
012	12W	✓	-	-	-	-
015	15W	✓	-	-	-	-
024	24W	✓	✓	-	-	-
030	30W	✓	✓	-	-	-
040	40W	-	✓	-	-	-
060	60W	✓	✓	-	-	✓
070	70W	-	-	-	-	-
090	90W	-	✓	-	-	-

Output Power (W) Availability

- ✓ Available in **SPS** Series
- ✓ Available in **LPS (Single Phase)** Series
- ✓ Available in **LPS (Three Phase)** Series
- ✓ Available in **HPS** Series
- ✓ Available in **WPS** Series

092	92W	✓	-	-	-	-
100	100W	-	-	-	-	-
120	120W	-	✓	-	✓	✓
150	150W	✓	-	-	-	-
180	180W	-	-	-	-	-
240	240W	-	✓	✓	✓	✓
480	480W	-	✓	✓	✓	✓
960	960W	-	✓	-	-	-

Power Supply - Quick Feature Guide

Part Number	Case Material	Over Temperature Protection	DC OK Relay	Built-In PFC	Class II	Pass LPS	Peak Power (3 secs.)	Approval	Bi-Phase
LPS-1-010-24DC	Plastic	NO	YES	NO	YES	YES	NO	CE / cULus / cURus	NO
LPS-1-024-24DC	Plastic	NO	YES	NO	YES	YES	NO	CE / cULus / cURus	NO
LPS-1-030-5DC	Plastic	NO	YES	NO	YES	YES	NO	CE / cULus / cURus	NO
LPS-1-040-12DC	Plastic	NO	YES	NO	YES	YES	NO	CE / cULus / cURus	NO
LPS-1-040-24DC	Plastic	NO	YES	NO	YES	YES	NO	CE / cULus / cURus	NO
LPS-1-060-12DC	Plastic	NO	YES	NO	YES	YES	NO	CE / cULus / cURus	NO
LPS-1-060-24DC	Plastic	NO	YES	NO	YES	YES	NO	CE / cULus / cURus	NO
LPS-1-090-12DC	Plastic	NO	YES	NO	NO	YES	NO	CE / cULus / cURus	NO
LPS-1-120-12DC	Metal	YES	NO	NO	NO	NO	NO	CE / cULus / cURus	NO
LPS-1-120-24DC	Metal	YES	NO	NO	NO	NO	NO	CE / cULus / cURus	NO
LPS-1-120-48DC	Metal	YES	NO	NO	NO	NO	NO	CE / cULus / cURus	NO
LPS-1-240-24DC	Metal	YES	NO	YES	NO	NO	NO	CE / cULus / cURus	NO
LPS-1-240-48DC	Metal	YES	NO	YES	NO	NO	NO	CE / cULus / cURus	NO
LPS-1-480-24DC	Metal	YES	YES	YES	NO	NO	NO	CE / cULus / cURus	NO
LPS-3-240-24DC	Metal	YES	YES	YES	NO	NO	NO	CE / cULus / cURus	YES
LPS-3-480-24DC	Metal	YES	YES	YES	NO	NO	NO	CE / cULus / cURus	YES
LPS-3-960-24DC	Metal	YES	YES	YES	NO	NO	NO	CE / cULus / cURus	YES
ALL SPS PSUs	Plastic	NO	NO	NO	YES*	YES	NO	CE / cULus / cURus	NO
ALL HPS PSUs	Metal	YES	YES	YES	NO	NO	YES	CE / cULus / cURus	NO
ALL WPS PSUs	Metal	YES	YES	YES	NO	NO	NO	CE / cULus / cURus	YES

*Except SPS-1-150-24DC

GLOSSARY:

Over Temperature Protection	Unit shuts down in over temperature situation / auto recovery once unit cools to within operating threshold.
DC OK Relay	Local LED indication and potential free contact for signalling remote devices that the PSU is on, and the DC output is ok.
Built-In PFC	Power Factor Correction: Improved efficiency and reduction in power demand, hence a reduction in the load on the switching gear and cables, reduced costs to the consumer.
Class II	Equipment in which protection against electric shock does not rely on basic insulation only, rather additional safety precautions, such as double insulation or reinforced insulation are provided, ensuring no reliance on either protective earth or installation conditions.
Pass LPS	When an electronic circuit is powered by a limited power source (LPS), its output current and power are under guided limitation and the risk of fire can be reduced significantly.
Peak Power	Can withstand peak power demand for 3 seconds (refer to HPS Series peak power loading curves for more information).
Approval	Indicates international approval standard - see each PSU Series for specific approval.
Bi-Phase	Three phase PSU units can accept bi-phase power input (refer to derating graphs for more information).

SPS Series

Single Phase 12W-150W AC-DC DIN Rail Power Supplies

Key Features

- Class II Limited Power Source
- Universal input 90-264VAC / 127-370VDC
- Class II Isolation
- 100% full load burn-in test
- Modular design
- IP20 rated protection



Technical Specification

Model	SPS-1-012-5DC	SPS-1-015-12DC	SPS-1-015-24DC	SPS-1-024-12DC
Frame Size	1		2	
Input Wattage	85-264VAC or 120-370VDC			
Output Wattage	12W	15W	15W	24W
Output Voltage	5VDC	12VDC	24VDC	12VDC
Output Current	2.4A	1.25A	0.63A	2A
Efficiency	82%	88%	89%	88%
General Specification				
Approval	UKCA, CE / cURus - Classe 2 (UL1310)			
Isolation Voltage	3000VAC / 4242VDC			
Isolation Resistance	100MΩ @ 500VDC			
Ambient Temperature	De -20 to +70°C			
Derating	(50 to 70°C) 2.5%/°C			
Storage Temperature	De -40 to +85°C			
Relative Humidity	20 to 90% RH			
Cooling	Free air convection (Fanless)			
Frame Size & Weight (see overleaf)	Frame 1		Frame 2	
Tightening Torque	0.5Nm			
Screw Type	Flat Screw 3.5mm			
Case Material	Plastic			
Input Specifications				
Rated Output Voltage	85-264VAC or 120-370VDC			
Line Frequency	47 to 63Hz			
Inrush Current (115/230VAC)	25/45A			
Output Specifications				
Output Voltage Accuracy	±1%			
Minimum Load	0%			
Line Regulation	±1%			
Load Regulation	±1%			
Turn On Time	2000ms at full load		500ms at full load	
Voltage Fall Time	80ms			
Voltage Rise Time	80ms			
Hold Up Time (115/230VAC)	30/12ms			
Temperature Coefficient	±0.03%/°C (0-50°C) RH non-condensing			
Ripple and Noise	2.) <80mVp-p	2.) <120mVp-p	2.) <150mVp-p	2.) <120mVp-p
Voltage Trim Range	4.5-5.5VDC	10.8-13.8VDC	21.6-29VDC	10.8-13.8VDC
DC ON Indicator	Green LED			
Control & Protection				
Rated Overload Protection	110 to 145 %		105 to 160%	
Over Voltage Protection	5.75-6.5VDC	14.2-16.2VDC	30-36VDC	15-18VDC
Output Short Circuit	Hiccup Mode, it will recover automatically after fault condition is removed			
Cable Size Range	0.2-2.5mm ² (AWG 24-12) flexible / solid cable			

* Not Class 2

Note:

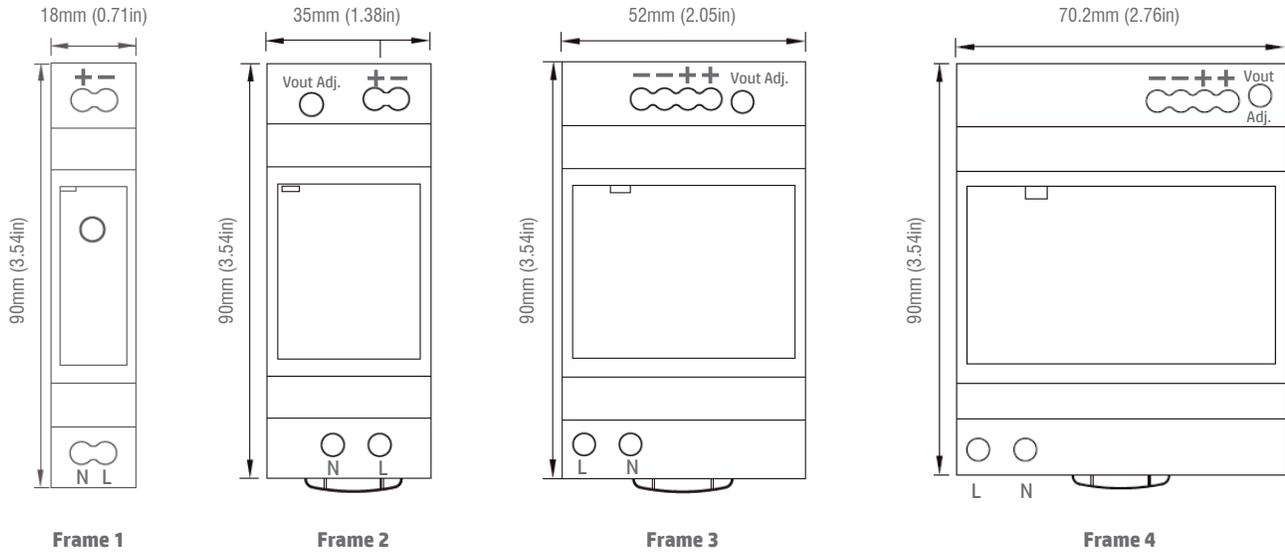
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

Wire Gauge Rating Table can be found on the inside back cover



SPS-1-030-24DC	SPS-1-060-24DC	SPS-1-092-24DC	SPS-1-150-24DC*
2	3	4	5
85-264VAC or 120-370VDC			
30W	60W	92W	150W (230VAC) / 127.4W (115VAC)
24VDC			
1.25A	2.5A	3.83A	6.25A (230VAC) / 5.3A (115VAC)
89%	90%		90.5%
UKCA, CE / cURus - Class 2 (UL1310)			UKCA, CE / cURus
3000VAC / 4242VDC			
100MΩ @ 500VDC			
-20 to +70°C			
(50 to 70°C) 2.5%/°C			
-40 to +85°C			
20 to 90% RH			
Free air convection (Fanless)			
Frame 2	Frame 3	Frame 4	Frame 5
0.5Nm			
Flat Screw 3.5mm			
Plastic			
85-264VAC or 120-370VDC			
47 to 63 Hz			
25/45A	30/60A	35/70A	60A (240VAC)
±1%			
0%			
±1%			
±1%			
500ms at full load			
80ms			
80ms			
30/12ms	12/30ms	30ms (100-240VAC)	
±0.03%/°C (0-50°C) RH non-condensing			
2.) <150mVp-p			
21.6-29VDC		24-25.5VDC	21.6-29VDC
Green LED			
105 to 160%		102 to 110%	105 to 135%
30-36VDC			
Hiccup Mode, it will recover automatically after fault condition is removed			
0.2-2.5mm ² (AWG 24-12) flexible / solid cable			

Dimensions mm (in)

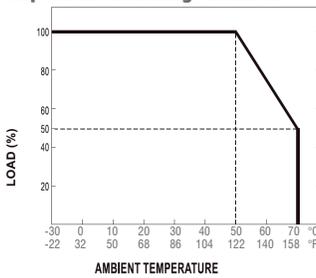


Frame Size & Weights

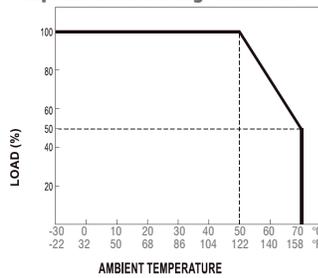
	Frame 1	Frame 2	Frame 3	Frame 4	Frame 5
Height	90mm (3.54in)	90mm (3.54in)	90mm (3.54in)	90mm (3.54in)	90mm (3.54in)
Width	18mm (0.71in)	35mm (1.38in)	52mm (2.05in)	70.2mm (2.76in)	105mm (4.13in)
Depth	58mm (2.28in)	58mm (2.28in)	58mm (2.28in)	58mm (2.28in)	58mm (2.28in)
Weight	78g	120g	190g	270g	320g

Derating Graphs

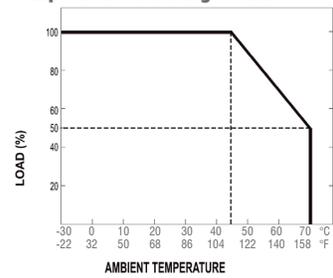
Temperature Derating - Frame 1



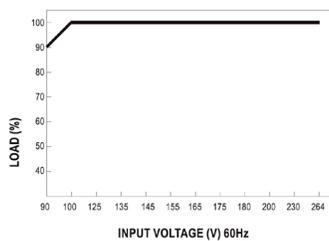
Temperature Derating - Frame 2



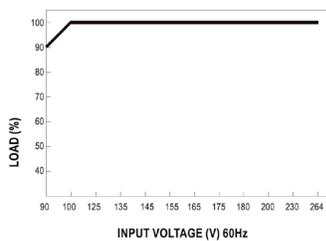
Temperature Derating - Frame 3



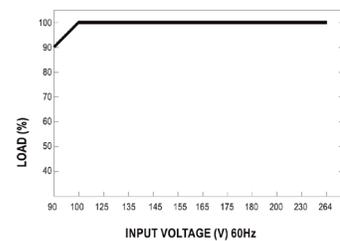
Output Derating - Frame 1

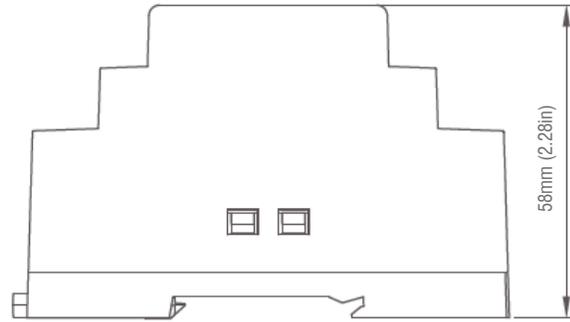
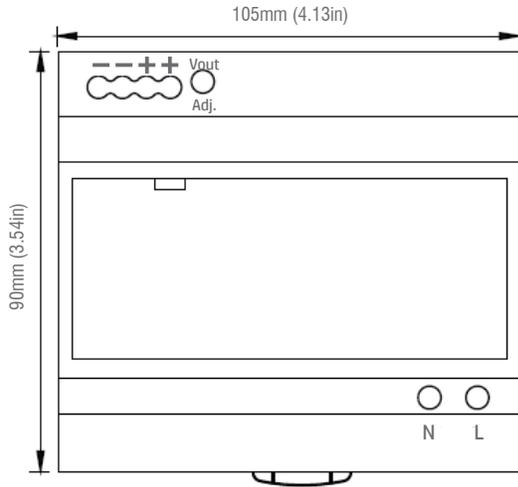


Output Derating - Frame 2



Output Derating - Frame 3





Frame 5

Terminal Assignment

		Description
Output	V+	Positive Output Terminal
	V-	Negative Output Terminal
	Vout Adj.	DC Output Adjustment Trimmer
Input	N	Neutral Input (No Polarity at DC Input)
	L	Phase Input (No Polarity at DC Input)

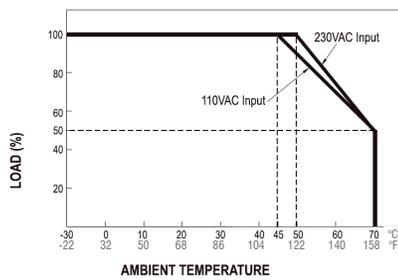
Installation

Ventilation / Cooling
No restrictions

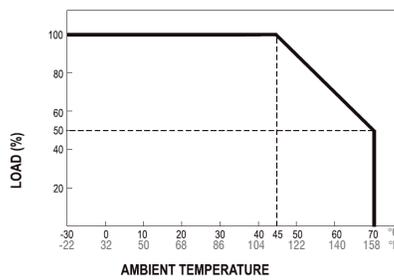
Connector Size Range

- AWG24-10 (0.2 ~ 4mm²) stranded / solid cable,
 - Input connector can withstand torque at maximum 1,016Nm/
0.7494 lb-ft
 - Output connector can withstand torque at maximum 0.62Nm/
0.4573 lb-ft
 - Cable stripping 8mm (0.315in)
 - Only use copper conductors 60/75°C (140/167°F)

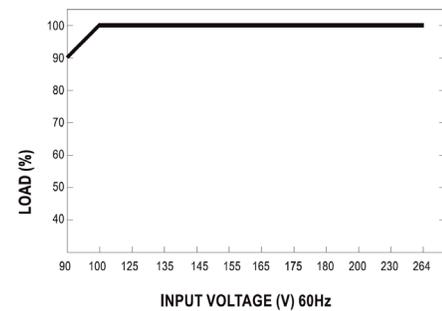
Temperature Derating - Frame 4



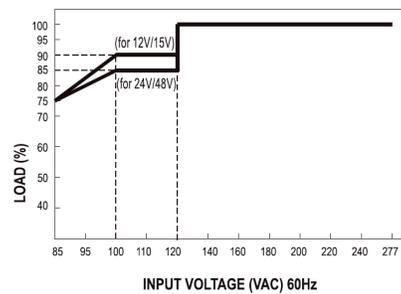
Temperature Derating - Frame 5



Output Derating - Frame 4



Output Derating - Frame 5



LPS Series

Single Phase 10W-90W AC-DC DIN Rail Power Supplies

Key Features

- 5, 12 & 24 VDC
- Universal Input: 85-264VAC / 120-370VDC
- High Efficiency
- Short Circuit Protection
- Internal Input Filter
- IP20 Protection Rated
- Class 2 UL1310



Technical Specification

Model	LPS-1-010-24DC	LPS-1-024-24DC	LPS-1-030-5DC	LPS-1-040-12DC
Input Voltage	85-264VAC / 120-370VDC			
Output Wattage	10W	24W	30W	40W
Output Voltage	24VDC	24VDC	5VDC	12VDC
Output Current	0.42A	1A	6A	3.33A
Efficiency	84%		78%	86%
General Specification				
Approval	UKCA, CE / cULus - Class 2 (UL1310)			
Isolation Voltage	3000VAC/4242VDC			
Isolation Resistance	100MΩ @ 500VDC			
Ambient Temperature	-30 to +70°C (refer to derating curve)			
Derating	(50 to 70°C) 2.5%/°C			
Storage Temperature	-40 to +85°C			
Relative Humidity	20 to 95% RH			
Cooling	Free air convection (Fanless)			
Tightening Torque	0.5Nm			
Screw Type	Flat Screw 3.5mm			
Dimensions	L92 x W23 x D100mm		L92 x W41 x D100mm	
Weight	140g	150g	280g	
Case Material	Plastic			
Input Specifications				
Rated Input Voltage	85-264VAC / 120-370VDC			
Line Frequency	50/60Hz			
Inrush Current (115 / 230VAC)	35 / 70A		30 / 60A	
Output Specifications				
Output Voltage Accuracy	+1%			
Minimum Load	0%			
Line Regulation	±1%			
Load Regulation	±5%			
Turn On Time	500ms			
Voltage Fall Time	150ms			
Voltage Rise Time	30ms			
Hold Up Time (115 / 230VAC)	30 / 30ms			
Ripple & Noise	2.) <150mVp-p		2.) <80mVp-p	2.) <120mVp-p
Voltage Trim Range	21.6-28.8VDC		4.5-5.75VDC	21.6-28.8VDC
DC ON	LED (Green)			
DC OK Relay	30V / 1A Resistive Load			
Control & Protection				
Rated Overload Protection	>105%-150%			
Over Voltage Protection	27.6-32.4VDC	6.25-7.25VDC		15.6-18VDC
Output Short Circuit	Hiccup Mode, it will recover automatically after fault condition is removed			

Note:

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

Wire Gauge Rating Table can be found on the inside back cover



LPS-1-040-24DC	LPS-1-060-12DC	LPS-1-060-24DC	LPS-1-090-12DC
85-264VAC / 120-370VDC			
40W	60W	60W	90W
24VDC	12VDC	24VDC	12VDC
1.7A	5A	2.5A	7.5A
88%	86%	88%	83%
UKCA , CE / cULus - Class 2 (UL1310)			
3000VAC/4242VDC			
100MΩ @ 500VDC			
-30 to +70°C (refer to derating curve)			
(50 to 70°C) 2.5%/°C			
-40 to +85°C			
20 to 95% RH			
Free air convection (Fanless)			
0.5Nm			
Flat Screw 3.5mm			
L92 x W41 x D100mm		L92 x W55 x D100mm	
280g		400g	
Plastic			
85-264VAC / 120-370VDC			
50/60Hz			
30 / 60A			
+1%			
0%			
±1%		±2%	±1%
	±5%		±1%
500ms			
150ms			
30ms			
30 / 30ms			
2.) <150mVp-p	2.) <120mVp-p	2.) <150mVp-p	2.) <120mVp-p
21.6-28.8VDC	10.8-13.8VDC	21.6-28.8VDC	10.8-13.8VDC
LED (Green)			
30V / 1A Resistive Load			
>105%-150%			
31.2-36VDC	15.6-18V	31.2-36VDC	15.6-18V
Hiccup Mode, it will recover automatically after fault condition is removed			

LPS Series

Single Phase 120W-480W AC-DC DIN Rail Power Supplies

Key Features

- 12, 24 & 48 VDC
- Universal Input: 90-264VAC / 120-375VDC
- High Efficiency
- Short Circuit Protection
- Internal Input Filter
- IP20 Protection Rated



Technical Specification

Model	LPS-1-120-12DC	LPS-1-120-24DC	LPS-1-120-48DC
Input Voltage	90-264VAC / 127-375VDC		
Output Wattage	120W		
Output Voltage / Power Dissipation	12VDC / 24W	24VDC / 20W	48VDC / 19W
Output Current	10A	5A	2.5A
Efficiency	85.5%	88%	89%
General Specification			
Approval	UKCA , CE / cULus		
Isolation Voltage	3000VAC/4242VDC		
Isolation Resistance	100MΩ @ 500VDC		
Ambient Temperature	-20 to +70°C		
Derating	(61 to 71°C) 2.5%/°C		
Storage Temperature	-40 to +85°C		
Relative Humidity	10 to 95% RH		
Cooling	Free air convection		
Tightening Torque	0.8Nm		
Screw Type	Flat Screw 3.5mm		
Dimensions	L125 x W40 x D113 (126.5 inc. DIN rail mount) mm		
Weight	600g		
Case Material	Metal		
Input Specifications			
Rated Input Voltage	115 - 230VAC (auto select)		
Input Voltage Range	90-264VAC, 127-375VDC		
Line Frequency	50/60Hz		
Power Factor @ 115VAC	0.55 Typical (0.58 Measured)		
Power Factor @ 230VAC	0.55 Typical (0.58 Measured)		
Inrush Current (115 / 230VAC)	20 / 35A		
Output Specifications			
Output Voltage Accuracy	±1%		
Minimum Load	0%		
Line Regulation	±0.5%		
Load Regulation	±1%		
Turn On Time	1000ms after AC applied to input at full resistive load		
Voltage Fall Time	150ms		
Voltage Rise Time	150ms		
Hold Up Time (115 / 230VAC)	10 / 16ms		
Temperature Coefficient	±0.03%/°C		
Ripple & Noise	2.) <120mVp-p		
Voltage Trim Range	11.4 ~ 14.5VDC	22.5 ~ 28.5VDC	45 ~ 55VDC
DC ON	LED (Green)		
DC OK Relay	n/a	n/a	n/a
Control & Protection			
Rated Overload Protection	105-130%		
Over Voltage Protection	14-17VDC	29-33VDC	50-65VDC
Output Short Circuit	Shutdown Output Voltage with Auto Recovery		

Note:

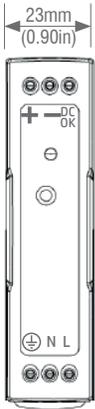
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.



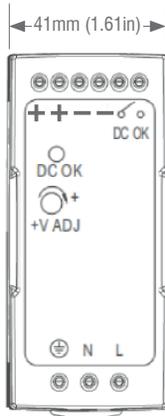
LPS-1-240-24DC	LPS-1-240-48DC	LPS-1-480-24DC
	90-264VAC / 120-375VDC	
240W	240W	480W
24VDC / 35W	48VDC / 32W	24VDC / 63W
10A	5A	20A
85.5%	90%	92%
	UKCA, CE / cULus	
	3000VAC/4242VDC	
	100MΩ @ 500VDC	
	-20 to +70°C	
	(55 to 70°C) 2.5%/°C	
	-40 to +85°C	
	10 to 95% RH	
	Free air convection	
	0.8Nm	1.0Nm
	Flat Screw 3.5mm	
	L125 x W63 x D113.5 (127 inc. DIN rail mount) mm	L125 x W85.5 x D129 (142 inc. DIN rail mount) mm
	1000g	1500g
	Metal	
	115-230VAC	
	90-264VAC, 127-375VDC	
	50/60Hz	
	0.6 Typical (0.61 Measured)	0.99 Typical (0.99 Measured)
	0.75 Typical (0.77 Measured)	0.97 Typical (0.97 Measured)
	20 / 35A	
	±1%	
	0%	
	±0.5%	
	±1%	
	1000ms after AC applied to input at full resistive load	
	150ms	
	150ms	
	10 / 16ms	25 / 30ms
	±0.03%/°C	
	2.) <150mVp-p	
22.5-28.5VDC	47-56VDC	22.5-28.5VDC
	LED (Green)	
n/a	n/a	60VDC / 0.3A; 30VDC / 1A; 30VAC / 0.5A
	105-130%	
29-33VDC	56-65VDC	29-33VDC
	Shutdown Output Voltage with Auto Recovery	

Wire Gauge Rating Table can be found on the inside back cover

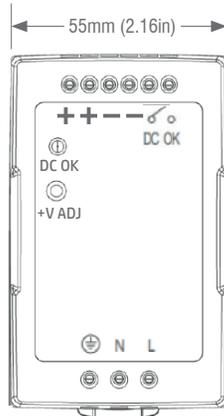
Dimensions mm (in)



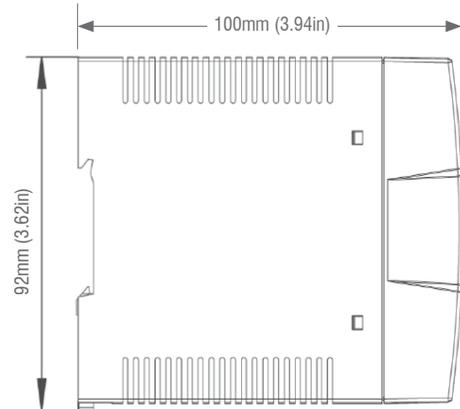
LPS-1-010-24DC
LPS-1-024-24DC



LPS-1-030-5DC
LPS-1-040-12DC
LPS-1-040-24DC
LPS-1-060-12DC
LPS-1-060-24DC



LPS-1-090-12DC



Terminal Assignment

	Terminal	All Models
Input	⊕	FG
	N	AC / N or DC-
	L	AC / L or DC+
Output	-V	DC OUTPUT V-
	+V	DC OUTPUT V+

Installation

Ventilation / Cooling

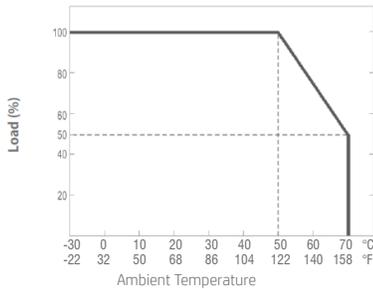
Suggested installation clearance, top 40mm, bottom 20mm and 25mm left or right if the adjacent device is also a heat generating source.

Connector Size Range

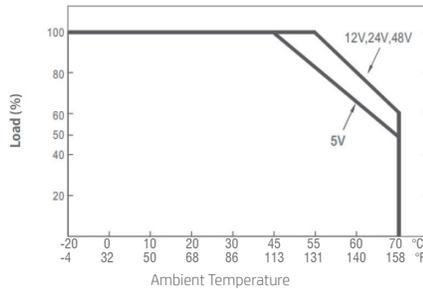
- AWG24-10 (0.2 ~ 4mm²) stranded / solid cable,
- Input connector can withstand torque at maximum 1,016Nm/ 0.7494 lb-ft
- Output connector can withstand torque at maximum 0.62Nm/ 0.4573 lb-ft
- Cable stripping 8mm (0.315in)
- Only use copper conductors 60/75°C (140/167°F)

Derating Graphs

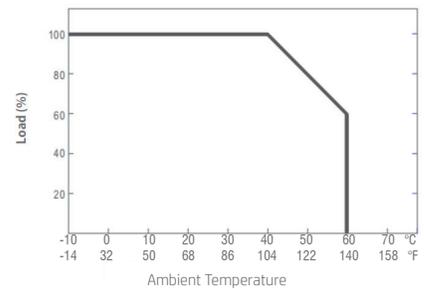
Temperature Derating



LPS-1-010-xxDC to LPS-1-040-xxDC

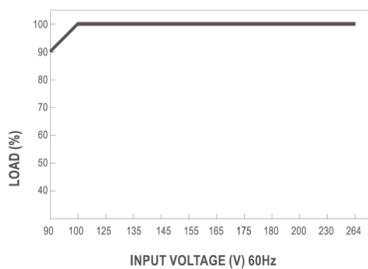


LPS-1-060-xxDC

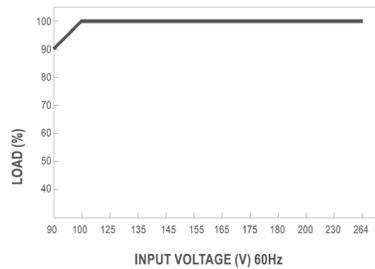


LPS-1-090-xxDC

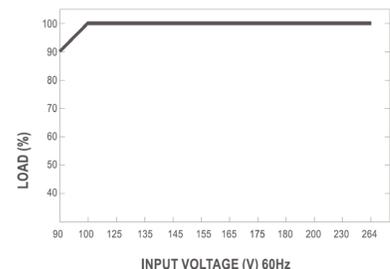
Output Derating



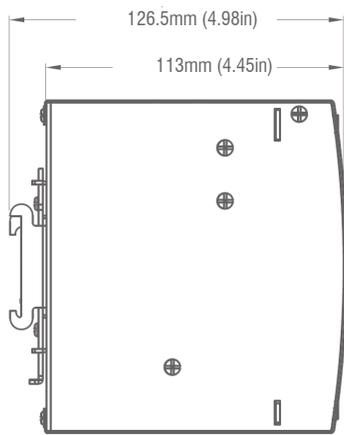
LPS-1-010-xxDC to LPS-1-040-xxDC



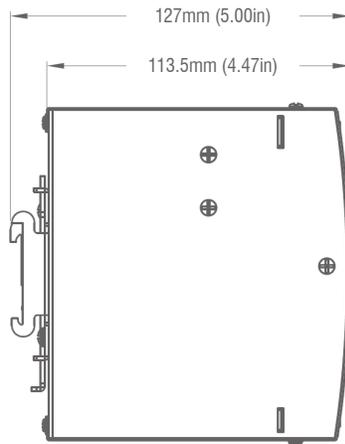
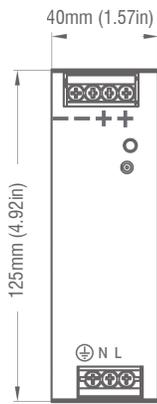
LPS-1-060-xxDC



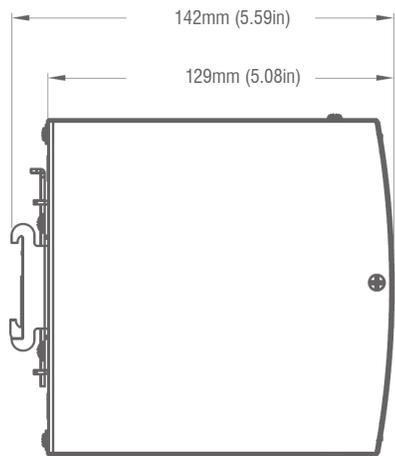
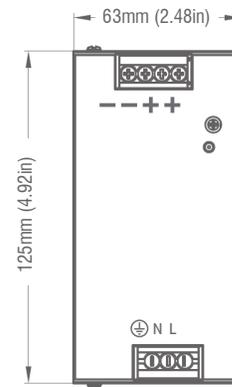
LPS-1-090-xxDC



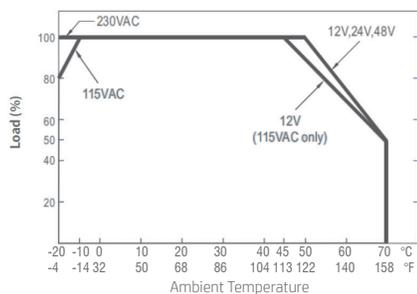
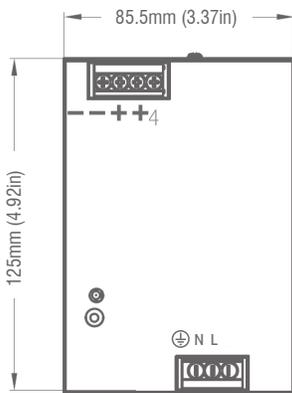
LPS-1-120-xxDC



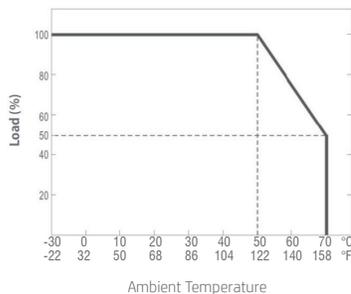
LPS-1-240-xxDC



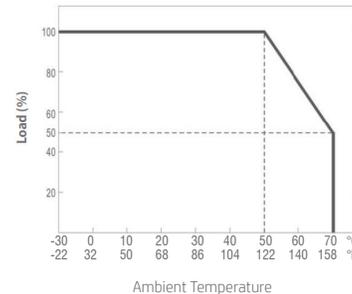
LPS-1-480-24DC



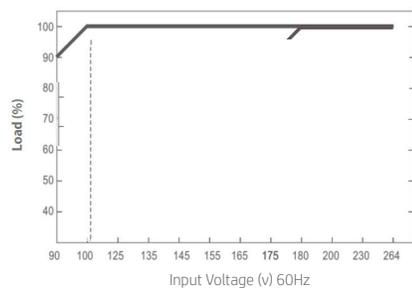
LPS-1-120-xxDC



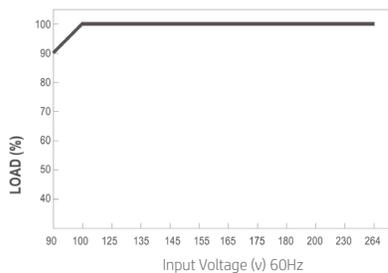
LPS-1-240-xxDC



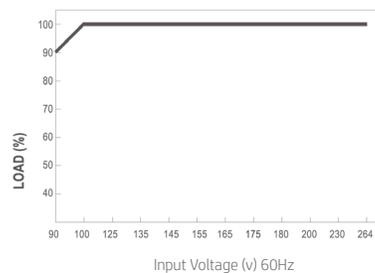
LPS-1-480-xxDC



LPS-1-120-xxDC



LPS-1-240-xxDC



LPS-1-480-xxDC

LPS Series

Three Phase 240W-480W AC-DC DIN Rail Power Supplies

Key Features

- 24 VDC
- 3 Phase Input: 340-550VAC / 480-780VDC
- Accepts Bi-Phase Input
- High Efficiency
- Short Circuit Protection
- Internal Input Filter
- IP20 Protection Rated



Technical Specification

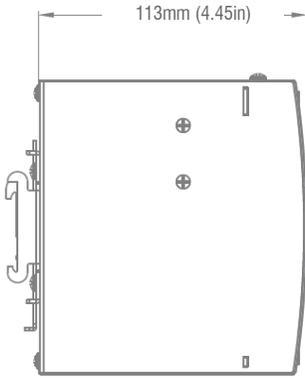
Model	LPS-3-240-24DC	LPS-3-480-24DC
Input Voltage	340-550VAC / 480-780VDC	
Output Wattage	240W	480W
Output Voltage / Power Dissipation	24VDC / 35W	24VDC / 63W
Output Current	10A	20A
Efficiency	90%	92%
General Specification		
Approval	UKCA, CE / cULus	
Isolation Voltage	3000VAC/4242VDC	
Isolation Resistance	100MΩ @ 500VDC	
Ambient Temperature	-30 to +70°C	
Derating	(60 to 70°C) 2.5%/°C	
Storage Temperature	-40 to +85°C	
Relative Humidity	10 to 95% RH	
Cooling	Free air convection (Fanless)	
Tightening Torque	1.0Nm	
Screw Type	Flat Screw	
Dimensions	L125 x W63 x D113 (126.5 inc. DIN rail mount) mm	L124 x W85 x D129 (142.5 inc. DIN rail mount) mm
Weight	1000g	1510g
Case Material	Metal	
Input Specifications		
Input Voltage Range	340-550VAC, 480-780VDC	
Line Frequency	50/60Hz	
Power Factor @ 400VAC	0.53 Typical	
Power Factor @ 500VAC	0.52 Typical	
Inrush Current (400VAC)	Cold Start 50A	
Output Specifications		
Output Voltage Accuracy	±1%	
Minimum Load	0%	
Line Regulation	±0.5%	
Load Regulation	±1%	
Turn On Time	1000ms after AC applied to input at full resistive load	
Voltage Fall Time	150ms	
Voltage Rise Time	150ms	
Hold Up Time (400VAC)	20ms	
Temperature Coefficient	±0.03%/°C	
Ripple & Noise	2.) <100mV	
Voltage Trim Range	22.5-28.5VDC	
DC ON	LED (Green)	
DC OK Relay	60VDC / 0.3A; 30VDC / 1A; 30VAC / 0.5A	
Control & Protection		
Rated Overload Protection	105-130%	
Over Voltage Protection	30-36VDC	
Output Short Circuit	Hiccup mode, it will recover automatically after fault condition is removed	Shutdown Output Voltage with Auto Recovery

Note:

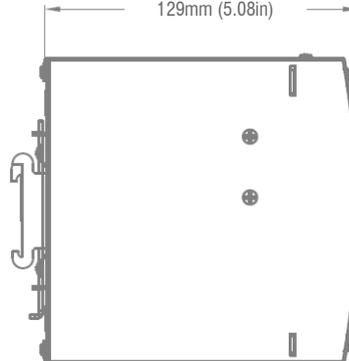
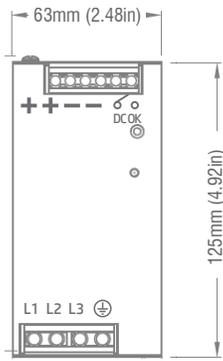
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

Wire Gauge Rating Table can be found on the inside back cover

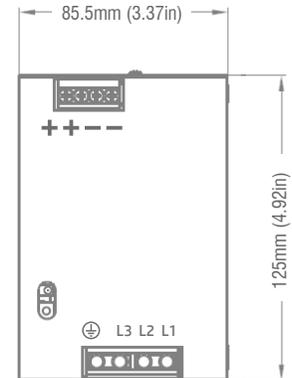
Dimensions (mm)



LPS-3-240-xxDC



LPS-3-480-xxDC



Terminal Assignment

	Terminal	LPS-3-240-xxDC	LPS-3-480-xxDC
Input	1	AC / L1	PE ⊕
	2	AC / L2 or DC-	AC / L3
	3	AC / L3 or DC+	AC / L2
	4	FG ⊕	AC / L1
Output	1, 2	DC OUTPUT V+	DC OUTPUT V+
	3, 4	DC OUTPUT V-	DC OUTPUT V-
	5, 6	DC OK Relay Contact	

Installation

Ventilation / Cooling

Suggested installation clearance, top 40mm, bottom 20mm and 25mm left or right if the adjacent device is also a heat generating source.

Connector Size Range

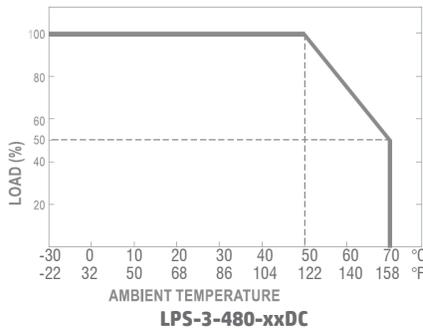
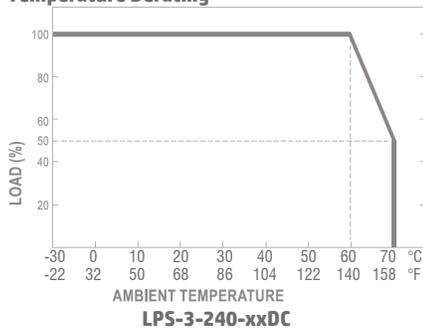
- AWG24-10 (0.2 ~ 4mm²) stranded / solid cable,
- Input connector can withstand torque at maximum 1,016Nm/ 0.7494 lb-ft
- Output connector can withstand torque at maximum 0.62Nm/ 0.4573 lb-ft
- Cable stripping 8mm (0.315in)
- Only use copper conductors 60/75°C (140/167°F)

DC OK Relay Contact (optional for LPS-3-480)

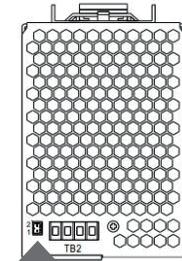
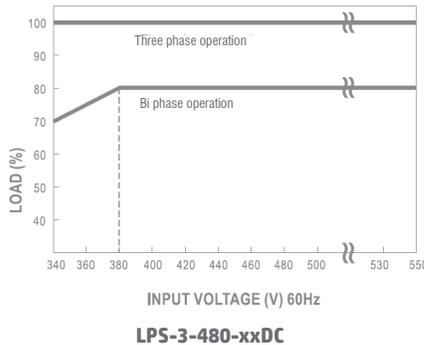
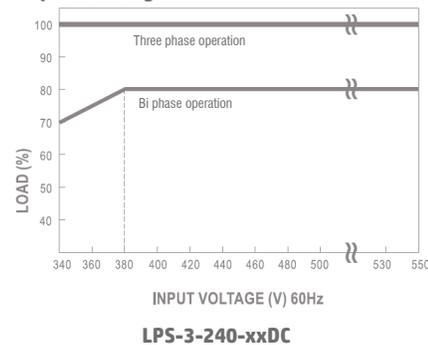
Contact Close	PSU on / DC OK
Contact Open	PSU off / DC Fail
Contact Ratings (max.)	60VDC / 0.3A, 30VDC / 1A, 30VAC / 0.5A resistive load

Derating Graphs

Temperature Derating



Output Derating



Supplied Terminal Block for LPS-3-480 (ONLY) DC OK Relay Contact
Wire Diameter: 0.081-0.517mm² (20-28AWG)

LPS Series

Three Phase 960W AC-DC DIN Rail Power Supplies

Key Features

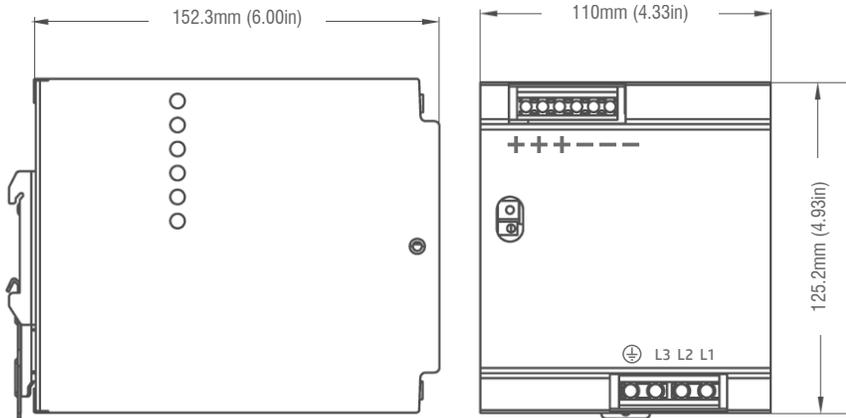
- 24 VDC
- 3 Phase Input: 340-550VAC / 480-780VDC
- Accepts Bi-Phase Input
- High Efficiency
- Short Circuit Protection
- Internal Input Filter
- IP20 Protection Rated



Technical Specification

Model	LPS-3-960-24DC
Input Voltage	340-550VAC / 480-780VDC
Output Wattage	960W
Output Voltage / Power Dissipation	24VDC / 35W
Output Current	40A
Efficiency	94%
General Specification	
Approval	UKCA / CE
Isolation Voltage	3000VAC/4242VDC
Isolation Resistance	100MΩ @ 500VDC
Ambient Temperature	-30 to +70°C / -22 to +158°F
Derating	(60 to 70°C) 2.5%/°C / (140 to 158°F) 1.8%/°F
Storage Temperature	-40 to +85°C / -40 to 185°F
Relative Humidity	10 to 95% RH
Cooling	Free air convection (Fanless)
Tightening Torque	1.0Nm
Screw Type	Flat Screw
Dimensions	L125.2 x W110 x D152.3 (165.3 inc. DIN rail mount) mm
Weight	2470g
Case Material	Metal
Input Specifications	
Input Voltage Range	340-550VAC, 480-780VDC
Line Frequency	50/60Hz
Power Factor @ 400VAC	0.88 Typical
Power Factor @ 500VAC	0.86 Typical
Inrush Current (400VAC)	Cold Start 60A
Output Specifications	
Output Voltage Accuracy	±1%
Minimum Load	0%
Line Regulation	±0.5%
Load Regulation	±1%
Turn On Time	1000ms after AC applied to input at full resistive load
Voltage Fall Time	150ms
Voltage Rise Time	150ms
Hold Up Time (400VAC)	20ms
Temperature Coefficient	±0.03%/°C
Ripple & Noise	2.) <100mV
Voltage Trim Range	22.5-28.5VDC
DC ON	LED (Green)
DC OK Relay	60VDC / 0.3A; 30VDC / 1A; 30VAC / 0.5A
Control & Protection	
Rated Overload Protection	105-130%
Over Voltage Protection	29-33VDC
Output Short Circuit	Shutdown Output Voltage with Auto Recovery

Dimensions mm (in)



LPS-3-960-24DC

Terminal Assignment

	Terminal	LPS-3-960-24DC
Input	1	FG (⊕)
	2	AC / L3
	3	AC / L2
	4	AC/L1
Output	1, 2, 3	DC OUTPUT V+
	4, 5, 6	DC OUTPUT V-

Installation

Ventilation / Cooling

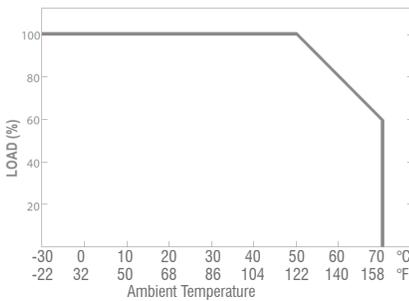
Suggested installation clearance, top 40mm, bottom 20mm and 25mm left or right if the adjacent device is also a heat generating source.

Connector Size Range

- AWG24-10 (0.2 ~ 4mm²) stranded / solid cable,
- Input connector can withstand torque at maximum 1,016Nm/ 0.7494 lb-ft
- Output connector can withstand torque at maximum 0.62Nm/ 0.4573 lb-ft
- Cable stripping 8mm (0.315in)
- Only use copper conductors 60/75°C (140/167°F)

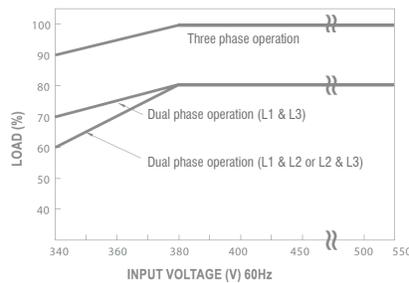
Derating Graphs

Temperature Derating

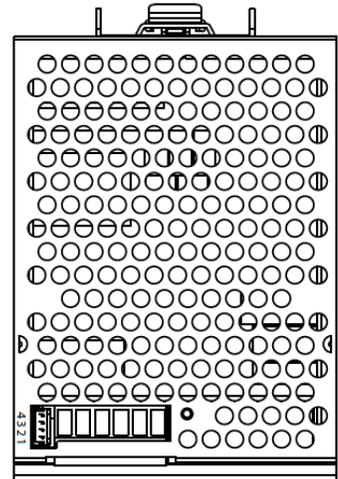


LPS-3-960-24DC

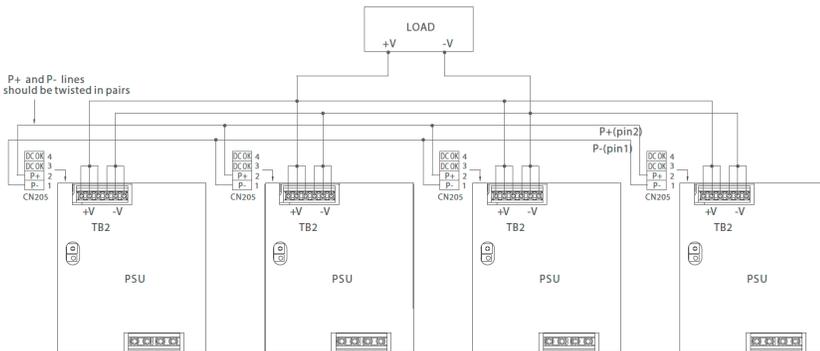
Output Derating



LPS-3-960-24DC



Current Sharing



DC Contact for Current Share

Terminal	Description
1	P- (Current Share)
2	P+ (Current Share)
3, 4	DC OK Relay Contact

Note:

- All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
- Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
- Tolerance : includes set up tolerance, line regulation and load regulation.
- The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

Wire Gauge Rating Table can be found on the inside back cover

HPS Series Peak Performance

120W-480W AC-DC DIN Rail Power Supplies

Key Features

- 12, 24 & 48 VDC
- Universal Input: 90-264VAC / 120-375VDC
- High Efficiency
- Short Circuit Protection
- Internal Input Filter
- IP20 Protection Rated



Technical Specification

Model	HPS-1-120-12DC	HPS-1-120-24DC	HPS-1-120-48DC
Input Voltage	90-264VAC / 127-375VDC		
Output Wattage	120W		
Peak Output Wattage	180W (for 3 secs)		
Output Voltage / Power Dissipation	12VDC / 24W	24VDC / 20W	48VDC / 19W
Output Current	10A	5A	2.5A
Efficiency	89%	91%	91%
General Specification			
Approval	UKCA , CE / cULus		
Isolation Voltage	3000VAC/4242VDC		
Isolation Resistance	100MΩ @ 500VDC		
Ambient Temperature	-25 to +70°C		
Derating	(61 to 71°C) 2.5%/°C		
Storage Temperature	-40 to +85°C		
Relative Humidity	10 to 95% RH		
Cooling	Free air convection (Fanless)		
Tightening Torque	0.8Nm		
Screw Type	Flat Screw 3.5mm		
Dimensions	L125 x W40 x D113 (126.5 inc. DIN rail mount) mm		
Weight	600g		
Case Material	Metal		
Input Specifications			
Rated Input Voltage	115 - 230VAC (auto select)		
Input Voltage Range	90-264VAC, 127-375VDC		
Line Frequency	50/60Hz		
Power Factor @ 115VAC	0.96 Typical (0.58 Measured)		
Power Factor @ 230VAC	0.93 Typical (0.75 Measured)		
Inrush Current (115 / 230VAC)	35 / 70A		
Output Specifications			
Output Voltage Accuracy	±1%		
Minimum Load	0%		
Line Regulation	±0.5%		
Load Regulation	±1%		
Turn On Time	1000ms after AC applied to input at full resistive load		
Voltage Fall Time	150ms		
Voltage Rise Time	150ms		
Hold Up Time (115 / 230VAC)	10 / 16ms		
Temperature Coefficient	±0.03%/°C		
Ripple & Noise	2.) <120mVp-p		
Voltage Trim Range	11.4 ~ 14.5VDC	22.5 ~ 28.5VDC	45 ~ 55VDC
DC ON	LED (Green)		
DC OK Relay	30V / 1A Resistive Load		
Control & Protection			
Rated Overload Protection	110-150%		
Over Voltage Protection	14-17VDC	29-33VDC	50-65VDC
Output Short Circuit	Hiccup Mode	Shutdown Output Voltage with Auto Recovery	

Note:

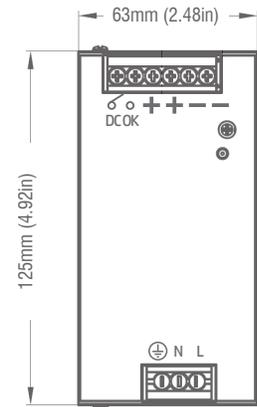
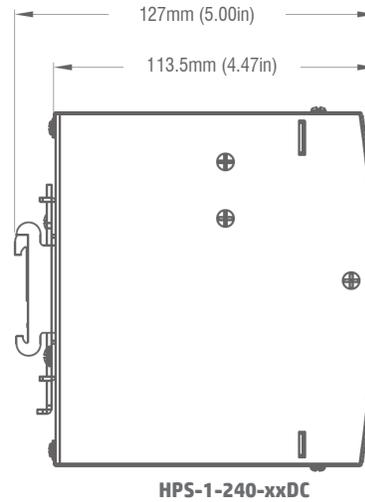
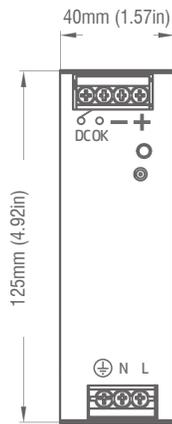
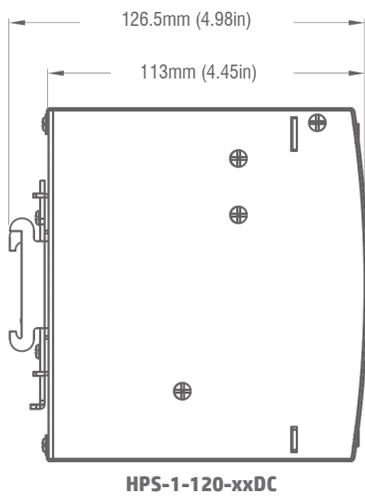
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

Wire Gauge Rating Table can be found on the inside back cover



HPS-1-240-24DC	HPS-1-240-48DC	HPS-1-480-24DC
	90-264VAC / 120-375VDC	
240W	240W	480W (Current share up to 3840W [7+1] paralleling)
	360W (for 3 secs)	720W (for 3 secs)
24VDC / 35W	48VDC / 32W	24VDC / 63W
10A	5A	20A
85.5%	90%	92%
	UKCA, CE / cULus	
	3000VAC/4242VDC	
	100MΩ @ 500VDC	
	-20 to +70°C	
	(55 to 70°C) 2.5%/°C	
	-40 to +85°C	
	10 to 95% RH	
	Free air convection	
	0.8Nm	1.0Nm
	Flat Screw 3.5mm	
	L125 x W63 x D113.5 (127 inc. DIN rail mount) mm	L125 x W85.5 x D129 (142 inc. DIN rail mount) mm
	1000g	1500g
	Metal	
	115-230VAC (auto select)	
	90-264VAC, 127-375VDC	
	50/60Hz	
	0.6 Typical (0.61 Measured)	0.99 Typical (0.99 Measured)
	0.75 Typical (0.77 Measured)	0.97 Typical (0.97 Measured)
	20 / 35A	
	±1%	
	0%	
	±0.5%	
	±1%	
	1000ms after AC applied to input at full resistive load	
	150ms	
	150ms	
	10 / 16ms	25 / 30ms
	±0.03%/°C	
	2.) <150mVp-p	
22.5-28.5VDC	47-56VDC	22.5-28.5VDC
	LED (Green)	
	30V / 1A Resistive Load	
	105-130%	
29-33VDC	56-65VDC	29-33VDC
	Shutdown Output Voltage with Auto Recovery	

Dimensions mm (in)



Terminal Assignment

Input

Terminal	Description
⊕	Earth
N	AC Neutral or DC-
L	AC Live or DC+

Output

Terminal	Description
DC OK	Relay Contact
-	DC OUTPUT V-
+	DC OUTPUT V+

Output (HPS-1-480-24DC)

Terminal	Description
DC OK	Relay Contact
-	DC OUTPUT V-
+	DC OUTPUT V+
P+	Current Share*
P-	Current Share*

* Current Share up to 3840W (7+1) built-in paralleling.

Installation

Ventilation / Cooling

Suggested installation clearance, top 40mm, bottom 20mm and 25mm left or right if the adjacent device is also a heat generating source.

Connector Size Range

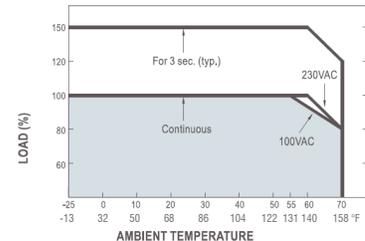
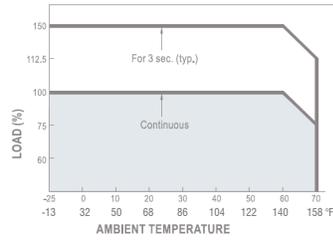
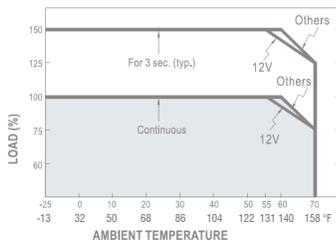
- AWG24-10 (0.2 ~ 4mm²) stranded / solid cable,
- Input connector can withstand torque at maximum 1,016Nm/0.7494 lb-ft
- Output connector can withstand torque at maximum 0.62Nm/0.4573 lb-ft
- Cable stripping 8mm (0.315in)
- Only use copper conductors 60/75°C (140/167°F)

DC OK Relay Contact

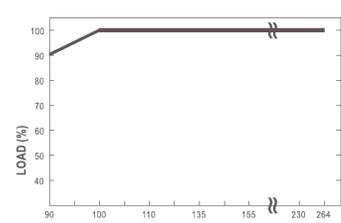
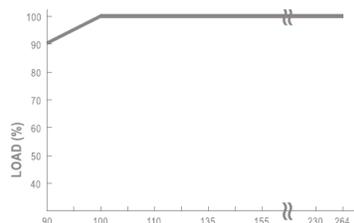
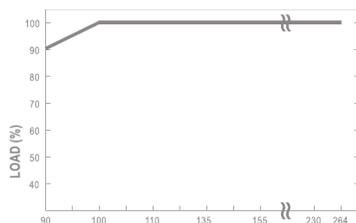
Contact Close	PSU turns on / DC OK
Contact Open	PSU turns off / DC Fail
Contact Ratings (max.)	30V / 1A resistive load

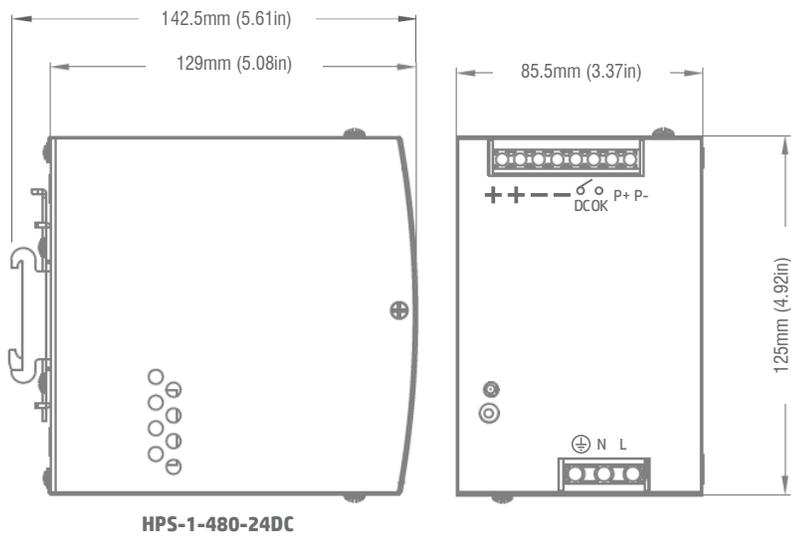
Derating Graphs

Temperature Derating

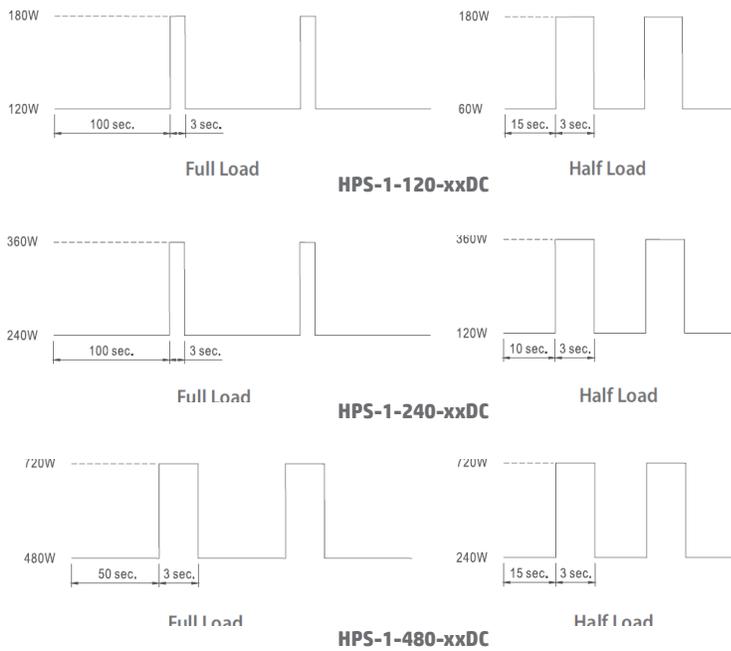


Output Derating

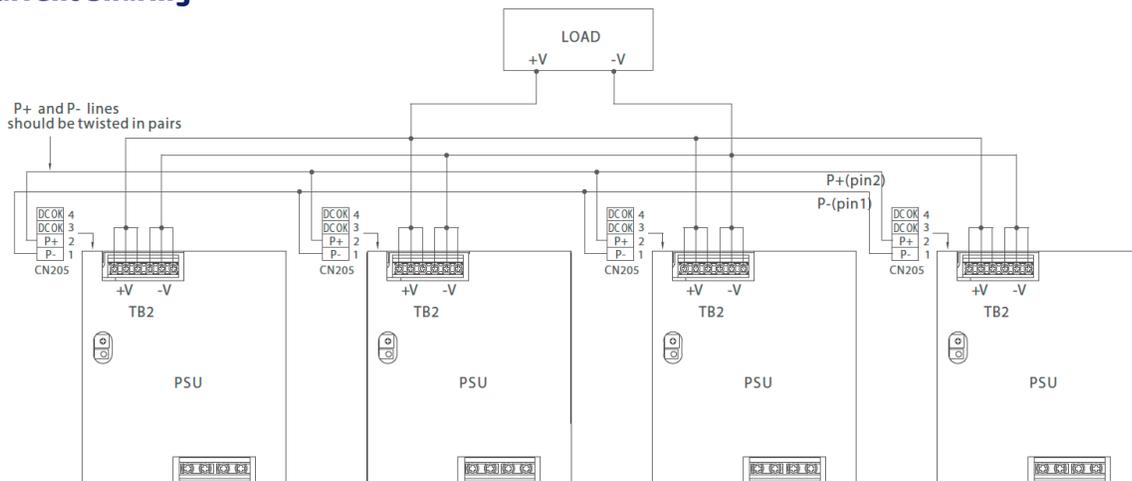




Peak Loading



Current Sharing



WPS Series **Ultra Wide Input** 60W-480W AC-DC DIN Rail Power Supplies

Key Features

- Single and Two phase Ultra Wide Input
- 180-550VAC/ 254 - 780VDC
- Built-in Constant Current Limiting Circuit
- Internal Input Filter
- Active PFC on 60W, 240W, 480W
- Overtemp/ Short Circuit. Over Voltage Protection
- IP20 Protection Rated



Technical Specification

Model	WPS-1-060-24DC	WPS-1-120-24DC
Input Voltage	180-550VAC/254-780VDC	180-550VAC/254-780VDC
Output Wattage	60W	120W
Output Voltage / Power Dissipation	24VDC / 60W	24VDC / 120W
Output Current	2.5A	5A
Efficiency	89%	89%
General Specification		
Approval	UKCA , CE / cULus	UKCA , CE / cULus
Isolation Resistance	100MΩ @ 500VDC	100MΩ @ 500VDC
Ambient Temperature	-30 to +85°C / -22 to +185°F	-25 to +60°C / -13 to +140°F
Derating	(60 to 85°C) 2.5%/°C / (140 to 185°F) 4.5%/°F	(61 to 71°C) 2.5%/°C / (141.8 to 159°F) 1.8%/°F
Storage Temperature	-40 to +85°C / -40 to 185°F	-40 to +85°C / -40 to 185°F
Relative Humidity	10 to 90% RH	10 to 90% RH
Cooling	Free air convection (Fanless)	Free air convection (Fanless)
Tightening Torque	0.8Nm	0.8Nm
Screw Type	Flat Screw 3.5mm	Flat Screw 3.5mm
Dimensions	L125 x W32 x D100.5	L125 x W40 x D113
Weight	450g	650g
Case Material	Metal	Metal
Input Specifications		
Input Voltage Range	180-550VAC/254-780VDC	180-550VAC/254-780VDC
Line Frequency	47/63Hz	47/63Hz
Power Factor @ 230VAC	0.93 Typical (0.75 Measured)	0.93 Typical (0.75 Measured)
Inrush Current (400 / 230VAC)	50A / 30A	50A / 30A
Output Specifications		
Output Voltage Accuracy	±1%	±1%
Minimum Load	0%	0%
Line Regulation	±0.5%	±0.5%
Load Regulation	±1%	±1%
Turn On Time	1000ms after AC applied to input at full resistive load	1000ms after AC applied to input at full resistive load
Voltage Fall Time	150ms	150ms
Voltage Rise Time	150ms	150ms
Hold Up Time (230VAC)	16ms	16ms
Temperature Coefficient	±0.03%/°C	±0.03%/°C
Ripple & Noise	^{2.)} < 150mVp-p	^{2.)} < 120mVp-p
Voltage Trim Range	22.5-28.5VDC	24-29VDC
DC ON	LED (Green)	LED (Green)
DC OK Relay	30V / 1A Resistive Load	30V / 1A Resistive Load
Control & Protection		
Rated Overload Protection	105-135%	105-130%
Over Voltage Protection	31-37VDC	29-33VDC
Output Short Circuit	Hiccup Mode with Auto Recovery	Shutdown Output Voltage with Auto Recovery

Note:

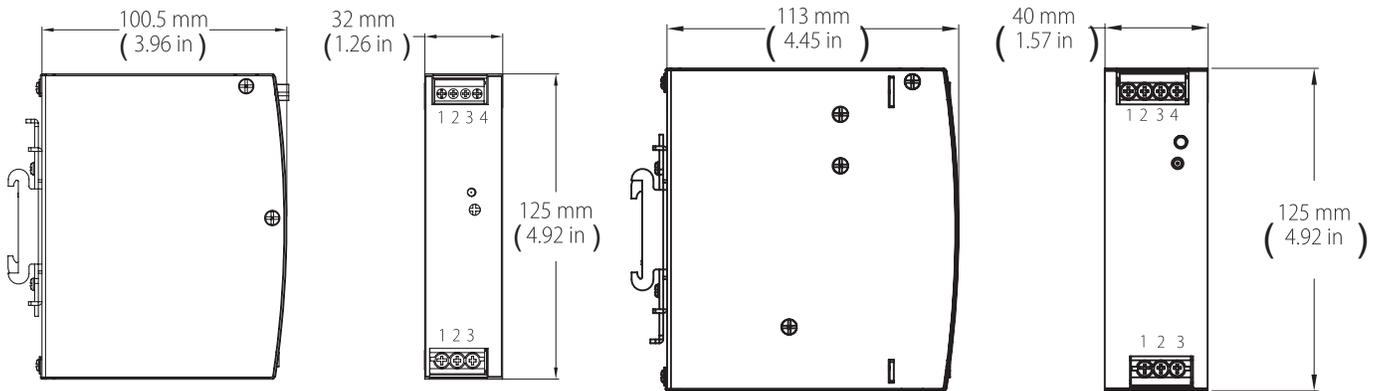
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

Wire Gauge Rating Table can be found on the inside back cover



WPS-1-240-24DC	WPS-1-480-24DC
180-550VAC/254-780VDC	180-550VAC/254-780VDC
240W	480W
24VDC / 240W	24VDC / 480W
10A	20A
91%	91%
UKCA , CE / cULus	UKCA , CE / cULus
100MΩ @ 500VDC	100MΩ @ 500VDC
-30 to +70°C / -22 to +158°F	-30 to +70°C / -22 to +158°F
(50 to 70°C) 2.5%/°C / (122 to 158°F) 3.6%/°F	(50 to 70°C) 2.5%/°C / (122 to +158°F) 3.6%/°F
-40 to +85°C / -40 to 185°F	-40 to +85°C / -40 to +185°F
10 to 90% RH	10 to 90% RH
Free air convection (Fanless)	Free air convection (Fanless)
0.8Nm	0.8Nm
Flat Screw 3.5mm	Flat Screw 3.5mm
L125 x W63 x D113	L125 x W85.5 x D129
1000g	1700g
Metal	Metal
180-550VAC/254-780VDC	180-550VAC/254-780VDC
47/63Hz	47/63Hz
0.93 Typical (0.75 Measured)	0.84 Typical (0.77 Measured)
50A / 30A	50A / 30A
±1%	±1%
0%	0%
±0.5%	±0.5%
±1%	±1%
1000ms after AC applied to input at full resistive load	1000ms after AC applied to input at full resistive load
150ms	150ms
150ms	150ms
16ms	16ms
±0.03%/°C	±0.03%/°C
2.) <150mVp-p	2.) <100mVp-p
24-29VDC	24-29VDC
LED (Green)	LED (Green)
30V / 1A Resistive Load	30V / 1A Resistive Load
105-130%	105-130%
29-33VDC	29-33VDC
Shutdown Output Voltage with Auto Recovery	Shutdown Output Voltage with Auto Recovery

Dimensions mm (in)



WPS-1-060-xxDC

WPS-1-120-xxDC

Terminal Assignment

Input				Output			
Pin No.	Description			Pin No.	Description		
1	FG ⊕			1	-	DC OUTPUT V-	
2	L2	N	DC -	2	+	DC OUTPUT V+	
3	L1	L	DC+	3	DC	Relay Contact	
				4	OK	Relay Contact	

Input				Output			
Pin No.	Description			Pin No.	Description		
1	FG ⊕			1	DC	Relay Contact	
2	L2	N	DC -	2	OK	Relay Contact	
3	L1	L	DC+	3	-	DC Output V-	
				4	+	DC Output V+	

Input				Output			
Pin No.	Description			Pin No.	Description		
1	FG ⊕			1	DC	Relay Contact	
2	L2	N	DC -	2	OK	Relay Contact	
3	L1	L	DC+	3	+	DC Output V+	
				4	+	DC Output V+	
				5	-	DC Output V-	
				6	-	DC Output V-	

WPS-1-060-xxDC

WPS-1-120-xxDC

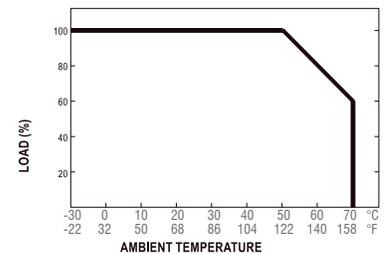
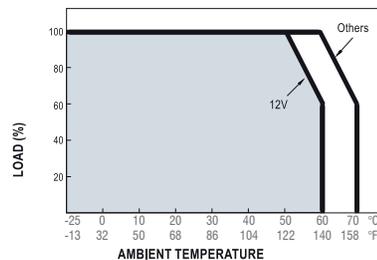
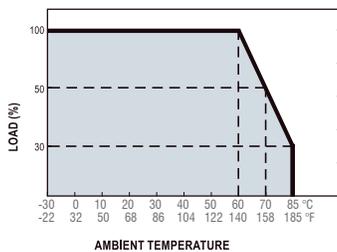
WPS-1-240-xxDC

DC OK Relay Contact

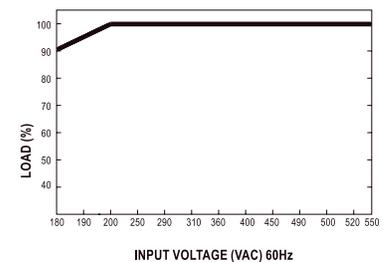
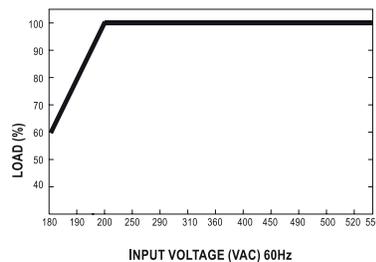
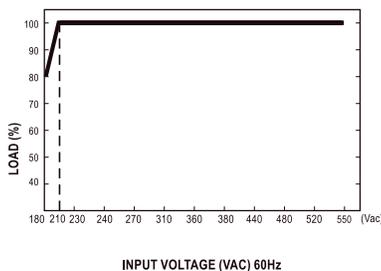
Contact Close	PSU turns on / DC OK
Contact Open	PSU turns off / DC Fail
Contact Ratings (max.)	30V / 1A resistive load

Derating Graphs

Temperature Derating



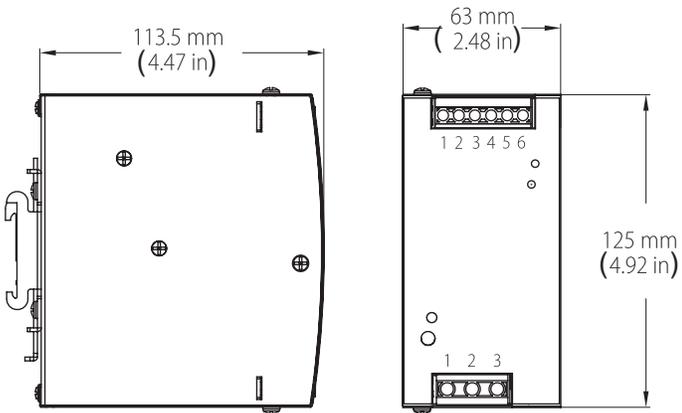
Output Derating



WPS-1-060-xxDC

WPS-1-120-xxDC

WPS-1-240-xxDC



WPS-1-240-24DC

Installation

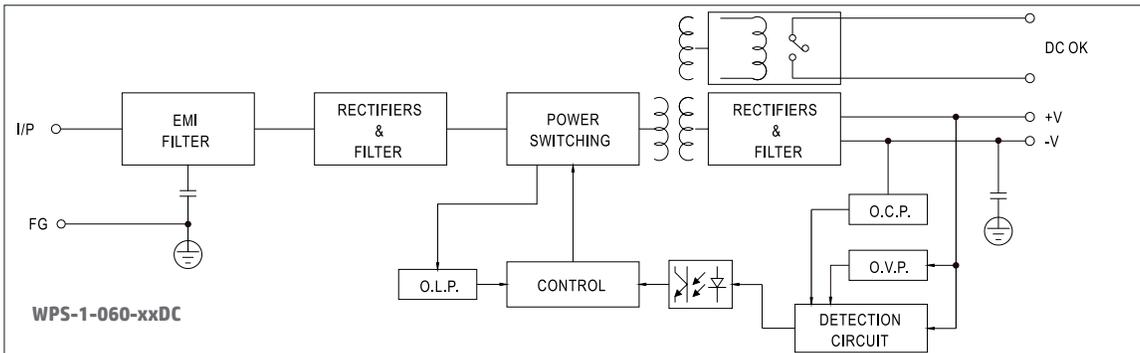
Ventilation / Cooling

Suggested installation clearance, top 40mm, bottom 20mm and 25mm left or right if the adjacent device is also a heat generating source.

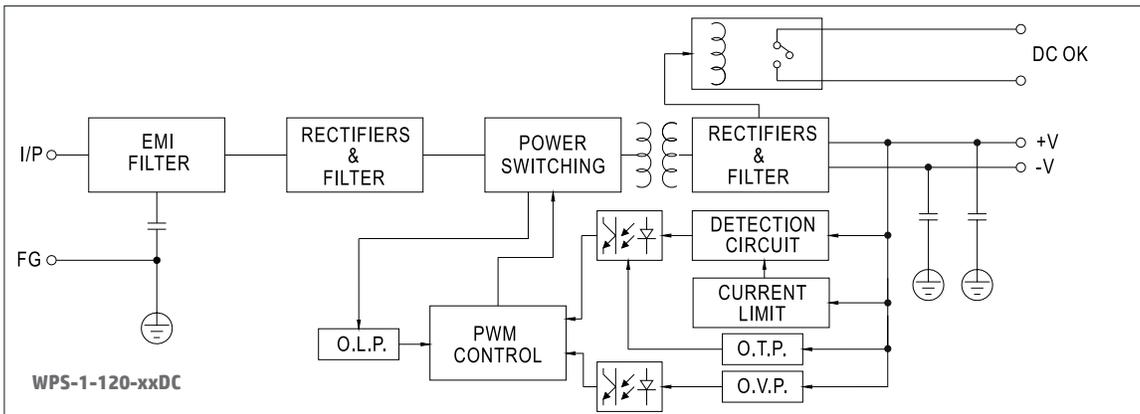
Connector Size Range

- AWG24-10 (0.2 ~ 4mm²) stranded / solid cable,
- Input connector can withstand torque at maximum 1,016Nm/ 0.7494 lb-ft
- Output connector can withstand torque at maximum 0.62Nm/ 0.4573 lb-ft
- Cable stripping 8mm (0.315in)
- Only use copper conductors 60/75°C (140/167°F)

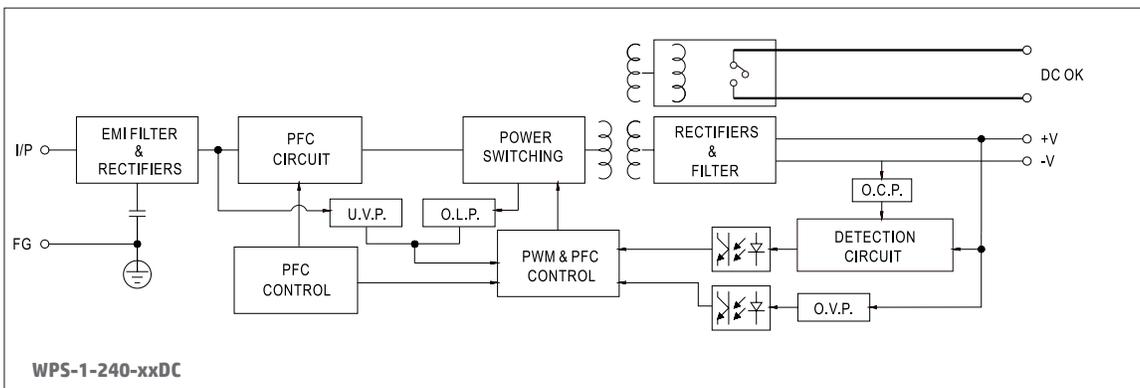
Circuit Schematic



WPS-1-060-xxDC



WPS-1-120-xxDC



WPS-1-240-xxDC

REDMOD20

Redundant Power Supply Module

Key Features

- Provides continued operation in the event of power supply failure
- Max. 20 Amps
- Relay ready contacts
- Decoupling diodes
- LED input alarm indicator
- 2 inputs
- IP20 Protection Rated



Technical Specification

Model	REDMOD20
Input Specifications	
Rated Input Voltage	19-29VDC
Number of Inputs	2
Rated Input Current	20A continuous
Output Specifications	
Output Voltage Drop	0.25V
Output Current	20A
Max. Output Current	30A for 5 seconds
Reverse Voltage (max.)	30V
DC ON Indicator	Green LED input OK
General Specifications	
Isolation Voltage	100VDC
Isolation Resistance	100MΩ @ 500VDC
Ambient Temperature	-40 to +80°C
Storage Temperature	-40 to +85°C
Relative Humidity	5 to 95% RH
Cooling	Free air convection
MTBF	792,000 hrs
Tightening Torque	0.5Nm
Screw Type	Flat Screw
Dimensions	L125 x W32 x D100 mm
Weight	500g
Case Material	Metal
Pollution Degree	2
Control & Protection	
Power Rdy (OK)	When input is >20V (±5%) or <30V (±5%)
Power Rdy (Fail)	When input is <20V (±5%) or >30V (±5%)
Contact Rating @ 30VDC	1.0A
Approvals & Standards	
	CE

Terminal Assignment

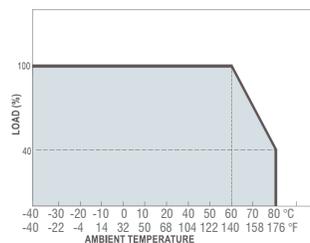
Input		Output	
Terminal	Description	Terminal	Description
1	DC input +Vin1	1, 2	Alarm1 DC OK
2	DC input - Vin1	3, 4	Alarm2 DC OK
3	DC input +Vin2	5, 6	FG
4	DC input - Vin2	7	DC output +Vout
		8	DC output - Vout

DC OK Relay Contact

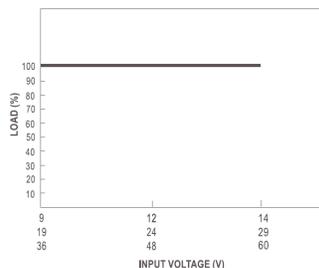
Contact Close (DC OK)	PSU turns on
Contact Open (DC Fail)	PSU turns off
Contact Ratings (max.)	30V / 1A resistive load

Derating Graphs

Temperature Derating

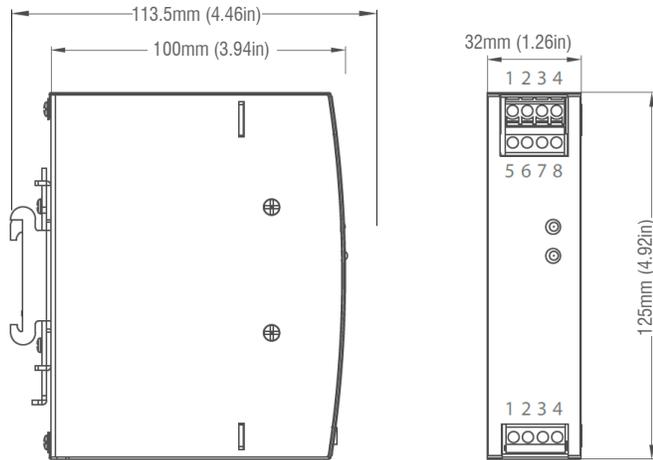


Output Derating



Wire Gauge Rating Table can be found on the inside back cover

Dimensions mm (in)

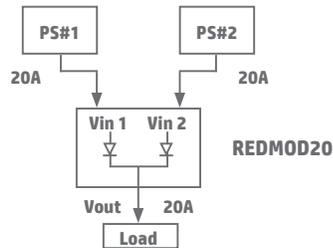


Cable Size Range

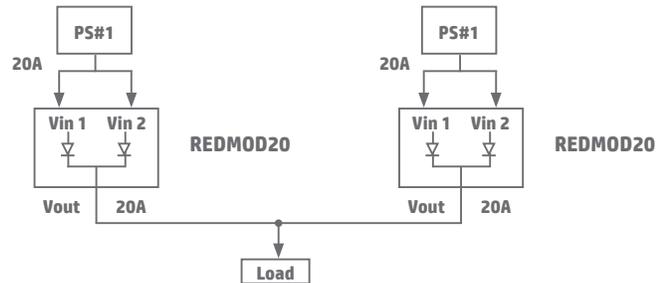
AWG24-10 (0.2 ~ 4mm²) stranded / solid cable,
8 m/m striping cable end recommends
Use copper conductors only, 60 / 75°C

Typical Application Notes

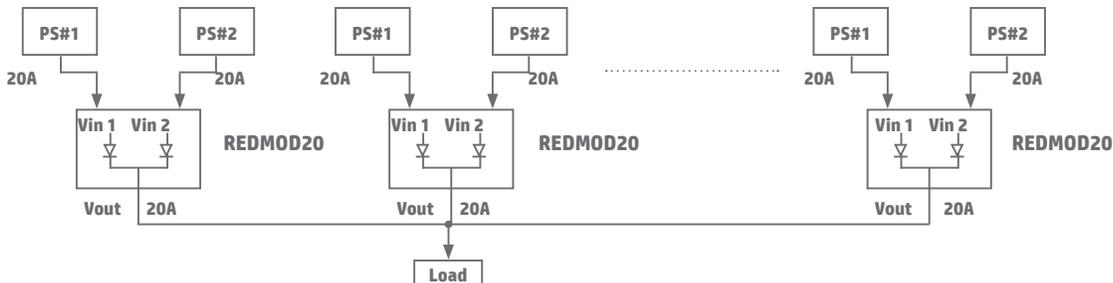
1) 1+1 Redundancy: Using 2 AC-DC power supplies to increase reliability.



2) Single Use: Connecting only one AC-DC power supply to one REDMOD20 to reduce the stress of the diodes and hence increase the reliability



3) 1+n Redundancy: Using multiple AC-DC power supplies as the redundant units to increase the reliability



Wire Gauge Rating Table

A Cross-Section of a Copper Conductor (Electric Wire)	Current-Carrying Capability	Voltage 230V
16 AWG/ 1.5 mm	19A	4.1kW
14 AWG/ 2.5 mm	27A	5.9kW
11 AWG/ 4.0 mm	38A	8.9kW
10 AWG/ 6.0 mm	46A	10.1kW
8 AWG/ 10.0 mm	70A	15.4kW



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