

# Series **DRP**

**LAMBDA**   
An Invensys company



# 60-1080

**WATTS**

**DIN RAIL MOUNTED POWER SUPPLY**

## **SINGLE OUTPUT**

**1 or 3 phase**

**90% efficiency**

**High overload current**

**Rapid connection**

**EMC: EN55022/B, EN55011/B,  
VDE0160, EN61000-4-2, 3, 4, 5, 6, 11**

**Approvals: EN60950, UL1950,  
CSA950, UL508 listed**

**Warranty 2 years**

## **INPUT**

Input voltage range:	DRP-60 to 240: 85-132/176-264VAC selectable by front panel switch DRP-480-1: 184-264VAC only DRP-480-1AR: 85-132/176-264VAC Autorange DRP-480-3: 3 Phase AC 400V, -15%, +20% (340-479VAC) DRP-480-3H: 3 Phase AC 480V, -15% +20% (408-576VAC) DRP-720-3 & DRP-120-3: 3 Phase 340-576VAC DRP-960-3: 3 Phase 340-575VAC 47-63Hz Suitable for IT Power Systems
Continuous operation:	160-375VDC: DRP-60 210-375VDC: DRP-120/240 270-370VDC: DRP-480-1 450-700VDC: DRP-480-3 550-820VDC: DRP-480-3H 450-820VDC: DRP-120-3, DRP-720-3 450-810VDC: DRP-960
Input current:	<1.3A (115V); <0.7A (230V): 60W <2.6A (115V); <1.4A (230V): 120W 3 x 0.5A: DRP-120-3 <6A (115V); <2.8A (230V): 240W <5A (230V): DRP-480-1 <12A (115V); <6A (230V): 480W/AR 3 x 1.5A: DRP-480-3 3 x 2A: DRP-720-3 3 x 3A: DRP-960-3
Inrush current:	<25A at 264VAC (cold start): 60W <15A at 264VAC (coldstart): 120W <25A at 575VAC (coldstart): 120W-3 <30A at 264VAC (coldstart): 240W <33A at 264VAC : DRP-480-1 <85A at 264VAC (coldstart): 480W1AR <15A at 440VAC: DRP-480-3 <17A at 576VAC: DRP-720-3 <30A at 440VAC: DRP-960-3
Fuse:	External input fuse is required for 3 Phase input versions and DRP480-1 Check with Technical Sales.
PFC: (Power Factor Correction)	EN61000-3-2 on DRP-120-3, 480-3(H) to DRP-960-3 (optional on other models)
Transient handling:	Active transient filter incorporated, to give transient immunity according to VDE 0160/W2 (1300V/1.3ms on DRP-480-3(H) to DRP960-3), (750V/1.3ms on DRP-60-480-1), for all load conditions.
Hold up time:	>20ms at 196V on DRP-60, 240 and at 230V on DRP-480-1 >37ms at 196V on DRP-120 >16ms at 400V on DRP-120-3 >11ms at 400VAC on DRP-480/720-3 >15ms at 400VAC on DRP-960

## OUTLINE SPECIFICATION (continued)

### OUTPUT

Output voltage:	DRP-60-1, DRP-120-1 +5% - 1% fixed All other models 24-28VDC, adjustable via a potentiometer on the front panel. The pots are covered and outputs preset to 24VDC
Noise suppression:	Filtered
Voltage regulation:	<2% over all
Ripple:	<25mVpp on DRP-60/120/480/720 <30mVpp on DRP-240 <50mVpp on DRP-960 20 MHz bandwidth, 50Ω measurement
Overload behaviour:	6A peak (<1min), Ta.45°C: 120W 12A peak (<1min), Ta.45°C: 240W 47A typ. limitation : 960W (No hiccup mode) 26A typ., hiccup at V out <14V for DRP480-1/3 (3), on 480-1AR user selectable to continuous current mode 32A typ, hiccup at V out <10V: 720W
OVP:	Over Voltage Protection: At V out >32V ±10%, the unit goes into hiccup mode
Front panel indicators:	Green LED on, when V out 'OK' DRP-480/720 only: Red LED on when V out <2V below set-point but greater than approx. 14V Red LED flashes when V out <approx 14V
Parallel operation:	Yes, up to 10 DRP units may be connected in parallel. (DRP480/720 and 960 only)

Current sharing is via the 'Voltage droop' method (25V@0.4A, 24V@20A (30A for 720W)) which is enabled by fitting a shorting plug into the bottom of the unit adjacent to the input connector ('P'-Position).

DRP-960C-3 active current sharing

### GENERAL

Efficiency	Typ. 87.5% (230VAC, 24V/2.5A): 60W Typ. 90% (230VAC,24V/5A): 120W, 240W Typ. 92% (400VAC, 24V/20A): 480W, 720W, 960W
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### RELIABILITY

MTBF:	740.000h: 60W 520.000h: 120W 425.000h: 240W, 720W 310.000h: DRP-480-1/3 305.000h: DRP-960-3 acc. to Siemens Norm SN 29500, Tamb = +40°C)
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### CONSTRUCTION/MECHANICS

Dimensions and Weight	60, 120, 240, 480, 720, 960		
Model	Weight	W	H
DRP-60	0.46kg	50	125
DRP-120	0.62kg	65	125
DRP-120-3	0.73kg	73	125
DRP-240	0.98kg	122	125
DRP-480	1.8kg	220	125
DRP-720	2.0kg	240	125
DRP-960	3.3kg	275	125
Depth	103mm (+ DIN Rail), 120mm for DRP-120-3 113mm for DRP-720, 118mm for 960W		
Free space needed for ventilation:	≥70mm under and above the unit, ≥25mm at the left and right.		
Case	Robust metal casing with fine ventilating grid, to keep out small part (e.g. screws)		
Terminals	Screw terminals, connector size range Solid: 1.5-6mm <sup>2</sup> Flexible: 1.5-4mm <sup>2</sup>		
Input:	Screw terminals, connector size range Solid: 1.5-6mm <sup>2</sup> Flexible: 1.5-4mm <sup>2</sup>		
Output:	Robust screw terminals		
Mounting	on DIN-Rail		
DIN Rail Types:	TS35/7.5mm (9535/7.5) or TS35/15mm (9535/15)		
Simple snap-on system			
Sits safely and firmly on the DIN Rail			
No tools required to remove			

### APPROVALS\*

EN60950 CE MARKED FOR LVD, UL1950, UL508 listed, CUL/CSA-C22.2 No. 950-M90, EN50178

\*Check with Technical Sales for current status of approvals

### EMC

EN50081-1, -2 Class B (EN55011, EN55022), EN50082-1, -2, EN61000-4-2, -3, -4, -5, -6, -11 VDE0160/ W2

### WARRANTY

2 years including parts and labour

## ELECTRICAL SPECIFICATION

Model No.	Maximum power Watts	Input VAC	Output Volts	Output	
				+45°C	+60°C
DRP-60-1	60	115/230	24	2.5A	2.5A
DRP-120-1	144	115/230	24	6A	5A
DRP-120-3	144	3 PH 400/480	24	6A	5A
DRP-240-1	288	115/230	24**	12A	10A
DRP-480-1	600	230	24**	25A	20A
DRP-480-1AR*	600	115/230	24**	25A	20A
DRP-480-3	600	3 PH 400	24**	25A	20A
DRP-480-3H	600	3 PH 480	24**	25A	20A
DRP-720-3	720	3 PH 400/480	24**	30A	30A
DRP-960-3	1080	3 PH 400/480	24**	45A	40A
DRP-960C-3***	1080	3 PH 400/480	24**	45A	40A

\* 115/230VAC autorange

\*\* Adjustable via potentiometer

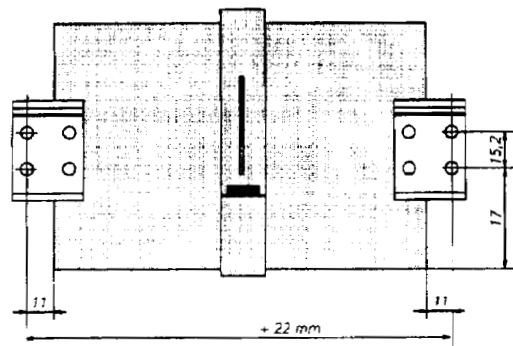
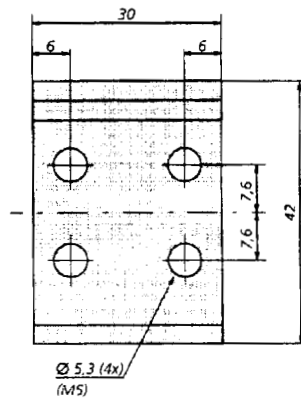
\*\*\* Active current sharing

## OPTION (Screw mounting set SLZ01)

### SLZ01

Instead of snapping a DRP unit on the DIN rail, you can also screw it on with means of the screw mounting set SLZ01.

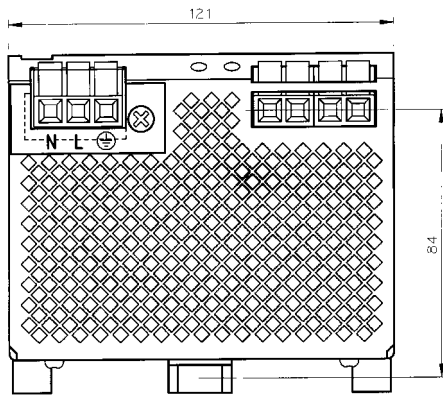
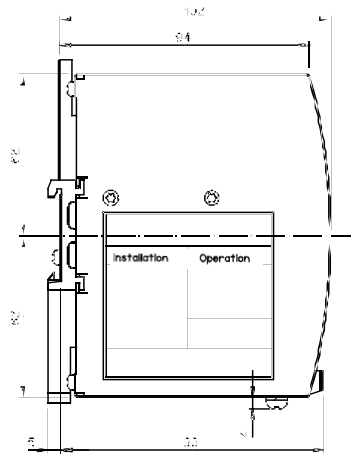
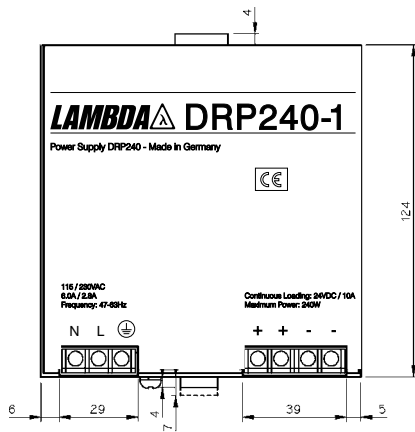
This set consists of an aluminium profile, which replaces the existing two profiles at the back of the unit.



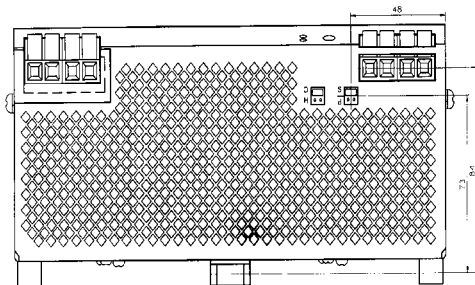
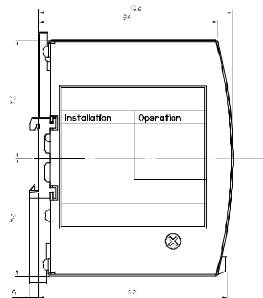
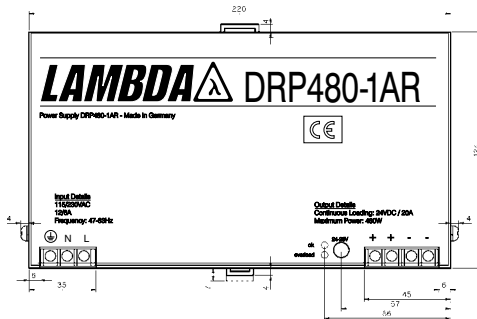


# PHYSICAL SPECIFICATION (continued)

## DRP240

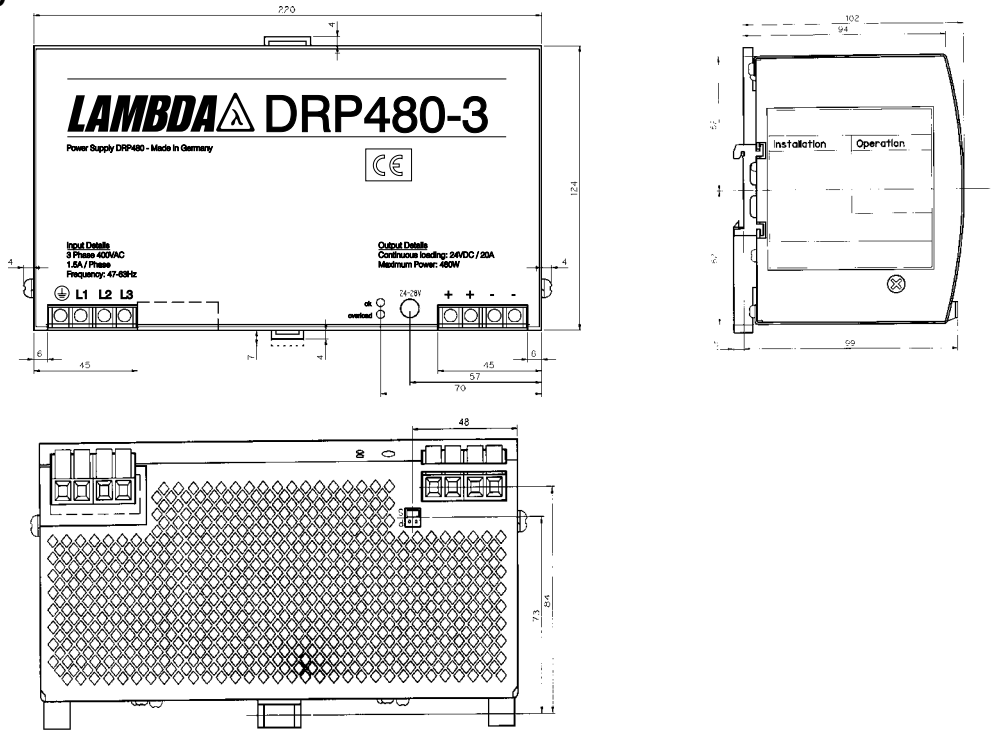


## DRP480AR



# PHYSICAL SPECIFICATION (continued)

## DRP480



## DRP720

