

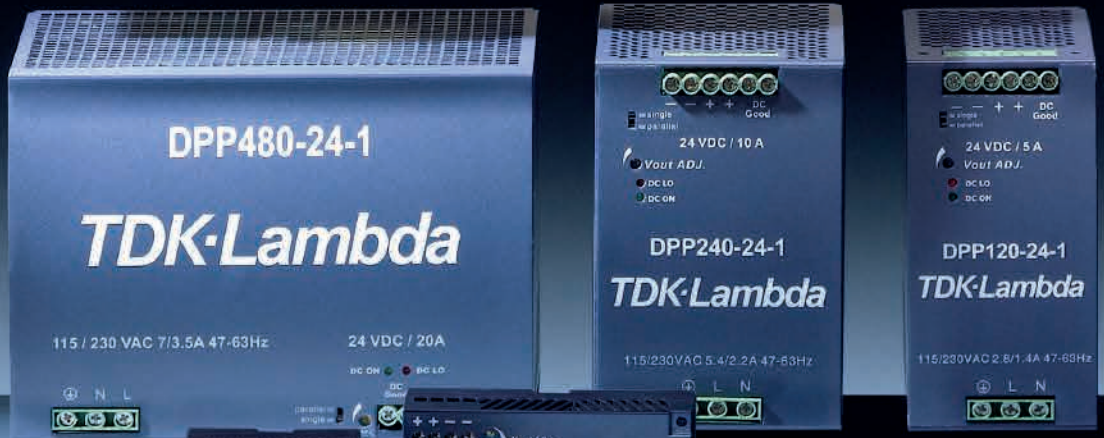
# DIN Rail Power Supplies 10W to 960W

EN

# DIN-RAIL POWER SUPPLIES

*TDK-Lambda*







# Innovative, reliable, powerful

DIN rail power supplies from TDK-Lambda deliver the highest quality and performance required for tough industrial applications. Our new generation DRB and DRF product lines raise the bar for size and efficiency. Available in seven different power ratings, the units deliver between 15 and 480 W output power with a choice of standard output voltages from single phase AC input. The excellent efficiency up to 94% minimizes energy consumption; the units are convection cooled and can be operated at up to +70°C. The narrow width saves valuable space on the DIN Rail.

Together with our proven high selling DPP, DPX and DSP Series, the DRB and DRF series deliver the performance you would expect from the market leader in Industrial power supplies.

[www.emea.tdk-lambda.com](http://www.emea.tdk-lambda.com)



## Our product families

### Flat style power supplies (55.6mm) in plastic housing

#### DSP Series

Just 55.6 mm deep, the DSP DIN-Rail power supplies specifically aim at an easy integration into shallow cabinets.

The DSP series is designed for supplying low-voltage controls in building automation applications.

- 10, 30, 60 and 100W
- 1-phase input
- Protection class II (no protective earth conductor)
- EN/DIN 43880:1988-12

[Technical specifications page 6](#)

[www.uk.tdk-lambda.com/dsp](http://www.uk.tdk-lambda.com/dsp)



### Narrow design for industrial applications

#### DRB Series

The new economy range DRB impresses with an extremely slim form factor combined with a high power density. The units are ideal for all industrial applications with a high power demand that have little space available.

- 15, 30, 50 and 100W
- 1-phase input
- Eco design according to the ErP directive
- Excellent cost-benefit ratio

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[www.uk.tdk-lambda.com/din](http://www.uk.tdk-lambda.com/din)



### 3-phase operation with input ranges of 340-575Vac

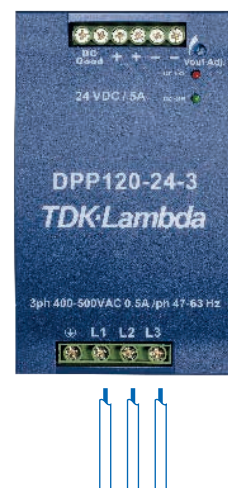
#### DPP Series

The DPP series covers the full power range between 15 and 960W; units with 120W or higher are also available with a 3-phase input. Applicable for industrial areas.

- 15, 25, 30, 50, 100, 120, 240, 480 and 960W
- 1-phase and 3-phase input
- Optimized cost efficiency

[Technical specifications page 8](#)

[www.uk.tdk-lambda.com/dpp](http://www.uk.tdk-lambda.com/dpp)



## High efficiency and very narrow

### DRF Series

The premium class series DRF boasts with its comprehensive functionality, high efficiency, extraordinary power density and excellent energy efficiency. The units are well suited for all demanding applications in industrial, automation, instrumentation, Process and Measurement applications.

- 120, 240 and 480W
- Up to 94% efficiency
- 1-phase input
- Eco design according to the ErP directive
- Comprehensive control options

[Technical specifications page 8](#)

[www.uk.tdk-lambda.com/din](http://www.uk.tdk-lambda.com/din)



## DC/DC converters for low power on the DIN rail

### DPX Series

The DPX series provides a broad range of dc-dc converters. With output voltages ranging from 3.3V to  $\pm 15V$  in four power classes between 15W and 60W and with input voltages between 9.5V and 75V, the DPX series offers an easy solution for any application requiring additional auxiliary voltages.

Coming in a standard metal housing, multiple units can easily be mounted next to each other in industrial applications.

- 15, 20, 30, 40 and 60W
- Wide-range input
- Operating temperatures up to 85°C
- Single, dual and tripple Output

[Technical specifications page 10](#)

[www.uk.tdk-lambda.com/dpx](http://www.uk.tdk-lambda.com/dpx)



## DIN Rail mounted Line Filters for optimising EMC performance

### RS..N/RT..N-series



Line-filters for DIN-rail mounting to optimize EMC-performance of complete cabinets.

Single- and two-stage filters with high attenuation over a wide frequency range – optimised for swithmode powersupplies – to reduce conducted and radiated emission in accordance to EMC-requirements based on EN55022.


- single-phase and 3-phase
- 3A to 30A nominal current
- Screw-terminals

# Technical specifications

## DSP-Series – Flat style power supplies from 10 to 100 watts

Technical Data									
Power	W	10				30			
Output voltage	V	5	12	15	24	5	12	15	24
Series		DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP
Voltage Adjust	V	–	–	–	–	5 to 5.5	12 to 14	13.5 to 16.5	24 to 28
Output current	max. A	1.5	0.83	0.67	0.42	3.0	2.1	2.0	1.3
Output Ripple & Noise	mV	50							
Input voltage AC	Vac	90 – 264							
Input Frequency	Hz	47 – 63							
Operating Temperature	°C	–25°C to +71°C							
Derating		2.5%/° from +55°C to +71°C							
Parallel		no							
Dimensions (W x H x D)	mm	18 x 91 x 55.6				53 x 91 x 55.6			
Warranty	Years	3							
Article number		DSP10-5	DSP10-12	DSP10-15	DSP10-24	DSP30-5	DSP30-12	DSP30-15	DSP30-24

## DRB-Series – Narrow width single phase power supplies from 15 to 100 watts

Technical Data					
Power	W	15		30	
Output voltage	V	24		12	24
Series		DRB		DRB	
Voltage Adjust	V	24 to 28		12 to 15	24 to 28
Output current	max. A	0.63		2.5	1.25
Output Ripple & Noise	mV	Typ 20 / max 240		Typ 40 / max 120	Typ 30 / max 240
Input voltage AC	Vac	85 to 264			
Input Frequency	Hz	47 to 63			
No-load power	W	0.3			
Input current	max. A	0.27/0.17		0.55/0.33	
Efficiency 115/230 Vac	%	87/90		86/88	88/90
Operating Temperature	°C	–20°C to +70°C			
Derating		5%/°C from –10°C to –20°C		5%/°C from –10°C to –20°C and 3.33%/°C from +55°C to +70°C	
Parallel		no			
Dimensions (W x H x D)	mm	18 x 75 x 90		21 x 75 x 90	
Warranty	Years	3			
Article number		DRB15-24		DRB30-12	DRB30-24



60				100			
5	12	15	24	12	15	24	24
DSP	DSP	DSP	DSP	DSP	DSP	DSP	DSP
5 to 5.5	12 to 14	13.5 to 16.5	24 to 28	12 to 14	13.5 to 16.5	20 to 24.2	24 to 28
7.0	4.5	4.0	2.5	6.0	5.0	3.8	4.2
50							
90 – 264							
47 – 63							
–25°C to +71°C							
2.5%/° from +55°C to +71°C							
no							
71 x 91 x 55.6				90 x 91 x 56.8			
3							
DSP60-5	DSP60-12	DSP60-15	DSP60-24	DSP100-12	DSP100-15	DSP100-24/C	DSP100-24




50				100
5	12	24	48	24
DRB	DRB	DRB	DRB	DRB
5.0 to 5.5	12 to 15	24 to 28	48 to 52.8	
6	3.4	2.1	1.05	4.2
Typ 30 / max 120	Typ 20 / max 150	Typ 30 / max. 240	Typ 40 / max 480	Typ 30 / max 240
85 to 264				
47 to 63				
0.5	0.3		0.5	0.5
0.9/0.55				1.2/0.6
79/80	88/90	88/90	90/91	90/91
–20°C to +70°C				
5%/°C from –10°C to –20°C and 3.33%/°C from +55°C to +70°C				
no				
30 x 75 x 90				45 x 75 x 100
3				
DRB50-5	DRB50-12	DRB50-24	DRB50-48	DRB100-24

## DPP-Series – Standard single phase power supplies from 15 to 100 watts

Technical Data							
Power	W	15		25		30	
Output voltage	V	24		5		12	
Series		DPP		DPP		DPP	
Voltage Adjust	V	22.5 to 28.5		5 to 6		9.9 to 12.1	
Output current	max. A	0.63		5		2.5	
Output Ripple & Noise	mV	<50					
Input voltage AC	Vac	85 to 264					
Wide-Range							
Input Frequency	Hz	47 – 63					
Input current	max. A	0.4		0.75		0.75	
Operating Temperature	°C	–10°C to +71°C					
Derating		5%/°C from +61°C to +71°C					
Parallel		yes					
Dimensions (W x H x D)	mm	23 x 75 x 97		45 x 75 x 91		45 x 75 x 91 mm	
Warranty	Years	3					
Article number		DPP15-24		DPP25-5		DPP30-12	
						DPP30-24	

## DRF-Series – High efficiency single phase power supplies 120-480 watts

Technical Data							
Power	W	120		240		480	
Peak Power (4 Seconds)	W	180		360		720	
Output voltage	V	24		24		24	
Series		DRF		DRF		DRF	
Voltage Adjust	V						
Output current	max. A	5		10		20	
Output Ripple & Noise	mVp-p	240					
Input voltage AC	V AC	85 to 264					
Input Frequency	Hz	47 to 63					
No-load power	W	0.5		0.5		0.75	
Input current	max. A						
Efficiency 115/230 Vac	%	89/91		92.5/94			
Operating Temperature	°C	–25°C to +70°C					
Derating		2.5%/°C from +60°C to +70°C					
Parallel		possible					
Dimensions (W x H x D)	mm	36.5 x 123.4 x 115.4		49 x 123.4 x 115.4		82 x 123.4 x 115.4	
Warranty	Years	5					
Article number		DRF120-24		DRF240-24		DRF480-24	





50			100
15	24	48	24
DPP	DPP	DPP	DPP
11.9 to 15.1	22.5 to 28.5	48 to 56	22.5 to 28.5
3.4	2.1	1.05	4.2
<50			
85 to 264			85 to 132
			176 to 264
47 – 63			
0.7			1.2
-10°C to +71°C			
5%/°C from +61°C to +71°C			
yes			
45 x 75 x 91 mm			73 x 75 x 97 mm
3			
DPP50-15	DPP50-24	DPP50-48	DPP100-24



### DPP-Series – Standard single phase power Supplies 120-480 watts

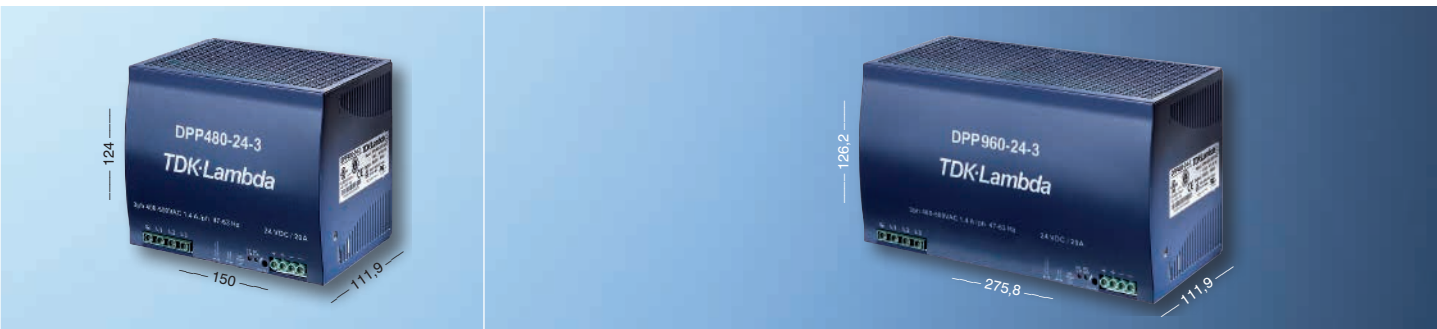
Technical Data									
Power	W	120			240		480		
Output voltage	V	12	24	48	24	48	24	48	
Series		DPP	DPP	DPP	DPP	DPP	DPP	DPP	
Voltage Adjust	V	11.4 to 14.5	22.5 to 28.5	45 to 55	22.5 to 28.5	47 to 56	22.5 to 28.5	47 to 56	
Output current	max. A	10	5	2.5	10	5	20	10	
Output Ripple & Noise	mV	<50			<100		100		
Input voltage AC	Vac	90 to 132 / 180 to 264 (auto select)						90 to 264	
Input Frequency	Hz	47 to 63							
Input current	max. A	2.8/1.4			5.4/2.2		7/3.5		
Operating Temperature	°C	-40°C to +71°C							
Derating		2.5%/° from +31°C to +71°C						2.5%/° from +56°C to +71°C	
Parallel		yes, up to 3 devices							
Dimensions (W x H x D)	mm	63.5 x 125 x 123.6			83 x 125 x 126		175 x 125 x 123		
Warranty	Years	3							
Article number		DPP120-12	DPP120-24	DPP120-48	DPP240-24	DPP240-48	DPP480-24-1	DPP480-48-1	

## DPP-Series – Standard 3-phase power supplies from 120-960 watts

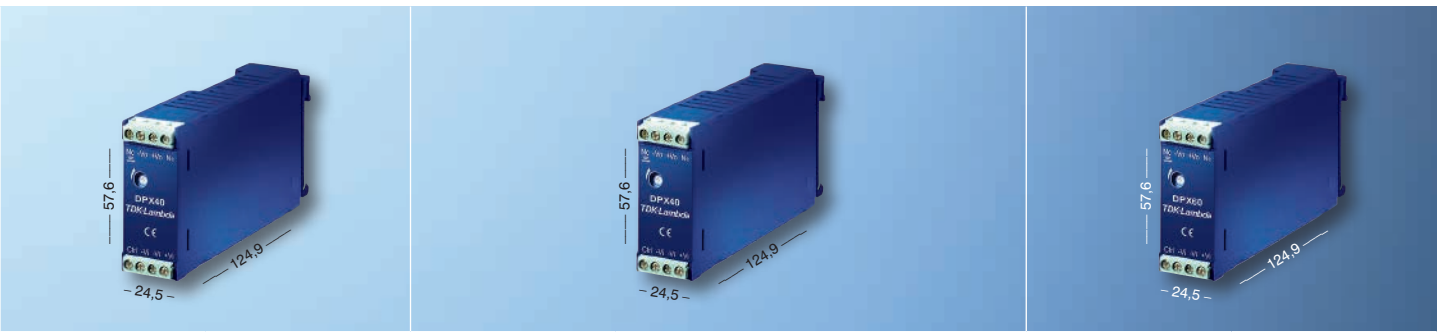
Technical Data					
Power	W	120		240	
Output voltage	V	12	24	24	48
Series		DPP	DPP	DPP	DPP
Voltage Adjust	V	11.4 to 14.5	22.5 to 28.5	22.5 to 28.5	47 to 56
Output current	max.mA	10	5	10	5
Output Ripple & Noise	mV	100			
Input voltage AC	Vac	340 to 575			
Input Frequency	Hz	47 to 63			
Input current	max. A	0.36		0.65	
Operating Temperature	°C	-40°C to +71°C			
Derating		2.5%/°C from +61°C to +71°C			
Parallel		no		yes, up to 2 devices	
Dimensions (W x H x D)	mm	74.3 x 124 x 111.9		89 x 124 x 111.9	
Warranty	Years	3			
Article number		DPP120-12-3	DPP120-24-3	DPP240-24-3	DPP240-48-3

## DPX-Series – DC/DC converter for DIN rail from 15 to 60 watts

Technical Data					
Power	W	15		20	
Input voltage (nominal)	V	24	48	24	48
Series		DPX	DPX	DPX	DPX
Voltage Adjust	V DC	9.5 to 36	18 to 75	9.5 to 36	18 to 75
Output current	max.mA	500 to 4500		667 to 5500	
Output Voltage	V	3.3, 5, 12, 15		3.3, 5, 12, 15	
Output Ripple & Noise	mVp-p	50 to 75		60 to 100	
Input current	max. mA	772 to 787	18 to 38	957 to 1043	473 to 515
Operating Temperature		-40°C to +95°C		-40°C to +91°C	
Derating		7.5%/°C from +85°C to +95°C		6.1%/°C from +78°C to +91°C	
Parallel		no			
Dimensions (W x H x D)	mm	57.6 x 24.5 x 125		57.6 x 24.5 x 125	
Warranty	Years	2			
Article number		DPX15-24Wxxxx	DPX15-48Wxxxx	DPX20-24Wxxxx	DPX20-48Wxxxx



480		960	
24	48	24	48
DPP	DPP	DPP	DPP
22.5 to 28.5	47 to 56	22.5 to 28.5	47 to 56
20	10	40	20
100		80	
340 to 575			
47 to 63			
1.1		1.72	
-30°C to +71°C		-40°C to +71°C	
2.5%/°C from +61°C to +71°C		linearer Verlauf 3.5%/°C from +61°C to +71°C	
yes, up to 2 devices			
150 x 124 x 111.9		275.8 x 126.2 x 111.9	
3			
DPP480-24-3	DPP480-48-3	DPP960-24-3	DPP960-48-3



40		40			60	
24	48	12	24	48	24	48
DPX	DPX	DPX Triple	DPX Triple	DPX Triple	DPX	DPX
9.5 to 36	18 to 75	9.5 to 18	18 to 36	36 to 75	18 to 36	36 to 75
1333 to 10000		300 to 6000			4000 to 14000	
3.3, 5, 12, 15		3.3, 5, 12, 15			3.3, 5, 12, 15	
50 to 150		50 to 75			75 to 100	
1741 to 2110	859 to 1042	4167 to 3223	1571 to 2063	750 to 1006	2376 to 3049	1188 to 1524
-40°C to +87°C		-40°C to +90°C			-40°C tp +85°C	
3.8%/°C from +66°C to +87°C		3.8%/°C from +69°C to +90°C			3.2%/°C from +60°C to +85°C	
no						
57.6 x 24.5 x 125		57.6 x 24.5 x 125			57.6 x 24.5 x 125	
2						
DPX40-24Wxxxx	DPX40-48Wxxxx	DPX40-12Txxxx	DPX40-24Txxxx	DPX40-4w8Txxxx	DPX60-24xxxx	DPX60-48xxxx

Please contact your local sales office to find the best solution to your application.



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