

15-100W, 5-48V Output DIN Rail Mount Power Supplies

Features

- ◆ Compact Size
- ◆ High Efficiency (Up to 91%)
- ◆ ErP Compliant Design
- ◆ Low No Load Power Draw
- ◆ Class 2 Models to UL1310
- ◆ Class 1 Div 2 for Hazardous Locations



Key Market Segments & Applications



Specifications		DRB15	DRB30	DRB50	DRB100
Input Voltage range	V	85 - 264VAC, 120 - 373VDC* (Withstands 300VAC for 5 seconds)			
Input Frequency	Hz	47 - 63Hz			
Inrush Current (typ) (Cold Start)	A	35A	40A	50A	40A
Power Factor (110/230VAC) Meets EN61000-3-2	-	0.55 / 0.42	0.56 / 0.46	0.6 / 0.5	0.98 / 0.93
Input Current (110/230VAC)	A	0.27 / 0.17	0.55 / 0.33	0.9 / 0.55	1.2 / 0.6
Line & Load Regulation	-	See model selector			
Ripple & Noise	-	See model selector			
Overcurrent Protection	-	Hiccup with auto recovery			
Overvoltage Protection	-	See model selector. Cycle AC input voltage to reset			
Hold Up Time (230VAC input)	ms	> 20ms			
Efficiency	-	See model selector			
No Load Power Draw	W	<0.3W	<0.3W	<0.3W	<0.5W
LED Indicator	-	Green LED indicates DC is OK			
Operating Temperature (1)	°C	-20 to +70°C. (DRB30-100, derate linearly to 50% load from 55 to 70°C)			
Storage Temperature	-	-40 to +85°C			
Operating Humidity (non condensing)	%RH	5 - 95%RH			
Parallel Operation	-	Not available			
Series Operation	-	Possible			
Cooling	-	Convection			
Withstand Voltage (For 1 minute)	VAC	Input to Output 3kVAC, Input to GND 1.5kVAC, Output to GND 500VAC			
Isolation Resistance	MΩ	>100MΩ at 25°C, 70%RH & 500VDC			
Vibration (Non operating)	-	10-55Hz (sweep for 1 min); 19.6m/s ² (2G) Constant; X,Y,Z each 1 hour			
Shock	-	294m/s (30G) 11ms half sine			
Safety Agency Certifications	-	UL508 Listed, UL/CSA/EN60950-1†, CE Mark, UL1310 Class 2 (2), Class 1 Div 2, Group A, B, C, D (ISA 12.12.01)			
Conducted & Radiated EMI	-	EN55032-B Radiated & Conducted			
Immunity	-	EN61000-4-2 (lvl 4), -3 (lvl 3), -4 (lvl 4) -5 (norm mode lvl 3, com mode lvl 4), -6 (lvl 3), -8 (lvl 4), -11 (class 3)			
Line Dips	-	SEMI-F47 (200VAC input)			
Weight (Typ)	g	85	95	175	300
Size (WxHxD)	in	0.71 x 2.95 x 3.54	0.83 x 2.95 x 3.54	1.18 x 2.95 x 3.54	1.77 x 2.95 x 3.94
Mounts on TS-35/7.5 or -35/15 rail	mm	18 x 75 x 90	21 x 75 x 90	30 x 75 x 90	45 x 75 x 100
Case material	-	Flame Retardant Polycarbonate (UL94 V-0)			
Warranty	yrs	Three years			

(1) For operation below -10°C, start up load is derated linearly to 50% load down to -20°C

(2) NEC Class 2 in accordance with UL1310. Excludes DRB50-5-1 and DRB100-24-1 models

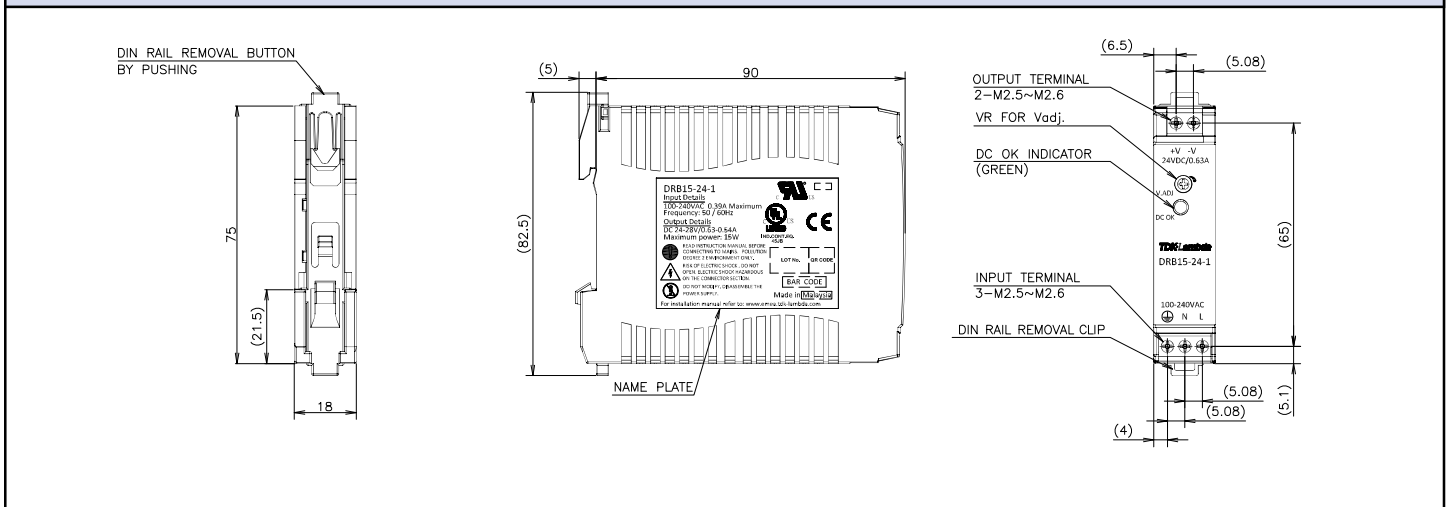
† Certification to the IEC62368-1 standard in progress (2018)

* Safety certified for AC input only

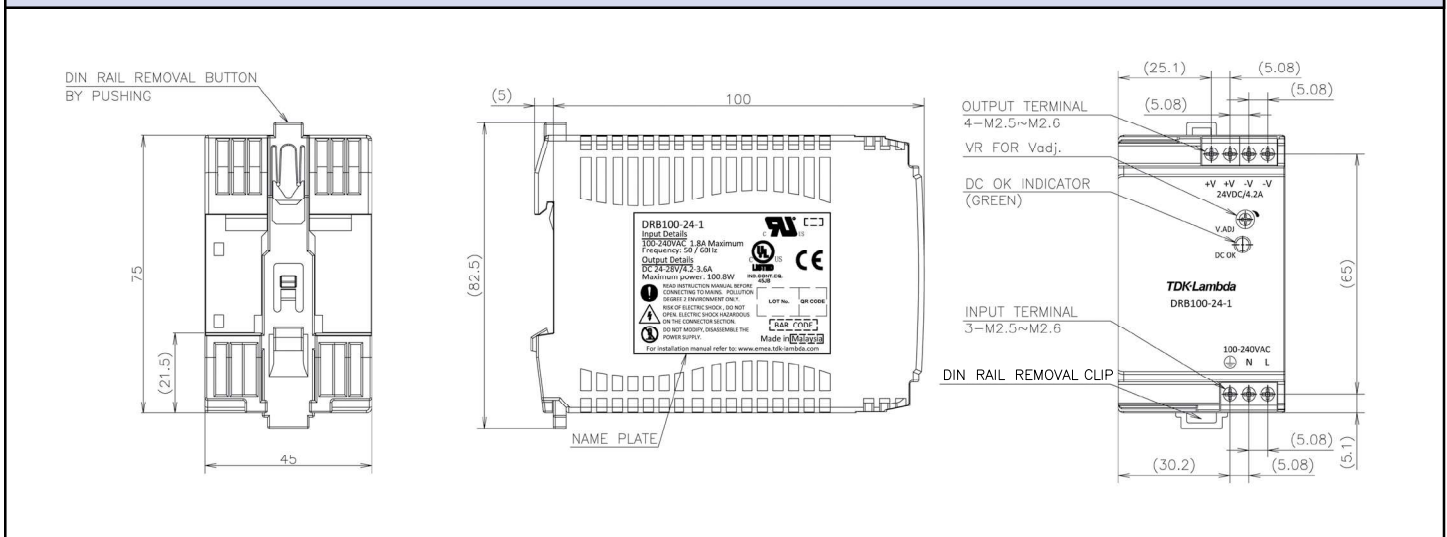
Model	Output Voltage	Adjust Range	Max Current	Max Power	Load Reg	Line Reg	Ripple & Noise	Oversoltage Protection	Efficiency (%) (115/230VAC)
DRB50-5-1	5V	5 - 5.5V	6.0A	30W	50mV	50mV	30mV	5.75 - 6.75V	79 / 80
DRB30-12-1	12V	12 - 15V	2.5A	30W	150mV	150mV	40mV	15.96 - 18.72V	86 / 88
DRB50-12-1	12V	12 - 15V	3.4A	51W(3)	150mV	150mV	20mV	15.96 - 18.72V	88 / 90
DRB50-15-1	15V	12 - 15V	3.4A	51W(3)	150mV	150mV	20mV	15.96 - 18.72V	88 / 90
DRB15-24-1	24V	24 - 28V	0.63A	15.1W	240mV	240mV	20mV	30 - 33.6V	87 / 90
DRB30-24-1	24V	24 - 28V	1.25A	30W	240mV	240mV	30mV	30 - 33.6V	88 / 90
DRB50-24-1	24V	24 - 28V	2.1A	50.4W	240mV	240mV	30mV	30 - 33.6V	88 / 90
DRB100-24-1	24V	24 - 28V	4.2A	100.8W	240mV	240mV	30mV	30 - 33.6V	90 / 91
DRB50-48-1	48V	48 - 52.8V	1.05A	50.4W	480mV	480mV	40mV	53.76 - 68.16V	90 / 91

(3) With output set at 15V. 40.8W maximum power when output is set at 12V.

Outline DRB15



Outline DRB100



For Additional Information, please visit
<https://product.tdk.com/info/en/products/power/index.html>

