

## 15W to 100W Single Output DIN Rail Mount Power Supplies



Features	Benefits
• Compact Footprint	• Saves Space on Rail & Cabinet Cost
• Efficiency up 91%	• Cooler Applications - Improved Thermal Performance
• ErP Compliant Design	• Better "Environmental Footprint"

Specification		DRB15	DRB30	DRB50	DRB100
ITEMS					
AC input voltage range	VAC	85-264 (withstand 300VAC for 5 sec)			
Input frequency	Hz	47-63			
DC Input range	VDC	120 - 373			
Inrush cold (typ)	A	35A	40A	50A	40A
Power factor (typ) (110/230VAC)		0.55/0.42	0.56/0.46	0.6/0.5	0.98/0.93
Input current (typ)	A	0.27/0.17	0.55/0.33	0.9/0.55	1.2/0.6
Output voltage	V	24	12 / 24	5 / 12 / 15 / 24 / 48	24
Output current	A	0.63	2.5 / 1.25	6 / 3.4 / 3.4 / 2.1 / 1.05	4.2
Line regulation	mV	240	120 / 240	50 / 150 / 150 / 240 / 480	240
Load regulation	mV	240	120 / 240	50 / 150 / 150 / 240 / 480	240
Ripple & noise (max) (typ)	mV	20	40 / 30	30 / 20 / 20 / 30 / 40	30
Over current protection		Hiccup with auto recovery			
Over voltage protection (1)		5V: 115%-135%, 12V: 133%-156%, 24V: 125%-140%, 48V: 112%-142% (latch mode)			
Hold up time (230VAC)	ms	20 @100VAC, full load, 25°C			
Efficiency (typ) (230VAC)	%	90	88 / 90	80 / 90 / 90 / 91	91
Average efficiency (230VAC)	%	88	87/89	5V:n/a, 12V:88, 24V:87, 48V:87	87
No load power	W	<0.3	<0.3	<0.3	<0.5
Parallel operation		Not available			
Serial operation		Possible			
LED indicators		DC OK signal - green			
Operating temperature (2, 3, 5)	°C	-20°C to +70°C ( see derating curves)			
Storage temperature	°C	-40°C to +85°C			
Operating humidity		5-95% RH (non condensing)			
Operating altitude	m	3,000			
Cooling (4)		Convection			
Withstand voltage		Input - Output : 3.0kVAC (20mA), Input - FG : 1.5kVAC (20mA) Output - FG : 500VAC (100mA) 1 min.			
Isolation resistance	MΩ	Input-FG, Input-Output & Output-FG: More than 100MΩ (500VDC) at 25°C and 70%RH			
Vibration		Non-operating, 10-55Hz(sweep for 1 min.): 19.6 m/s <sup>2</sup> (2G) Constant, X,Y,Z each 1hr			
Shock		294m/s <sup>2</sup> (30G) 11ms half sine			
Safety agency approvals (6) (7)		IEC/UL/CSA/EN62368-1, IEC/UL/CSA/EN60950-1, UL508, UL1310 class 2 Class 1 Div 2, Group A, B, C, D (ISA 12.12.01)			
Emissions		EN55022, CISPR22 class B			
Immunity		EN61000-4-2,-3,-4,-5,-6,-8,-11			
Line dips	-	SEMI -F47 (200VAC input)			
Weight (typ)	g	85	95	175	300
Size (W x H x D)	mm	18 x 75 x 90	21x75x90	30x75x90	45x75x100
Case material		Flame Retardant Polycarbonate (UL94 V-0)			
Warranty	yrs	3			

Notes: 1 Output will shutdown, manual reset required (power off then on) 2 Refer to output derating curves 7 See model selector  
 3 For UL508 operating temperature refers to surrounding air temperature 4 See installation instructions for mounting orientation  
 5 Low temperature start up: -40°C typical 6 Consult Sales Office for use under DC Input conditions

## Model Selector

Model	Output Voltage	Output Adjust Range (V)	Max Output Current (A)	Max Output Power (W)	Efficiency at 115/230 VAC (%)
DRB15-24-1*	24	24-28	0.63	15.12	87/90
DRB30-12-1*	12	12-15	2.5	30	86/88
DRB30-24-1*	24	24-28	1.25	30	88/90
DRB50-5-1	5	5-5.5	6	30	79/80
DRB50-12-1*	12	12-15	3.4	51**	88/90
DRB50-15-1*	15	12-15	3.4	51**	88/90
DRB50-24-1*	24	24-28	2.1	50.4	88/90
DRB50-48-1*	48	48-52.8	1.05	50.4	90/91
DRB100-24-1	24	24-28	4.2	100.8	90/91

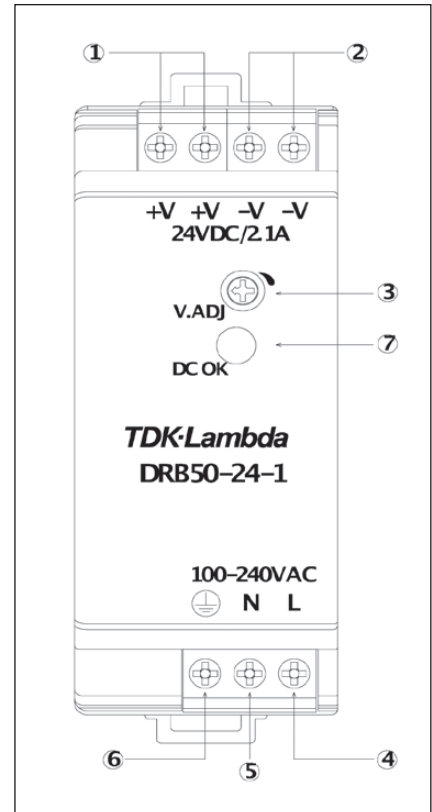
Note: \* Output NEC Class 2 in accordance with UL1310

\*\* Maximum power is 51W at 15V output, 40.8W when set at 12V output

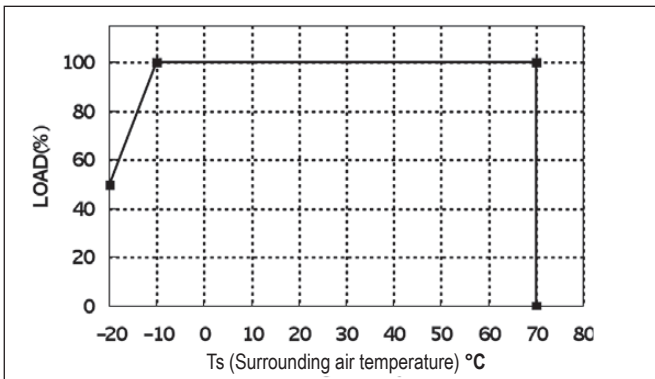
## Connection

Pin	Description
1	+V: + Output terminal
2	-V: - Output terminal
3	V. adj: Output voltage adjust trimmer. The output voltage rises when the trimmer is turned clockwise
4	L: AC Input terminal live line (fuse in line)
5	N: AC Input terminal neutral line
6	E: Protective earth connect to safety ground of apparatus or equipment
7	DC OK: Green LED lights when output voltage on

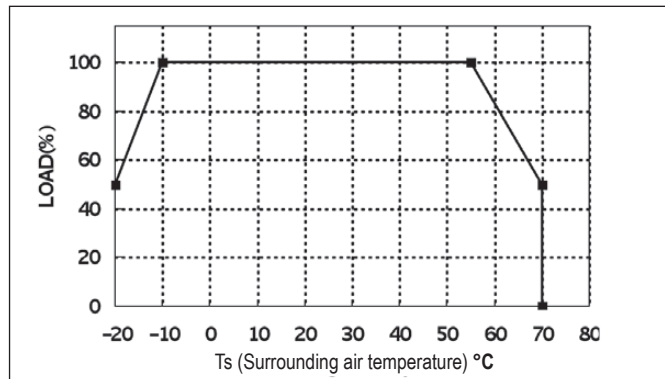
## Terminal Explanation Example



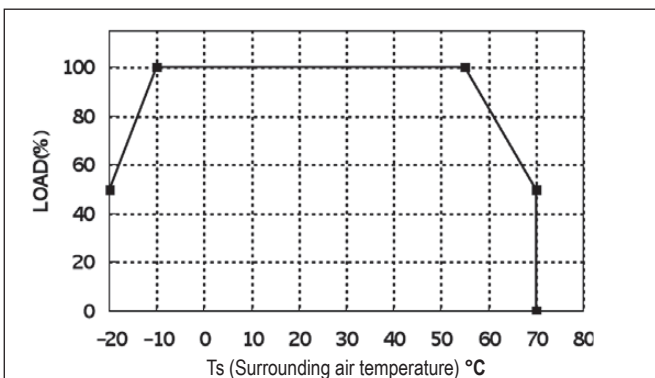
## Output Derating DRB15 Series



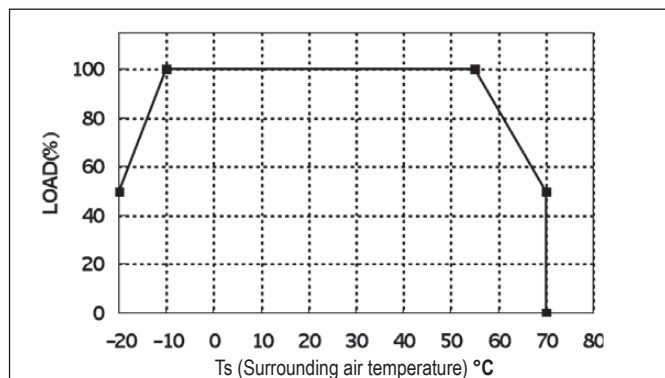
## Output Derating DRB30 Series



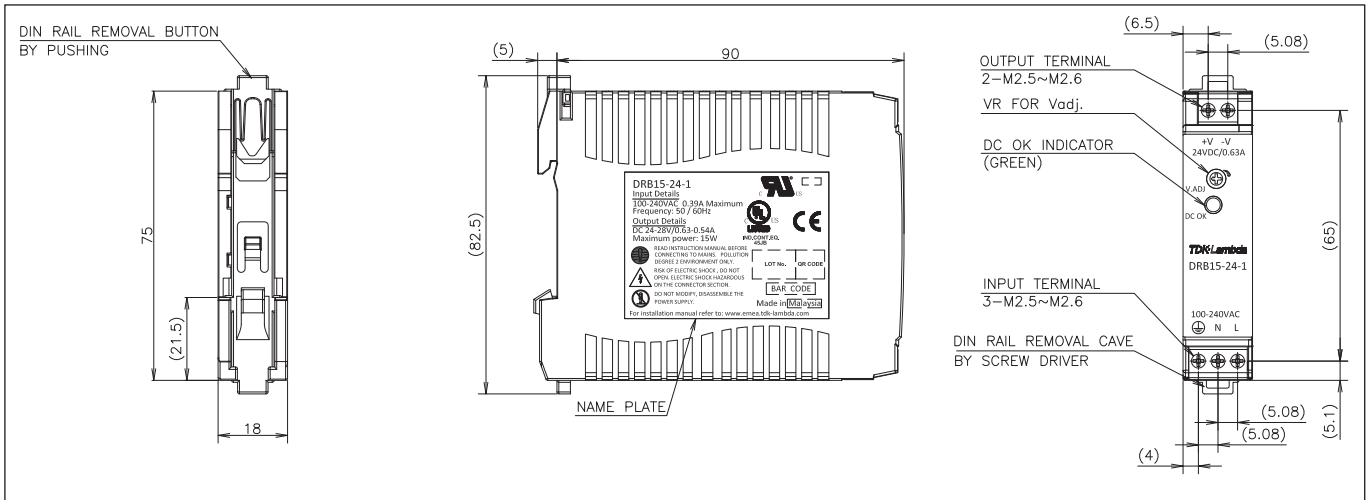
## Output Derating DRB50 Series



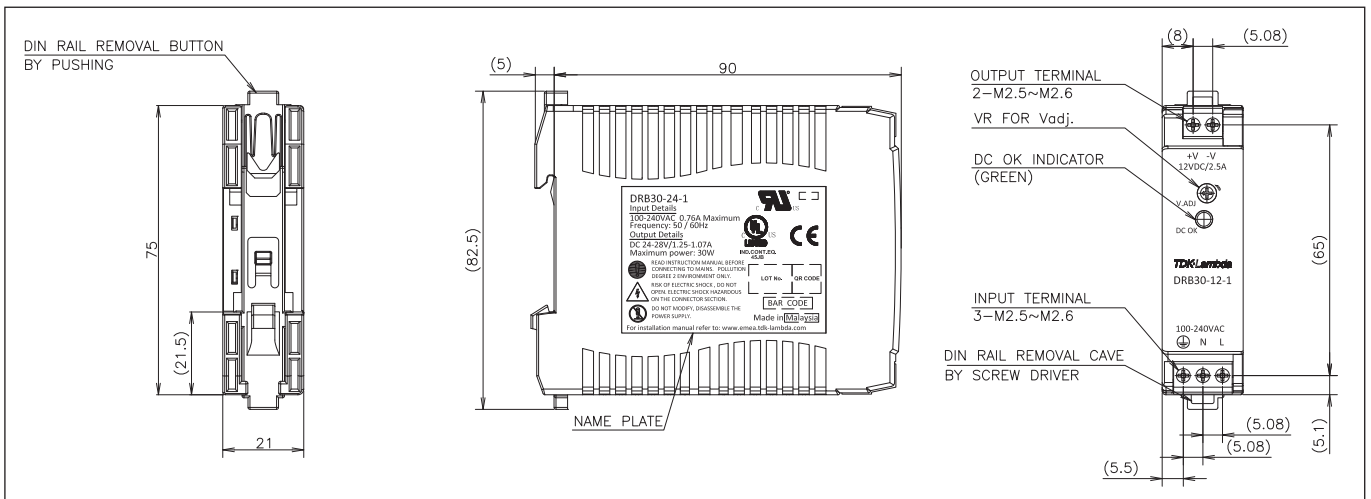
## Output Derating DRB100 Series



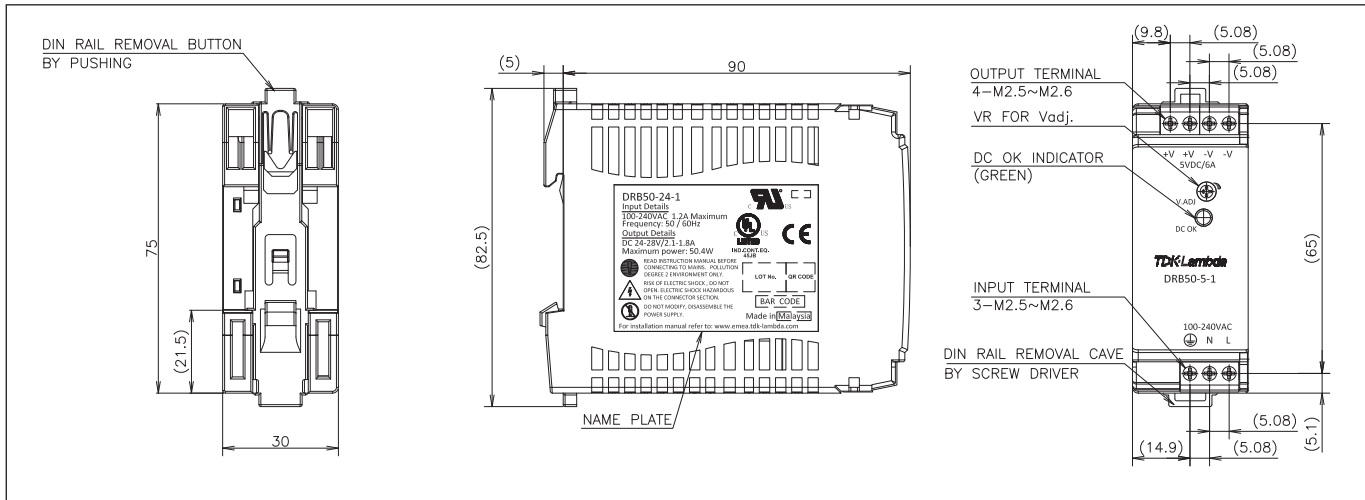
## Outline Drawing DRB15 Series



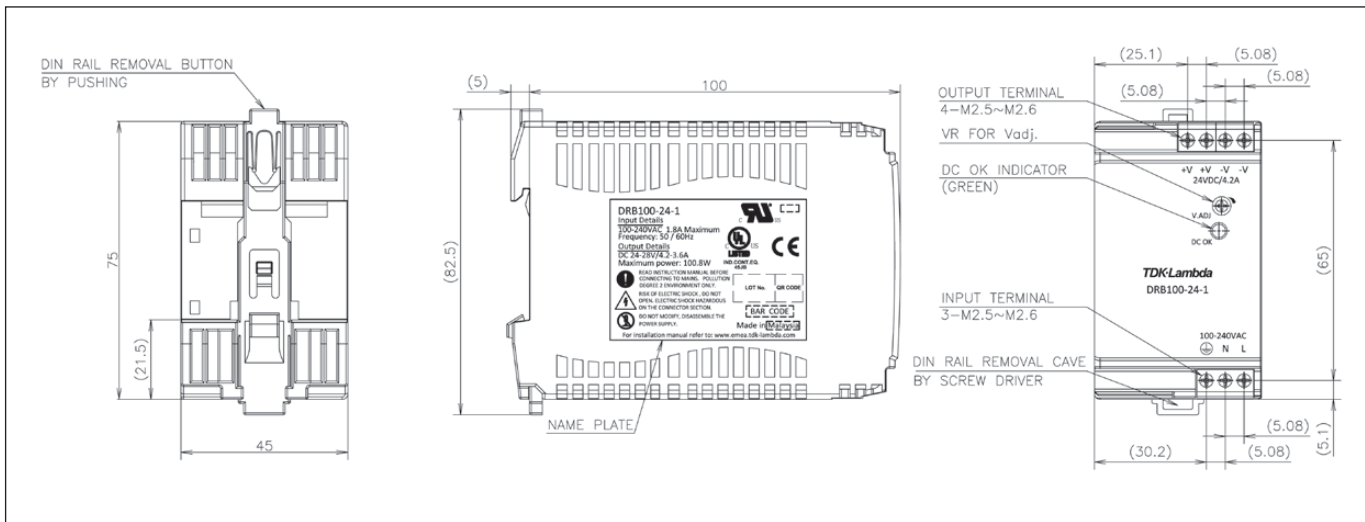
## Outline Drawing DRB30 Series



## Outline Drawing DRB50 Series



## Outline Drawing DRB100 Series





## TDK-Lambda France SAS

3 Avenue du Canada  
Parc Technopolis  
Bâtiment Sigma  
91940 les Ulis  
France  
Tel: +33 1 60 12 71 65  
Fax: +33 1 60 12 71 66  
france@fr.tdk-lambda.com  
www.emea.lambda.tdk.com/fr



## Italy Sales Office

Via Giacomo Matteotti 62  
20092 Cinisello Balsamo (MI)  
Italy  
Tel: +39 02 61 29 38 63  
Fax: +39 02 61 29 09 00  
info.italia@it.tdk-lambda.com  
www.emea.lambda.tdk.com/it



## Netherlands

info@nl.tdk-lambda.com  
www.emea.lambda.tdk.com/nl



## TDK-Lambda Germany GmbH

Karl-Bold-Strasse 40  
77855 Achern  
Germany  
Tel: +49 7841 666 0  
Fax: +49 7841 5000  
info.germany@de.tdk-lambda.com  
www.emea.lambda.tdk.com/de



## Austria Sales Office

Aredstrasse 22  
2544 Leobersdorf  
Austria  
Tel: +43 2256 655 84  
Fax: +43 2256 645 12  
info@at.tdk-lambda.com  
www.emea.lambda.tdk.com/at



## Switzerland Sales Office

Eichtalstrasse 55  
8634 Hombrechtikon  
Switzerland  
Tel: +41 44 850 53 53  
Fax: +41 44 850 53 50  
info@ch.tdk-lambda.com  
www.emea.lambda.tdk.com/ch



## Nordic Sales Office

Haderslevvej 36B  
DK-6000 Kolding  
Denmark  
Tel: +45 8853 8086  
info@dk.tdk-lambda.com  
www.emea.lambda.tdk.com/dk



## TDK-Lambda UK Ltd.

Kingsley Avenue  
Ilfracombe  
Devon EX34 8ES  
United Kingdom  
Tel: +44 (0) 12 71 85 66 66  
Fax: +44 (0) 12 71 86 48 94  
info@uk.tdk-lambda.com  
www.emea.lambda.tdk.com/uk



## TDK-Lambda Ltd.

1 Alexander Yanai  
Segula  
Petah-Tikva  
Israel  
Tel: +9 723 902 4333  
Fax: +9 723 902 4777  
info@tdk-lambda.co.il  
www.emea.lambda.tdk.com/il



## C.I.S.

**Commercial Support:**  
Tel: +7 (495) 665 2627  
**Technical Support:**  
Tel: +7 (812) 658 0463  
info@tdk-lambda.ru  
www.emea.lambda.tdk.com/ru

## Local Distribution

