

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

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



Specification					
Model		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 / 24 / 48	24
Output current	A	0.63	2.5 / 1.25	6 / 3.4 / 2.1 / 1.05	4.2
Line regulation	mV	240	120 / 240	50 / 150 / 240 / 480	240
Load regulation	mV	240	120 / 240	50 / 150 / 240 / 480	240
Ripple & noise (max) (typ)	mV	20	40 / 30	30 / 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 ² (2G) Constant, X,Y,Z each 1hr			
Shock		294m/s ² (30G) 11ms half sine			
Safety agency approvals (6)		UL60950-1, CSA22.2 No.60950-1 (2nd edition), EN60950-1, UL508			
Emissions		EN55022, CISPR22 class B			
Immunity		EN61000-4-2,-3,-4,-5,-6,-8,-11			
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			

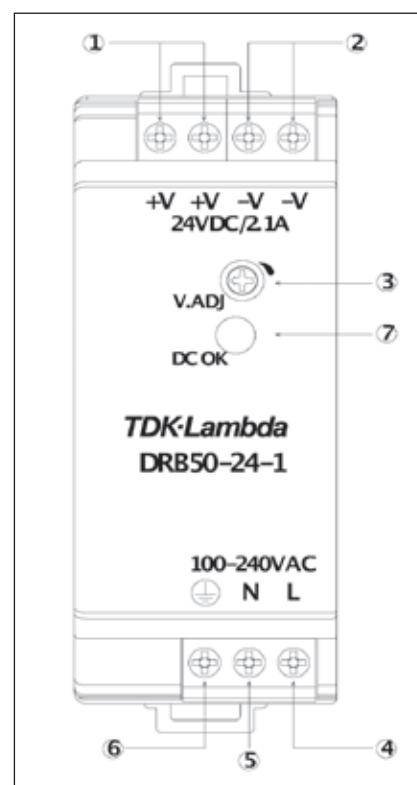
Notes: 1 Output will shutdown, manual reset required (power off then on)
 3 For UL508 operating temperature refers to surrounding air temperature
 5 Low temperature start up: -40°C typical

2 Refer to output derating curves
 4 See installation instructions for mounting orientation
 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	50.4	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

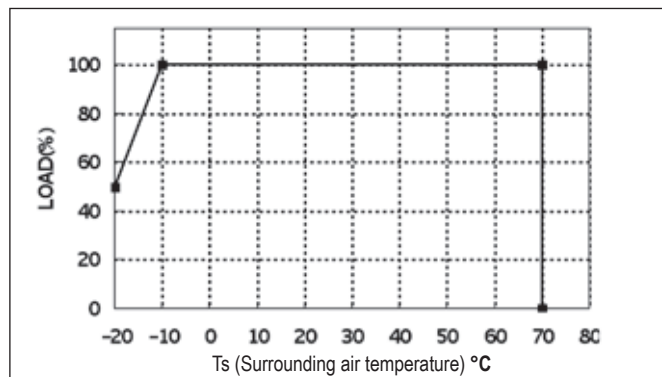
Terminal Explanation Example



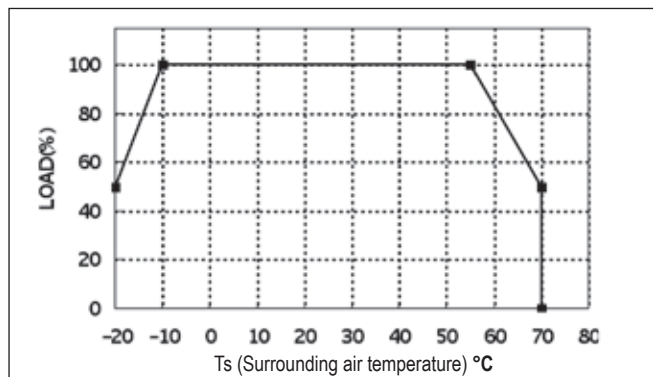
Connection

Pin	
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

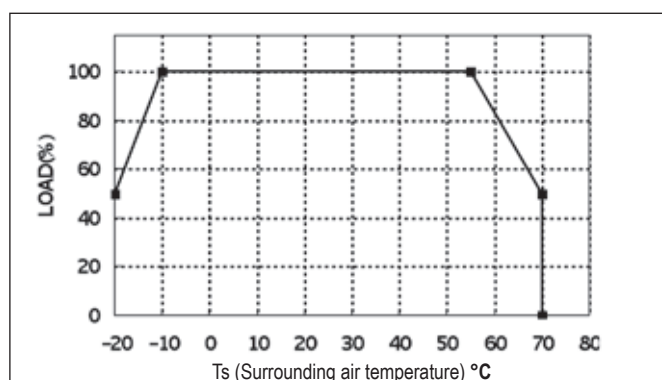
Output Derating DRB15 Series



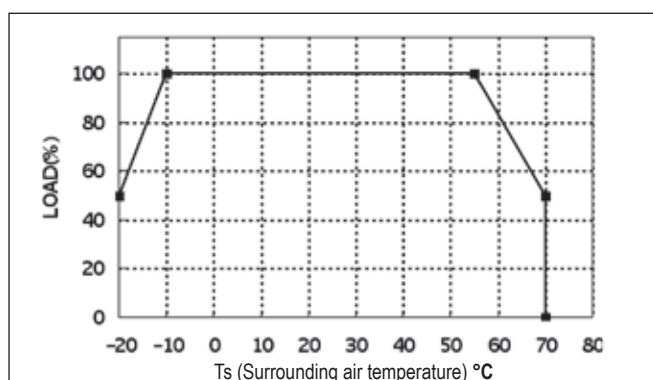
Output Derating DRB30 Series



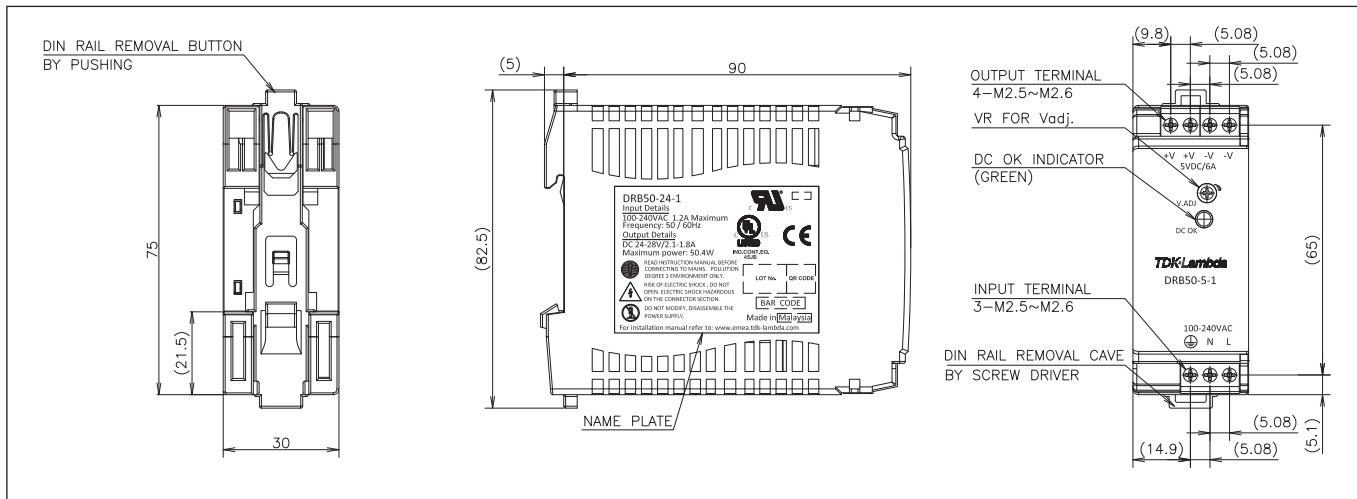
Output Derating DRB50 Series



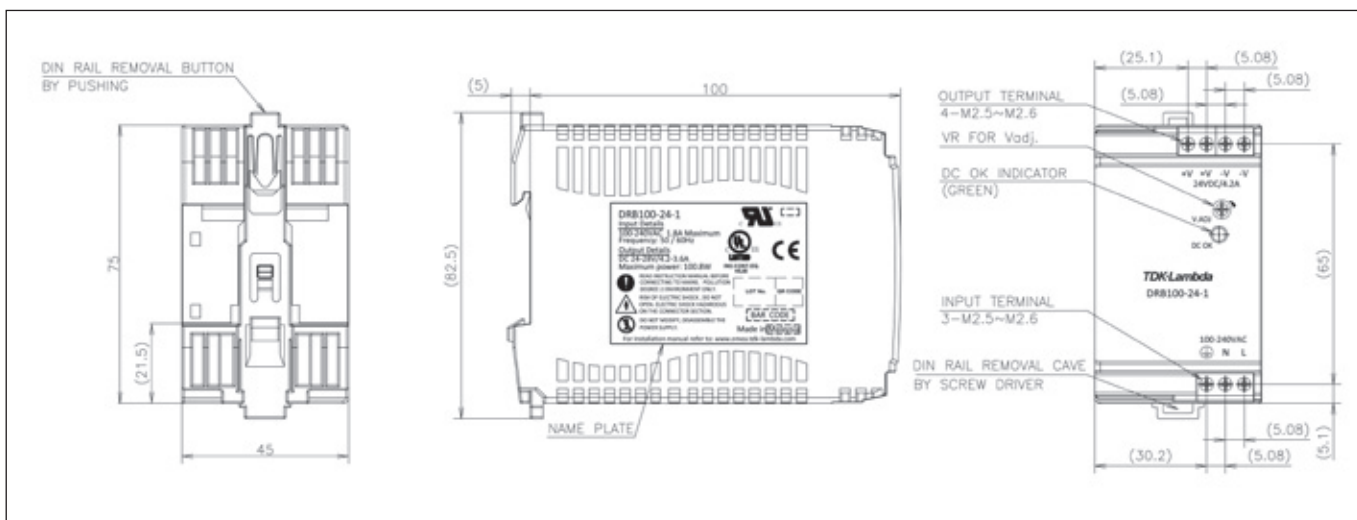
Output Derating DRB100 Series



Outline Drawing DRB50 Series



Outline Drawing DRB100 Series





TDK-Lambda France SAS

ZAC des Delaches
CS 41077
9 rue Thuillere
91978 Villebon Courtaboeuf
France
Tel: +33 1 60 12 71 65
Fax: +33 1 60 12 71 66
france@fr.tdk-lambda.com
www.fr.tdk-lambda.com



Italy Sales Office

Via dei Lavoratori 128/130
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.it.tdk-lambda.com



Netherlands

info@tdk-lambda.nl
www.tdk-lambda.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.de.tdk-lambda.com



Austria Sales Office

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



Scandinavia Sales Office

Valdemarsgade 7
4100 Ringsted
Denmark
Tel: +45 24 63 95 65
Fax: +45 69 80 44 99
info@de.tdk-lambda.com
www.emea.tdk-lambda.com



Switzerland Sales Office

Bahnhofstrasse 50
8305 Dietlikon
Switzerland
Tel: +41 44 850 53 53
Fax: +41 44 850 53 50
info@de.tdk-lambda.com
www.de.tdk-lambda.com



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
powersolutions@uk.tdk-lambda.com
www.uk.tdk-lambda.com



TDK-Lambda Ltd.

Kibbutz
Givat Hashlosha 48800
Israel
Tel: +9 723 902 4333
Fax: +9 723 902 4777
info@tdk-lambda.co.il
www.tdk-lambda.co.il



C.I.S.

Commercial Support:

Tel: +7 (495) 665 2627

Technical Support:

Tel: +7 (812) 658 0463

info@tdk-lambda.ru

www.tdk-lambda.ru

Local Distribution