



Industrial



Test



Renewable



Broadcast

120W - 480W Single Output DIN Rail Mount Power Supplies



Features	Benefits
• 150% Peak Power, 4 sec	• Better Start-up of Capacitive & Inductive Loads
• Efficiency up to 94%	• Cooler Applications - Improved Thermal Performance
• Ultra Compact Footprint	• Saves Space on Rail and Cabinet Cost
• ErP Referenced Design	• Better "Environmental Footprint"
• Remote On/Off	• For Intelligent System Implementation
• Remote Programming	• Wide Range of Applications

Specifications				
MODELS		DRF-120-24-1	DRF-240-24-1	DRF-480-24-1
AC Input voltage range	VAC	85-264		
Input frequency	Hz	47-63		
Inrush cold (typ)	A	20		
Power factor (typ) (115/230)	-	0.98/0.95	0.98/0.95	0.98/0.92
Input current (typ) (2)	A	1.2/0.6	2.4/1.2	4.7/2.5
Output voltage	V	24		
Output current	A	5	10	20
Peak output current (1)	A	7.5	15	30
Peak output power (1)	W	180	360	720
Line regulation	mV	<96		
Load regulation	mV	<240		
Ripple and noise (2 & 3)	mV	<240		
Over current protection (4)	-	>105% peak output current		
Over voltage protection (5)	V	30-35.5		
Hold up time (230VAC)	ms	20		
Efficiency (typ) (230VAC)	%	91	94	
Average efficiency (230VAC)	%	88.6	92.4	92
Standby input power (230VAC)	W	<0.5	<0.5	<0.75
Parallel operation (6)	-	Possible		
Series operation (6)	-	Possible		
LED indicators	-	DC OK signal - green (Vout > 80% rated output voltage); Peak power mode - red		
DC OK relay (24V model only)	-	Relay contact 30V/1A		
Operating temperature	°C	-25°C to +70°C (60 to 70°C derate linearly to 75% load)		
Storage temperature	°C	-40°C to +85°C		
Operating humidity	-	5-95% RH (non condensing)		
Cooling	-	Convection		
Withstand voltage	-	I/P to FG: 1.5kVAC (20mA), I/P to O/P 3kVAC (20mA), O/P to FG: 500VAC (100mA) for 1 min		
Isolation resistance	MΩ	I/P to FG, IP to O/P and O/P to FG: >100MΩ (500VDC) at 25°C & 70%RH		
Vibration	-	Non-operating, 10-55Hz (sweep for 1 min.): 19.6 m/s ² constant, X,Y,Z axis 1 hour each		
Shock	-	<196m/s ²		
Safety agency approvals (7)	-	IEC/EN/UL60950-1, CE, UL508 listed, ATEX, IEC Ex, GL		
Emissions	-	EN55022 Class B, CISPR22-B		
Immunity	-	EN61000-4-2,-3,-4,-5,-6,-8,-11		
Weight (typ)	g	600	900	1300
Size (W x H x D)	mm	36.5 x 123.4 x 115	49 x 123.4 x 115	82 x 123.4 x 115
Case material	-	Metal		
Warranty	yrs	5		

See Page 2 for Notes

Notes from page 1

1. Operating period at peak output current is 4 sec, max duty cycle<35% &< rated output power
2. At 115/230VAC, Ta = 25°C, nominal output voltage, rated output power
3. Ripple & noise is measured at 20MHz using 300mm twisted pair of load wires terminated with 0.1μF film cap & 47μF electrolytic cap
4. Constant current limit with auto recovery. Over rated current (>105%) condition for more than 4 sec will cause power supply to shutdown.
5. Output will shutdown, manual reset by mains cycle off/on or CNT on/off
6. Refer to instruction manual
7. Select /HL model for ATEX, IEC Ex and GL (Germanischer Lloyd) approvals (see optional models table)

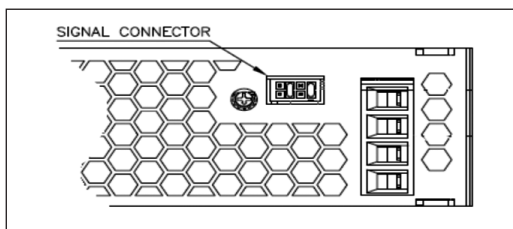
Model Selector

Model	Output Voltage	Output Adjust Range (V)	Max Output Current (A)	Max Output Power (W)	Efficiency at 115/230VAC (%)
DRF120-24-1	24	24-28	5	120	89/91
DRF240-24-1	24	24-28	10	240	92.5/94
DRF480-24-1	24	24-28	20	480	92.5/94

Signal Connector Pin Assignment

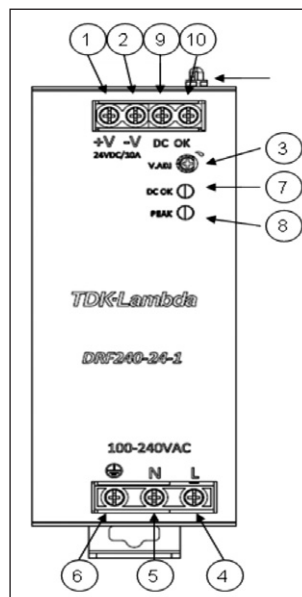
PIN	Function	Detail
1	CB	For parallel operation cut the link between pins 1 & 2 for droop mode current share
2	CB-COM	
3	N/C	No Connection
4	N/C	
5	CNT+	Remote ON/OFF control, when CNT+ is pulled to TTL low the power supply turns ON, otherwise it turns OFF
6	CNT-	
7	PV	Programming voltage range 5 - 6V presets the output to 24 - 28V
8	COMM	

DRF120 example*



*Signal connectors are found on the topside of the unit.
See product outline drawings for locations

Terminal Explanation



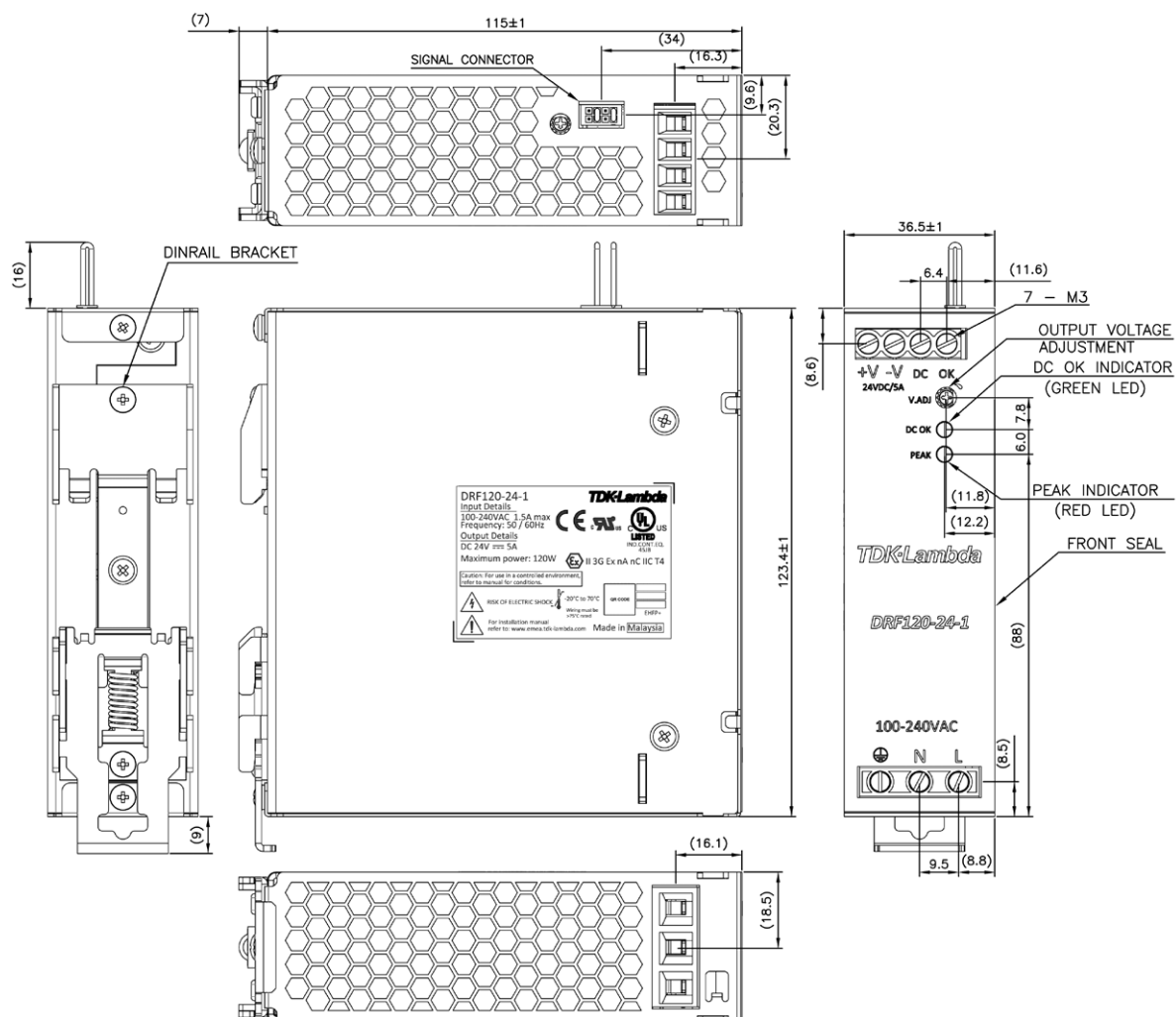
Connection

- 1 +V: +Output terminal
- 2 -V: -Output terminal
- 3 V.ADJ: Output voltage adjust trimmer
The output voltage rises when a trimmer is turned clockwise
- 4 L: AC Input terminal. Live line (fuse in line)
- 5 N: AC Input terminal. Neutral line
- 6 -V: Protective Earth
Connect to safety ground of apparatus or equipment
- 7 DC OK:
Green LED lights when output voltage is > 80% of rated output voltage
- 8 PEAK:
Red LED lights when unit is in peak power mode
- 9 DC OK: Relay contact
- 10 DC OK: Relay contact

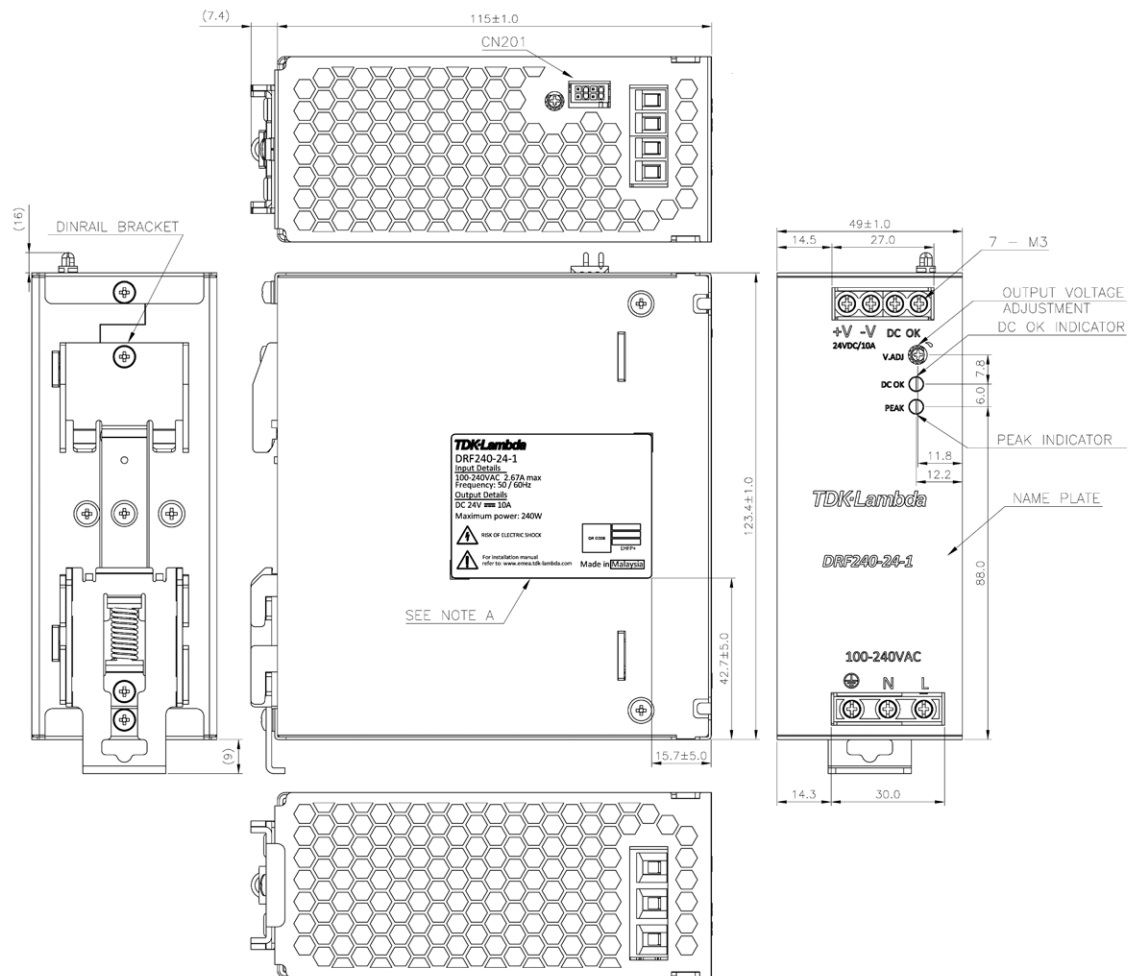
Optional Models

Suffix	Description
/HL	Conformally Coated (ATEX, IEC EX, GL)

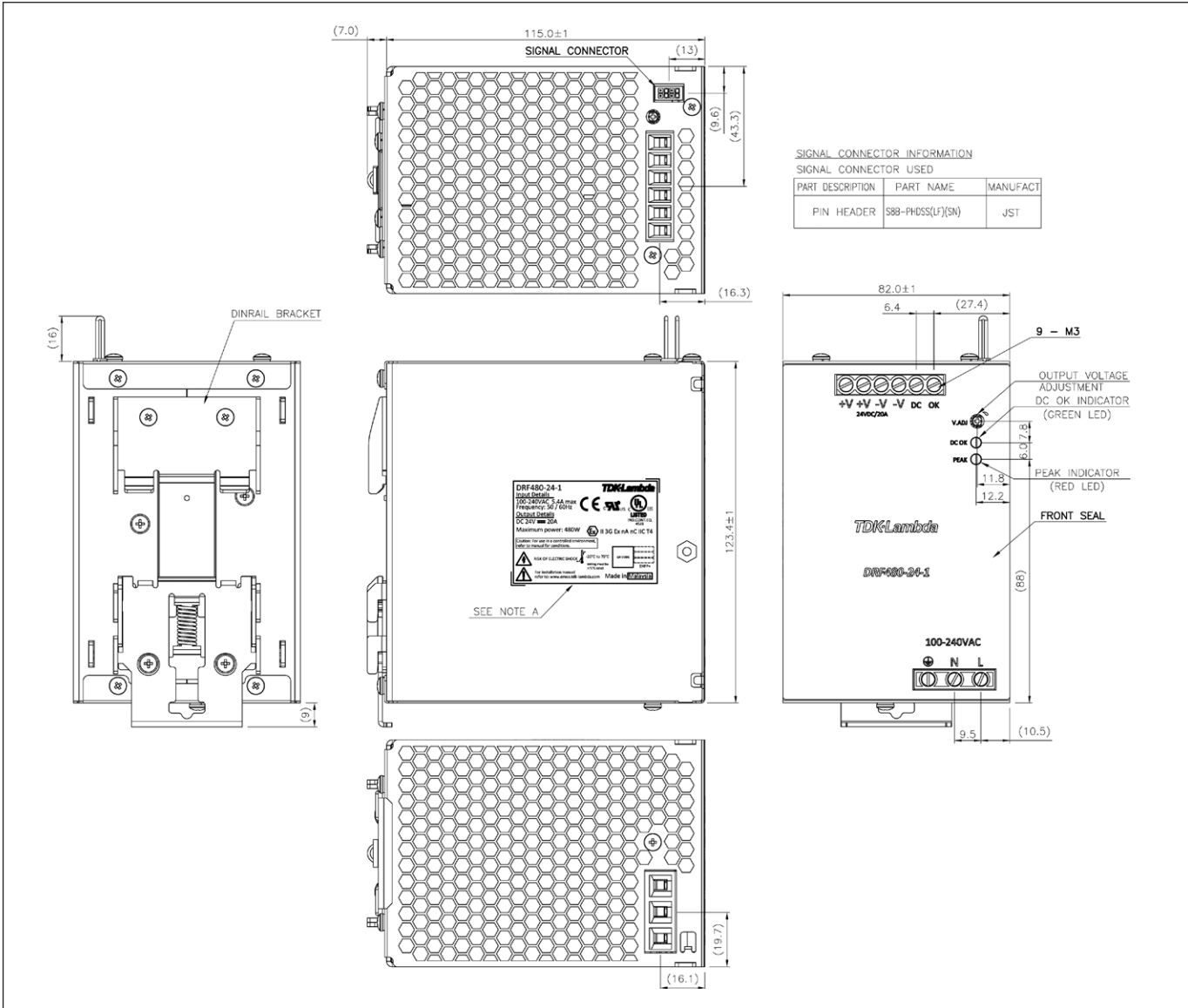
DRF120-24-1 Outline Drawing



DRF240-24-1 Outline Drawing



DRF480-24-1 Outline Drawing





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 Hashlosa 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.

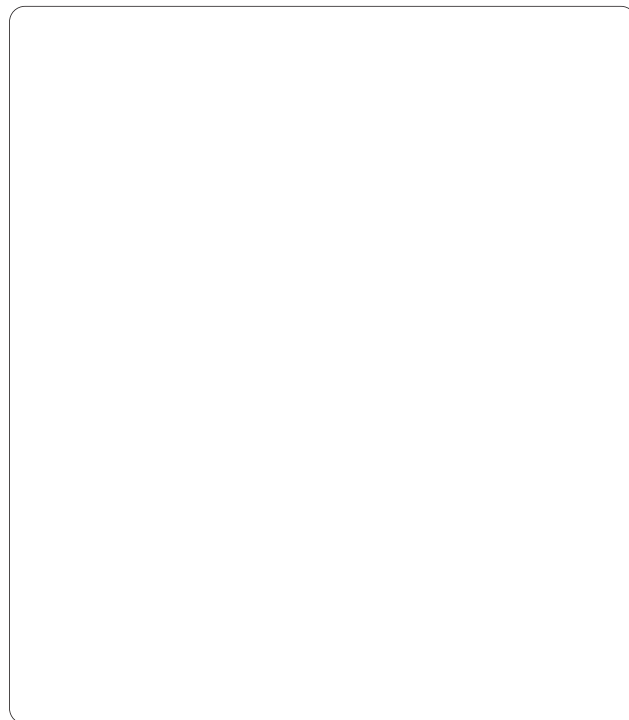
Commercial Support:

Tel: +7 (495) 665 2627

Technical Support:

Tel: +7 (812) 658 0463
info@tdk-lambda.ru
www.tdk-lambda.ru

Local Distribution



www.emea.tdk-lambda.com