

DLP Series

75 to 240W, 24V Output
DIN Rail Mount Power Supply

- Low Cost
- 3 Year Warranty
- Semi F47 Compliant (DLP180&240 only)
- Convection Cooled
- Conducted and Radiated EMI, Class B
- Input Transient Protection, IEC61000-4

Key Market Segments & Applications

Industrial Controls: Motor Control Systems
Factory Automation: Process Control, Automotive, Chemical Processing
Test & Measurement: Burn in & Test, Instrumentation Measurement

DLP Features and Benefits

Features

- PFC Compliant to EN61000-3-2
- UL508 Approvals
- 3 Year Warranty

Benefits

- Supports Global Use
- Enables System Certification
- Fit & Forget

Specifications

MODELS		DLP75-24-1/E	DLP100-24-1/E	DLP120-24-1/E	DLP180-24-1/E	DLP240-24-1/E
Output Voltage	V	24	24	24	24	24
Output Current	A	3.1	4.1	5.0	7.5	10
Output Power	W	75	98.4	120	180	240
Output Voltage Adjustment	V	21.6 - 28				
Load Regulation	mV	192				
Line Regulation	mV	120				
Ripple/Noise (0-60°C)	mV	240				
AC Input Voltage & Frequency	-	85-132/170-265VAC, 47-63Hz Auto select				
		85-265VAC (47-63Hz) or 120-370VDC ⁽¹⁾				
Input Current 100/230VAC	A	1.7/0.8	2.3/1.2	2.4/1.3	2.3/1.0	3.0/1.3
Efficiency 100/230VAC	%	81/83	82/85	83/85	84/87	82/86
Power Factor	-	Meets EN61000-3-2 (DLP180, 240: >0.95)				
Inrush Current(Typ)100/230VAC	A	20/45				
Leakage Current	mA	Less than 0.75				
Hold-up Time 100/230VAC	ms	20/30 (Semi F47 Compliance, DLP 180 & 240 only)				
Overcurrent Protection	-	>105%, Fold Back				
Overvoltage Protection	-	>105%, Constant Current				
LED Indicators	-	30-35V, latching, cycle AC line to reset				
	-	Green LED = DC ok Red LED = overcurrent				
Operating Temperature (2)	°C	Convection cooled, -10°C to 60°C, derate linearly to 60% load from 50°C to 60°C				
Storage Temperature	°C	-30°C ~ +85°C				
Humidity (Non-Condensing)	%RH	30-90% operating 10-95% non operating				
Withstand Voltage	-	Input - Ground 2kVAC, Input to Output 3kVAC, Output - Ground 500VAC				
Vibration	-	9.8m/s ² (1.0G) at DIN rail; (10-55Hz: 9.8m/s ² Constant, X,Y, Z each 1 hour)				
Shock	-	196m/s ² (20G)				
Safety Agency Approvals	-	UL508, IEC/UL/CSA/EN62368-1, 60950-1, EN50178 Cat III (Pri), CE Mark				
Conducted EMI	-	FCC-B, EN55011/EN55022-B, VCCI-B; Meets IEC61000-4-1				
Radiated EMI	-	EN55011/EN55022-B, FCC-Class B, VCCI-B				
ESD	-	IEC61000-4-2 ±10kV (Air), ±5kV (Contact)				
Radiated RFI	-	IEC61000-4-3 80-1000MHz, 12V/m 80% AM 1kHz				
Fast Transient Burst	-	IEC61000-4-4 2.4kV 5kHz				
Lightning Surge	-	IEC61000-4-5 4.4kV, 1.2x50µs (Common Mode) 2.4kV 1.2x50µs (Normal)				
Conducted RFI	-	IEC61000-4-6 150kHz-80MHz, 12V, 80% AM 1kHz				
Magnetic Field	-	IEC61000-4-8 36A/m				
Voltage Dips	-	IEC61000-4-11 70% 10ms, 40% 100ms, 0% 5s				
Size	mm	50 x 97 x 110	60 x 97 x 110	60 x 97 x 110	80 x 97 x 110	120 x 97 x 110
Weight	g	470	540	540	780	1000
Warranty	yrs	3				

[illegible]

Top View Dimensions:

- Overall Width: 113
- Left Margin: 6.5
- Mounting Hole Spacing: 8.5
- Internal Spacing: 19 ± 0.5
- Main Body Width: 56.5 ± 0.5
- Bottom Flange Height: 7.5
- Total Height: 47.5 ± 0.5
- Right Flange Width: 31.5 ± 0.5

Front View Features and Dimensions:

- VOLTAGE ADJUSTMENT:** Potentiometer at the top.
- DC ON INDICATOR (GREEN LED)** and **ALM INDICATOR (RED LED):** Located below the potentiometer.
- NAME PLATE:** Central label with technical specifications.
- INPUT TERMINAL:** Bottom terminals labeled L, N, and ground.
- DIN RAIL, REMOVE HOLE:** Located at the bottom center.
- OUTPUT TERMINAL:** Top right terminals labeled +V, -V, and ground.
- DIN RAIL REMOVE PUSHING BUTTON:** Located at the top right corner.
- Dimensions:** Total width 110 ± 1, total height 97 ± 1, mounting hole diameter Ø3, input terminal spacing 30.9, output terminal spacing 75.9.

Name Plate Details:

Model Name: **BLP100-24-I/E**

CLASS I POWER SUPPLY

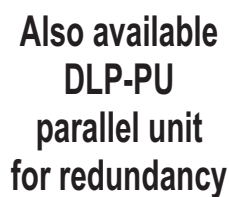
Output Details
Continuous Loading
24VDC/4.1A

Input Details
100-120VAC 2.5A Maximum
200-240VAC 1.4A Maximum
Frequency : 50/60Hz

CE MARKING

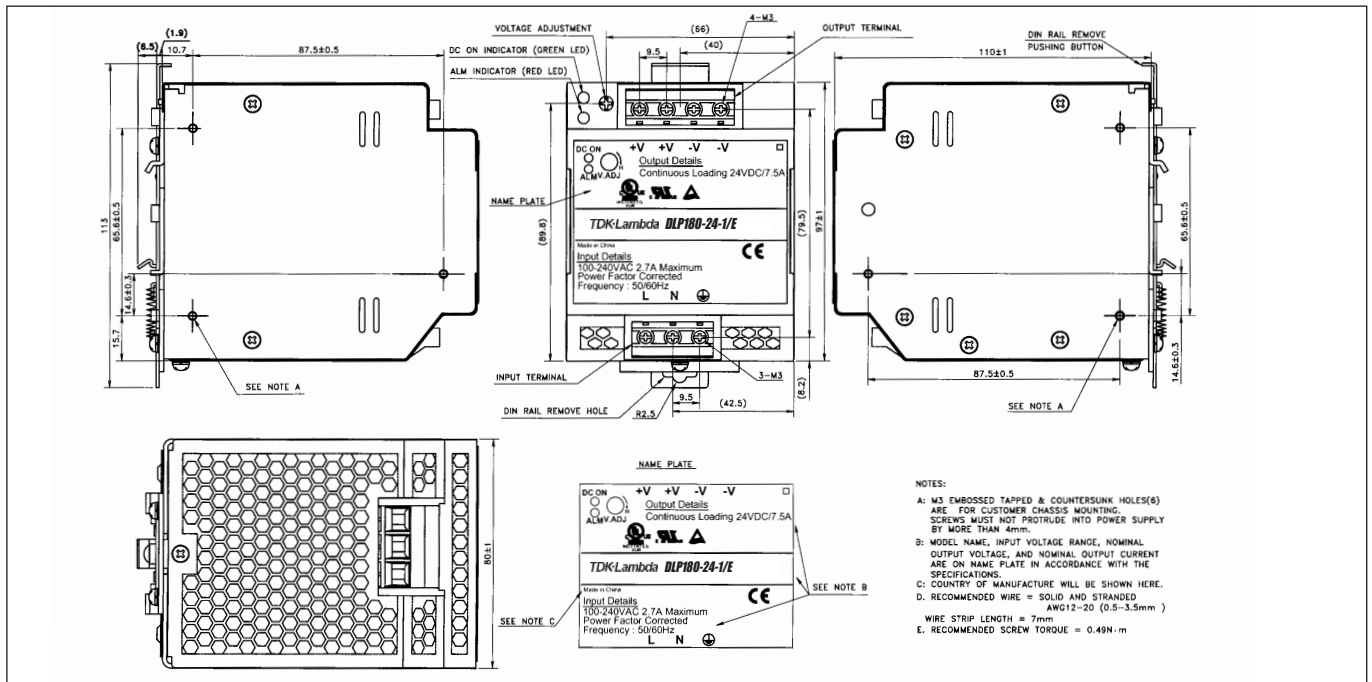
TDK-Lambda

Notes & Warnings:
• M3 screws must not protrude into power supply by more than 4mm.
• Output voltage range, nominal output voltage and nominal output current are on name plate in accordance with the specifications.
• Country of manufacture will be shown here.
• Recommended wire = solid and stranded AWG12-20 (0.5-3.5mm²)
• Wire strip length = 7mm
• Recommended screw torque = 0.49N·m

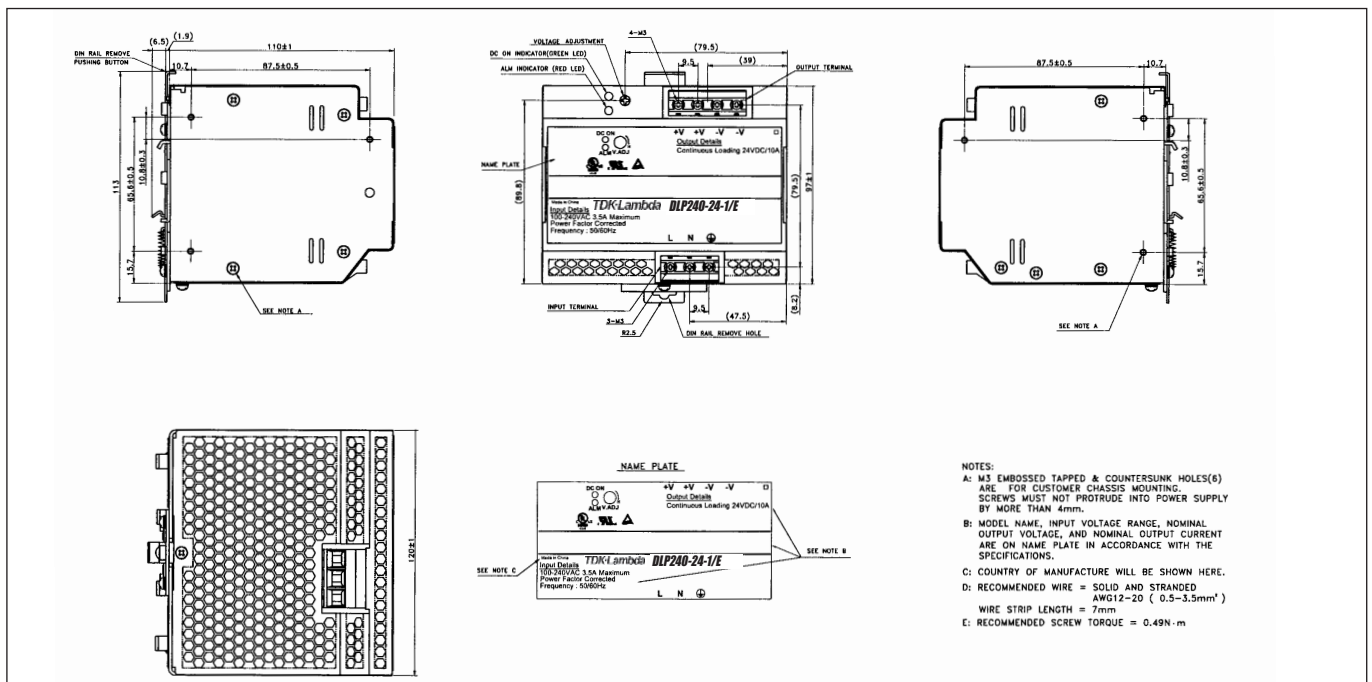


- Notes:**
- (1) DC input is not safety approved
 - (2) **DLP240-24-1/E**: 170-265VAC: -10°C~+70°C, derated linearly to 60% load from 50° to 70°C.

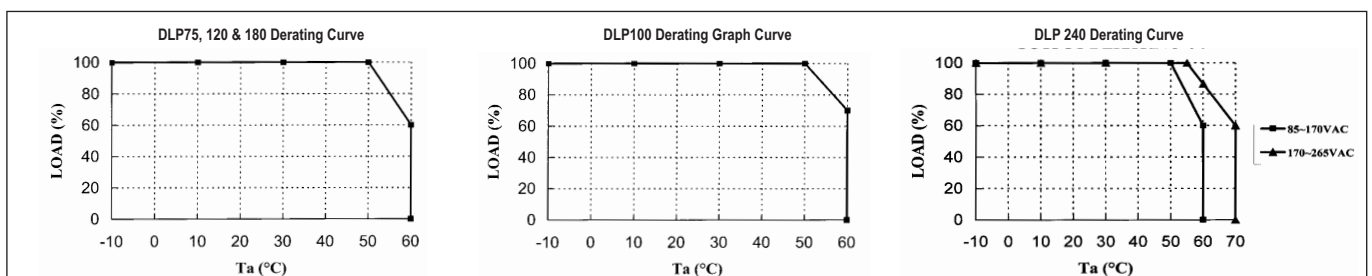
Outline Drawing DLP180 Series



Outline Drawing DLP240 Series



Derating Curve DLP





TDK-Lambda France SAS

Tel: +33 1 60 12 71 65
tlf.fr.powersolutions@tdk.com
www.emea.lambda.tdk.com/fr



Italy Sales Office

Tel: +39 02 61 29 38 63
tlf.it.powersolutions@tdk.com
www.emea.lambda.tdk.com/it



Netherlands

tlf.nl.powersolutions@tdk.com
www.emea.lambda.tdk.com/nl



TDK-Lambda Germany GmbH

Tel: +49 7841 666 0
tlg.powersolutions@tdk.com
www.emea.lambda.tdk.com/de



Austria Sales Office

Tel: +43 2256 655 84
tlg.at.powersolutions@tdk.com
www.emea.lambda.tdk.com/at



Switzerland Sales Office

Tel: +41 44 850 53 53
tlg.ch.powersolutions@tdk.com
www.emea.lambda.tdk.com/ch



Nordic Sales Office

Tel: +45 8853 8086
tlg.dk.powersolutions@tdk.com
www.emea.lambda.tdk.com/dk



TDK-Lambda UK Ltd.

Tel: +44 (0) 12 71 85 66 66
tlu.powersolutions@tdk.com
www.emea.lambda.tdk.com/uk



TDK-Lambda Ltd.

Tel: +9 723 902 4333
tli.powersolutions@tdk.com
www.emea.lambda.tdk.com/il-en



TDK-Lambda Americas

Tel: +1 800-LAMBDA-4 or 1-800-526-2324
tla.powersolutions@tdk.com
www.us.lambda.tdk.com



TDK Electronics do Brasil Ltda

Tel: +55 11 3289-9599
sales.br@tdk-electronics.tdk.com
www.tdk-electronics.tdk.com/en



TDK-Lambda Corporation

Tel: +81-3-6778-1113
www.jp.lambda.tdk.com



TDK-Lambda (China) Electronics Co. Ltd.

Tel: +86 21 6485-0777
tlc.powersolutions@tdk.com
www.lambda.tdk.com.cn



TDK-Lambda Singapore Pte Ltd.

Tel: +65 6251 7211
tts.marketing@tdk.com
www.sg.lambda.tdk.com



TDK India Private Limited, Power Supply Division

Tel: +91 80 4039-0660
mathew.philip@tdk.com
www.sg.lambda.tdk.com

