

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

Features

- ◆ UL508 Listed
- ◆ Conducted and Radiated EMI, Class B
- ◆ Input Transient Protection, IEC61000-4
- ◆ Semi F47 Compliant (DLP180 & 240 only)



Key Market Segments & Applications



Industrial



RoHS

Specifications

Model		DLP75-24-1/E	DLP100-24-1/E DLP100-24-1/C2	DLP120-24-1/E	DLP180-24-1/E	DLP240-24-1/E
Output Voltage	V	24	24	24	24	24
Output Current (/C2 model)	A	3.1	4.1 (3.7)	5.0	7.5	10
Output Power (/C2 model)	W	75	98.4 (88.8)	120	180	240
Output Voltage Adjustment	V	21.6 - 28 (fixed for /C2 model)				
Load Regulation	-	192mV				
Line Regulation	-	120mV				
Ripple/Noise (0-600C)	mV	240				
AC Input Voltage & Frequency	-	85-132/170-265VAC, 47-63Hz Auto select (/C2 model 170-265VAC)			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 0.75mA				
Hold-up Time 100/230VAC	ms	20/30 (Semi F47 Compliance, DLP 180 & 240 only)				
Overcurrent Protection	-	>105%,Fold Back	>105%, Constant Current (/C2 3.75A)			
Overvoltage Protection	-	30-35V, latching, cycle AC line to reset				
LED Indicators	-	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 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, UL60950-1, CSA60950-1, EN60950-1, CE, EN50178 Cat III (Pri)				
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 Years				

(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. DLP100-24-1/C2: -10°C~+60°C, derated linearly to 2.87A load from 50° to 60°C.

[illegible][illegible][illegible]

Figure 10 is a line graph showing Load (%) on the y-axis (0 to 100) versus Ta (°C) on the x-axis (-10 to 70). The graph displays four curves representing different DLP240 models and their load capacity relative to ambient temperature (Ta).

- 85~170VAC DLP240 (Solid Black Line):** This curve shows a sharp drop in load capacity starting around 50°C, reaching 0% load at approximately 60°C.
- 85~265VAC all models (Dashed Black Line):** This curve shows a sharp drop in load capacity starting around 50°C, reaching 0% load at approximately 60°C.
- 170~265VAC DLP240 only (Solid Green Line):** This curve shows a sharp drop in load capacity starting around 50°C, reaching 0% load at approximately 70°C.
- DLP75/C2 (Dashed Black Line):** This curve shows a sharp drop in load capacity starting around 50°C, reaching 0% load at approximately 60°C.
- DLP100/C2 (Dashed Green Line):** This curve shows a sharp drop in load capacity starting around 50°C, reaching 0% load at approximately 60°C.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TDK-Lambda:](#)

[DLP100241](#) [DLP120241](#) [DLP180241](#) [DLP240241](#) [DLP75241](#) [DLP240241/E](#) [DLP180241/E](#) [DLP75241/E](#)
[DLP100241/E](#) [DLP120241/E](#)