

DFS2-240-U series

240W Constant Voltage metal case DIN-Rail Power Supply



■ Features:

- Universal AC input / Full range: 85 – 264VAC and 120 – 370VDC
- High Dielectric Strength: IN/OUT up to 4000VAC
- Protections: Over current / Short circuit / Over Voltage / Over temperature
- Wide operating ambient temperature range: -40°C ÷ +70°C
- High efficiency, high reliability
- Designed to install on TS35x7.5/TS35x15 Din Rail
- LED indicator for power on
- Built in active PFC



MODEL NUMBERING

DFS2	-	240	-	X	-	U
SERIES		RATED OUTPUT POWER		RATED OUTPUT VOLTAGE		INPUT VOLTAGE RANGE
DIN RAIL, METAL CASE, POWER SUPPLY, CONSTANT VOLTAGE DESIGN		240 MEANS 240W (NOT FOR ALL VOLTAGE VERSIONS, PLEASE CHECK DETAILS IN BELOW SPECIFICATION — OUTPUT SECTION)		X = 12	12V	U means 85~264VAC / 120~370VDC
				X = 24	24V	
				X = 48	48V	

ELECTRICAL SPECIFICATION

MODEL	DFS2-240-12-U	DFL2-240-24-U	DFL2-240-48-U
OUTPUT			
RATED VOLTAGE	12V	24V	48V
RATED CURRENT	16A	10A	5A
ADJUSTABLE VOLTAGE RANGE (MIN.)	12V ÷ 14V	24V ÷ 28V	48V ÷ 53V
RATED POWER FOR	192W	240W	240W
LINE REGULATION	± 0.5%	± 0.5%	± 0.5%
LOAD REGULATION	± 1.0%	± 1.0%	± 1.0%
RIPPLE & NOISE (MAX.) [2]	150mV _{p-p}	150mV _{p-p}	150mV _{p-p}
HOLD UP TIME (TYPE.)	20ms		
CAPACITIVE LOAD (MAX.)	160000μF	40000μF	10000μF

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INPUT

VOLTAGE RANGE	AC INPUT	85 ÷ 264VAC		
	DC INPUT	120 ÷ 370VDC		
FREQUENCY RANGE	47 ÷ 63Hz			
EFFICIENCY (TYP.)	93%		94%	94%
AC CURRENT (MAX.)	1.5A / 230VAC; 3A / 115VAC			
INRUSH CURRENT (TYP.)	30A / 230VAC; 15A / 115VAC			
POWER FACTOR(TYP.)	115VAC	0.98		
	230VAC	0.95		

PROTECTIONS

OVER CURRENT	NORMAL TEMPERATURE, HIGH TEMPERATURE	Range: 110%-200% Io, constant current mode, automatic recover after fault condition is removed
	LOW TEMPERATURE	≥105%Io, self-recovery
SHORT CIRCUIT	RECOVERY TIME <10s AFTER SHORT CIRCUIT DISAPPEAR.	Hiccup mode, constant current works 1s, turn off 10s, continuous, self-recovery
OVER VOLTAGE	12V	≤18V (Hiccup, self recovery)
	24V	≤35V (Hiccup, self recovery)
	48V	≤60V (Hiccup, self recovery)
OVER TEMPERATURE		230VAC, rated load / 80°C

WORKING ENVIRONMENT

WORKING TEMPERATURE	-20°C ÷ 70°C (Refer to Derating Curve)
STORAGE TEMPERATURE AND HUMIDITY	-40°C ÷ 85°C, 10 ÷ 90% RH non-condensing

SAFETY AND EMC REGULATIONS

SAFETY STANDARDS	Compliance to EN62368-1, EN61558-1, EN61558-2-16
WITHSTAND VOLTAGE	IN/OUT: 3000VAC (< 10mA / 1min)
EMC EMISSION	Compliance to EN55032 Class B, EN61000-3-2 Class A and Class D
EMC IMMUNITY	Compliance to: EN55035; EN61000-4-2, -3, -4, -5, -6, -11

OTHERS

MTBF (MIN.)	300 000h / 25°C per MIL-HDBK-217F
DIMENSIONS AND NET WEIGHT	124.00 x 54.00 x 110.00mm (L x W x H)
CASE MATERIAL	Metal (AL1100, SPCC) and Plastic (PC945)
NET WEIGHT	0.60kg

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load, 25°C of ambient temperature and humidity <75% RH.

2. Ripple & noise is measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF i 47μF parallel capacitor.

3. Power supply is considered as component not indented to apply by end-user. Power supply meets safety and EMC standards however the final equipment with power supply must be re-qualified to comply with EMC Directives.

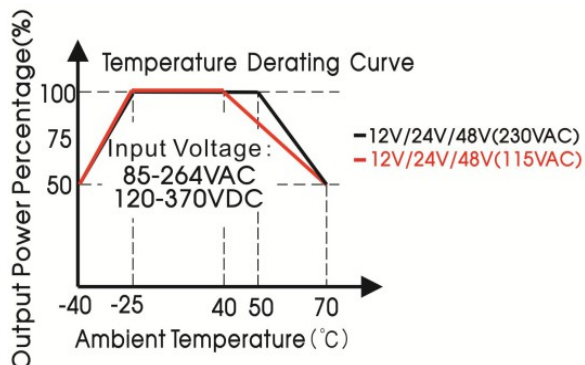
4. Specifications are subject to change without prior notice.

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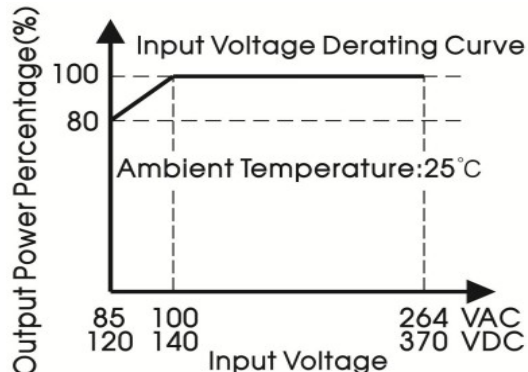
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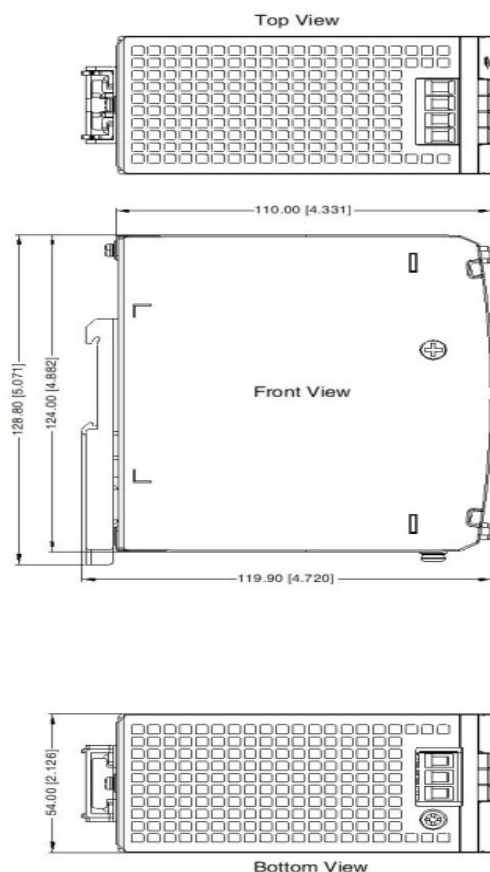
DERATING CURVE



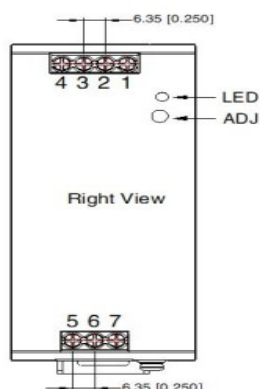
STATIC CHARACTERISTIC



MECHANICAL SPECIFICATION



THIRD ANGLE PROJECTION



Pin-Out	
Pin	Mark
1	-Vo
2	-Vo
3	+Vo
4	+Vo
5	AC(N)
6	AC(L)
7	⏏

Note:

Unit: mm[inch]

LED: Output status indicator LED

ADJ: Output adjustable resistor

Wire range: Input: 26-10AWG(12-10AWG for pin7)

Output: 12V: 12-10AWG

24V: 16-10AWG

48V: 18-10AWG

Tightening torque: Max 0.79N · m

Mounting rail: TS35, rail needs to connect safety ground

General tolerances: $\pm 1.00[\pm 0.039]$