

Very Low Noise
AC/DC Switching Power Supply

DFS50



DFS50 is a Switching Power Supply designed for applications need low noise.

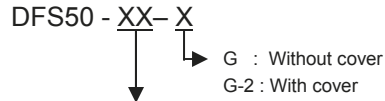
The resonant switching technology significantly reduces the noise level for your systems.

This is an ideal solution for low noise, small, light weight and high efficiency power supply applications.

Features

- Low Ripple & Noise
20mVp-p (5Vout), 30mVp-p (12, 15 & 24Vout)
50mVp-p (48Vout)
- Universal Input
- High Efficiency
- Meet EMC Safety Standards
- RoHS Free, Vinyl Chloride Free,

Model No.



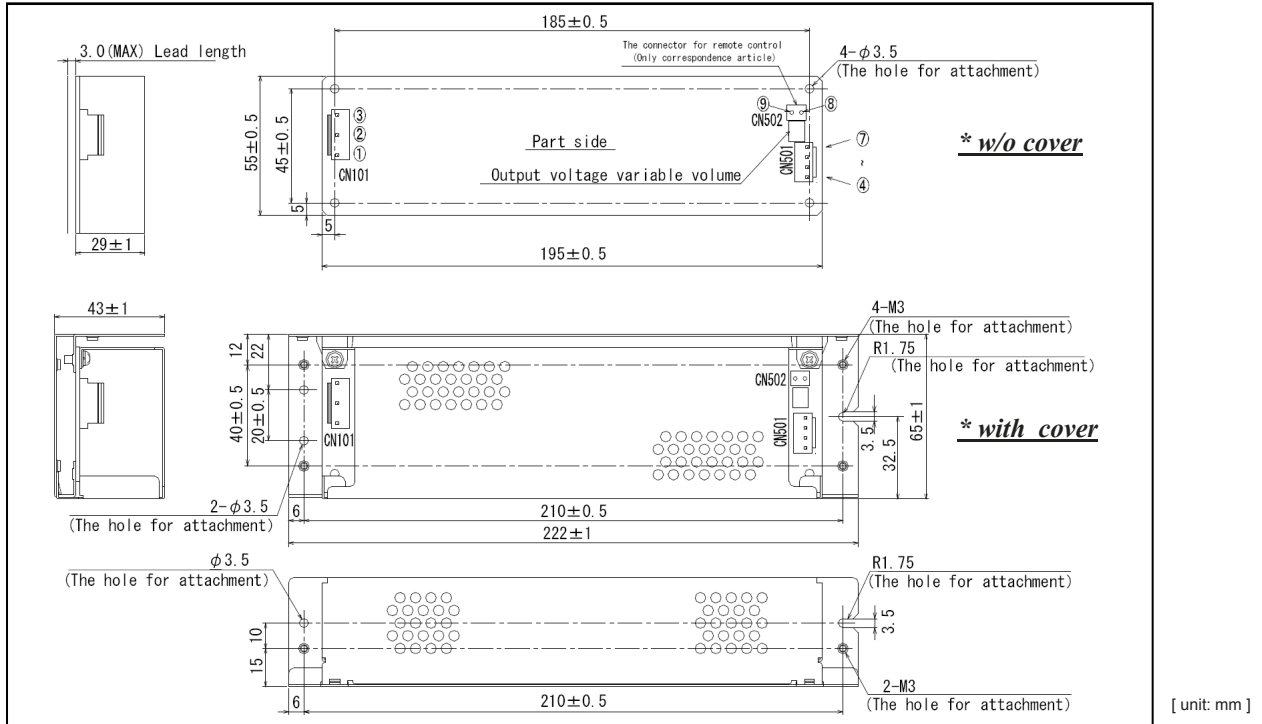
Specify output voltage option 5/12/15/24/48V

Specification

Model Number		DFS50-5	DFS50-12	DFS50-15	DFS50-24	DFS50-48
Input	Input Voltage Range	Rating 100-240Vac Single Phase * Range : 85Vac to 264Vac				
	Frequency Range	Rating : 50/60Hz, * Range : 47Hz to 63Hz				
	Input Current 100/200VAC * 1	0.8A / 0.5 A at Full Load		1.2 A / 0.8 A at Full Load		
	Efficiency * 1	76% / 78%	81% / 84%	82% / 85%	83% / 86%	84% / 87%
	Inrush Current 100 / 200VAC * 1	20A / 40A *When it operates under cold start				
	Leakage Current	0.10mA typ@100Vac, 60Hz / 0.25mA typ@ 240Vac, 60Hz				
Output	DC Output Voltage	5V	12V	15V	24V	48V
	Output Current	6A	4.2A	3.4A	2.1A	1.1A
	Maximum Output Power	30.0W	50.4W	51.0W	50.4W	52.8W
	Line Regulation	20mV max	48mV max	60mV max	96mV max	192mV max
	Load Regulation	40mV max	96mV max	120mV max	150mV max	300mV max
	Ripple & Noise * 2	20mVp-p	30mVp-p			50mVp-p
Others	OCV * 3	Short Circuit on output terminal (Shut down output)				
	OVP * 3	> 115% (Shut down output)				
	Remote Control	Available				
	Cooling System	Convection				
Mechanical	Size & Weight	Without cover type : 55 x 32 x 195 mm, 270g (2.165" x 1.26" x 7.677" inch, 0.6 lbs) With cover type : 65 x 43 x 222 mm, 500g (2.56" x 1.693" x 8.74" inch, 1.10 lbs)				
	Input & Output Terminal	Connector				
	Noise Immunity	EN61000-4-2, -3, -4, -5, -6, -8, -11				
Others	Conduction Noise	EN55022-B, FCC-B, VCCI-B				
	Safety Certifications	UL60950-1, CSA-C22.2, NO. 60950-1, EN60950-1 * UL File No. E237238				
Environmental Condition						
Operating Temperature / Humidity		- 10 degree C to + 60 degree C / 30%RH to 90% RH * Non Condensing				
Storage Temperature / Humidity		- 20 degree C to + 85 degree C / 10%RH to 95% RH * Non Condensing				
Vibration Resistance		19.6m/s ² 10 to 55Hz 1minute Period 1hour for each X, Y, Z direction				
Shock Resistance		< 196.1m/s ² 11ms 1 time for each X, Y, Z direction				
Isolation						
Isolation Voltage		Input— Output : 3KVac for 1min Cut off current 20mA * Under normal temp & humidity condition				
		Input— FG : 2KVac for 1min Cut off current 20mA * Under normal temp & humidity condition				
		Output—FG : 500Vac for 1min Cut off current 100mA * Under normal temp & humidity condition				
Isolation Resistance		Input— Output , Input—FG, Output—FG DC500V > 100M ohm				

*1 Conditions: Ta = 25 degree C *2 JEITA specified measuring method *3 Upon over voltage or over current conditions, input power must be removed to allow unit reset to occur within 1 minute.
Note: Derating is required by operating temperature. Follow the overload and specification in manual to avoid the damage of power supply.

Mechanical Drawings



Connector	CN101
1	Input (L)
2	Input (N)
3	FG

Connector	CN501
4, 5	Output (+)
6, 7	Output (-)

Connector	CN502
8	+R : + Remote Control
9	-R : - Remote Control

BOM	CN101	CN501	CN502
Connector	B3P5-VH JST	B4P-VH JST	B2B-XH-AM JST
Housing	VHR-5N	VHR-4N	XHP-2
Terminal	BVH-21T-P1.1 SVH-21T-P1.1		BXH-001T-P0.6 SXH-001T-P0.6
Crimping Tool	YC-160R		YC-110R

- Warning: Large capacitive load should be applied or removed only with NO AC power applied. Large inrush current may result in damage.
- Incorrect operation will damage Power Supply.

Block Diagram

