

Very Low Noise
AC/DC Switching Power Supply

DFS100A



DFS100A is a Switching Power Supply designed for applications need low noise.

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

De-facto standard size & pitch can easily replace

your power supplies without taking extra resources.

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

Features

- Low Ripple & Noise
40mVp-p (5Vout), 50mVp-p (12, 15, 24 & 48Vout)
- Universal Input
- High Efficiency
- Meet EMC Safety Standards
- RoHS Free, Vinyl Chloride Free,

Model No.

DFS100A - XX - X

G : Remote control / No cover
F-2 : With cover / No Remote control
Specify output voltage option 5/12/15/24/48V

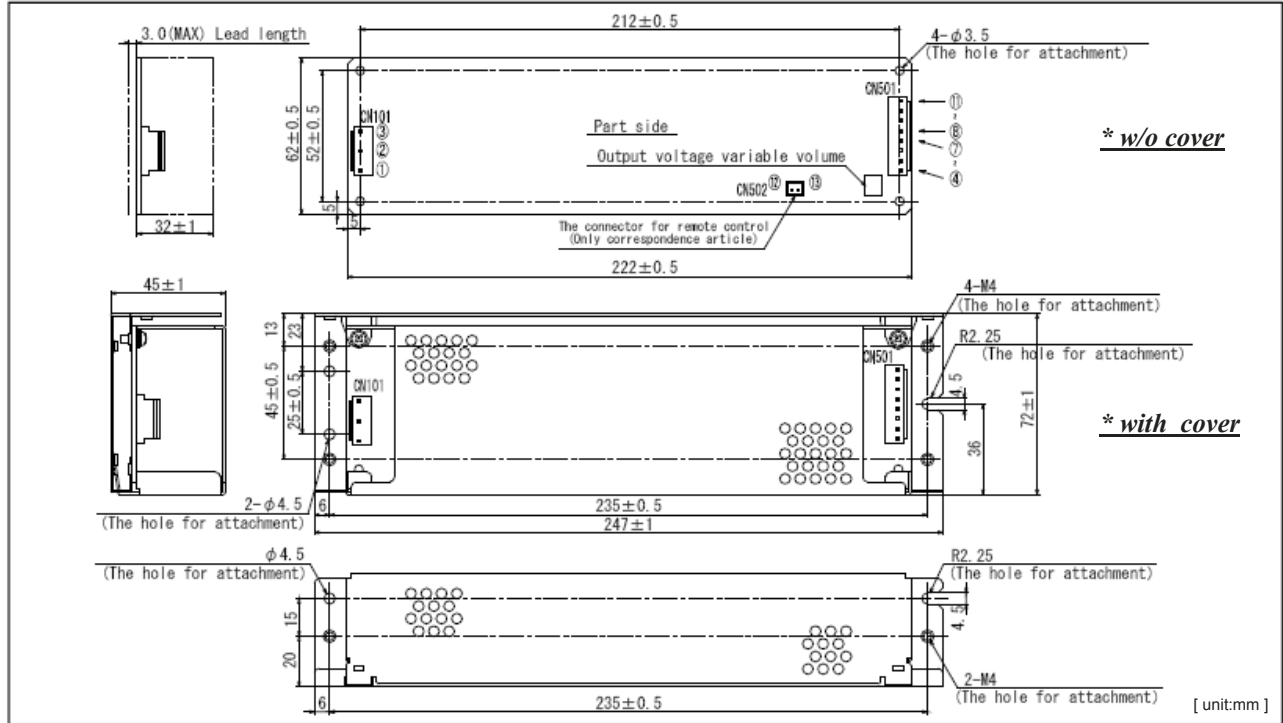
Specification

Model Number		DFS100A-5	DFS100A-12	DFS100A-15	DFS100A-24	DFS100A-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	1.0A / 0.5 A at Full Load	1.4 A / 0.7 A at Full Load			
	Efficiency * 1	76% / 78%	83% / 85%	84% / 86%	85% / 87%	86% / 88%
	Inrush Current 100 / 200VAC * 1	15A / 30A * When it operates under cold start				
	Leakage Current	0.17mA typ@100Vac, 60Hz / 0.44mA typ@ 240Vac, 60Hz				
	Power Factor [AC100Vin / 200Vin]	0.98 / 0.91	0.99 / 0.95			
Output	DC Output Voltage	5V	12V	15V	24V	48V
	Output Current	10A	8.4A	6.7A	4.2A	
	Maximum Output Power	50.0W	100.8W	100.5W	100.8W	100.8W
	Line Regulation / Load Regulation [Max]	20mV / 40mV	48mV / 96mV	60mV / 120mV	96mV / 150mV	192mV / 300mV
	Ripple & Noise * 2	40mVp-p	50mVp-p			
Others	OCP * 3	> 110% (Shut down output)				
	OVP * 3	> 115% (Shut down output)				
	Remote Control	Available * Option				
	Cooling System	Convection				
Mechanical	Size & Weight	Without cover type : 62 x 35 x 222 mm, 380g (2.44" x 1.38" x 8.74" inch, 0.84 lbs) With cover type : 72 x 45 x 247mm, 670g (2.83" x 1.77" x 9.72" inch, 1.48 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 to 7	Output (+)
8 to 11	Output (-)

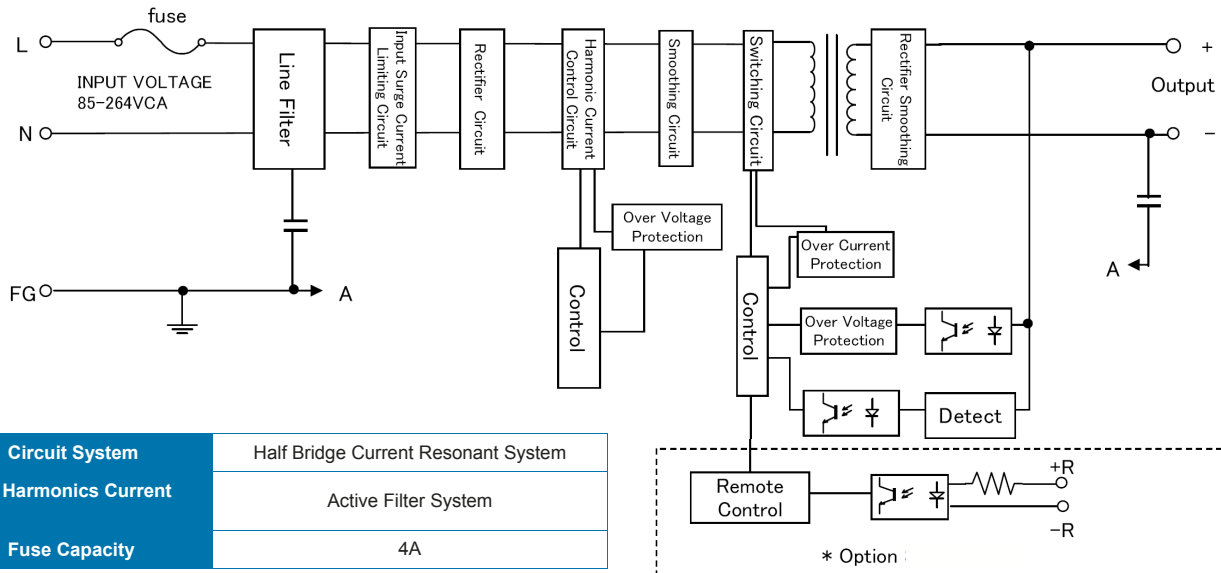
Connector	CN502
12	+R : + Remote Control
13	-R : - Remote Control

* - G option only

BOM	CN101	CN501	CN502 * G only
Connector	B3P5-VH JST	B8P-VH JST	B2B-XH-AM JST
Housing	VHR-5N	VHR-8N	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



• Specifications subject to change without notice