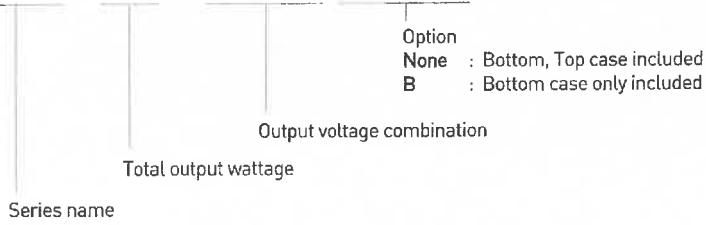
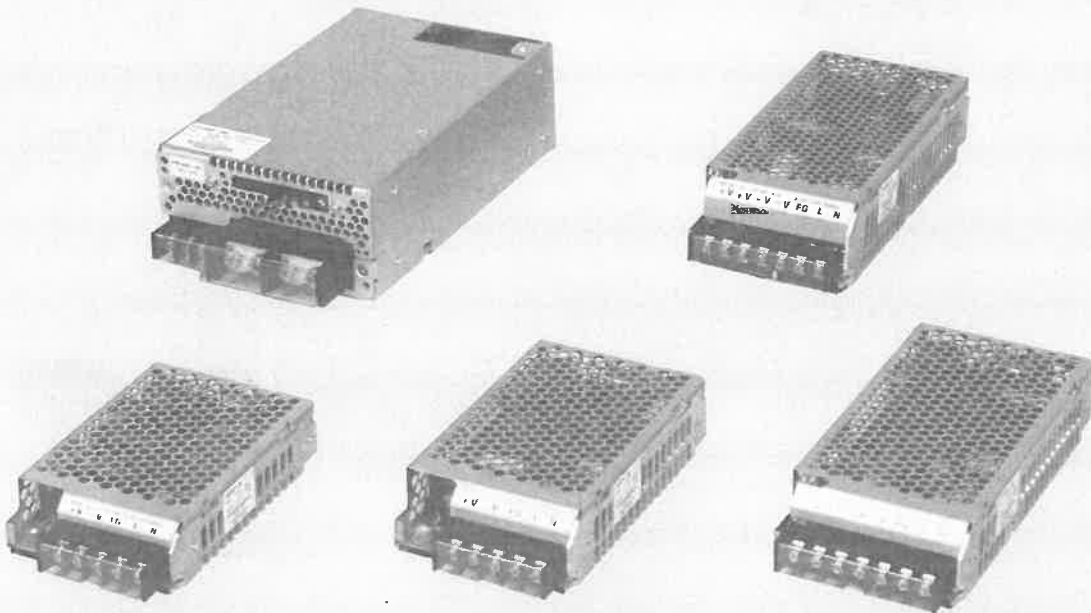


ORDERING INFORMATION

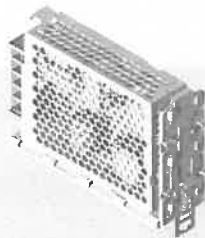
PSF50-3R3 □ □



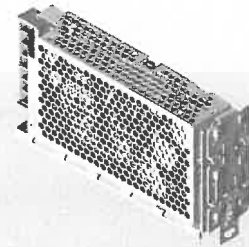
- Small size(Height 82mm: (2U), (50W~150W)
- Wide input voltage range(free voltage)
- Over voltage protection
- Over current protection
- High power factor [Built-in PFC Circuit]
- 4 years warranty



DIN RAIL : FD-15-A
 적용SMPS : CSF15-S
 CSF30-S



DIN RAIL : FD-50-A
 적용SMPS : CSF50-S
 CSF75-S
 PSF50-S
 PSF75-S



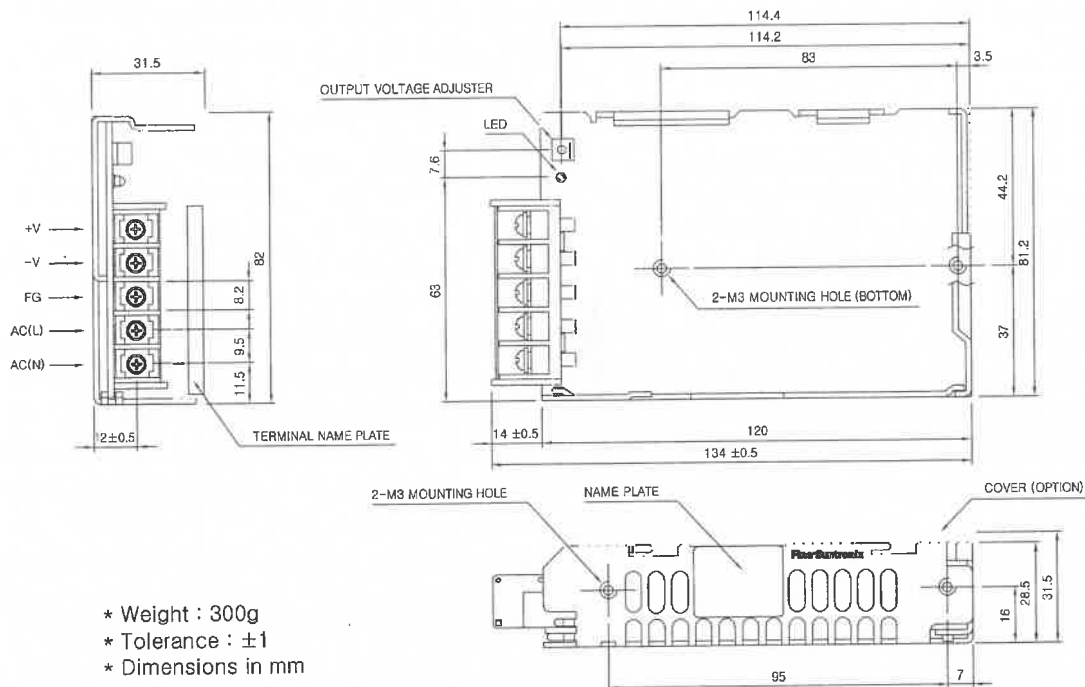
DIN RAIL : FD-100-A
 적용SMPS : CSF100-S
 CSF150-S
 PSF100-S
 PSF150-S

PSF50-S SPECIFICATIONS



MODEL		PSF50-3R3	PSF50-05	PSF50-09	PSF50-12	PSF50-15	PSF50-24	PSF50-48
VOLTAGE, FREQUENCY		AC100-240V (AC85 ~ 264V or DC120 ~ 370V), 50/60Hz (47 ~ 63Hz) Universal Input Voltage.						
INPUT	CURRENT [A]	110V	0.5($I_L=100\%$)		0.7($I_L=100\%$)			
		220V	0.3($I_L=100\%$)		0.4($I_L=100\%$)			
	POWER FACTOR	110V	0.98		0.99			
		220V	0.93		0.95			
EFFICIENCY [%]	110V	77 typ	81 typ	79 typ	80 typ	81 typ	82 typ	83 typ
	220V	78 typ	82 typ	81 typ	82 typ	83 typ	84 typ	85 typ
INRUSH CURRENT		20A typ(AC IN 110V, $I_L=100\%$), 40A typ(AC IN 220V, $I_L=100\%$) at cold start.						
OUTPUT	VOLTAGE [V]	3.3	5	9	12	15	24	48
	CURRENT [A]	10	10	5.6	4.3	3.5	2.2	1.1
	REGULATION, LINE [mV]	25 Max	25 Max	45 Max	60 Max	75 Max	120 Max	240 Max
	REGULATION, LOAD [mV]	50 Max	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE [mVp-p]	80 Max	80 Max	90 Max	120 Max	150 Max	200 Max	480 Max
	RIPPLE, NOISE [mVp-p]	120 Max	120 Max	140 Max	170 Max	200 Max	290 Max	530 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	50 Max	75 Max	135 Max	180 Max	225 Max	360 Max	720 Max
	RISE TIME [ms]	500 Max (AC IN 85V, $I_L=100\%$)						
	HOLDING TIME [ms]	17 typ (AC IN 85V, $I_L=100\%$)						
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 105% of rating and recovers automatically						
	OVER VOLTAGE PROTECTION	Works at 115~140% of rating						
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)						
	INPUT-CASE, FG	AC 2,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)						
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)						
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +70°C(Required Derating), 20 ~ 90% RH(Non Condensing)						
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non Condensing)						
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis						
	IMPACT	10G for 20ms, once on each X, Y and Z axis						
SAFETY	SAFETY REGULATION	UL, C-UL, CE, CB						
	LINE CONDUCTED RF VOLTAGE	Built to meet EN55022-B						
	HARMONIC ATTENUATOR	Built to meet IEC61000-3-2						

PSF50-S EXTERNAL VIEW



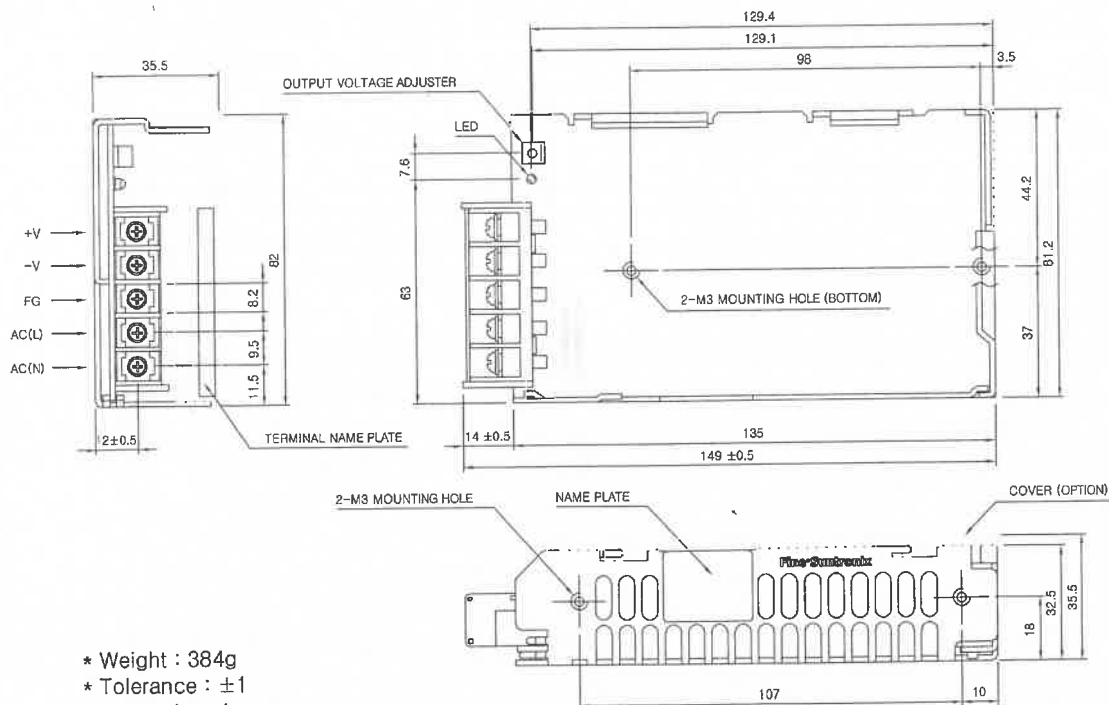
- * Weight : 300g
- * Tolerance : ±1
- * Dimensions in mm

PSF75-S SPECIFICATIONS



MODEL		PSF75-3R3	PSF75-05	PSF75-09	PSF75-12	PSF75-15	PSF75-24	PSF75-48
VOLTAGE, FREQUENCY		AC100-240V (AC85 ~ 264V or DC120 ~ 370V), 50/60Hz (47~ 63Hz) Universal Input Voltage.						
INPUT	CURRENT [A]	110V	0.7(I _o =100%)		0.1(I _o =100%)			
		220V	0.4(I _o =100%)		0.5(I _o =100%)			
	POWER FACTOR	110V	0.98		0.99			
		220V	0.94		0.95			
EFFICIENCY [%]	110V	78 typ	82 typ	82 typ	83 typ	80 typ	82 typ	82 typ
	220V	80 typ	85 typ	85 typ	85 typ	85 typ	84 typ	84 typ
INRUSH CURRENT		20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.						
OUTPUT	VOLTAGE [V]	3.3	5	9	12	15	24	48
	CURRENT [A]	15	15	8.4	6.4	5	3.2	1.6
	REGULATION, LINE [mV]	25 Max	25 Max	45 Max	60 Max	75 Max	120 Max	240 Max
	REGULATION, LOAD [mV]	50 Max	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE [mVp-p]	80 Max	80 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE, NOISE [mVp-p]	120 Max	120 Max	140 Max	170 Max	200 Max	290 Max	530 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	50 Max	75 Max	135 Max	180 Max	225 Max	360 Max	720 Max
	RISE TIME [ms]	600 Max (AC IN 85V, I _o =100%)						
HOLDING TIME [ms]	17 typ (AC IN 85V, I _o =100%)							
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 105% of rating and recovers automatically						
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating						
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)						
	INPUT-CASE, FG	AC 2,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)						
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)						
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +70°C(Required Derating), 20 ~ 90% RH(Non Condensing)						
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non Condensing)						
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis						
	IMPACT	10G for 20ms, once on each X, Y and Z axis						
SAFETY	SAFETY REGULATION	UL, C-UL, CE, CB						
	LINE CONDUCTED RF VOLTAGE	Built to meet EN55022-B						
	HARMONIC ATTENUATOR	Built to meet IEC61000-3-2						

PSF75-S EXTERNAL VIEW



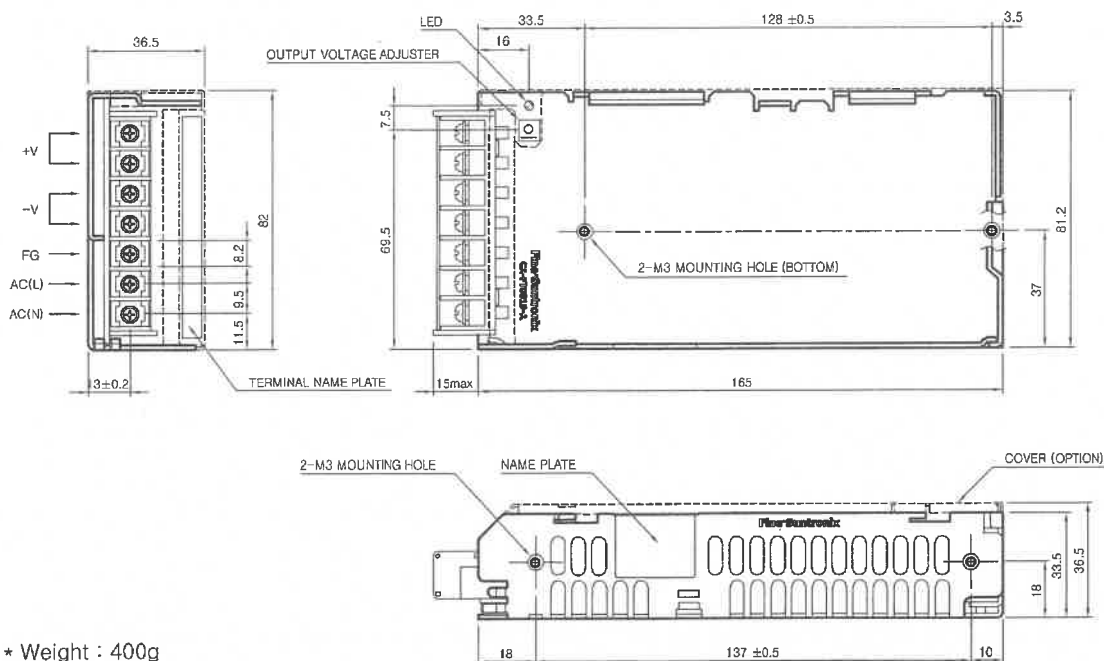
- * Weight : 384g
- * Tolerance : ±1
- * Dimensions in mm

PSF100-S SPECIFICATIONS



	MODEL	PSF100-3R3	PSF100-05	PSF100-09	PSF100-12	PSF100-15	PSF100-24	PSF100-48	
INPUT	VOLTAGE, FREQUENCY	AC100-240V (AC85 ~ 264V or DC120 ~ 370V), 50/60Hz (47~ 63Hz) Universal Input Voltage.							
	CURRENT [A]	110V	0.9(I _o =100%)	1.3(I _o =100%)					
		220V	0.45(I _o =100%)	0.65(I _o =100%)					
	POWER FACTOR	110V	0.99						
		220V	0.95						
	EFFICIENCY [%]	110V	75 typ	81 typ	81 typ	82 typ	81 typ	81 typ	82 typ
220V		80 typ	83 typ	85 typ	85 typ	85 typ	85 typ	85 typ	
INRUSH CURRENT		20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.							
OUTPUT	VOLTAGE [V]	3.3	5	9	12	15	24	48	
	CURRENT [A]	20	20	11	8.4	6.7	4.2	2.1	
	REGULATION, LINE [mV]	25 Max	25 Max	45 Max	60 Max	75 Max	120 Max	240 Max	
	REGULATION, LOAD [mV]	50 Max	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max	
	RIPPLE [mVp-p]	80 Max	80 Max	90 Max	120 Max	150 Max	240 Max	480 Max	
	RIPPLE, NOISE [mVp-p]	120 Max	120 Max	140 Max	170 Max	200 Max	290 Max	530 Max	
	TEMPERATURE DRIFT 0~+50°C [mV]	50 Max	75 Max	135 Max	180 Max	225 Max	360 Max	720 Max	
	RISE TIME [ms]	1000 Max (AC IN 85V, I _o =100%)							
	HOLDING TIME [ms]	17 typ (AC IN 85V, I _o =100%)							
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 105% of rating and recovers automatically							
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating							
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)							
	INPUT-CASE, FG	AC 2,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)							
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)							
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +70°C(Required Derating), 20 ~ 90% RH(Non Condensing)							
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non Condensing)							
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis							
	IMPACT	10G for 20ms, once on each X, Y and Z axis							
SAFETY	SAFETY REGULATION	UL, C-UL, CE, CB							
	LINE CONDUCTED RF VOLTAGE	Built to meet EN55022-B							
	HARMONIC ATTENUATOR	Built to meet IEC61000-3-2							

PSF100-S EXTERNAL VIEW



- * Weight : 400g
- * Tolerance : ±1
- * Dimensions in mm

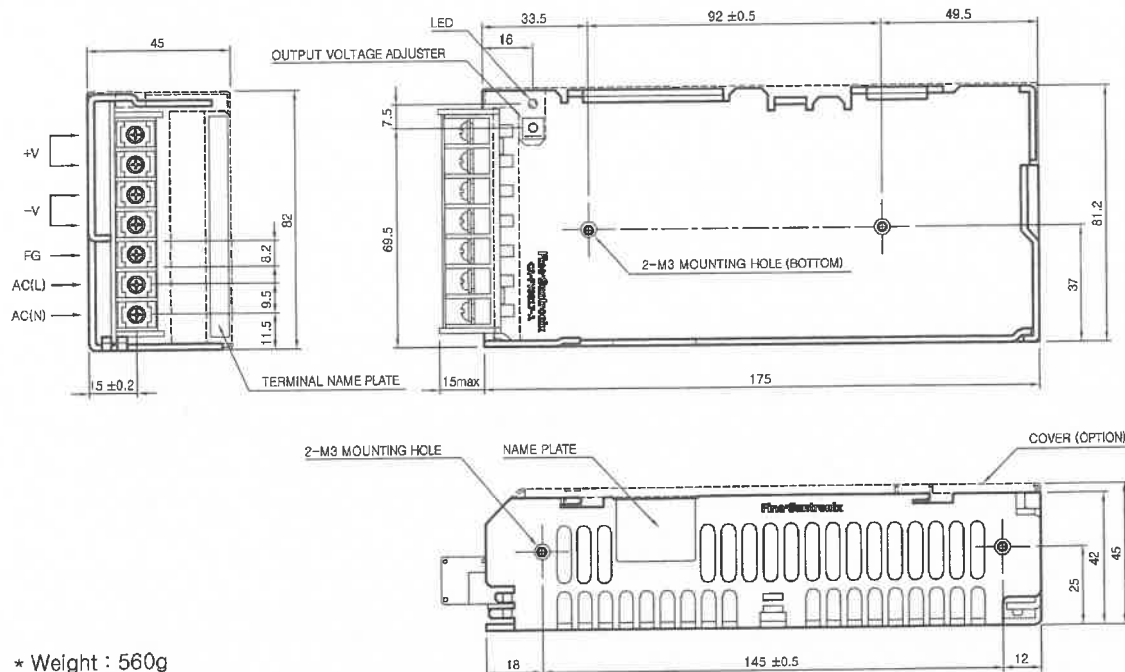
General Information | Switching Mode Power Supply | DC-DC Converter | Noise Filter | Solid State Relay | AC FAN Motor | Power Module | Discrete Semiconductors

PSF150-S SPECIFICATIONS



MODEL		PSF150-3R3	PSF150-05	PSF150-09	PSF150-12	PSF150-15	PSF150-24	PSF150-48
INPUT	VOLTAGE, FREQUENCY	AC100-240V (AC 85 ~ 264V or DC120 ~ 370V), 50/60Hz (47 ~ 63Hz)						
	CURRENT [A]	110V	1.3(I _o =100%)		2.0(I _o =100%)			
		220V	0.65(I _o =100%)		1.0(I _o =100%)			
	POWER FACTOR	110V	0.98		0.99			
		220V	0.91		0.95			
EFFICIENCY [%]	110V	77 typ	80 typ	80 typ	82 typ	83 typ	85 typ	87 typ
	220V	80 typ	82 typ	85 typ	86 typ	87 typ	88 typ	89 typ
INRUSH CURRENT		20A typ(AC IN 110V, I _o =100%), 40A typ(AC IN 220V, I _o =100%) at cold start.						
OUTPUT	VOLTAGE [V]	3.3	5	9	12	15	24	48
	CURRENT [A]	30	30	16.7	12.5	10	6.3	3.2
	REGULATION, LINE [mV]	25 Max	25 Max	45 Max	60 Max	75 Max	120 Max	240 Max
	REGULATION, LOAD [mV]	50 Max	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE [mVp-p]	80 Max	80 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE, NOISE [mVp-p]	120 Max	120 Max	140 Max	170 Max	200 Max	290 Max	530 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	50 Max	75 Max	135 Max	180 Max	225 Max	360 Max	720 Max
	RISE TIME [ms]	500 Max (AC IN 85V, I _o =100%)						
HOLDING TIME [ms]	17 typ (AC IN 85V, I _o =100%)							
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 105% of rating and recovers automatically						
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating						
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)						
	INPUT-CASE, FG	AC 2,000V 1 minute current 20mA, DC 500V 100MΩ (At room temperature & Humidity)						
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 100MΩ (At room temperature & Humidity)						
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ +70°C(Required Derating), 20 ~ 90% RH(Non Condensing)						
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non Condensing)						
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis						
	IMPACT	10G for 20ms, once on each X, Y and Z axis						
SAFETY	SAFETY REGULATION	UL, C-UL, CE, CB						
	LINE CONDUCTED RF VOLTAGE	Built to meet EN55022-B						
	HARMONIC ATTENUATOR	Built to meet IEC61000-3-2						

PSF150-S EXTERNAL VIEW



- * Weight : 560g
- * Tolerance : ±1
- * Dimensions in mm

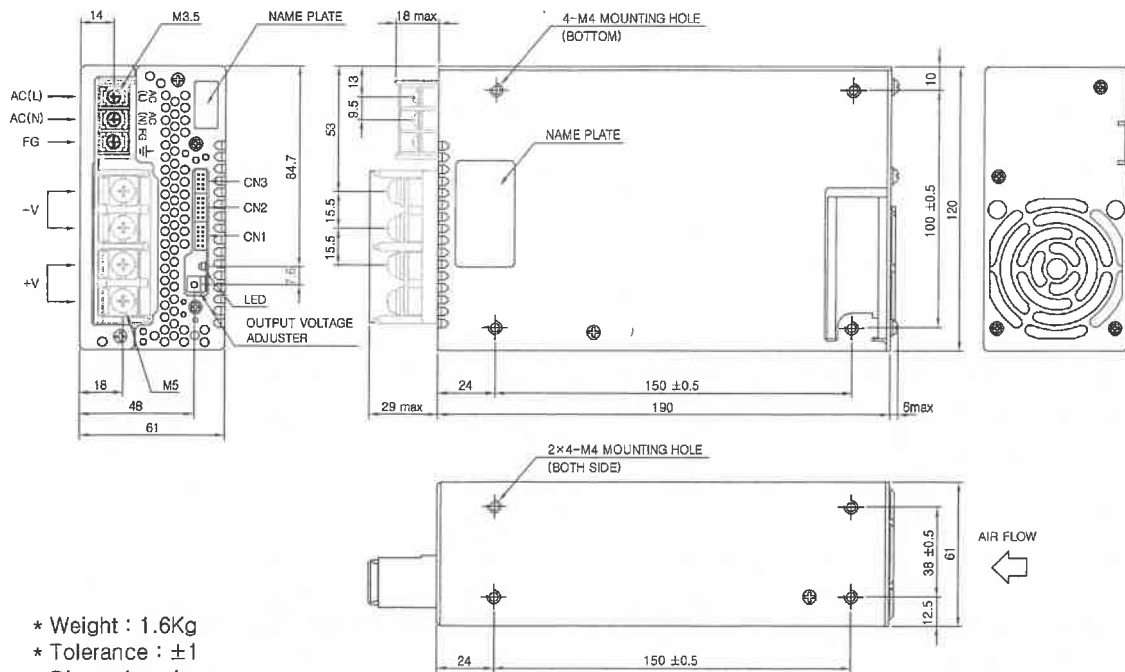
PSF600-S SPECIFICATIONS



MODEL		PSF600-3R3	PSF600-05	PSF600-09	PSF600-12	PSF600-15	PSF600-24	PSF600-48
INPUT	VOLTAGE, FREQUENCY	AC100-240V (AC85 ~ 264V or DC125 ~ 370V), 50/60Hz (47 ~ 63Hz or DC)						
	CURRENT [A]	110V	5.8(I _c =100%)		8.2(I _c =100%)			
		220V	3.0(I _c =100%)		4.1(I _c =100%)			
	POWER FACTOR	110V	0.98					
		220V	0.95					
	EFFICIENCY [%]	110V	70 typ	75 typ	76 typ	79 typ	79 typ	81 typ
220V		72 typ	77 typ	79 typ	82 typ	82 typ	84 typ	83 typ
INRUSH CURRENT		20A typ(ACIN 110V, I _c =100%), 40A typ(ACIN 220V, I _c =100%) at cold start.						
OUTPUT	VOLTAGE [V]	3.3	5	9	12	15	24	48
	CURRENT (PEAK) [A]	120	120	67	53	43	27(31)	13
	REGULATION, LINE [mV]	25 Max	25 Max	45 Max	60 Max	75 Max	120 Max	240 Max
	REGULATION, LOAD [mV]	50 Max	50 Max	90 Max	120 Max	150 Max	240 Max	480 Max
	RIPPLE [mVp-p]	80 Max	80 Max	120 Max	120 Max	120 Max	120 Max	150 Max
	RIPPLE, NOISE [mVp-p]	120 Max	120 Max	150 Max	150 Max	150 Max	150 Max	250 Max
	TEMPERATURE DRIFT 0~+50°C [mV]	50 Max	75 Max	135 Max	180 Max	225 Max	360 Max	720 Max
	RISE TIME [ms]	500 Max (AC IN 110V, I _c =100%)						
	HOLDING TIME [ms]	20 typ (AC IN 110V, I _c =100%)						
PROTECTION CIRCUIT	OVER CURRENT PROTECTION	Works at over 105% of rating and recovers automatically						
	OVER VOLTAGE PROTECTION	Works at 115 ~ 140% of rating						
ELECTRICALLY ISOLATED	INPUT-OUTPUT	AC 3,000V 1 minute current 10mA, DC 500V 50MΩ (At room temperature & Humidity)						
	INPUT-CASE, FG	AC 2,000V 1 minute current 10mA, DC 500V 50MΩ (At room temperature & Humidity)						
	OUTPUT-CASE, FG	AC 500V 1 minute current 100mA, DC 500V 50MΩ (At room temperature & Humidity)						
ENVIRONMENT	OPERATING TEMP AND HUMID	-10 ~ 71°C(Required Derating), 20 ~ 90% RH(Non Condensing)						
	STORAGE TEMP AND HUMID	-20 ~ +75°C, 20 ~ 90% RH(Non Condensing)						
	VIBRATION	10 ~ 55Hz at 1G, 3 minutes period, 30 minutes along X, Y and Z axis						
	IMPACT	10G for 20ms, Once on each X, Y and Z axis						
SAFETY	SAFETY REGULATION	UL, C-UL, CE, CB						
	LINE CONDUCTED RF VOLTAGE	Built to meet EN55022-B						
	HARMONIC ATTENUATOR	Built to meet IEC61000-3-2						

*PEAK current is less than 10 sec.(Duty <= 0.35)

PSF600-S EXTERNAL VIEW



- * Weight : 1.6Kg
- * Tolerance : ± 1
- * Dimensions in mm

General Information

Switching Mode Power Supply

DC-DC Converter

Noise Filter

Solid State Relay

AC FAN Motor

Power Module

Discrete Semiconductors