

	VOLIAGE[V]					
			0.65typ (lo=100%)			
INPUT			0.35typ (lo=100%)			
	FREQUENCY[Hz]		50 / 60 (47 - 440)			
	EFFICIENCY[%]	ACIN 100V	75.0typ	78.0typ	81.0typ	
		ACIN 200V	77.0typ	80.0typ	83.0typ	
	INRUSH CURRENT[A]	ACIN 100V	15typ (Io=100%) (At cold start) (Ta=2	5℃)		
		ACIN 200V	30typ (Io=100%) (At cold start) (Ta=2	5℃)		
	LEAKAGE CURRENT[mA]		0.30 / 0.65max (ACIN 100V / 240V 60Hz, lo=100%, According to IEC60950-1 and DEN-AN)			
	VOLTAGE[V]		5	12	24	
	CURRENT[A]		6.0	2.5	1.3	
	LINE REGULATION	mV] *5	20max	48max	96max	
	LOAD REGULATION	[mV] *5	100max	100max	150max	
	RIPPLE[mVp-p]	0 to +50℃ *1	100max	120max	120max	
		-10-0°C *1	140max	160max	160max	
OUTPUT	RIPPLE NOISE[mVp-p]	0 to +50℃*1	250max	250max	250max	
001F01		-10-0°C *1	300max	300max	300max	
	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	120max	240max	
		-10 to +50°C	60max	150max	290max	
	DRIFT[mV]	*2	20max	48max	96max	
	START-UP TIME[ms]		150typ (ACIN 100V, Io=100%)			
	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)			
	OUTPUT VOLTAGE SETTING[V]		4.90 to 5.30	11.50 to 12.50	23.00 to 25.00	
	OVERCURRENT PROTECTION		Works over 105% of rating and recov	vers automatically		
PROTECTION	OVERVOLTAGE PROTECTION[V]		5.75 to 7.00	13.80 to 16.80	27.60 to 33.60	
	OPERATING INDICATION		LED (Green)			
OTHERS	REMOTE SENSING		Not provided			
	REMOTE ON/OFF		Not provided			
	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)			
ISOLATION	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)			
	OUTPUT-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At Room Temperature)			
	OPERATING TEMP., HUMID.AND	) ALTITUDE	-10 to +60℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max *3			
ENVIRONMENT	STORAGE TEMP., HUMID. AND ALTITUDE		-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max			
	VIBRATION		10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis			
	IMPACT		196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis			
SAFETY AND	AGENCY APPROVA	LS	DEN-AN			
NOISE	CONDUCTED NOISE/	POWER	Complies with DEN-AN			
REGULATIONS	HARMONIC ATTENU	JATOR *4	Complies with IEC61000-3-2 class A (Not built-in to active filter)			
OTHERS	CASE SIZE/WEIGHT		61×36×150mm [2.40×1.42×5.91	inches] (W×H×D) / 370g max		
UTENS	COOLING METHOD		Convection			

Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output. \*2

\*3 Derating is required.

When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class. Please contact us about dynamic load and input response. To meet the specifications. Do not operate over-loaded condition. \*4

\*5 \*

\* Parallel operation is not possible.

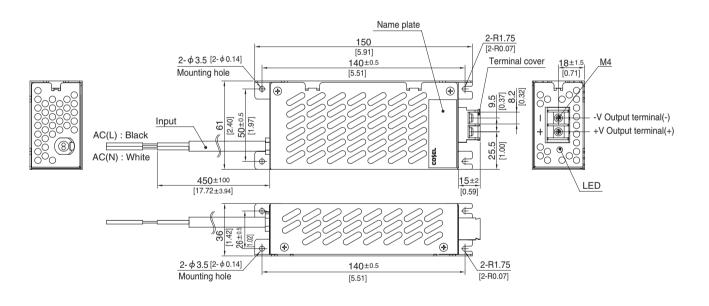
Derating is required when operated with chassis and cover. Sound noise may be generated by power supply in case of pulse load.

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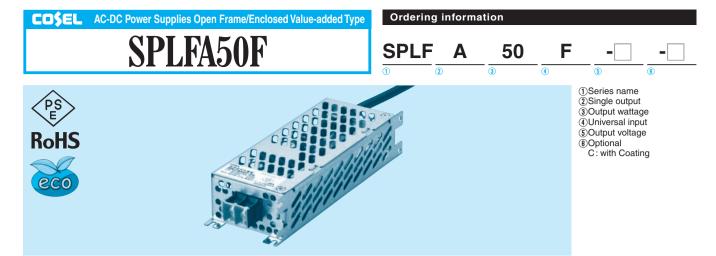
Block diagram



### External view



- % Tolerance : ±1 [±0.04]
- % Weight : 370g max
- % PCB material/thickness : CEM3 / 1.6mm [0.06]
- % Chassis and cover material : Electric galvanizing steel board
- % Dimensions in mm, [ ]=inches
- % Mounting torque : M4 : 1.6N  $\cdot$  m (16.9kgf  $\cdot$  cm) max
- % Input wire : VCTF 0.75sq × 2C



MODEL	SPLFA50F-5	SPLFA50F-12	SPLFA50F-24
MAX OUTPUT WATTAGE[W]	50	51.6	50.4
DC OUTPUT	5V 10A	12V 4.3A	24V 2.1A

M	ODEL		SPLFA50F-5	SPLFA50F-12	SPLFA50F-24		
VC	OLTAGE[V]		AC85 - 264 1 $\phi$ (Refer to Ins	truction Manual 1.1 and 3.1) *3			
C1	URRENT[A]	ACIN 100V	0.67typ (lo=100%)				
	ACIN 200V		0.36typ (lo=100%)				
FF	FREQUENCY[Hz]		50 / 60 (47 - 63)				
	EFFICIENCY[%]	ACIN 100V	76.5typ	79.0typ	80.5typ		
NPUT		ACIN 200V	78.0typ	80.5typ	82.0typ		
PO	POWER FACTOR (lo=100%)	ACIN 100V	0.97typ				
FU	ACIN 200V		0.90typ				
IN		ACIN 100V	15typ (Io=100%) (At cold start) (Ta=25°C)				
	INRUSH CURRENT[A]		30typ (Io=100%) (At cold start) (Ta=25℃)				
LE	EAKAGE CURREN	T[mA]	0.40 / 0.75max (ACIN 100V /	240V 60Hz, lo=100%, According t	o IEC60950-1 and DEN-AN)		
VC	OLTAGE[V]		5	12	24		
	URRENT[A]		10.0	4.3	2.1		
LI	NE REGULATION[	mV] *4	20max	48max	96max		
LC	OAD REGULATION	[mV] *4	150max	150max	150max		
ы	IPPLE[mVp-p]	0 to +50℃ *1	100max	120max	120max		
	irrcc[iiivp-p]	-10-0°C *1	140max	160max	160max		
	PPLE NOISE[mVp-p]	0 to +50℃*1	250max	250max	250max		
	RIPPLE NOISE[IIIvp-p]	-10-0°C *1	300max	300max	300max		
TEN	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	120max	240max		
		<b>-10 to +50</b> ℃	60max	150max	290max		
DF	DRIFT[mV] *2		20max	48max	96max		
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)				
Н	OLD-UP TIME[ms]		20typ (ACIN 100V, lo=100%)				
01	OUTPUT VOLTAGE SETTING[V]		4.90 to 5.30	11.50 to 12.50	23.00 to 25.00		
0\	VERCURRENT PROT	ECTION	Works over 105% of rating a	nd recovers automatically			
ROTECTION 0	VERVOLTAGE PROTEC	CTION[V]	5.75 to 7.00	13.80 to 16.80	27.60 to 33.60		
	OPERATING INDICATION		LED (Green)				
DTHERS RI	EMOTE SENSING		Not provided				
	EMOTE ON/OFF		Not provided				
IN	IPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)				
	IPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)				
-	UTPUT-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At Room Temperature)				
	PERATING TEMP., HUMID. AND						
	ORAGE TEMP., HUMID. AND	ALTITUDE					
VI	IBRATION		10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis				
	IPACT		196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis				
	GENCY APPROVAL		DEN-AN				
	ONDUCTED NOISE/						
	ARMONIC ATTENU						
OTHERS	ASE SIZE/WEIGHT			2×6.85 inches] (W×H×D) / 440g r	nax		
C	COOLING METHOD		Convection				

Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103). \*1

\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 \*4

Derating is required. Please contact us about dynamic load and input response. When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class. \*5

\*

\*

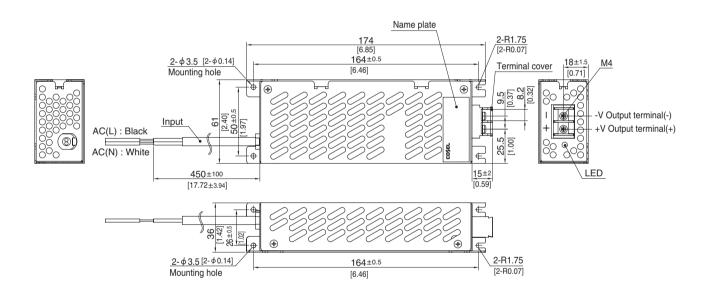
To meet the specifications. Do not operate over-loaded condition. Parallel operation is not possible. Derating is required when operated with chassis and cover.

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Block diagram

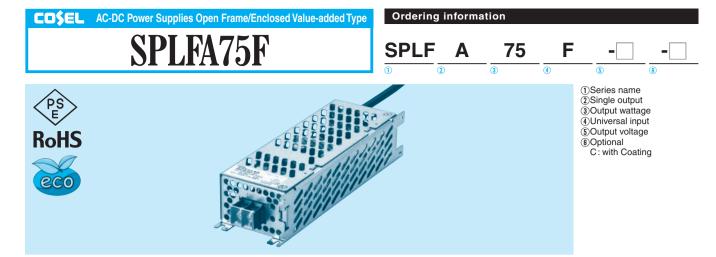


## External view



% Tolerance : ±1 [±0.04]

- ※ Weight: 440g max
- % PCB material/thickness : CEM3 / 1.6mm [0.06]
- \* Chassis and cover material : Electric galvanizing steel board
- ※ Dimensions in mm, [ ]=inches
- ※ Mounting torque : M4 : 1.6N · m (16.9kgf · cm) max
- % Input wire : VCTF 0.75sq X 2C



MODEL	SPLFA75F-5	SPLFA75F-12	SPLFA75F-24
MAX OUTPUT WATTAGE[W]	75	75.6	76.8
DC OUTPUT	5V 15A	12V 6.3A	24V 3.2A

M	ODEL		SPLFA75F-5	SPLFA75F-12	SPLFA75F-24		
VC	OLTAGE[V]		AC85 - 264 1 ¢ (Refer to	Instruction Manual 1.1 and 3.1) *3	· · · · · · · · · · · · · · · · · · ·		
C	URRENT[A]	ACIN 100V	1.00typ (lo=100%)				
C	UNNENT[A]	ACIN 200V	0.50typ (lo=100%)				
FF	FREQUENCY[Hz]		50 / 60 (47 - 63)				
	EFFICIENCY[%]	ACIN 100V	75.0typ	80.0typ	81.5typ		
NPUT		ACIN 200V	77.0typ	82.0typ	83.5typ		
PO	WER FACTOR (lo=100%)	ACIN 100V	0.97typ				
FU		ACIN 200V					
IN	INRUSH CURRENT[A]		15typ (Io=100%) (At cold start) (Ta=25℃)				
LE	EAKAGE CURRENT	۲[mA]	0.40 / 0.75max (ACIN 100	OV / 240V 60Hz, Io=100%, According to	DIEC60950-1 and DEN-AN)		
VC	OLTAGE[V]		5	12	24		
CL	URRENT[A]		15.0	6.3	3.2		
	NE REGULATION[r	-	20max	48max	96max		
LC	DAD REGULATION		150max	150max	150max		
BI	IPPLE[mVp-p]	0 to +50℃*1	100max	120max	120max		
ni	irrcc[iiivp-b]	-10-0°C *1	140max	160max	160max		
	PPLE NOISE[mVp-p]	0 to +50°C *1	250max	250max	250max		
		-10-0°C *1	300max	300max	300max		
TEN	TEMPERATURE REGULATION[mV]	0 to +50℃	50max	120max	240max		
120		-10 to +50℃	60max	150max	290max		
DF	DRIFT[mV] *2		20max	48max	96max		
ST	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)				
Н	HOLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)				
OL	OUTPUT VOLTAGE SETTING[V]		4.90 to 5.30	11.50 to 12.50	23.00 to 25.00		
0\	VERCURRENT PROT	ECTION	Works over 105% of ratin	g and recovers automatically			
ROTECTION	VERVOLTAGE PROTEC	CTION[V]	5.75 to 7.00	13.80 to 16.80	27.60 to 33.60		
	OPERATING INDICATION		LED (Green)				
THERS RE	EMOTE SENSING		Not provided				
	EMOTE ON/OFF		Not provided				
IN	IPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)				
	IPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)				
	UTPUT-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At Room Temperature)				
	ERATING TEMP., HUMID. AND						
NVIRONMENT —	ORAGE TEMP., HUMID. AND	ALTITUDE					
VI	BRATION		10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis				
	IPACT		196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis				
	GENCY APPROVAL		DEN-AN				
	ONDUCTED NOISE/	-	Complies with DEN-AN				
	ARMONIC ATTENU	ATOR *5	Complies with IEC61000-				
NTHERS -	ASE SIZE/WEIGHT			1.65×7.56 inches] (W×H×D) / 540g n	าลx		
00	COOLING METHOD		Convection				

Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103). \*1

\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 \*4

Derating is required. Please contact us about dynamic load and input response. When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class. \*5 \*

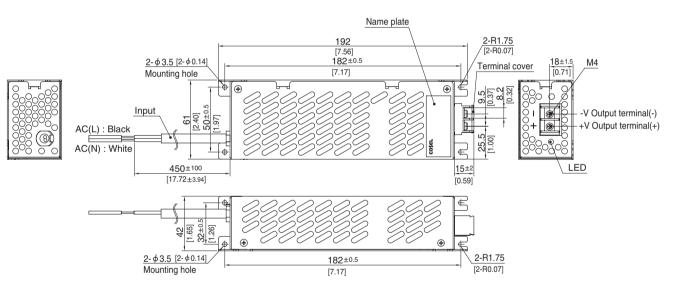
To meet the specifications. Do not operate over-loaded condition. Parallel operation is not possible. Derating is required when operated with chassis and cover. \*

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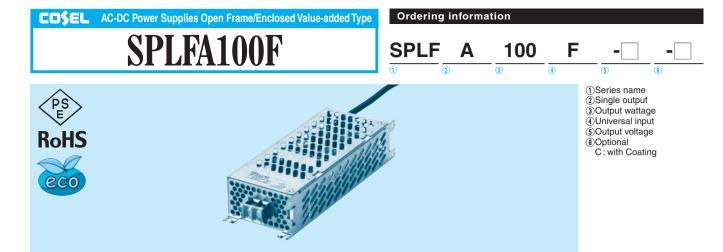
Block diagram



### External view



- % Tolerance : ±1 [±0.04]
- ※ Weight: 540g max
- ※ PCB material/thickness : CEM3 / 1.6mm [0.06]
- % Chassis and cover material : Electric galvanizing steel board
- ※ Dimensions in mm, [ ]=inches
- ※ Mounting torque : M4 : 1.6N ⋅ m (16.9kgf ⋅ cm) max
- % Input wire : VCTF 0.75sq X2C



MODEL	SPLFA100F-12	SPLFA100F-24
MAX OUTPUT WATTAGE[W]	102.0	103.2
DC OUTPUT	12V 8.5A	24V 4.3A

M	IODEL		SPLFA100F-12	SPLFA100F-24	
V	VOLTAGE[V]		AC85 - 264 1 ¢ (Refer to Instruction Manual 1.1 and 3.1) *3		
C	CURRENT[A]		/ 1.3typ (lo=100%)		
	ACIN 200V		0.7typ (lo=100%)		
FF	FREQUENCY[Hz]		50 / 60 (47 - 63)		
-	FFICIENCY[%]	ACIN 100V	80.5typ	83.0typ	
		ACIN 200V	83.5typ	86.0typ	
PO	OWER FACTOR (lo=100%)	ACIN 100V	0.97typ		
FU	OWEN FACTOR (10=100%)	ACIN 200V			
IN		ACIN 100V	15typ (Io=100%) (At cold start) (Ta=25℃)		
	INRUSH CURRENT[A]		30typ (Io=100%) (At cold start) (Ta=25℃)		
	EAKAGE CURREN	T[mA]	0.40 / 0.75max (ACIN 100V / 240V 60Hz, lo=1009	%, According to IEC60950-1 and DEN-AN)	
V	OLTAGE[V]		12	24	
CI	URRENT[A]		8.5	4.3	
LI	INE REGULATION[	mV] *4	48max	96max	
LC	OAD REGULATION	[mV] *4	150max	150max	
ы		0 to +50℃ *1	120max	120max	
n	RIPPLE[mVp-p]	-10-0°C *1	160max	160max	
		0 to +50℃*1	250max	250max	
	RIPPLE NOISE[mVp-p]	-10-0°C *1	300max	300max	
тен	TEMPERATURE REGULATION[mV]	0 to +50℃	120max	240max	
		-10 to +50℃	150max	290max	
DF	DRIFT[mV] *2		48max	96max	
	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)		
H	OLD-UP TIME[ms]		20typ (ACIN 100V, Io=100%)		
0	UTPUT VOLTAGE SET	ring[V]	11.50 to 12.50	23.00 to 25.00	
0\	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatic	cally	
ROTECTION 0	VERVOLTAGE PROTEC	CTION[V]	13.80 to 16.80	27.60 to 33.60	
	PERATING INDICA	TION	LED (Green)		
DTHERS RI	EMOTE SENSING		Not provided		
RI	EMOTE ON/OFF		Not provided		
IN	NPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)		
	NPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)		
0	OUTPUT-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At Room Temperature)		
OP	PERATING TEMP., HUMID. AND	ALTITUDE			
-NVIRONMENT ⊢	FORAGE TEMP., HUMID.AND	ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max		
VI	IBRATION		10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis		
	ИРАСТ		196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis		
	GENCY APPROVAL		DEN-AN		
	ONDUCTED NOISE/	-	Complies with DEN-AN		
	ARMONIC ATTENU		Complies with IEC61000-3-2 (class A)		
OTHERS –	ASE SIZE/WEIGHT		73×42×197mm [2.87×1.65×7.76 inches] (W×1	H×D) / 670g max	
C	COOLING METHOD		Convection		

Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103). \*1

\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 \*4

Derating is required. Please contact us about dynamic load and input response.

\*5 When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class.

To meet the specifications. Do not operate over-loaded condition. Parallel operation is not possible. Derating is required when operated with chassis and cover. \*

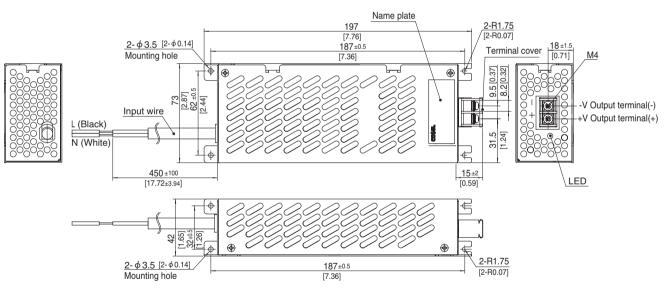
\*

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Block diagram



### External view



% Tolerance : ±1 [±0.04]

- % Weight : 670g max
- ※ Dimensions in mm, []=inches
- \* Chassis material : Galvanized Steel board
- % Screw tightening torque : M4 : 1.6N  $\cdot$  m (16.9kgf  $\cdot$  cm) max
- % Input wire : VCTF 0.75sq × 2C



MODEL	SPLFA150F-12	SPLFA150F-24
MAX OUTPUT WATTAGE[W]	150	151.2
DC OUTPUT	12V 12.5A	24V 6.3A

M	IODEL		SPLFA150F-12	SPLFA150F-24	
V	VOLTAGE[V]		AC85 - 264 1 ¢ (Refer to Instruction Manual 1.1 and 3.1) *3		
6			/ 2.0typ (lo=100%)		
C	CORRENT[A] ACIN 200		1.0typ (lo=100%)		
FI	FREQUENCY[Hz]		50 / 60 (47 - 63)		
E	FFICIENCY[%]	ACIN 100V	81.0typ	84.0typ	
NPUT <sup>[</sup>		ACIN 200V	84.0typ	86.5typ	
P	OWER FACTOR (lo=100%)	ACIN 100V	0.97typ		
r.	OWEN FACTOR (ID=100%)	ACIN 200V	/ 0.90typ		
IN	INRUSH CURRENT[A]		15typ (lo=100%) (At cold start) (Ta=25℃)		
			30typ (lo=100%) (At cold start) (Ta=25°C)		
L	EAKAGE CURRENT	[[mA]	0.40 / 0.75max (ACIN 100V / 240V 60Hz, lo=100%	6, According to IEC60950-1 and DEN-AN)	
V	OLTAGE[V]		12	24	
С	URRENT[A]		12.5	6.3	
L	INE REGULATION[r	mV] *4	48max	96max	
L	OAD REGULATION	[mV] *4	150max	150max	
Р		0 to +50℃*1	120max	120max	
n	RIPPLE[mVp-p]	-10-0°C *1	160max	160max	
	RIPPLE NOISE[mVp-p]	0 to +50°C *1	250max	250max	
		-10-0°C *1	300max	300max	
те	TEMPERATURE REGULATION[mV]	0 to +50℃	120max	240max	
		-10 to +50℃	150max	290max	
D	DRIFT[mV] *2		48max	96max	
S	START-UP TIME[ms]		350typ (ACIN 100V, Io=100%)		
Н	HOLD-UP TIME[ms]		20typ (ACIN 100V, lo=100%)		
0	UTPUT VOLTAGE SETT	ring[v]	11.50 to 12.50	23.00 to 25.00	
0	VERCURRENT PROT	ECTION	Works over 105% of rating and recovers automatically		
ROTECTION 0	OVERVOLTAGE PROTECTION[V]		13.80 to 16.80	27.60 to 33.60	
	PERATING INDICA	TION	LED (Green)		
THERS R	EMOTE SENSING		Not provided		
R	EMOTE ON/OFF		Not provided		
IN	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)		
SOLATION IN	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)		
0	UTPUT-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50M $\Omega$ min (At Room Temperature)		
	PERATING TEMP., HUMID. AND				
	TORAGE TEMP., HUMID.AND	ALTITUDE			
V	IBRATION		10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis		
	ИРАСТ		196.1m/s $^{\circ}$ (20G), 11ms, once each X, Y and Z axis		
	GENCY APPROVAL		DEN-AN		
	ONDUCTED NOISE/	-	Complies with DEN-AN		
	ARMONIC ATTENU	ATOR *5	Complies with IEC61000-3-2 (class A)		
OTHERS –	ASE SIZE/WEIGHT		86×47×202mm [3.39×1.85×7.95 inches] (W×H	1×D) / 850g max	
	OOLING METHOD		Convection		

Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM103). \*1

\*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

\*3 \*4

Derating is required. Please contact us about dynamic load and input response. When two or more units are operating it may not comply with the IEC61000-3-2. Please contact us about another class. \*5

\* To meet the specifications. Do not operate over-loaded condition. Parallel operation is not possible.

\*

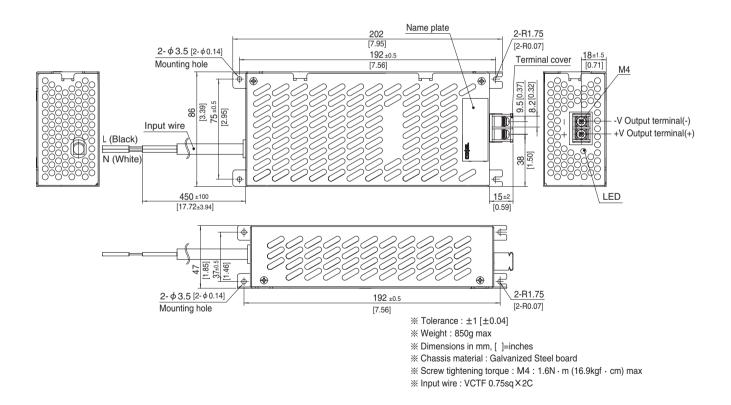
Derating is required when operated with chassis and cover.

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Block diagram



## External view



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SPLFA50F-24 SPLFA75F-12 SPLFA75F-24-C SPLFA30F-5-C SPLFA30F-24 SPLFA75F-24 SPLFA50F-5-C SPLFA30F-12-C SPLFA30F-5 SPLFA50F-12-C SPLFA30F-24-C SPLFA75F-5 SPLFA50F-24-C SPLFA50F-12 SPLFA75F-5-C SPLFA50F-5 SPLFA30F-12 SPLFA75F-12-C SPLFA100F-24 SPLFA100F-12 SPLFA150F-12 SPLFA150F-24-C SPLFA150F-12-C SPLFA100F-12-C SPLFA150F-24 SPLFA100F-24-C SPLFA100F C SPLFA150F SPLFA150F-C