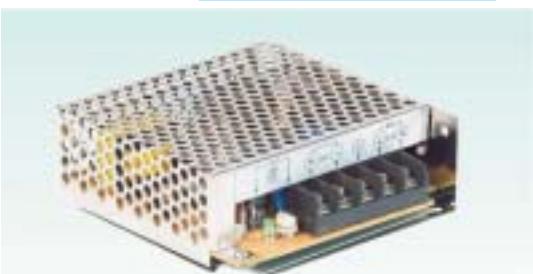


ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

15W Single Output Switching Power Supply

PICTURE Case:E 99×97×35mm



FEATURES

- Low cost, high reliability
- High efficiency, low working temp.
- Built in EMI filter, low ripple noise
- Compact size , light weight
- 100% full load burn-in test
- Approvals:CE/ CSA:219967-1426940
- Short circuit/ over load protected
- International AC input selected
- 1 year warranty

TECHNICAL DATA

Input voltage 85 ~ 132VAC/170 ~ 264VAC selected by sw.
 Input frequency 47-63Hz
 Inrush current cold start.15A/115V,30A/ 230V
 Output voltage refer to below table (± 10% AD J.)
 Ripple <2%(p-p)
 Overload protection 105% ~ 150% output foldback limiting
 Setup, rise, hold up time. . . 200ms, 100ms,30ms
 Withstand voltage. I/P-O/P:1.5KV, I/P-FG:1.5KV,1min
 Insulation resistance. >100M Ω (output) and (input,FG)
 Working temperature. 0-50°C@100%, -10°C@80%,60°C@60%
 Storage temperature. -25~65°C
 Operation humidity. 25~85%RH
 EMI Standards. IEC-1000-3-2,3,FCC class B
 EMC Standards. EN61000-4-2,3,4,5,
 Vibration. 10~55HZ,0.375mm amplitude at X,Y,Z
 axial for about 2H
 Shock. 294m/s²{30G}at 6 surfaces for three times
 Desire life. >8 years(load 50% at +40°C)
 Weight. 0.3kgs

※Type

Type No .	Output	Tol.	R & N	Effi.
SP-E015S005P-SA	5V	3A	±2%	50mV
SP-E015S012P-SA	12V	1.3A	±1%	50mV
SP-E015S024P-SA	24V	0.7A	±1%	50mV

25W Single Output Switching Power Supply

PICTURE Case:E 99×97×35mm



FEATURES

- Low cost, high reliability
- High efficiency, low working temp.
- Built EMI in filter, low ripple noise
- Compact size, light weight
- 100% full load burn-in test
- Short circuit/ over load / over voltage protected
- Universal AC input/full range
- Approvals:CE/ CSA:219967-1426940
- 2 years warranty

TECHNICAL DATA

Input voltage 85 ~ 264VAC universal input
 Input frequency. 47-63Hz
 Inrush current cold start.15A/115V,30A/ 230V
 Output voltage refer to below table (± 10% AD J.)
 Ripple <2%(p-p)
 Overload protection 105% ~ 150% output pulsing mode
 Over voltage protection. . . 115% ~ 135% of output voltage
 Setup, rise, hold up time. . . 800ms, 50ms,10ms/115VAC
 300ms,50ms,80ms/230VAC
 Withstand voltage I/P-O/P:3KV, I/P-FG:1.5KV,1min
 Insulation resistance >100M Ω (output) and (input,FG)
 Working temperature 0-50°C@100%, -10°C@80%,60°C@60%
 Storage temperature. -25~65°C
 Operation humidity. 25~85%RH
 EMI Standards. IEC-1000-3-2,3,FCC class B
 EMC Standards. EN61000-4-2,3,4,5,
 Vibration 10~55HZ,0.375mm amplitude at X,Y,Z
 about 2H
 Shock. 294m/s²{30G}at 6 surfaces for three times
 Desire life. >8 years(load 50% at +40°C)
 Weight 0.55kgs

※Type

Type No .	Output	Tol.	R & N	Effi.
SP-E025S005P-FB	5V	5A	± 2%	50mV
SP-E025S012P-FB	12V	2.1A	± 1%	100mV
SP-E025S015P-FB	15V	1.7A	± 1%	100mV
SP-E025S024P-FB	24V	1.1A	± 1%	100mV

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

35W Single Output Switching Power Supply

 PICTURE Case:F 129X98X38mm



FEATURES

- Low Cost, high reliability
 - High Efficiency, low working temp.
 - Built in EMI filter, low ripple noise
 - Compact size, light weight
 - 100% full load burn-in test
 - Approvals: CE/ CSA:219967-1426940
 - Short circuit/ over load protected
 - International AC input selected
 - 1 year warranty

TECHNICAL DATA

Input voltage 85 ~ 132VAC/170 ~ 264VAC selected by sw.
 Input frequency 47-63Hz
 Inrush current cold start. 15A/115V, 30A/230V
 Output voltage refer to below table ($\pm 10\%$ ADJ.)
 Ripple <2%(p-p)
 Overload protection 105% ~ 150% output foldback limiting
 Setup, rise, hold up time 200ms, 100ms, 30ms
 Withstand voltage I/P-O/P: 1.5KV, I/P-FG: 1.5KV, 1min
 Insulation resistance >100M Ω (output) and (input, FG)
 Working temperature 0-50°C@100%, -10°C@80%, 60°C@60%
 Storage temperature -25~65°C
 Operation humidity 25~85%RH
 EMI Standards IEC-1000-3-2,3, FCC class B
 EMC Standards EN61000-4-2,3,4,5,
 Vibration 10~55HZ, 0.375mm amplitude at X,Y,Z axial for
 about 2H
 Shock 294m/s²{30G} at 6 surfaces for three times
 Desire life >8 years(load 50% at +40°C)
 Weight 0.4kgs

※ Type

Type No .	Output	ToI.	R & N	Effi.
SP-E035S005P-SA	5V	7A	±2%	75mV
SP-E035S012P-SA	12V	3A	±1%	100mV
SP-E035S015P-SA	15V	2.4A	±1%	100mV
SP-E035S024P-SA	24V	1.5A	±1%	100mV
				78%

40W Single Output Switching Power Supply

PICTURE Case:F 129x98x38mm



FEATURES

- Low Cost, high reliability
 - High Efficiency, Low working temp.
 - Built in EMI filter, low ripple noise
 - Compact size , light weight
 - 100% full load burn-in test
 - Short circuit/ over load /
over voltage protected
 - Universal AC Input/full range
 - Approvals:CE/ CSA:219967-1426940
 - 2 years warranty

TECHNICAL DATA

Input voltage	85 ~ 264VAC universal input
Input frequency	47-63Hz
Inrush current	cold start.25A/115V,50A/230V
Output voltage	refer to below table ($\pm 10\%$ ADJ.)
Ripple	<2%(p-p)
Overload protection	105% ~ 150% output pulsing mode
Over voltage protection	115% ~ 135% of output voltage
Setup, rise, hold up time	800ms, 50ms, 15ms/115VAC 300ms, 50ms, 80ms/230VAC
Withstand voltage	I/P-O/P:3KV, I/P-FG:1.5KV, 1min
Insulation resistance	>100M Ω (output) and (input,FG)
Working temperature	0-50°C@100%, -10°C@80%, 60°C@60%
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3.FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ, 0.375mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s ² {30G} at 6 surfaces for three times
Desire life	>8 years(load 50% at +40°C)
Weight	0.45kas

~~Type~~

Type No .	Output	Tol.	R & N	Effi.
SP-E040S005P-FB	5V	8A	±2%	75mV
SP-E040S012P-FB	12V	3.5A	±1%	100mV
SP-E040S015P-FB	15V	2.8A	±1%	100mV
SP-E040S024P-FB	24V	1.8A	±1%	100mV

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

50W Single Output Switching Power Supply

PICTURE Case:A 159x97x38mm



FEATURES

- Low cost, high reliability
- High efficiency, low working temp.
- Built in EMI Filter, low ripple noise
- Compact size, light weight
- 100% full load burn-in test
- Approvals: CE/ CSA:219967-1426940
- Short circuit/ over load protected
- International AC input selected
- 1 year warranty

TECHNICAL DATA

Input voltage	85 ~ 132VAC/170 ~ 264VAC selected by sw.
Input frequency	47-63Hz
Inrush current	cold start.15A/115V,30A/ 230V
Output voltage	refer to below table ($\pm 10\%$ ADJ.)
Overload protection	105% ~ 150% output foldback limiting
Setup, rise, hold up time	200ms, 100ms, 20ms
Withstand voltage	I/P-O/P:1.5KV, I/P-FG:1.5KV, 1min
Insulation resistance	>100M Ω (output) and (input, FG)
Working temperature	0~50°C@100%, -10°C@80%, 60°C@60%
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3, FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ, 0.375mm amplitude at X,Y,Z axial for about 2H
Shock294m/s ² {30G} at 6 surfaces for three times
Desire life	>8 years (load 50% at +40°C)
Weight	0.5kgs

※ Type

Type No .	Output	Tol.	R & N	Effi.
SP-E050S005P-SA	5V : 10A	$\pm 2\%$	75mV	71%
SP-E050S012P-SA	12V : 4.2A	$\pm 1\%$	100mV	78%
SP-E050S015P-SA	15V : 3.4A	$\pm 1\%$	100mV	78%
SP-E050S024P-SA	24V : 2.1A	$\pm 1\%$	100mV	82%

60W Single Output Switching Power Supply

PICTURE Case:A 159x97x38mm



FEATURES

- Low cost, high reliability
- High efficiency, low working temp.
- Built in EMI filter, low ripple noise
- Compact Size, light weight
- 100% full load burn-in test
- Short circuit/ over load / over voltage protected
- Universal AC input/full range
- Approvals: CE/ CSA:219967-1426940
- 2 years warranty

TECHNICAL DATA

Input voltage	85 ~ 264VAC universal input
Input frequency	47-63Hz
Inrush current	cold start.25A/115V,50A/ 230V
Output voltage	refer to below table ($\pm 10\%$ ADJ.)
Ripple	<2%(p-p)
Overload protection	105% ~ 150% output pulsing mode
Over voltage protection	115% ~ 135% of output voltage
Setup, rise, hold up time	800ms, 50ms, 10ms/115VAC 300ms, 50ms, 80ms/230VAC
Withstand voltage	I/P-O/P:3KV, I/P-FG:1.5KV, 1min
Insulation resistance	>100M Ω (output) and (input, FG)
Working temperature	0~50°C@100%, -10°C@80%, 60°C@60%
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3, FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ, 0.375mm amplitude at X,Y,Z axial for about 2H
Shock294m/s ² {30G} at 6 surfaces for three times
Desire life	>8 years (load 50% at +40°C)
Weight	0.55kgs

※ Type

Type No .	Output	Tol.	R & N	Effi.
SP-E060S005P-FB	5V : 12A	$\pm 2\%$	120mV	74%
SP-E060S012P-FB	12V : 5A	$\pm 1\%$	120mV	77%
SP-E060S015P-FB	15V : 4A	$\pm 1\%$	150mV	78%
SP-E060S024P-FB	24V : 2.5A	$\pm 1\%$	150mV	81%

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

100W Single Output Switching Power Supply

PICTURE Case:B 199x98x38mm



FEATURES

- Low cost, high reliability
- High efficiency, low working temp.
- Built in EMI filter, low ripple noise
- 100% full load burn-in test
- Approvals: CE/ CSA:219967-1426940
- Short circuit/ over load protected
- International AC input selected
- 1 year warranty

TECHNICAL DATA

Input voltage	85 ~ 132VAC/170~264VAC selected by sw.
Input frequency	47-63Hz
Inrush current	cold start.20A/115V,40A/ 230V
Output voltage	refer to below table (± 10% AD J.)
Ripple	<2(p-p)
Overload protection	105% ~ 150% output shutdown (7.5V 150%~200%)
Setup, rise, hold up time	200ms,50ms,20ms
Withstand voltage	I/P-O/P:1.5KV, I/P-FG:1.5KV,1min
Insulation resistance	>100M Ω (output) and (input,FG)
Working temperature	0-50°C@100%, -10°C@80%, 60°C@60% (5V&7.5V 0-45°C@100%, 60°C@50%)
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3,FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ,0.375mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s ² {30G} at 6 surfaces for three times
Desire life	>8years(load 50% at +40°C)
Weight	0.65kgs

※ Type

Type No .	Output	Tol.	R & N	Effi .
SP-E100S003P-SC	3V	20A	±2%	100mV
SP-E100S005P-SC	5V	20A	±2%	100mV
SP-E100S07P5-SC	7.5V	13.6A	±1%	100mV
SP-E100S010P-SC	10V	10A	±1%	100mV
SP-E100S012P-SC	12V	8.5A	±1%	100mV
SP-E100S015P-SC	15V	6.7A	±1%	100mV
SP-E100S018P-SC	18V	5.6A	±1%	100mV
SP-E100S024P-SC	24V	4.5A	±1%	100mV
SP-E100S027P-SC	27V	3.7A	±1%	100mV
SP-E100S048P-SC	48V	2A	±1%	100mV

100W Single Output Switching Power Supply

PICTURE Case:B 199x98x38mm



FEATURES

- Low cost, high reliability
- High efficiency, low working temp.
- Built in EMI filter, low ripple noise
- Compact size, light weight
- 100% full load burn-in test
- Short circuit/ over load / over voltage protected
- International AC Input/selected
- Approvals: CE/ CSA:219967-1426940
- 2 years warranty

TECHNICAL DATA

Input voltage	88 ~ 132VAC/176~264 VACselected by sw.
Inputfrequency	47-63Hz
Inrush current	cold start.20A/115V,40A/ 230V
Output voltage	refer to below table (± 10% AD J.)
Ripple	<2%(p-p)
Overload protection	105% ~ 150% output pulsing mode
Overvoltage protection	115% ~ 135% of output voltage
Setup, rise, hold up time	1s, 30ms,15ms/230VAC
Withstand voltage	I/P-O/P:3KV, I/P-FG:1.5KV,1min
Insulation resistance	>100M Ω (output) and (input,FG)
Working temperature	0-50°C@100%, -10°C@80%, 60°C@60% (5V&7.5V 0-45°C@100%, 60°C@50%)
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3,FCC class B
EMC Standards	EN61000-4-2,3,5,
Vibration	10~55HZ, 0.375mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s ² {30G} at 6 surfaces for three times
Desire life	>8 years (load 50% at +40°C)
Weight	0.65kgs

※ Type

Type No .	Output	Tol.	R & N	Effi .
SP-E100S005P-SB	5V	20A	±2%	100mV
SP-E100S07P5-SB	7.5V	13.5A	±1%	125mV
SP-E100S012P-SB	12V	8.5A	±1%	125mV
SP-E100S015P-SB	15V	6.7A	±1%	125mV
SP-E100S024P-SB	24V	4.5A	±1%	150mV
SP-E100S048P-SB	48V	2.2A	±1%	150mV

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

150W Single Output Switching Power Supply

PICTURE Case:D 199x110x50mm



FEATURES

- Low cost, high reliability
- High efficiency, low working temp.
- Built in EMI filter, low ripple noise
- Compact size, light weight
- 100% full load burn-in test
- Short circuit/ over load / over voltage protected
- International AC input/selected
- Approvals:CE/ CSA:219967-1426940
- 2 years warranty

TECHNICAL DATA

Input voltage	88 ~ 132VAC/176~264VAC selected by sw.
Input frequency	47-63Hz
Inrush current	cold start. 35A
Output voltage	refer to below table (± 10% AD J.)
Overload protection	105% ~ 150% output shutdown
Over voltage protection	115% ~ 135% of output voltage (24V 125%~145%)
Setup, rise, hold up time	100ms,50ms 20ms
Withstand voltage	I/P-O/P:3KV, I/P-FG:1.5KV,1min
Insulation resistance	>100M Ω (output) and (input,FG)
Working temperature	0-30°C @100%, 50°C @100% with cooling fan, -10 °C @80%(15V&24V 0-50°C @ 100%, 60°C @60%)
Storage temperature	-25~65°C
Operation humidity	25~85RH
EMI Standards	IEC-1000-3-2,3,FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ, 0.375mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s²{30G}at 6surfaces for three times
Desire life	>8 years (load 50% at +40°C)
Weight	0.8kgs

※Type

Type No .	Output	Tol .	R & N	Effi .
SP-E150S005P-SC	5V	30A	±2%	150mV
SP-E150S07P5-SC	7.5V	20A	±1%	150mV
SP-E150S009P-SC	9V	16.7A	±1%	180mV
SP-E150S012P-SC	12V	12.5A	±1%	180mV
SP-E150S13P5-SC	13.5V	11.2A	±1%	180mV
SP-E150S015P-SC	15V	10A	±1%	180mV
SP-E150S024P-SC	24V	6.5A	±1%	240mV
SP-E150S027P-SC	27V	5.6A	±1%	240mV
SP-E150S048P-SC	48V	3.2A	±1%	240mV

200W Single Output Switching Power Supply

PICTURE Case:G 155x150x86mm



FEATURES

- Low cost, high reliability
- High efficiency, low working temp.
- Built in EMI filter, low ripple noise
- Compact size, light weight
- 100% full load burn-in test
- Approvals:CE/ CSA:219967-1426940
- Short circuit/ over load protected
- International AC input/selected
- 1 year warranty

TECHNICAL DATA

Input voltage	88 ~ 132VAC/ 176-264VAC selected by sw.
Input frequency	47-63Hz
Inrush current	cold start.25A/115V,50A/230V
Output voltage	refer to below table (± 10% AD J.)
Ripple	<2%(p-p)
Overload protection	105% ~ 150% output shutdown (5V,110% ~160)
Setup, rise, hold up time	200ms,80ms,16ms
Withstand voltage	I/P-O/P:1.5KV, I/P-FG:1.5KV,1min
Insulation resistance	>100M Ω (output) and (input,FG)
Working temperature	0-50°C @100%, -10°C @80%, 60°C @80%
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3,FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ,0.15mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s²{30G}at 6 surfaces for three times
Desire life	>8 years (load 50% at +40°C)
Weight	1.3kgs

※Type

Type No .	Output	Tol .	R & N	Effi .
SP-E200S005P-SC	5V	40A	±2%	180mV
SP-E200S012P-SC	12V	16.5A	±1%	120mV
SP-E200S015P-SC	15V	13.3A	±1%	120mV
SP-E200S024P-SC	24V	8.5A	±1%	120mV
SP-E200S027P-SC	27V	7.4A	±1%	150mV

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

240W Single Output Switching Power Supply

PICTURE Case:H 205x93x65mm



FEATURES

- High efficiency, High reliability
- Built in EMI filter, low ripple noise
- Compact size, light weight
- 100% full load burn-in test
- Cooling fan on/off automatically
- Short circuit/ over load / over voltage/ over temp. protected
- International AC Input auto change
- Approvals:CE/ CSA:219967-1426940
- 2 years warranty

TECHNICAL DATA

Input voltage. 88 ~ 132VAC/176~264VAC auto. Change
 Inputfrequency. 47-63Hz
 Inrush current. 15A/115V,30A/230V
 Output voltage. refer to below table ($\pm 10\%$ AD J.)
 Ripple. <2%(p-p)
 Overload protection. 105% ~ 135% output pulsing mode
 Over voltage protection. 115% ~ 150% of output voltage
 Setup, rise, hold up time. 1s,20ms,20ms /230VAC
 Withstand voltage. I/P-O/P:3KV, I/P-FG:1.5KV,1min
 Insulation resistance. >100M Ω (output) and (input,FG)
 Working temperature. 0-50°C@100%, -10°C@80%, 60 °C@60%
 Storage temperature. -25~65°C
 Operation humidity. 25~85%RH
 EMI Standards. IEC-1000-3-2,3,FCC class B
 EMC Standards. EN61000-4-2,3,4,5,
 Vibration. 10~55HZ,0.15mm amplitude at X,Y,Z axial for
 about 2H
 Shock. 294m/s²{30G}at 6 surfaces for three times
 Desire life. >8 years(load 50% at +40°C)
 Weight. 1.1kgs

※Type

Type No.	Output	Tol.	R & N	Effi.
SP-E240S005P-AB	5V	40A	$\pm 2\%$	150mV
SP-E240S07P5-AB	7.5V	30A	$\pm 2\%$	150mV
SP-E240S012P-AB	12V	18A	$\pm 1\%$	120mV
SP-E240S015P-AB	15V	15A	$\pm 1\%$	150mV
SP-E240S024P-AB	24V	10A	$\pm 1\%$	180mV
SP-E240S030P-AB	30V	8A	$\pm 1\%$	180mV
SP-E240S048P-AB	48V	5A	$\pm 1\%$	240mV

320W Single Output Switching Power Supply

PICTURE Case:I 230X115X50mm



FEATURES

- High efficiency, High reliability
- Built in EMI filter, low ripple noise
- Compact size, light weight
- 100% full load burn-in test
- Cooling fan on/off automatically
- Short circuit/ over load / over voltage/ over temp. Protected
- International AC Input selected
- Approvals:CE/ CSA:219967-1426940
- 2 Years warranty

TECHNICAL DATA

Input voltage. 88 ~ 132VAC/ 176-264VAC selected by sw.
 Inputfrequency. 47-63Hz
 Inrush current. 20A/115V,40A/ 230V
 Output voltage. refer to below table ($\pm 10\%$ AD J.)
 Ripple. <2%(p-p)
 Overload protection. 105% ~ 135% output pulsing mode
 Over voltage protection. 115% ~ 145% of output voltage
 Setup, rise, hold up time. 2s,20ms,20ms/230VAC
 Withstand voltage. I/P-O/P:3KV, I/P-FG:1.5KV,1min
 Insulation resistance. >100M Ω (output) and (input,FG)
 Working temperature. 0-45°C@100%, -10°C@80%, 60 °C@60%
 (24V&48V 0-50°C @ 100%,60°C @ 60%)
 Storage temperature. -25~65°C
 Operation humidity. 25~85%RH
 EMI Standards. IEC-1000-3-2,3,FCC class B
 EMC Standards. EN61000-4-2,3,4,5,
 Vibration. 10~55HZ,0.15mm amplitude at X,Y,Z axial for
 about 2H
 Shock. 294m/s²{30G}at 6 surfaces for three times
 Desire life. >8 years(load 50% at +40°C)
 Weight. 1.15kgs

※Type

Type No.	Output	Tol.	R & N	Effi.
SP-E320S005P-SB	5V	50A	$\pm 2\%$	150mV
SP-E320S07P5-SB	7.5V	36A	$\pm 2\%$	150mV
SP-E320S012P-SB	12V	25A	$\pm 1\%$	150mV
SP-E320S13P5-SB	13.5V	22A	$\pm 1\%$	150mV
SP-E320S015P-SB	15V	20A	$\pm 1\%$	150mV
SP-E320S024P-SB	24V	12.5A	$\pm 1\%$	150mV
SP-E320S027P-SB	27V	11A	$\pm 1\%$	200mV
SP-E320S048P-SB	48	6.5A	$\pm 1\%$	240mV

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

100~200W Single Output of SP Series

FEATURES

- Enclosed cover available
- Power factor correction 0.98
- High efficiency; low ripple noise
- Soft start with limiting AC surge current
- Compact size, light weight
- Short circuit protection
- Over voltage protection
- Over load protection
- 100% full load burn-in test
- Approvals:CE/ CSA:219967-1426940

TECHNICAL DATA

Input voltage range	85~264VAC; 47~63HZ
Input frequency	47~63HZ
Output voltage	refer to below table ($\pm 10\%$ ADJ.)
Ripple	<2%(p-p)
Overload protection	105% ~ 135% foldback current limiting, auto recovery
Over voltage protection	115%~135% of output voltage
Withstand voltage	I/P-O/P:3KV, I/P-FG:1.5KV, O/P/FG:0.5KV
Insulation resistance	>100M Ω (output) and (input, FG)
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3, FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ, 0.375mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s ² {30G} at 6 surfaces for three times
Desire life	>8 years (load 50% at +40°C)

PICTURES



※ Type

Type No .	Output	Tol.	R & N	E ffi .
SP-E100S03P3-FE	3.3V : 20A	$\pm 2\%$	100mV	73%
SP-E100S005P-FE	5V : 20A	$\pm 2\%$	100mV	78%
SP-E100S07P5-FE	7.5V : 13.5A	$\pm 2\%$	100mV	78%
SP-E100S012P-FE	12V : 8.5A	$\pm 2\%$	100mV	82%
SP-E100S13P5-FE	13.5V : 7.5A	$\pm 2\%$	100mV	82%
SP-E100S015P-FE	15V : 6.7A	$\pm 2\%$	100mV	83%
SP-E100S024P-FE	24V : 4.2A	$\pm 1\%$	100mV	84%
SP-E100S027P-FE	27V : 3.8A	$\pm 1\%$	100mV	85%
SP-E100S048P-FE	48V : 2.1A	$\pm 1\%$	100mV	85%

※ Type

Type No .	Output	Tol.	R & N	E ffi .
SP-E150S03P3-FE	3.3V : 30A	$\pm 2\%$	100mV	74%
SP-E150S005P-FE	5V : 30A	$\pm 2\%$	100mV	79%
SP-E150S07P5-FE	7.5V : 20A	$\pm 2\%$	100mV	79%
SP-E150S012P-FE	12V : 12.5A	$\pm 2\%$	100mV	82%
SP-E150S13P5-FE	13.5V : 11.2A	$\pm 2\%$	100mV	82%
SP-E150S015P-FE	15V : 10A	$\pm 2\%$	100mV	83%
SP-E150S024P-FE	24V : 6.25A	$\pm 1\%$	100mV	84%
SP-E150S027P-FE	27V : 5.6A	$\pm 1\%$	100mV	85%
SP-E150S048P-FE	48V : 3.2A	$\pm 1\%$	100mV	85%

※ Type

Type No .	Output	Tol.	R & N	E ffi .
SP-E200S03P3-FE	3.3V : 40A	$\pm 2\%$	100mV	74%
SP-E200S005P-FE	5V : 40A	$\pm 2\%$	100mV	79%
SP-E200S07P5-FE	7.5V : 26.6A	$\pm 2\%$	100mV	79%
SP-E200S012P-FE	12V : 16.7A	$\pm 2\%$	100mV	82%
SP-E200S13P5-FE	13.5V : 14.8A	$\pm 2\%$	100mV	82%
SP-E200S015P-FE	15V : 13.4A	$\pm 2\%$	100mV	83%
SP-E200S024P-FE	24V : 8.4A	$\pm 1\%$	100mV	84%
SP-E200S027P-FE	27V : 7.4A	$\pm 1\%$	100mV	85%
SP-E200S048P-FE	48V : 4.2A	$\pm 1\%$	100mV	85%

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

300W Single Output Switching Power Supply

PICTURE Case:I 230X115X50mm



FEATURES

- Built in PFC circuit (0.99)
- High efficiency, high reliability
- 100% full load burn-in test
- Cooling fan on/off automatically
- Short circuit/ over load / Over voltage/ over temp. Protected
- Universal AC input full range
- Approvals:CE/ CSA:219967-1426940
- 2 Years warranty

TECHNICAL DATA

Input voltage	88 ~ 264VAC universal input.
Input current/frequency . . .	4A/115V, 2A/230V; 47-63Hz
Inrush current	15A/115V, 30A/230V
Output voltage	refer to below table (± 10% AD J.)
Ripple	<2%(p-p)
Overload protection	105% ~ 135% output pulsing mode
Over voltage protection	115% ~ 145% of output
Setup, rise, hold up time	1.5s, 50ms, 20ms/230VAC
Withstand voltage	I/P-O/P:3KV, I/P-FG:1.5KV, 1min
Insulation resistance	>100M Ω (output) and (input, FG)
Working temperature	0~40°C @100%, -10°C @80%, 50°C @50%
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3, FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ, 0.15mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s²{30G}at 6 surfaces for three times
Desire life	>8 years(load 50% at +40°C)
Weight	1.2kgs

※ Type

Type No .	Output	Tol.	R & N	Effi .
SP-E300S005P-AB	5V	±2%	150mV	77%
SP-E300S07P5-AB	7.5V	±2%	150mV	81%
SP-E300S012P-AB	12V	±1%	150mV	84%
SP-E300S13P5-AB	13.5V	±1%	150mV	83%
SP-E300S015P-AB	15V	±1%	150mV	83%
SP-E300S024P-AB	24V	±1%	150mV	86%
SP-E300S027P-AB	27V	±1%	200mV	87%
SP-E300S048P-AB	48	±1%	240mV	87%

500W single Output Switching Power Supply

PICTURE Case:C 185X120X92mm



FEATURES

- Built in PFC circuit (0.99)
- High efficiency, high reliability
- 100% full load burn-in test
- Cooling fan on/off automatically
- Built in remote control
- Short circuit/ over load / Over voltage/ over temp. Protected
- Universal AC input full range
- Approvals:CE/ CSA:219967-1426940
- 2 years warranty

TECHNICAL DATA

Input voltage	88 ~ 264VAC universal input.
Input current/frequency . . .	7A/115V, 3.5A/230V; 47-63Hz
Inrush current	15A/115V, 30A/230V
Output voltage	refer to below table (± 10% AD J.)
Ripple	<2%(p-p)
Overload protection	105% ~ 135% output constant limiting
Over voltage protection	115% ~ 140% of output voltage
Setup, rise, hold up time	1.5s, 50ms, 20ms/230VAC
Withstand voltage	I/P-O/P:3KV, I/P-FG:1.5KV, 1min
Insulation resistance	>100M Ω (output) and (input, FG)
Working temperature	0~40°C @100%, -10°C @80%, 50°C @60%
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3, FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ, 0.15mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s²{30G}at 6 surfaces for three times
Desire life	>8 years(load 50% at +40°C)
Weight	1.8kgs

※ Type

Type No .	Output	Tol.	R & N	Effi .
SP-E500S012P-AD	12V	±1%	150mV	84%
SP-E500S13P5-AD	13.5V	±1%	150mV	84%
SP-E500S015P-AD	15V	±1%	150mV	83%
SP-E500S024P-AD	24V	±1%	150mV	85.5%
SP-E500S027P-AD	27V	±1%	200mV	86.5%
SP-E500S048P-AD	48	±1%	240mV	87%

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

280W Parallel Switching Power Supply

PICTURE Case:G 155X150X86mm



FEATURES

- Low cost, high reliability
- High efficiency, low working temp.
- Built in EMI filter, low ripple noise
- Compact size, light weight
- 100% full load burn-in test
- Cooling fan on/off automatically
- Parallel/ series operation is possible
- Short circuit/ over load / Over voltage/ over temp. Protected
- International AC input selected
- Approvals: CE/ CSA:219967-1426940
- 2 Years warranty

TECHNICAL DATA

Input voltage	90~132VAC/180~264VAC selected by sw.
Input frequency	47-63Hz
Inrush current	Cold start, 35A/ 230VAC
Output voltage	13.5V(12~15V ADJ.), 27V(24~30V AD J.)
Ripple	<2%(p-p)
Overload protection	105% ~ 135% output foldback limiting
Overvoltage protection	115% ~ 135% of output voltage
Setup, rise, hold up time	200ms, 50ms, 10ms
Withstand voltage	I/P-O/P: 1.5KV, I/P-FG: 1.5KV, 1min
Insulation resistance	>100MΩ (output) and (input, FG)
Working temperature	0~50°C @ 100%, -10°C @ 80%, 60°C @ 60%
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3, FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ, 0.15mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s²{30G} at 6 surfaces for three times
Desire life	>8 years (load 50% at +40°C)
Weight	1.43kgs

※ Type

Type No .	Output	Tol.	R & N	Effi .
SP-E280S13P5-SA	13.5V	20A	±1%	150mV
SP-E280S027P-SA	27V	10A	±1%	150mV

300W parallel Switching Power Supply

PICTURE Case:C 185X120X92mm



FEATURES

- Built in PFC circuit (0.99)
- High efficiency, high reliability
- Built in EMI filter, low ripple noise
- Compact size, light weight
- 100% full load burn-in test
- Cooling fan on/off automatically
- Parallel/ series operation is possible
- Built in remote control/ remote sense/ Power signal
- Short circuit/ over load / Over voltage/ over temp. Protected
- Universal AC input / full range
- Approvals: CE/ CSA:219967-1426940
- 2 Years warranty

TECHNICAL DATA

Input voltage	88 ~ 264VAC universal input.
Input current/frequency	4.5A/115V, 2.3A/230V; 47-63Hz
Inrush current	15A/115V, 30A/ 230V
Output voltage	refer to below table (± 10% AD J.)
Ripple	<2%(p-p)
Overload protection	105% ~ 135% output constant limiting
Overvoltage protection	115% ~ 140% of output voltage
Setup, rise, hold up time	1.5s, 50ms, 20ms/230VAC
Withstand voltage	I/P-O/P: 3KV, I/P-FG: 1.5KV, 1min
Insulation resistance	>100MΩ (output) and (input, FG)
Working temperature	0~45°C @ 100%, -10°C @ 80%, 50°C @ 80% (12V~13.5V 0~40°C @ 100%, 50°C @ 70%)
Storage temperature	-25~65°C
Operation humidity	25~85%RH
EMI Standards	IEC-1000-3-2,3, FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55HZ, 0.15mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s²{30G} at 6 surfaces for three times
Desire life	>8 years (load 50% at +40°C)
Weight	1.6kgs

※ Type

Type No .	Output	Tol.	R & N	Effi .
SP-E300S012P-AD	12V	25A	±1%	200mV
SP-E300S13P5-AD	13.5V	22A	±1%	200mV
SP-E300S024P-AD	24V	12.5A	±1%	200mV
SP-E300S027P-AD	27V	11A	±1%	200mV
SP-E300S048P-AD	48	6.5A	±1%	240mV

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

500~1500W Parallel With PFC Function

FEATURES

- Universal AC input/Full range
- PFC 0.98@115VAC; 0.95@230VAC
- Current sharing up to 2000W
- Remote sense and ON-OFF control
- Forced air cooling by built-in DC fan
- Protections: short circuit / Over load/over voltage/over temp.
- Power good and fail signal output
- Approvals: CE/ CSA:219967-1426940
- Open frame available(option)
- 3 years warranty

TECHNICAL DATA

AC input voltage range.....	90~264VAC; 127~370VDC
DC adjust range.....	-5~+10% of rated output voltage
Ripple.....	<2%(p-p)
Over load protection.....	115%~125% constant current, auto recovery
Over voltage protection.....	115%~140% of rated output voltage
Set, rise, hold up time.....	1500ms, 50ms, 15ms at full load and 230VAC
Withstand voltage.....	I/P-O/P: 3KVAC, I/P-FG: 1.5KVAC, 1 minute
Working temperature.....	0~50°C @ 100%, -10°C and 60°C @ 80% load
Storage temperature.....	-25~65°C
Operation humidity.....	25~85%RH
EMI Standards.....	IEC-1000-3-2,3, FCC classB
EMC Standards.....	EN61000-4-2,3,4,5,
Vibration.....	10~55Hz, 0.15mm amplitude at X,Y,Z axial for about 2H
Shock.....	294m/s ² {30G} at 6 surfaces for three times
Desire life.....	>8years (load 50% at +40)

PICTURES



※ Type

Type No .	Output	Tol.	R & N	Effi.	
SP-E500S005P-FD	5V	0~80A	±2%	100mV	76%
SP-E500S012P-FD	12V	0~41.5A	±1%	150mV	82%
SP-E500S13P5-FD	13.5V	0~37A	±1%	150mV	82%
SP-E500S015P-FD	15V	0~33A	±1%	150mV	82%
SP-E500S024P-FD	24V	0~20.8A	±1%	150mV	84%
SP-E500S027P-FD	27V	0~18.5A	±1%	150mV	84%
SP-E500S048P-FD	48V	0~10.5A	±1%	200mV	86%

※ Type

Type No .	Output	Tol.	R & N	Effi.	
SP-E01KS005P-FD	5V	0~145A	±2%	200mV	76%
SP-E01KS012P-FD	12V	0~75.0A	±1%	200mV	82%
SP-E01KS13P5-FD	13.5V	0~67.0A	±1%	200mV	82%
SP-E01KS015P-FD	15V	0~60.0A	±1%	200mV	82%
SP-E01KS024P-FD	24V	0~37.6A	±1%	200mV	84%
SP-E01KS027P-FD	27V	0~33.6A	±1%	200mV	84%
SP-E01KS048P-FD	48V	0~19.0A	±1%	200mV	86%

※ Type

Type No .	Output	Tol.	R & N	Effi.	
SP-E1K5S005P-FD	5V	0~217.5A	±2%	200mV	76%
SP-E1K5S012P-FD	12V	0~112.5A	±1%	200mV	82%
SP-E1K5S13P5-FD	13.5V	0~100.5A	±1%	200mV	82%
SP-E1K5S015P-FD	15V	0~90.0A	±1%	200mV	82%
SP-E1K5S024P-FD	24V	0~56.4A	±1%	200mV	84%
SP-E1K5S027P-FD	27V	0~50.4A	±1%	200mV	84%
SP-E1K5S048P-FD	48V	0~28.5A	±1%	200mV	86%

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

600~800W Parallel Switching Power Supply

PICTURE

291X132X68mm



FEATURES

- AC input range selected by switch
- Protections: short circuit/ over voltage/over load/over temp.
- High reliability/ Low ripple noise
- Built-in remote sense function
- Built-in remote ON-OFF control
- With parallel function(N+1)
- Can adjust from 10~100% output voltage by external control 1-5V
- Forced air cooling by built-in DC fan
- Case coating with paint
- Approvals:CE/CSA:219967-1426940
- 2 years warranty

TECHNICAL DATA

AC input voltage.....	100~130V/200~260VAC selected by switch (200~260VAC for SCN-800 series)
AC input current.....	7A for 600W and 8.0 for 800W @230VAC
Dcadjustrange.....	±5% of rated output voltage
Load regulation.....	±1% from 0~100% load
Ripple.....	<2%(p-p)
Over load protection.....	110~135%, shutoff, AC recycle to re-start
Over voltage protection.....	120~145% of rated output voltage
Working temperature.....	-10°C~+50°C @ 100%, 60°C @70%load
Withstand voltage.....	I/P-O/P, I/P-FG:1500VAC for 1minute.
Storage temperature.....	-25~65°C
Operation humidity.....	25~85%RH
EMI Standards.....	IEC-1000-3-2,3,FCC class B
EMC Standards.....	EN61000-4-2,3,4,5,
Vibration.....	10~55HZ,0.15mm amplitude at X,Y,Z axial for about2H
Shock.....	294m/s ² {30G} at 6 surfaces for three times
Desire life.....	>8years (load 50% at +40)
Weight/packing.....	2.7kgs/pcs;8pcs/24kgs/CTN

※ Type

Type No .	Output	Tol.	R & N	Effi.
SP-E600S005P-SC	5V	0~100A	±2%	2%
SP-E600S012P-SC	12V	0~50.0A	±1%	1%
SP-E600S015P-SC	15V	0~40.0A	±1%	1%
SP-E600S018P-SC	18V	0~33.3A	±1%	1%
SP-E600S024P-SC	24V	0~25.0A	±1%	1%
SP-E600S048P-SC	48V	0~12.0A	±1%	1%
SP-E800S012P-SC	12V	0~66.0A	±1%	1%
SP-E800S015P-SC	15V	0~54.0A	±1%	1%
SP-E800S024P-SC	24V	0~33.0A	±1%	1%
SP-E800S048P-SC	48V	0~16.6A	±1%	1%

1200W Parallel Switching Power Supply

PICTURE

291X132X132mm



FEATURES

- AC 200~260V input only
- Protections: short circuit/ over voltage/over load/ over temp.
- High reliability/ Low ripple noise
- Built-in remote sense function
- Built-in remote ON-OFF control
- With parallel function(N+1)
- Can adjust from 10~100% output voltage by external control 1-5V
- Forced air cooling by built-in DC fan
- Case coating with paint
- Approvals:CE/CSA:219967-1426940
- 2 years warranty

TECHNICAL DATA

AC input voltage.....	200~260VAC
AC input current.....	11A @ 230VAC
DC adjust range.....	±5% of rated output voltage
Load regulation.....	±1% form 0~100% load
Ripple.....	<2%(p-p)
Over load protection.....	110~135%, shutoff, AC recycle to re-start
Over load protection.....	120~140% of rated output voltage
Working temperature.....	-10°C~+50°C @ 100%, 60°C @70% load
Withstand voltage.....	I/P-O/P,I/P-FG: 1500VAC for 1minute
Storage temperature.....	-25~65°C
Operation humidity.....	25~85%RH
EMI Standards.....	IEC-1000-3-2,3,FCC class B
EMC Standards.....	EN61000-4-2,3,4,5,
Vibration.....	10~55HZ,0.15mm amplitude at X,Y,Z axial for about2H
Shock.....	294m/s ² {30G} at 6 surfaces for three times
Desire life.....	>8years (load 50% at +40)
Weight/ packing.....	4.6kgs/pcs;4pcs/20kgs/CTN

※ Type

Type No .	Output	Tol.	R & N	Effi.
SP-E1K2S005P-FC	5V	0~180A	±2%	2%
SP-E1K2S012P-FC	12V	0~100A	±1%	1%
SP-E1K2S015P-FC	15V	0~80.0A	±1%	1%
SP-E1K2S024P-FC	24V	0~50.0A	±1%	1%
SP-E1K2S048P-FC	48V	0~24.0A	±1%	1%

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

1500W Parallel Switching Power Supply

PICTURE

291x132x132mm



FEATURES

- AC 200~260V input only
- Protections: short circuit/ over voltage/over load/ over temp.
- High reliability/ Low ripple noise
- Built-in remote sense function
- Built-in remote ON-OFF control
- With parallel function(N+1)
- Can adjust from 10~100% output voltage by external control 1-5V
- Forced air cooling by built-in DC fan
- Case coating with paint
- Approvals:CE/ CSA:219967-1426940
- 2 years warranty

TECHNICAL DATA

AC input voltage.....	200~260VAC
AC input current	12A @ 230VAC
DC adjust range.....	±5% of rated output voltage
Load regulation.....	±1% for m 0~100% load
Ripple.....	<2%(p-p)
Over load protection.....	110~135%, shutoff, AC recycle to re-start
Over load protection.....	120~145% of rated output voltage
Working temperature.....	-10°C~+50°C @100%, 60°C @60% load
Withstand voltage.....	I/P-O/P,I/P-FG: 1500VAC for 1minute
Storage temperature.....	-25~65°C
Operation humidity.....	25~85%RH
EMI Standards.....	IEC-1000-3-2,3,FCC class B
EMC Standards.....	EN61000-4-2,3,4,5,
Vibration.....	10~55HZ,0.15mm amplitude at X,Y,Z axial for about2H
Shock.....	294m/s ² {30G} at 6 surfaces for three times
Desire life.....	>8years (load 50% at +40)
Weight/ packing.....	4.6kgs/pcs;4pcs/20kgs/CTN

※ Type

Type No .	Output	Tol.	R & N	Effi .
SP-E1KS012P-FC	12V : 0~125A	±1%	1%	83%
SP-E1KS015P-FC	15V : 0~100A	±1%	1%	84%
SP-E1KS024P-FC	24V : 0~62.5A	±1%	1%	85%
SP-E1KS048P-FC	48V : 0~32 A	±1%	1%	87%

2KW Parallel Switching Power Supply

PICTURE

320x212x134mm



TECHNICAL DATA

AC Input voltage.....	200~260VAC,3 φ 4wires
AC Input current.....	10A for@230VAC;1φ
DC adjustment range.....	±5% of rated output voltage
Load regulation.....	±2% from 0~100% load
Ripple.....	<2%(p-p)
Over load protection.....	110~135%, shutoff, AC recycle to re-start
Over voltage protection.....	120~145% of rated output voltage
Working temperature.....	-10°C~+50°C@100%, 60°C @70%load
Withstand voltage.....	/P-O/P,I/P-FG:1500VAC for 1minute
Storage temperature.....	-25~65°C
Operation humidity.....	25~85%RH
EMI Standards.....	IEC-1000-3-2,3,FCC class B
EMC Standards.....	EN61000-4-2,3,4,5,
Vibration.....	10~55HZ,0.15mm amplitude at X,Y,Z axial for about2H
Shock.....	294m/s ² {30G} at 6 surfaces for three times
Desire life.....	>8years (load 50% at +40)
Weight/ packing.....	9.0kgs/pcs;1pcs/10kgs/CTN

※ Type

Type No .	Output	Tol.	R & N	Effi .
SP-E02KS005P-FC	5V : 0~250A	±3%	3%	78%
SP-E02KS012P-FC	12V : 0~167A	±2%	2%	84%
SP-E02KS015P-FC	15V : 0~134A	±2%	2%	84%
SP-E02KS024P-FC	24V : 0~83.5A	±1%	1%	85%
SP-E02KS048P-FC	48V : 0~42.0A	±1%	1%	86%

ENCLOSED SWITCHING POWER SUPPLY-SINGLE OUTPUT

EMI & PFC Filter

PICTURE

132X60X46mm



Instruction

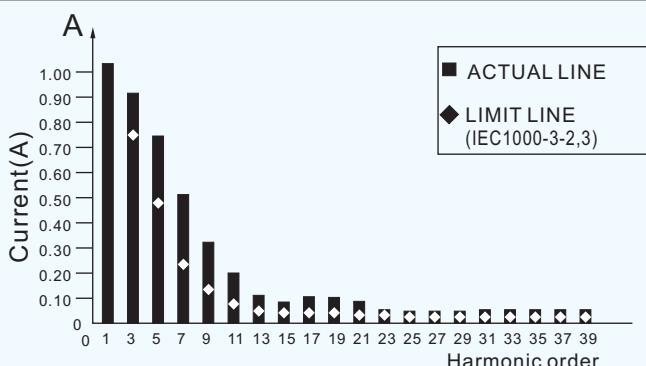
PLF-2000 series are developed on the basis of environment protection. It can efficiently solve EMI & harmonic current problems caused by electronic products. With PLF-2000, your products will meet harmonic current regulation (IEC-1000-3-2,3) and also improve immunity (EN61000-4-2,3,4,5) EMI conduction (FCC class B) greatly.

TECHNICAL DATA

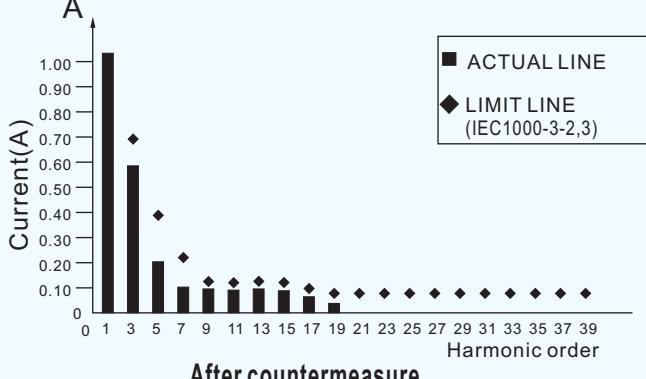
MAX. input power	200W
Attenuation	-20dB (Frequency: 0.15~30MHz, measurement condition: CISPR PUB.17, 50Ω / 50Ω)
Operating temperature	25°C~85°C (derating output at 2.5% per degree from 50°C~85°C)
Operating humidity	30~95% RH (no dewdrop)
EMI Standards	IEC-1000-3-2,3, FCC class B
EMC Standards	EN61000-4-2,3,4,5,
Vibration	10~55Hz, 0.375mm amplitude at X,Y,Z axial for about 2H
Shock	294m/s² (30G) at 6 surfaces for three times
Desire life	>8years
Withstand voltage	1500VAC 1min. (input & output-FG)
Insulation resistance	>100MΩ (output) and (input, FG)
Weight	550gs

Characteristic of harmonic collector

(Test conditions: Vin=230VAC, Win=200W, Ta=25°C)



Before countermeasure



After countermeasure

Type No .	Input Voltage	Rated Current	Leakage Current
PLF-2001	90~132VAC	3A	0.27mV
PLF-2002	190~265VAC	1.2A	0.5mV