



POWER SUPPLY CATALOG

2025 EDITION

Content

LRS-35, 50 SERIES.....	3
LRS-75 SERIES	6
LRS-100 SERIES.....	8
LRS-150 SERIES.....	10
LRS-200 350 SERIES.....	12
LRS-500 SERIES.....	15
S-15,25 SERIES.....	17
S-35 SERIES.....	20
S-50, 60, 75 SERIES.....	22
S-100 120 SERIES.....	26
S-150 SERIES.....	28
S-250 350, 400 SERIES.....	30
S-500, 600, 800 SERIES.....	34
S-1000 SERIES.....	38
S-1500, 2000 SERIES.....	40
S-3000 SERIES.....	42
MS-15,25, 35 SERIES.....	44
MS-50,60,75 SERIES.....	48
MS-100,120 SERIES.....	51
MS-200, 250 SERIES.....	53
MS-300,350 SERIES.....	56
MS-500,600 SERIES.....	58
MS-1000 SERIES.....	60
DR-30,45, 60 SERIES.....	62
DR-75,120,240, 480 SERIES.....	64
NDR/EDR-75/120 SERIES.....	67
NDR-240 SERIES.....	70
NDR-480 SERIES.....	72
RPS-350/400 SERIES.....	74
ERP-350 SERIES.....	76
MDR-10/20 SERIES.....	78
MDR-40/60 SERIES.....	80
MDR-100	82
HDR-15 SERIES.....	84
HDR-30 SERIES.....	86
HDR-60 SERIES.....	88
HDR-100 SERIES.....	90
HDR-150 SERIES.....	92
WDR-75/ SERIES.....	94
WDR-120 SERIES.....	96
WDR-240 SERIES.....	98
D-30/50/60/120/180 SERIES.....	100
T-30/50/60/120 SERIES.....	105
Q-60/120 SERIES.....	110
LPV-10/20/30/50/60 SERIES.....	113
LPV-100/120/300 SERIES.....	117
LPV-36F SERIES	120
LPV-60F SERIES.....	122
LPV-100F SERIES.....	124
LPV-200F SERIES.....	126
LPV-300F SERIES.....	128
LPV-400F SERIES.....	130
LS-60 SERIES.....	132
LS-100 SERIES.....	134
LS-200 SERIES.....	136
LS-300 SERIES.....	138
LS-400 SERIES.....	140
NES-350 SERIES.....	142
SP-320 SERIES.....	144

LRS-35/50

1U ULTRA-THIN SINGLE GROUP OUTPUT POWER SUPPLY



EMC CB CE

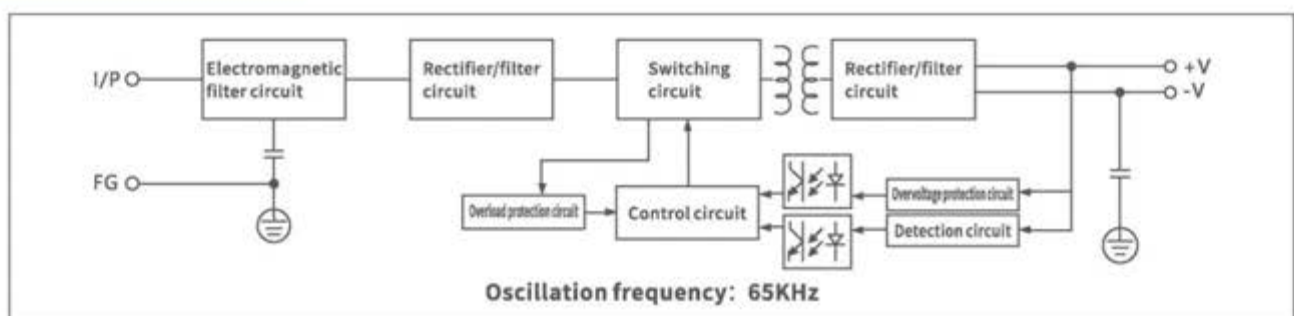


Product overview

The LRS-35、50 series is a 35、50 single group output enclosed power supply with a 30mm low profile design and a full range of AC inputs of 85 to 264VAC. The entire series provides 5V、12V、15V、24V、36V、and 48V output.

In addition to the efficiency of up to 90%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LRS-35 and 50 to operate in the temperature range of -30 °C to +70 °C without a fan. Providing ultra-low no-load power consumption (less than 0.3W) makes it easy for the terminal system to meet international energy requirements. LRS-35 and 50 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	7A	3A	1.5A	1A	0.8A
	Rated power	35W	36W	36W	36W	38.4W
	Ripple and noise①	80mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
	Voltage regulation range	±10%				
	Voltage precision	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load regulation rate	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	Start up time	1000ms、30ms/230VAC 2000ms、30ms/115VAC(full load)				
	Hold time	30ms/230VAC 12ms/115VAC(full load)				
Input	Voltage range / frequency	85-264VAC /120-373VDC			47Hz~63Hz	
	Efficiency (typical)②	82%	86%	88%	88%	89%
	Working current	0.7A/115VAC	0.42A/230VAC			
	Shock current	Cold start: 45A/230VAC				
	leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥110% - 130% Protection type: Hiccup mode, remove abnormal conditions and automatically return to normal				
	Overvoltage protection	≥115% - 145% Protection type: close the output, restart and automatically return to normal				
Environment	Operating temperature、humidity	-30℃~+70℃; 20%~90RH				
	Storage temperature、humidity	-40℃~+85℃; 10%~95RH				
Security	Pressure resistance	Input - output :4KVAC input - case :2KVAC output - case: 1.25KVAC duration :1 minute				
	Insulation impedance	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ 25 °C 70% RH				
Other	Size	98*82*30mm(L*W*H)				
	Net weight / gross weight	230g/246g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	10A	4.2A	2.2A	1.45A	1.1A
	Rated power	50W	50.4W	52.8W	52.2W	52.8W
	Ripple and noise①	80mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
	Voltage regulation range	±10%				
	Voltage precision	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load regulation rate	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	Start up time	1000ms、30ms/230VAC 2000ms、30ms/115VAC(full load)				
	Hold time	30ms/230VAC 12ms/115VAC(full load)				
Input	Voltage range / frequency	85-264VAC /120-373VDC			47Hz~63Hz	
	Efficiency (typical)②	82%	86%	88%	89%	90%
	Working current	0.95A/115VAC 0.56A/230VAC				
	Shock current	Cold start: 45A/230VAC				
	leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥110% - 130% Protection type: Hiccup mode, remove abnormal conditions and automatically return to normal				
	Overvoltage protection	≥115% - 145% Protection type: close the output, restart and automatically return to normal				
Environment	Operating temperature、humidity	-30℃~+70℃； 20%~90RH				
	Storage temperature、humidity	-40℃~+85℃； 10%~95RH				
Security	Pressure resistance	Input - output :4KVAC input - case :2KVAC output - case: 1.25KVAC duration :1 minute				
	Insulation impedance	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ 25 °C 70% RH				
Other	Size	99*82*30mm(L*W*H)				
	Net weight / gross weight	230g/246g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

LRS-75

1U ULTRA-THIN SINGLE GROUP OUTPUT POWER SUPPLY

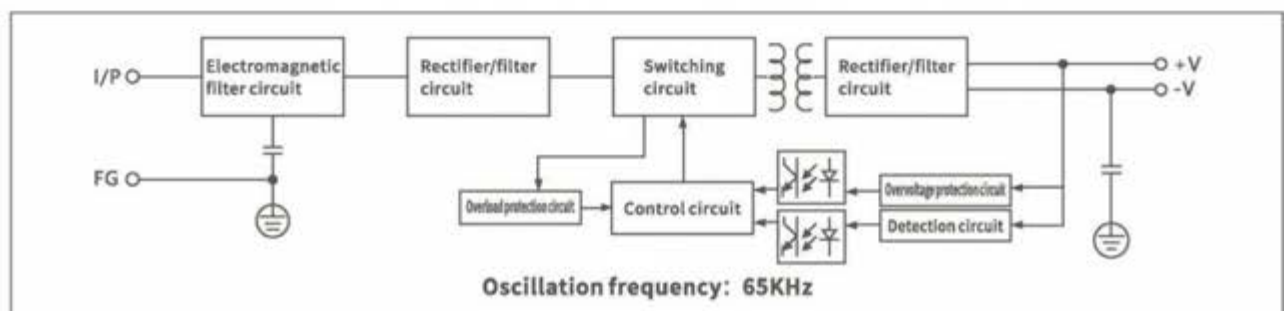


Product overview

The LRS-75 series is a 75W single group output enclosed power supply with a 30mm low profile design and a full range of AC inputs of 85 to 264VAC. The entire series provides 5V, 12V, 15V, 24V, 36V, and 48V output.

In addition to the efficiency of up to 90%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LRS-75 to operate in the temperature range of -30 °C to +70 °C without a fan. Providing ultra-low no-load power consumption (less than 0.3W) makes it easy for the terminal system to meet international energy requirements. LRS-75 has complete protection functions and resistance to 5G vibration; it complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16.

Principle diagram



Technical parameter

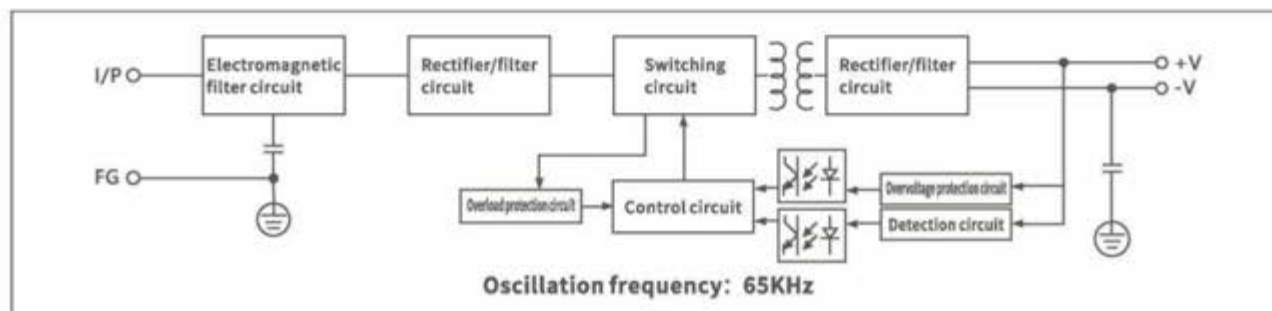
Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	14A	6A	3.2A	2.1A	1.6A
	Rated power	70W	72W	76.8W	75.6W	76.8W
	Ripple and noise①	100mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
	Voltage regulation range	±10%				
	Voltage precision	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load regulation rate	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	Start up time	500ms、30ms/230VAC 500ms、30ms/115VAC(full load)				
	Hold time	60ms/230VAC 12ms/115VAC(full load)				
Input	Voltage range / frequency	85-264VAC /120-373VDC			47Hz~63Hz	
	Efficiency (typical)②	82%	87%	89%	89%	89%
	Working current	1.4A/115VAC 0.85A/230VAC				
	Shock current	Cold start: 65A/230VAC				
	leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥110% - 130% Protection type: Hiccup mode, remove abnormal conditions and automatically return to normal				
	Overvoltage protection	≥115% - 145% Protection type: close the output, restart and automatically return to normal				
Environment	Operating temperature、humidity	-30℃~+70℃; 20%~90RH				
	Storage temperature、humidity	-40℃~+85℃; 10%~95RH				
Security	Pressure resistance	Input - output :4KVAC input - case :2KVAC output - case: 1.25KVAC duration :1 minute				
	Insulation impedance	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ 25 °C 70% RH				
Other	Size	99*97*30mm(L*W*H)				
	Net weight / gross weight	250g/272g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

1U ULTRA-THIN SINGLE GROUP OUTPUT POWER SUPPLY



In addition to the efficiency of up to 90%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LRS-100 to operate in the temperature range of - 30 °C to +70 °C without a fan. Providing ultra-low no-load power consumption (less than 0.3W) makes it easy for the terminal system to meet international energy requirements. LRS-100 has complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	18A	8.5A	4.5A	2.8A	2.3A
	Rated power	90W	102W	108W	100.8W	110.4W
	Ripple and noise①	100mVp-p	120mVp-p	150mVp-p	200mVp-p	200mVp-p
	Voltage regulation range	±10%				
	Voltage precision	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load regulation rate	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	Start up time	500ms、30ms/230VAC 500ms、30ms/115VAC(full load)				
	Hold time	55ms/230VAC 10ms/115VAC(full load)				
Input	Voltage range / frequency	85-264VAC /120-373VDC			47Hz~63Hz	
	Efficiency (typical)②	82%	88%	89%	89%	90%
	Working current	1.9A/115VAC 1.2A/230VAC				
	Shock current	Cold start: 50A/230VAC				
	leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥110% - 130% Protection type: Hiccup mode, remove abnormal conditions and automatically return to normal				
	Overvoltage protection	≥115% - 145% Protection type: close the output, restart and automatically return to normal				
Environment	Operating temperature、humidity	-30℃~+70℃; 20%~90RH				
	Storage temperature、humidity	-40℃~+85℃; 10%~95RH				
Security	Pressure resistance	Input - output :4KVAC input - case :2KVAC output - case: 1.25KVAC duration :1 minute				
	Insulation impedance	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ 25 °C 70% RH				
Other	Size	129*97*30mm(L*W*H)				
	Net weight / gross weight	340g/365g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

LRS-150

1U ULTRA-THIN SINGLE GROUP
OUTPUT POWER SUPPLY

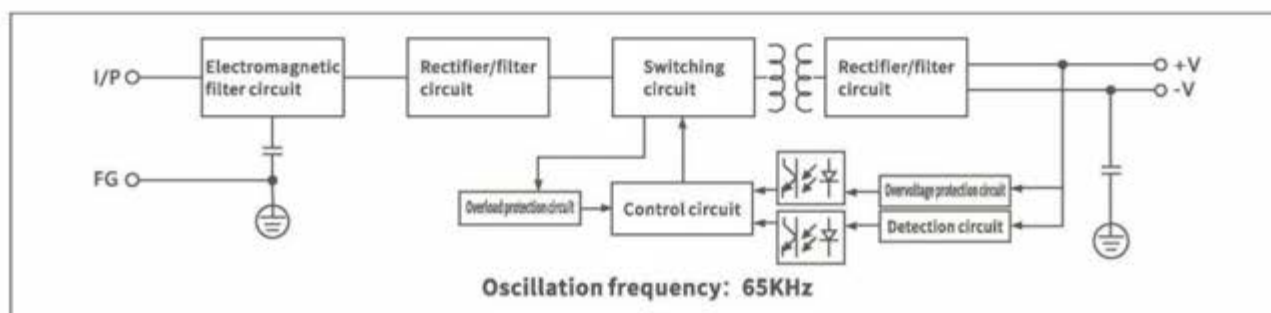


Product overview

The LRS-150 series is a 150 single group output enclosed power supply with a 30mm low profile design and 110/220VAC selectable input. The entire series provides 5V, 12V, 15V, 24V, 36V, and 48V outputs.

In addition to the efficiency of up to 90%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LRS-150 to operate in the temperature range of -30 °C to +70 °C without a fan. Providing ultra-low no-load power consumption (less than 0.3W) makes it easy for the terminal system to meet international energy requirements. The LRS-150 has complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	22A	12.5A	6.5A	4.3A	3.3A
	Rated power	110W	150W	156W	154.8W	158.4W
	Ripple and noise ①	100mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load adjustment rate	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%
	Starting up time	500ms、30ms/230VAC 500ms、30ms/115VAC(full load)				
	Hold time	40ms/230VAC 35ms/115VAC(full load)				
Input	Voltage range/frequency	85-132VAC/170-264VAC select by switch/240-370VDC 47Hz~63Hz				
	Efficiency (typical) ②	80%	87%	89%	89%	90%
	Operating current	2A/115VAC 1.3A/230VAC				
	Impulse current	Cold start: 60A/230VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥110% - 130% Protection type: Hiccup mode, remove abnormal conditions and automatically return to normal				
	Overvoltage protection	≥115% - 145% Protection type: close the output, restart and automatically return to normal				
	Over temperature protection	≥ 90 °C protection type: close the output, restart and automatically restore to normal				
Environment	Operating temperature、humidity	-30°C~+70°C; 20%~90RH				
	Storage temperature、humidity	-40°C~+85°C; 10%~95RH				
Security	Withstand voltage	Input - output :4KVAC input - case :2KVAC output - case: 1.25KVAC duration :1 minute				
	Insulation impedance	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ 25 °C 70% RH				
Other	Size	159*97*30mm(L*W*H)				
	Net weight/gross weight	480g/513g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

1U ULTRA-THIN SINGLE GROUP OUTPUT POWER SUPPLY

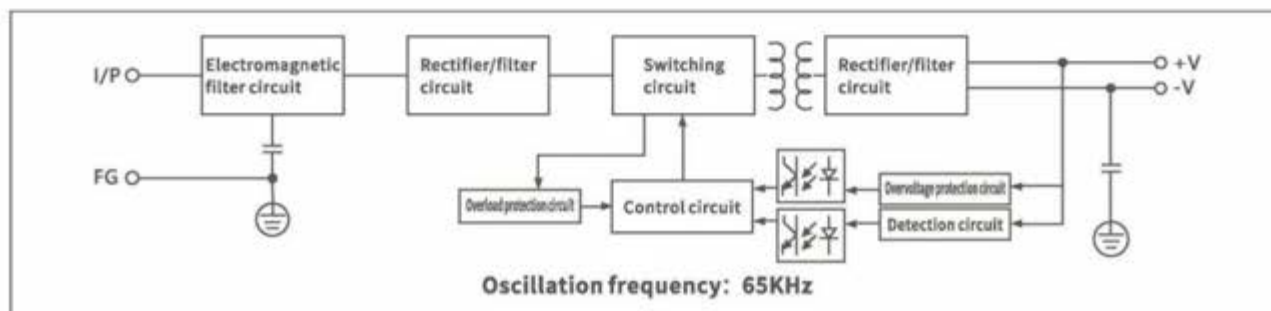


Product overview

The LRS-200, 350 series are 200, 350 single group output enclosed power supplies with a 30mm low profile design and 110/220VAC selectable inputs. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 90%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LRS-200、350 (350W with fan cooling) to operate in the temperature range of - 25 °C to +70 °C without a fan. Providing ultra-low no-load power consumption (less than 0.3W) makes it easy for the terminal system to meet international energy requirements. The LRS-200、350 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	40A	17A	8.8A	5.9A	4.4A
	Rated power	200W	204W	211.2W	212.4W	211.2W
	Ripple and noise ①	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p
	Voltage regulation range	±10%				
	Voltage accuracy	±3.0%	±1.5%	±1.0%	±1.0%	±1.0%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load adjustment rate	±2.0%	±1.0%	±0.5%	±0.5%	±0.5%
	Starting up time	1500ms、50ms/230VAC 1500ms、50ms/115VAC(full load)				
	Hold time	16ms/230VAC 12ms/115VAC(full load)				
Input	Voltage range/frequency	90-132VAC/180-264VAC select by switch/240-370VDC 47Hz~63Hz				
	Efficiency (typical) ②	81%	87%	89%	89%	90%
	Operating current	4A/115VAC 2.2A/230VAC				
	Impulse current	Cold start: 60A/115VAC 60A/230VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥110% - 130% Protection type: Hiccup mode, remove abnormal conditions and automatically return to normal				
	Overvoltage protection	≥115% - 145% Protection type: close the output, restart and automatically return to normal				
	Over temperature protection	≥ 90 °C protection type: close the output, restart and automatically restore to normal				
Environment	Operating temperature、humidity	-25℃~+70℃; 20%~90RH				
	Storage temperature、humidity	-40℃~+85℃; 10%~95RH				
Security	Withstand voltage	Input - output :4KVAC input - case :2KVAC output - case: 1.25KVAC duration :1 minute				
	Insulation impedance	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ 25 °C 70% RH				
Other	Size	215*115*30mm(L*W*H)				
	Net weight/gross weight	660g/727g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	60A	29A	14.6A	9.7A	7.3A
	Rated power	300W	348W	350.4W	349.2W	350.4W
	Ripple and noise ①	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p
	Voltage regulation range	±10%				
	Voltage accuracy	±3.0%	±1.5%	±1.0%	±1.0%	±1.0%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	Load adjustment rate	±2.0%	±1.0%	±0.5%	±0.5%	±0.5%
	Starting and rising time	1500ms、50ms/230VAC 1500ms、50ms/115VAC(full load)				
	Hold time	16ms/230VAC 12ms/115VAC(full load)				
Input	Voltage range/frequency	90-132VAC/180-264VAC select by switch/240-370VDC 47Hz~63Hz				
	Efficiency (typical) ②	81%	86%	89%	89%	90%
	Operating current	6.8/115VAC 3.4A/230VAC				
	Impulse current	Cold start: 60A/115VAC 60A/230VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥110% - 130% Protection type: Hiccup mode, remove abnormal conditions and automatically return to normal				
	Overvoltage protection	≥115% - 145% Protection type: close the output, restart and automatically return to normal				
	Over temperature protection	≥ 90 °C protection type: close the output, restart and automatically restore to normal				
Function	Fan switch control	≥ 60 °C fan starts, ≤ 50 °C fan stops				
Environment	Operating temperature、humidity	-25°C~+70°C; 20%~90RH				
	Storage temperature、humidity	-40°C~+85°C; 10%~95RH				
Security	Withstand voltage	Input - output :4KVAC input - case :2KVAC output - case :1.25KVAC duration :1 minute				
	Insulation impedance	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ 25 °C 70% RH				
Other	Size	215*115*30mm(L*W*H)				
	Net weight/gross weight	760g/827g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

LRS-500

1U ULTRA-THIN SINGLE GROUP OUTPUT POWER SUPPLY

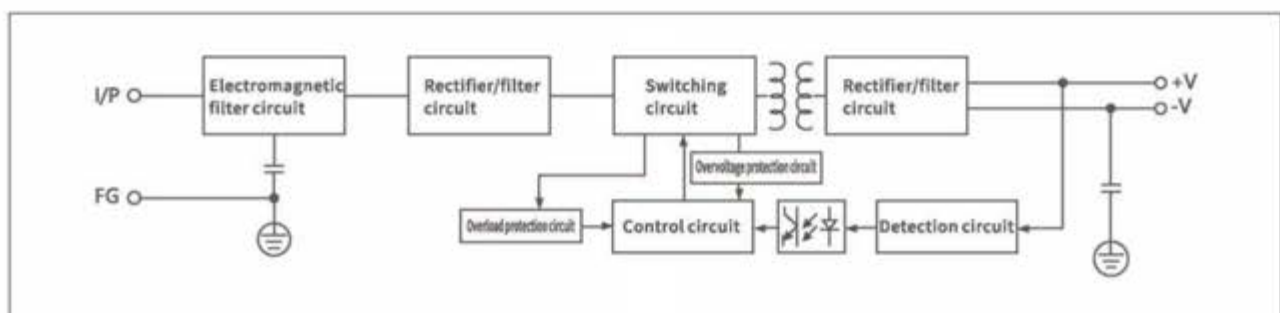


Product overview

The LRS-500 series are 500 single group output enclosed power supplies with a 30mm low profile design and 110/220VAC selectable inputs. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 90%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LRS-500 to operate in the temperature range of -25 °C to +70 °C without a fan. Providing ultra-low no-load power consumption (less than 0.3W) makes it easy for the terminal system to meet international energy requirements. The LRS-500 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram

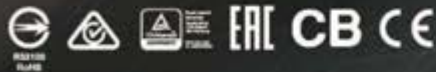


Technical parameter

Type		Technical indicators			
Output	DC voltage	12V	24V	36V	48V
	Rated current	41.6A	20.8A	13.8A	10.4A
	Rated power	500W	500W	500W	500W
	Ripple and noise ①	150mVp-p	150mVp-p	200mVp-p	200mVp-p
	Voltage regulation range	±10%			
	Voltage accuracy	±1.5%	±1.0%	±1.0%	±1.0%
	Linear adjustment rate	±0.5%	±0.5%	±0.5%	±0.5%
	Load adjustment rate	±1.0%	±0.5%	±0.5%	±0.5%
	Starting and rising time	1500ms、50ms/230VAC 1500ms、50ms/115VAC(full load)			
	Hold time	16ms/230VAC 12ms/115VAC(full load)			
Input	Voltage range/frequency	90-132VAC/180-264VAC select by switch/240-370VDC 47Hz-63Hz			
	Efficiency (typical) ②	85%	88%	88.5%	89%
	Operating current	8.5A/115VAC 4.2A/230VAC			
	Impulse current	Cold start: 60A/115VAC 60A/230VAC			
	Leakage current	<2mA 240VAC			
Protection characteristics	Overload protection	≥110% - 130% Protection type: Hiccup mode, remove abnormal conditions and automatically return to normal			
	Overvoltage protection	≥115% - 145% Protection type: close the output, restart and automatically return to normal			
	Over temperature protection	≥ 90 °C protection type: close the output, restart and automatically restore to normal			
Function	Fan switch control	RTH3≥50°C fan on RTH3≤40°C fan off			
Environment	Operating temperature、humidity	-25°C~+70°C; 20%-90RH			
	Storage temperature、humidity	-40°C~+85°C; 10%-95RH			
Security	Withstand voltage	Input - output :3KVAC input - case :2KVAC output - case :0.5KVAC duration :1 minute			
	Insulation impedance	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ 25 °C 70% RH			
Other	Size	215*115*30mm(L*W*H)			
	Net weight/gross weight	760g/827g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

S-15/25

SINGLE GROUP OUTPUT POWER SUPPLY

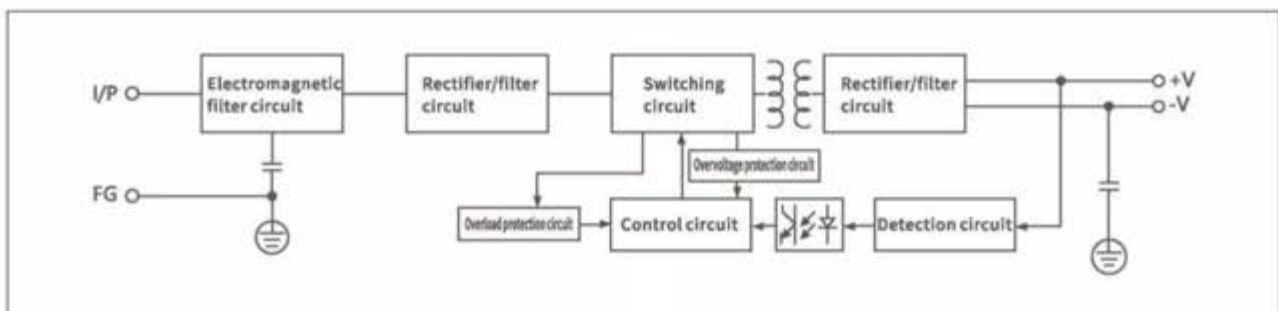


Product overview

The S-15、25 series are 15、25W single group output enclosed power supplies that use 85 to 264VAC full range AC input, and the entire series provides 5V、12V、15V、24V、36V and 48V output.

In addition to the efficiency of up to 88%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the S-15、25 to operate in the temperature range of -10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The S-15、25 have complete protection functions and resistance to 3G vibration; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	2A	1.25A	0.62A	0.42A	0.31A
	Rated power	10W	15.6W	16.8W	15.12W	14.88W
	Ripple and noise ①	<50mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC/120-373VAC 47Hz~63Hz				
	Efficiency (typical) ②	>78%	>82%	>84%	>84%	>84%
	Operating current	<0.3A 110VAC <0.15A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
Protection characteristics	Overload protection	≥110% - 130% protection type: hiccup mode, remove abnormal conditions and automatically return to normal				
	Short circuit protection	+VO short circuit protection type: hiccup mode				
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH				
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Leakage current	Input - output 220VAC < 1mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	99*97*35mm(L*W*H)				
	Net weight/gross weight	284.5g/311.6g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25℃. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5℃/1000 meters.					

Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	4A	2.1A	1A	0.7A	0.52A
	Rated power	20W	25.2W	24W	25.2W	24.96W
	Ripple and noise ①	<50mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
	Start up time	200ms、50ms、20ms: 220VAC				
Input	Voltage range/frequency	85-264VAC/120-373VAC 47Hz~63Hz				
	Efficiency (typical) ②	>78%	>82%	>84%	>84%	>84%
	Operating current	<0.5A 110VAC <0.25A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥110% - 130% protection type: hiccup mode, remove abnormal conditions and Automatically return to normal				
	Short circuit protection	+VO short circuit protection type: hiccup mode				
Environment	Operating temperature、humidity	-10℃~+50℃；20%~90RH				
	Storage temperature、humidity	-20℃~+85℃；10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	99*97*35mm(L*W*H)				
	Net weight/gross weight	284.5g/311.6g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

S-35

SINGLE GROUP OUTPUT POWER SUPPLY

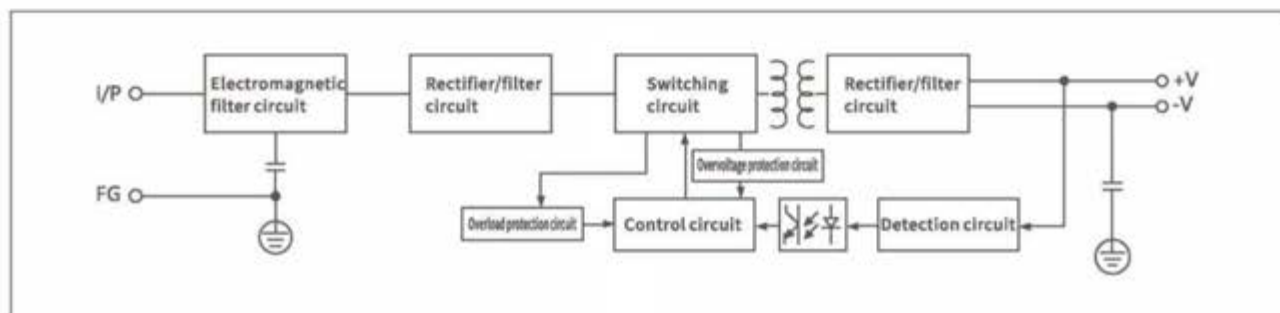


Product overview

The S-35 series is a 35W single group output enclosed power supply with a full range of AC inputs of 85 to 264VAC. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 88%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the S-35 to operate in the temperature range of -10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. S-35 has complete protection functions and resistance to 3G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	6A	2.9A	1.45A	0.97A	0.73A
	Rated power	30W	34.8W	34.8W	34.92W	35.04W
	Ripple and noise ①	<75mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC/120-373VAC 47Hz~63Hz				
	Efficiency (typical) ②	>75%	>82%	>84%	>84%	>84%
	Operating current	<0.75A 110VAC <0.35A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to underpressure point to close output				
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH				
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	129*98*38mm(L*W*H)				
	Net weight/gross weight	342.6g/372.8g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

S-50/60/75

SINGLE GROUP OUTPUT POWER SUPPLY

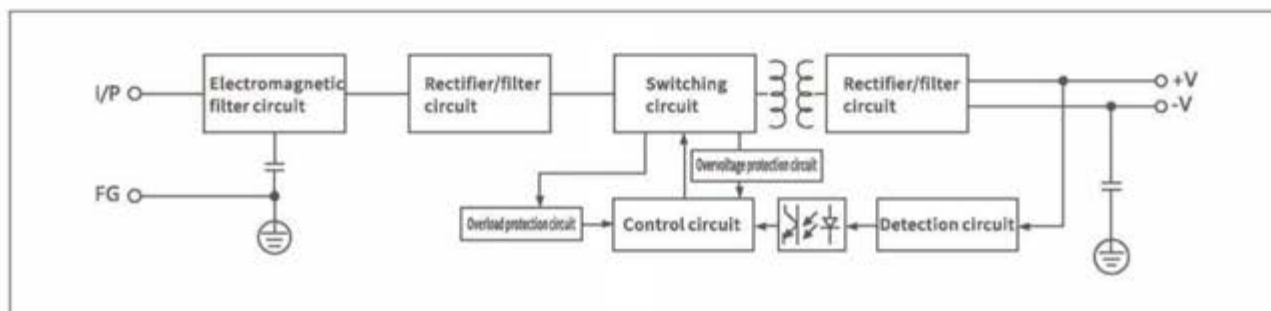


Product overview

The S-50, 60, 75 series is a 50, 60, 75W single group output enclosed power supply with a full range of AC inputs of 85 to 264VAC. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 88%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the S-50, 60, 75 to operate in the temperature range of -10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. S-50, 60, 75 has complete protection functions and resistance to 3G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	8A	4.1A	2.1A	1.4A	1A
	Rated power	40W	49.2W	50.4W	50.4W	48W
	Ripple and noise ①	<75mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-132VAC/176-264VAC 47Hz~63Hz (254VDC~370VDC)				
	Efficiency (typical) ②	>75%	>82%	>84%	>84%	>84%
	Operating current	<1A 110VAC <0.6A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to underpressure point to close output				
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH				
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	159*98*38mm(L*W*H)				
	Net weight/gross weight	440.8g/472.5g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	10A	5A	2.5A	1.7A	1.25A
	Rated power	50W	60W	60W	61.2W	60W
	Ripple and noise ①	<75mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC/120-373VAC 47Hz~63Hz				
	Efficiency (typical) ②	>75%	>82%	>84%	>84%	>84%
	Operating current	<1A 110VAC <0.6A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to underpressure point to close output				
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH				
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	159*98*38mm(L*W*H)				
	Net weight/gross weight	440.8g/472.5g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	12A	6.25A	3.1A	2.1A	1.6A
	Rated power	60W	75W	74.4W	75.6W	76.8W
	Ripple and noise ①	<75mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC/120-373VAC 47Hz~63Hz				
	Efficiency (typical) ②	>75%	>82%	>84%	>84%	>84%
	Operating current	<1.5A 110VAC <0.75A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to underpressure point to close output				
Environment	Operating temperature、humidity	-10℃~+50℃； 20%~90RH				
	Storage temperature、humidity	-20℃~+85℃； 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	159*98*38mm(L*W*H)				
	Net weight/gross weight	440.8g/472.5g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

S-100/120

SINGLE GROUP OUTPUT POWER SUPPLY

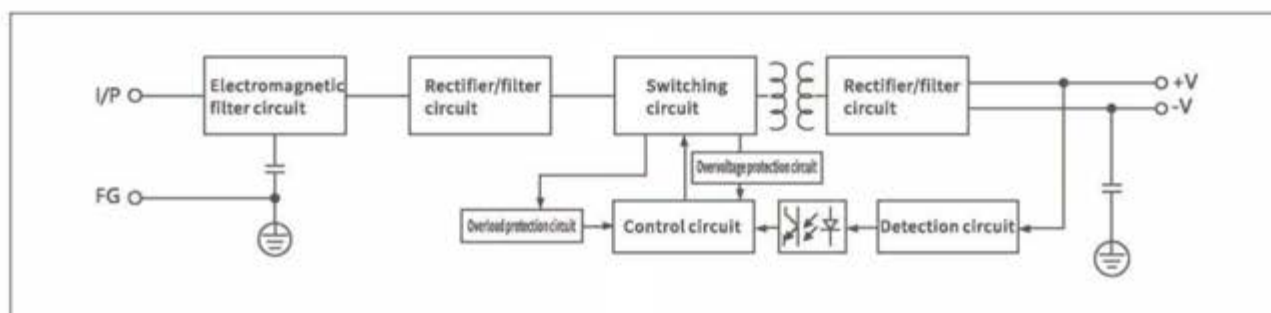


Product overview

The S-100, 120 series are 100, 120W single group output closed type power supplies, using 220VAC selective AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 88%, the design of the metal mesh enclosure enhances the heat dissipation ability, allowing the S-100, 120 to operate in the temperature range of -10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The S-100, 120 have complete protection functions and resistance to 3G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Ripple and noise ①	<75mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-132VAC/176-264VAC 47Hz~63Hz (254VDC~370VDC)				
	Efficiency (typical) ②	>75%	>82%	>84%	>84%	>84%
	Operating current	<1.2A 220VAC				
	Impulse current	220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output +VO drops to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to underpressure point to close output				
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH				
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	199*98*38mm(L*W*H)				
	Net weight/gross weight	535g/580.8g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Type	S-100				
DC voltage	5V	12V	24V	36V	48V
Rated current	18A	8.3A	4.1A	2.8A	2.1A
Rated power	90W	100.8W	100.8W	100.8W	100.8W

Type	S-120				
DC voltage	5V	12V	24V	36V	48V
Rated current	20A	10A	5A	3.33A	2.5A
Rated power	100W	120W	120W	120W	120W

S-150

SINGLE GROUP OUTPUT POWER SUPPLY

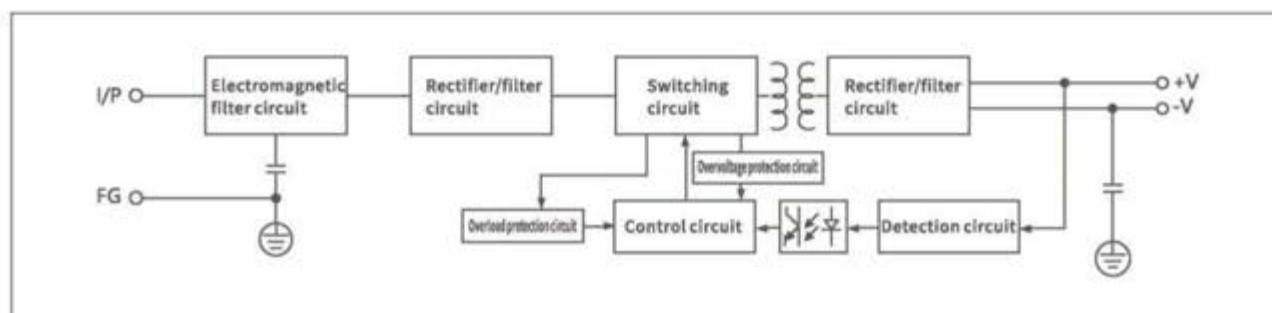


Product overview

The S-150 series is a 150W single group output closed type power supply with 110~264VAC selective AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 88%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the S-150 to operate in the temperature range of - 10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The S-150 has complete protection functions and resistance to 3G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	25A	12.5A	6.25A	4.16A	3.12A
	Rated power	125W	150W	150W	150W	150W
	Ripple and noise ①	<75mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-132VAC/176-264VAC 47Hz~63Hz (254VDC~370VDC)				
	Efficiency (typical) ②	>78%	>82%	>84%	>84%	>84%
	Operating current	<2.5A 110VAC <1.5A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to underpressure point to close output				
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH				
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	199*98*38mm(L*W*H)				
	Net weight/gross weight	616.3g/654.3g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

S-250/350/400

SINGLE GROUP OUTPUT POWER SUPPLY

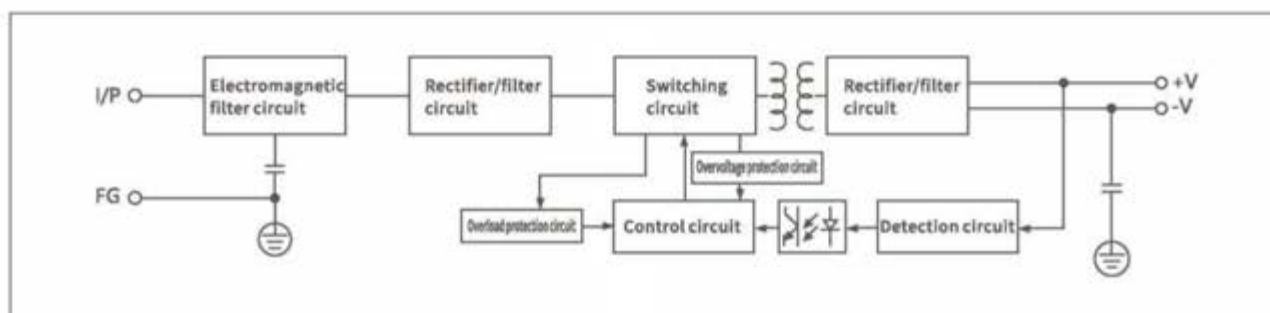


Product overview

The S-250, 350, 400 series are 250, 350, 400W single group output enclosed power supplies that use 110/220VAC selective AC input to provide 5V, 12V, 15V, 24V, 36V, and 48V output for the entire series.

In addition to an efficiency of up to 88%, the metal mesh enclosure intelligent fan design enhances heat dissipation capabilities, making the S-250, 350, 400 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. The S-250, 350, 400 have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	40A	20.8A	10.4A	7A	5.5A
	Rated power	200W	249.6W	249.6W	252W	249.6W
	Ripple and noise ①	<100mV	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	90-132VAC/180-264VAC 47Hz~63Hz 254VDC~370VDC				
	Efficiency (typical) ②	>78%	>82%	>84%	>84%	>84%
	Operating current	<4A 110VAC <2.5A 220VAC				
	Impulse current	115VAC 25A 220VAC 50A				
	Start up time	2000ms、50ms、20ms: 220VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again				
	Over/under voltage protection	≥115%-135%VOOUT ≤35%-45%VOOUT				
	Over temperature protection/short circuit protection	RTH3: ≥ 65 °C fan starts, ≤ 55 °C fan closes, ≥ 80 °C fan closes output (5V)/+VO drops to undervoltage point and closes output				
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH				
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC <5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	215*114*50mm(L*W*H)				
	Net weight/gross weight	866g/925g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Technical parameter

Type	Technical indicators						
Output	DC voltage	5V	12V	18V	24V	36V	48V
	Rated current	50A	29A	19.4A	14.5A	9.7A	7.3A
	Rated power	250W	350W	350W	350W	350W	350.4W
	Ripple and noise ①	<150mV	<150mV	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%					
	Voltage accuracy	±2.0%	±1.0%				
	Linear adjustment rate	<±0.5%					
	Load adjustment rate	<±1.5%	<±1.2%	<±1.2%	<±1%	<±0.5%	<±0.5%
Input	Voltage range/frequency	90-132VAC/180-264VAC 47Hz~63Hz 254VDC~370VDC					
	Efficiency (typical) ②	>74%	>82%	>82%	>84%	>86%	>86%
	Operating current	<5.2A 110VAC <2.8A 220VAC					
	Impulse current	110VAC 25A 220VAC 50A					
	Start up time	200ms、50ms、20ms: 220VAC					
	Leakage current	<1mA 240VAC					
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again					
	Over/under voltage protection	≥115%-135%VOUT ≤10%-45%VOUT					
	Over temperature protection/ short circuit protection	RTH3: ≥ 65 °C fan starts, ≤ 55 °C fan closes, ≥ 80 °C fan closes output (5V)/+VO drops to undervoltage point and closes output					
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH					
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH					
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute					
	Leakage current	Input - output 1.5KVAC < 5mA					
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ					
Other	Size	215*114*50mm(L*W*H)					
	Net weight/gross weight	874.1g/936.3g					
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.						

Technical parameter

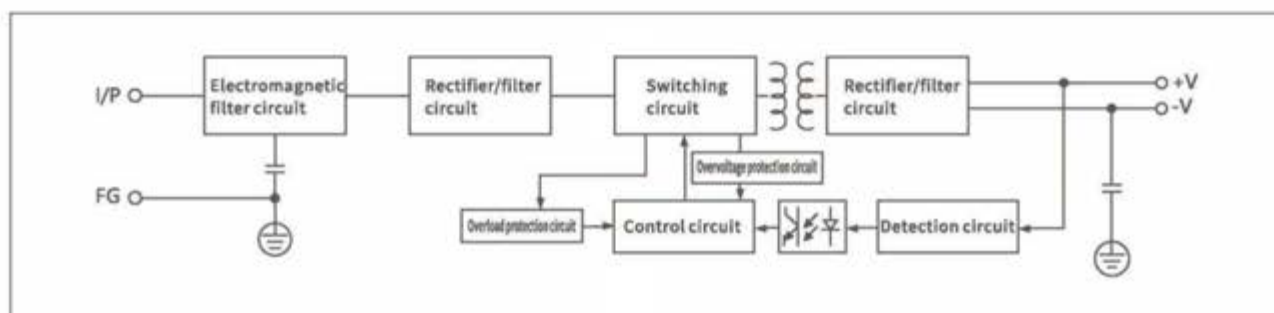
Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	55A	33.3A	16.6A	11.1A	8.3A
	Rated power	275W	399.6W	398.4W	399.6W	398.4W
	Ripple and noise ①	<100mV	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±1.2%	<±1%	<±0.5%	<±0.5%
Input	Voltage range/frequency	90-132VAC/180-264VAC 47Hz~63Hz 254VDC~370VDC				
	Efficiency (typical) ②	>78%	>82%	>84%	>84%	>84%
	Operating current	<6A 115VAC	<3.7A 230VAC			
	Impulse current	110VAC 25A	220VAC 50A			
	Start up time	2000ms、50ms、20ms: 220VAC				
	Leakage current	<1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again				
	Over/under voltage protection	≥115%-135%VO _{UT} ≤10%-45%VO _{UT}				
	Over temperature protection/short circuit protection	RTH3: The fan is normally rotating, and the output is closed at ≥ 85 °C/ +VO drops to the undervoltage point, and the output is closed				
Environment	Operating temperature、humidity	-10°C~-+50°C; 20%~90RH				
	Storage temperature、humidity	-20°C~-+85°C; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	215*114*50mm(L*W*H)				
	Net weight/gross weight	874.1g/936.3g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

SINGLE GROUP OUTPUT POWER SUPPLY



In addition to the efficiency of up to 88%, the metal mesh housing intelligent fan design enhances the heat dissipation ability, making the S-500、600、800 work more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. The S-500、600、800 have complete protection functions; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators				
Output	DC voltage	12V	24V	36V	48V
	Rated current	41.6A	20.8A	13.8A	10.4A
	Rated power	499.2	499.2	496.8	499.2
	Ripple and noise ①	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%			
	Voltage accuracy	±1.0%			
	Linear adjustment rate	<±1%			
	Load adjustment rate	<±1.2%	<±1%	<±0.5%	<±0.5%
Input	Voltage range/frequency	180-264VAC 47Hz~63Hz; 254VDC~370VDC			
	Efficiency (typical) ②	>82%	>84%	>86%	>86%
	Operating current	<5A 230VAC			
	Impulse current	220VAC 50A			
	Start up time	2000ms、50ms、20ms: 220VAC			
	Leakage current	<1mA 240VAC			
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again			
	Over/under voltage protection	≥115%-135%VOUT ≤35%-45%VOUT			
	Over temperature protection/ short circuit protection	RTH3: ≥ 45 °C fan slow rotation, ≥ 60 °C fan fast rotation, ≥ 85 °C shutdown output/shutdown output power<300W			
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH			
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH			
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute			
	Leakage current	Input - output 1.5KVAC < 5mA			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	215*114*50mm(L*W*H)			
	Net weight/gross weight	1268g/1358g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

Technical parameter

Type	Technical indicators				
Output	DC voltage	12V	24V	36V	48V
	Rated current	50A	25A	16.6A	12.5A
	Rated power	600W	600W	600W	600W
	Ripple and noise ①	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%			
	Voltage accuracy	±1.0%			
	Linear adjustment rate	<±1%			
	Load adjustment rate	<±1.2%	<±1%	<±0.5%	<±0.5%
Input	Voltage range/frequency	180-264VAC 47Hz~63Hz; 254VDC~370VDC			
	Efficiency (typical) ②	>82%	>84%	>86%	>86%
	Operating current	<5A 230VAC			
	Impulse current	220VAC 50A			
	Start up time	200ms、50ms、20ms: 220VAC			
	Leakage current	<1mA 240VAC			
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO drops to undervoltage point Cut off output reset: power on again			
	Short circuit protection/ overvoltage protection	Shutdown output power<300W/≥ 115% - 145%			
	Over temperature protection	RTH3: ≥ 45 °C fan slow rotation, ≥ 60 °C fan fast rotation, ≥ 85 °C shutdown output			
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH			
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH			
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute			
	Leakage current	Input - output 1.5KVAC < 5mA			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	241*125*65mm(L*W*H)			
	Net weight/gross weight	1268g/1358g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

Technical parameter

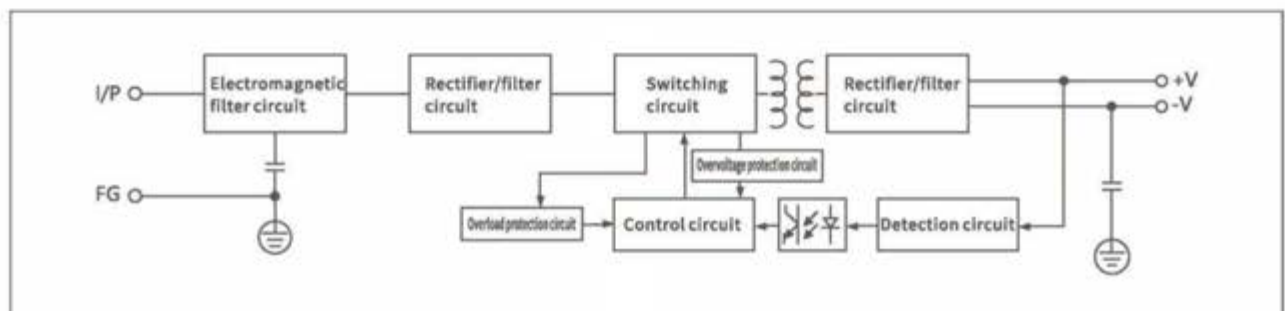
Type	Technical indicators				
Output	DC voltage	12V	24V	36V	48V
	Rated current	66.5A	33.3A	22.2A	16.6A
	Rated power	798W	799.2W	799.2W	796.8W
	Ripple and noise ①	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%			
	Voltage accuracy	±1.0%			
	Linear adjustment rate	<±1%			
	Load adjustment rate	<±1.2%	<±1%	<±0.5%	<±0.5%
Input	Voltage range/frequency	180-264VAC 47Hz~63Hz; 254VDC~370VDC			
	Efficiency (typical) ②	>82%	>84%	>86%	>86%
	Operating current	<12A 115VAC <7.8A 230VAC			
	Impulse current	110VAC: 25A 220VAC: 50A			
	Start up time	2000ms、50ms、20ms: 220VAC			
	Leakage current	<1mA 240VAC			
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again			
	Overvoltage protection/short circuit protection	Output Closed (≥115%-145%)/Output Closed			
	Over temperature protection	RTH3: ≥ 70 °C, fast rotation of fan, ≥ 90 °C, shutdown of output			
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH			
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH			
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute			
	Leakage current	Input - output 1.5KVAC < 5mA			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	241*125*65mm(L*W*H)			
	Net weight/gross weight	1268g/1358g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

SINGLE GROUP OUTPUT POWER SUPPLY



In addition to an efficiency of up to 88%, the metal mesh housing intelligent fan design enhances heat dissipation capabilities, making the S-1000 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. The S-1000 has complete protection functions; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16、

Principle diagram



Technical parameter

Type	Technical indicators				
Output	DC voltage	12V	24V	36V	48V
	Rated current	80A	40A	27.5A	20A
	Rated power	960W	960W	990W	960W
	Ripple and noise ①	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%			
	Voltage accuracy	±1.0%			
	Linear adjustment rate	<±1%			
	Load adjustment rate	<±1.2%	<±1%	<±0.5%	<±0.5%
Input	Voltage range/frequency	180-264VAC 47Hz~63Hz; 254VDC~370VDC			
	Efficiency (typical) ②	>82%	>84%	>86%	>86%
	Operating current	220VAC: 60A			
	Impulse current	<10A 230VAC			
	Start up time	2000ms、50ms、20ms: 230VAC			
	Leakage current	<1mA 240VAC			
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again			
	Overvoltage protection/ short circuit protection	Output Closed (≥115%-145%)/Output Closed			
	Over temperature protection	RTH3: Fan rotates normally, ≥ 90 °C, output closed			
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH			
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH			
Security	Withstand voltage	Input - output: 1.5KVAC input - case: 1.5KVAC output - case: 0.5KVAC duration :1 minute			
	Leakage current	Input - output 1.5KVAC < 6mA			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	340*133*67mm(L*W*H)			
	Net weight/gross weight	2kg/2.1kg			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

S-1500/2000

SINGLE GROUP OUTPUT POWER SUPPLY

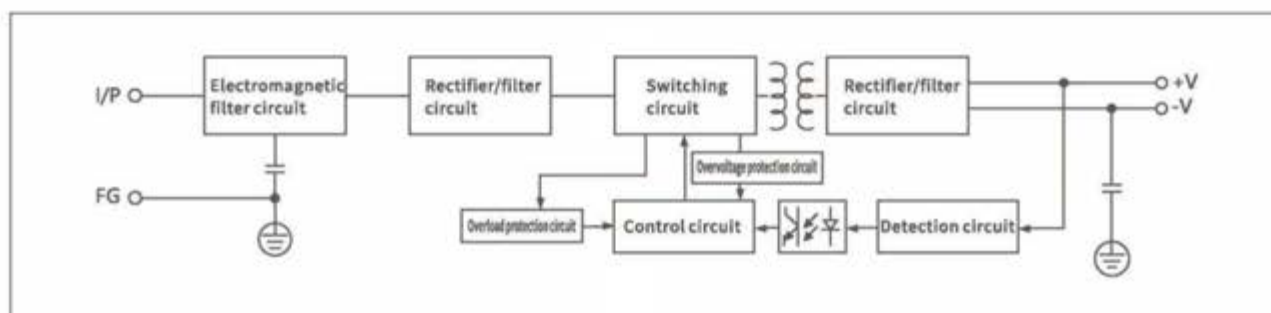


Product overview

The S-1500, 2000 series are 1500, 2000W single group output enclosed power supplies that use 180 to 264VAC AC input to provide 5V, 12V, 15V, 24V, 36V and 48V output throughout the series.

In addition to an efficiency of up to 88%, the metal mesh housing intelligent fan design enhances heat dissipation capabilities, making the S-1500, 2000 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. The S-1500, 2000 have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16.

Principle diagram



Technical parameter

Type	Technical indicators				
Output	Dc voltage	12V	24V	36V	48V
	Ripple and noise ①	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%			
	Voltage accuracy	±1.0%			
	Linear adjustment rate	±1%			
	Load adjustment rate	<±1.2%	<±1%	<±0.5%	<±0.5%
Input	Voltage range/frequency	180-264VAC 47Hz~63Hz ; 254VDC~370VDC			
	Efficiency (typical) ②	>85%	>88%	>88%	>88%
	Operating current	220VAC: 13.5A			
	Impulse current	60A 230VAC			
	Start up time	2000ms、50ms、20ms: 230VAC			
	Leakage current	≤1.5mA 240VAC			
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again			
	Over temperature protection	RTH3: Fan rotates normally, ≥ 90 °C, output closed			
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH			
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH			
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute			
	Leakage current	Input - output 1.5KVAC < 6mA			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	280*160*85mm(L*W*H)			
	Net weight/gross weight	3kg/3.1kg			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

Type	S-1500			
DC voltage	12V	24V	36V	48V
Rated current	120A	60A	42A	31.5A
Rated power	1440W	1440W	1512W	1512W

Type	S-2000			
DC voltage	12V	24V	36V	48V
Rated current	150A	80A	55.5A	41.6A
Rated power	1800W	1920W	1998W	1996W

SINGLE GROUP OUTPUT POWER SUPPLY

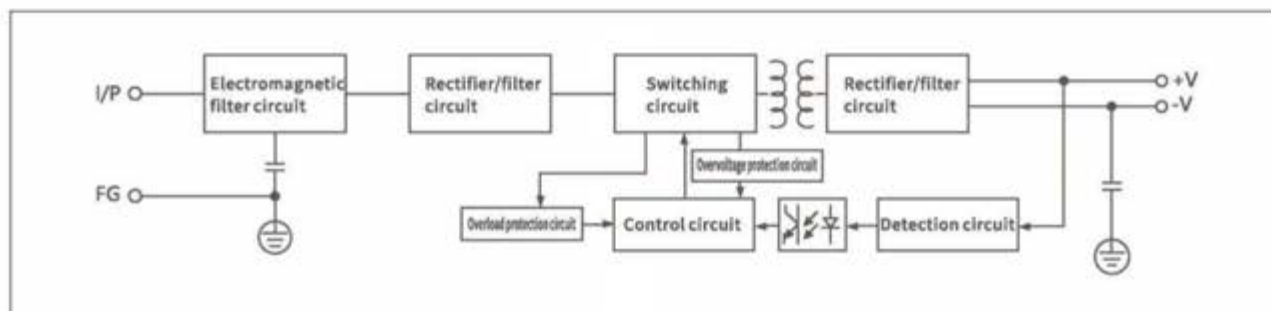


Product overview

The S-3000 series is a 3000W single group output closed type power supply that uses 180~264VAC AC input to provide 5V, 12V, 15V, 24V, 36V and 48V output throughout the series.

In addition to an efficiency of up to 88%, the metal mesh housing intelligent fan design enhances heat dissipation capabilities, making the S-3000 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. The S-3000 has complete protection functions; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators			
Output	DC voltage	12V	24V	36V	48V
	Rated current	200A	120A	83A	62.4A
	Rated power	2400W	2880W	2988W	2995W
	Ripple and noise ①	<240mV	<240mV	<360mV	<480mV
	Voltage regulation range	±10%			
	Voltage accuracy	±1.0%			
	Linear adjustment rate	<±1%			
	Load adjustment rate	<±1%	<±1%	<±1%	<±1%
Input	Voltage range/frequency	180-264VAC 47Hz~63Hz; 254VDC~370VDC			
	Efficiency (typical) ②	>86%	>88%	>89%	>90%
	Operating current	220VAC: 23A			
	Impulse current	60A 230VAC			
	Start up time	2000ms、50ms、20ms: 220VAC			
	Leakage current	≤1.5mA 240VAC			
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again			
	Over temperature protection	RTH3: Fan rotates normally, ≥ 90 °C, output closed			
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH			
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH			
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute			
	Leakage current	Input - output 1.5KVAC < 6mA			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	345*190*95mm(L*W*H)			
	Net weight/gross weight	6kg/6.2kg			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

SMALL VOLUME SWITCH POWER SUPPLY

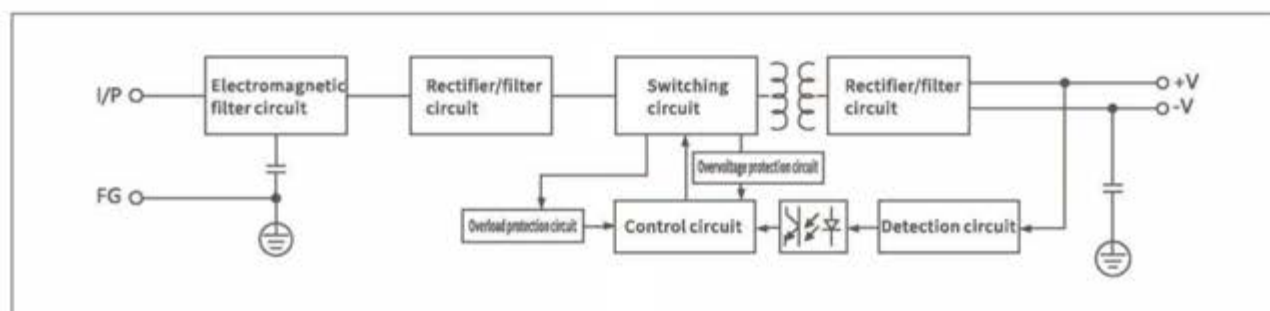


Product overview

The MS-15, 25, 35 series are 15, 25, 35W single group output closed type power supplies that use 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 88%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the MS-15、25、35 to operate in the temperature range of -10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The MS-15、25、35 have complete protection functions and resistance to 3G vibration; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	2A	1.25A	0.62A	0.42A	0.31A
	Rated power	10W	15.6W	16.8W	15.12W	14.88W
	Ripple and noise ①	<50mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)				
	Efficiency (typical) ②	>78%	>82%	>84%	>84%	>84%
	Operating current	<0.3A 110VAC <0.15A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	≤1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to undervoltage point to close output				
Environment	Operating temperature、humidity	-10℃~+50℃； 20%~90RH				
	Storage temperature、humidity	-20℃~+85℃； 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	87*60*37mm(L*W*H)				
	Net weight/gross weight	150g/175g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	4A	2.1A	1A	0.7A	0.52A
	Rated power	20W	25.2W	24W	25.2W	24.96W
	Ripple and noise ①	<50mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)				
	Efficiency (typical) ②	>78	>82%	>84%	>84%	>84%
	Operating current	<0.5A 110VAC <0.25A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	≤1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to undervoltage point to close output				
Environment	Operating temperature、humidity	-10°C~+50°C； 20%~90RH				
	Storage temperature、humidity	-20°C~+85°C； 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 6mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	87*60*37mm(L*W*H)				
	Net weight/gross weight	150g/175g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	6A	2.9A	1.5A	1A	0.73A
	Rated power	30W	34.8W	36W	36W	35W
	Ripple and noise ①	<50mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)				
	Efficiency (typical) ②	>78	>82%	>84%	>84%	>84%
	Operating current	<0.8A 110VAC <0.35A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	≤1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to undervoltage point to close output				
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH				
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	87*60*37mm(L*W*H)				
	Net weight/gross weight	150g/175g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

MS-50/60/75

SMALL VOLUME SWITCH POWER SUPPLY

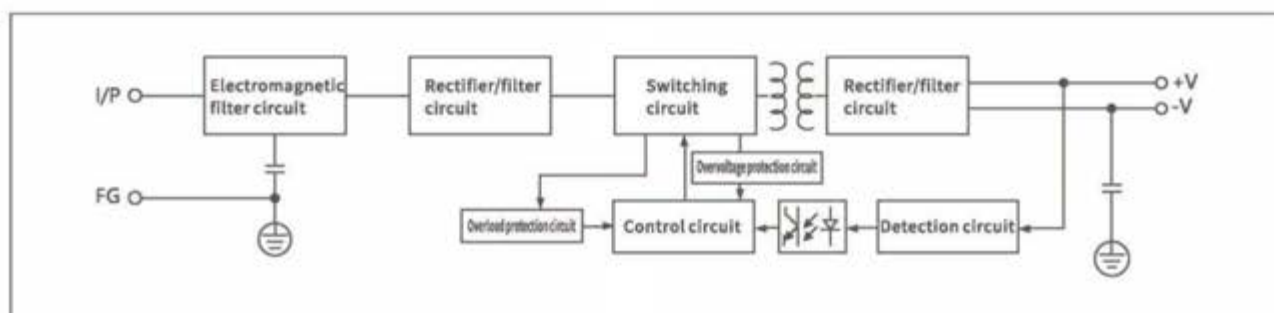


Product overview

The MS-50, 60, 75 series are 50, 60, 75W single group output enclosed power supplies that use 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 88%, the design of the metal mesh enclosure enhances the heat dissipation ability, allowing the MS-50, 60, 75 to operate in the temperature range of -10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The MS-50, 60, 75 have complete protection functions and resistance to 3G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators					
Output	DC voltage	5V	12V	24V	36V	48V
	Ripple and noise ①	<50mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)				
	Efficiency (typical) ②	>78%	>82%	>84%	>84%	>84%
	Impulse current	110VAC 18A, 220VAC 36A				
	Start, rise, hold time	200ms、50ms、20ms: 220VAC				
	Leakage current	≤1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to undervoltage point to close output				
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH				
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	111*78*36mm(L*W*H)				
	Net weight/gross weight	300g/350g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Type	MS-50				
DC voltage	5V	12V	24V	24V	48V
Rated current	8A	4.2A	2.1A	1.4A	1.1A
Rated power	40W	50.4W	50.4W	50.4W	52.8W

Type	MS-60				
DC voltage	5V	12V	24V	24V	48V
Rated current	10A	5A	2.5A	1.7A	1.25A
Rated power	50W	60W	60W	61.2W	60W

Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	12A	6.25A	3.12A	2.08A	1.56A
	Rated power	50W	60W	60W	61.2W	60W
	Ripple and noise ①	<50mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)				
	Efficiency (typical) ②	>78%	>82%	>84%	>84%	>84%
	Operating current	<0.8A 110VAC <0.35A 220VAC				
	Impulse current	110VAC 18A 220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	≤1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to undervoltage point to close output				
Environment	Operating temperature、humidity	-10℃~+50℃；20%~90RH				
	Storage temperature、humidity	-20℃~+85℃；10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 6mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	111*78*36mm(L*W*H)				
	Net weight/gross weight	300g/345g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

MS-100/120

SMALL VOLUME SWITCH POWER SUPPLY

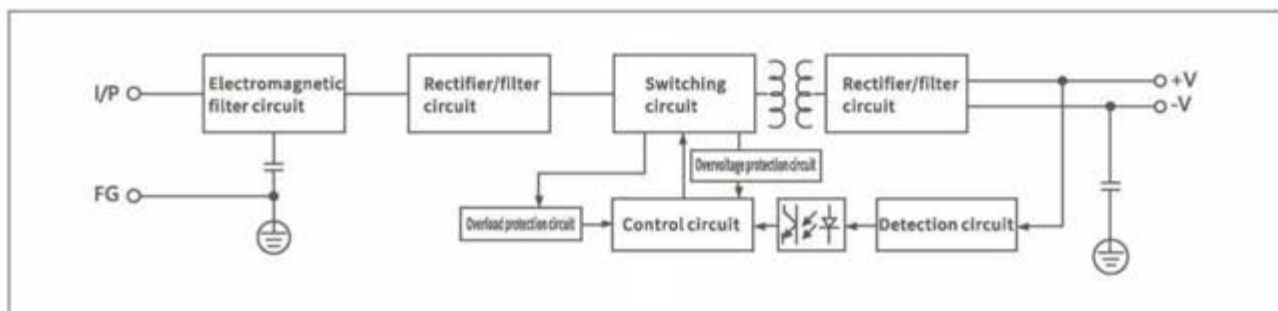


Product overview

The MS-100, 120 series are 100, 120W single group output closed type power supplies that use 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 88%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the MS-100, 120 to operate in the temperature range of -10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The MS-100, 120 have complete protection functions and 3G vibration capability; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Ripple and noise ①	<50mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)				
	Efficiency (typical) ②	>78%	>82%	>84%	>85%	>86%
	Impulse current	110VAC 18A, 220VAC 36A				
	Start, rise, hold time	200ms、50ms、20ms: 220VAC				
	Leakage current	≤1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to undervoltage point to close output				
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH				
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	159*98*38mm(L*W*H)				
	Net weight/gross weight	436.6g/478.5g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Type	MS-100				
DC voltage	5V	12V	24V	36V	48V
Rated current	18A	8.3A	4.1A	2.8A	2.1A
Rated power	90W	99.6W	100.8W	100.8W	100.8W
Operating current	<1.8A 110VAC <1.1A 220VAC				

Type	MS-120				
DC voltage	5V	12V	24V	36V	48V
Rated current	20A	10A	5A	3.35A	2.5A
Rated power	100W	120W	120W	120.6W	120W
Operating current	<2A 110VAC <1.3A 220VAC				

MS-200/250

SMALL VOLUME SWITCH POWER SUPPLY

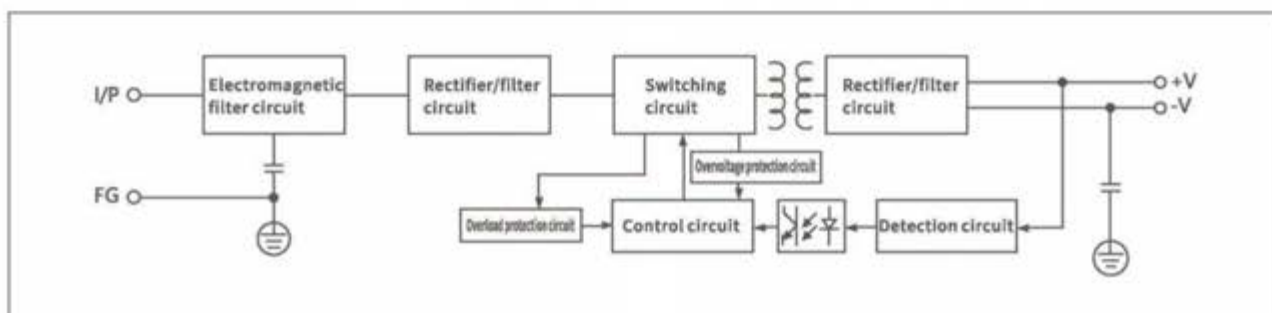


Product overview

The MS-200、250 series is a 200、250W single group output enclosed power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V、12V、15V、24V、36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the metal mesh enclosure enhances the heat dissipation ability, allowing the MS-200、250 to operate in the temperature range of - 10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The MS-200、250 have complete protection functions and 3G vibration capability; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	35A	16.7A	8.3A	5.6A	4.2A
	Rated power	175W	200W	200W	200W	200W
	Ripple and noise ①	<100mV	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	176-264VAC 47Hz~63Hz; 254VDC~370VDC				
	Efficiency (typical) ②	>78%	>82%	>84%	>85%	>86%
	Operating current	<2.2A 220VAC				
	Impulse current	220VAC 50A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	≤1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again				
	Short circuit/overvoltage protection	+VO drops to undervoltage point to close output/≥ 115% - 135%				
	Over temperature protection	RTH3: ≥ 70 °C fast rotation of fan, ≥ 90 °C output closed				
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH				
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	199*110*50mm(L*W*H)				
	Net weight/gross weight	727g/780g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	24V	36V	48V
	Rated current	40A	20.8A	10.4A	7A	5.2A
	Rated power	200W	249.6W	249.6W	252W	249.6W
	Ripple and noise ①	<50mV	<120mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±2.0%	±1.0%			
	Linear adjustment rate	<±0.5%				
	Load adjustment rate	<±1.5%	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	185-264VAC 47Hz~63Hz (240VDC~370VDC)				
	Efficiency (typical) ②	>78%	>82%	>84%	>85%	>86%
	Operating current	<2.5A 220VAC				
	Impulse current	220VAC 36A				
	Start up time	200ms、50ms、20ms: 220VAC				
	Leakage current	≤1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 150% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again				
	Short circuit protection	+VO drops to undervoltage point to close output				
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH				
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 5mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	199*110*50mm(L*W*H)				
	Net weight/gross weight	727g/780g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

MS-300/350

SMALL VOLUME SWITCH POWER SUPPLY

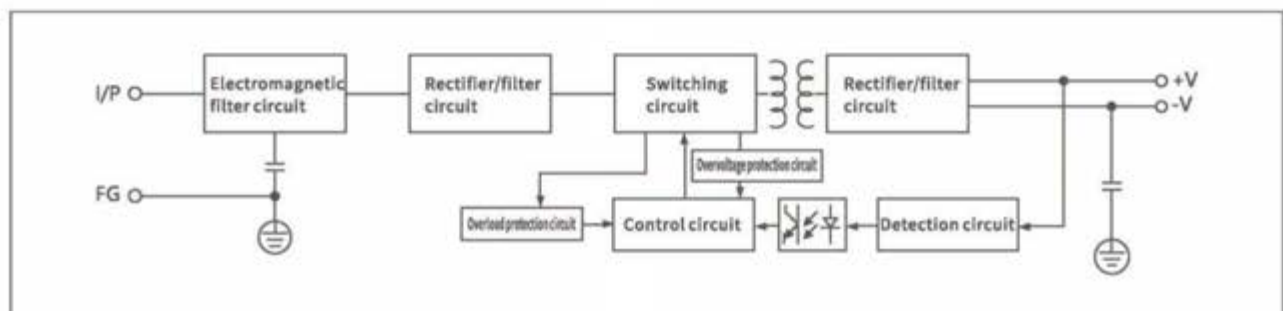


Product overview

The MS-300, 350 series is a 300, 350W single group output enclosed power supply with 110/220VAC selective AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to an efficiency of up to 88%, the metal mesh housing intelligent fan design enhances heat dissipation capabilities, making the MS-300, 350 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. Making it easy for the terminal system to meet international energy requirements. The MS-300, 350 have complete protection functions and 3G vibration capability; It complies with TUV EN609501, EN60335-1, EN61558-1/-2-16

Principle diagram



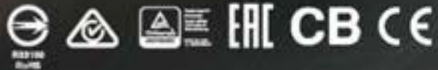
Technical parameter

Type		Technical indicators			
Output	DC voltage	12V	24V	36V	48V
	Ripple and noise ①	<120mV	<240mV	<240mV	<240mV
	Voltage regulation range	±10%			
	Voltage accuracy	±1.0%			
	Linear adjustment rate	±0.5%			
	Load adjustment rate	<±0.5%	<±0.5%	<±0.5%	<±0.5%
Input	Voltage range/frequency	90-132VAC/180-264VAC 47Hz~63Hz; 254VDC~370VDC			
	Efficiency (typical) ②	>83%	>85%	>86%	>86%
	Impulse current	110VAC 25A 20VAC: 50A			
	Start up time	200ms、50ms、20ms: 220VAC			
	Leakage current	≤1mA 240VAC			
Protection characteristics	Overload protection	≥ 115% - 145% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again			
	Overvoltage protection	≥115%-145%			
	Under voltage protection	≤10%-45% VOUT			
	Temperature protection	RTH3: ≥ 55 °C fan startup, ≤ 50 °C fan shutdown, ≥ 90 °C fan shutdown output			
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH			
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH			
Security	Withstand voltage	Input - output : 1.5KVAC Input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute			
	Leakage current	Input - output 1.5KVAC < 5mA			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	159*98*38mm(L*W*H)			
	Net weight/gross weight	436.6g/478.5g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

Type	MS-300			
DC voltage	12V	24V	36V	48V
Rated current	25A	12.5A	8.3A	6.25A
Rated power	300W	300W	300W	300W
Operating current	<5.2A 110VAC <2.8A 220VAC			

Type	MS-350			
DC voltage	12V	24V	36V	48V
Rated current	29A	14.5A	9.7A	7.3A
Rated power	350W	350W	350W	350W
Operating current	<5.5A 110VAC <2.9A 220VAC			

SMALL VOLUME SWITCH POWER SUPPLY

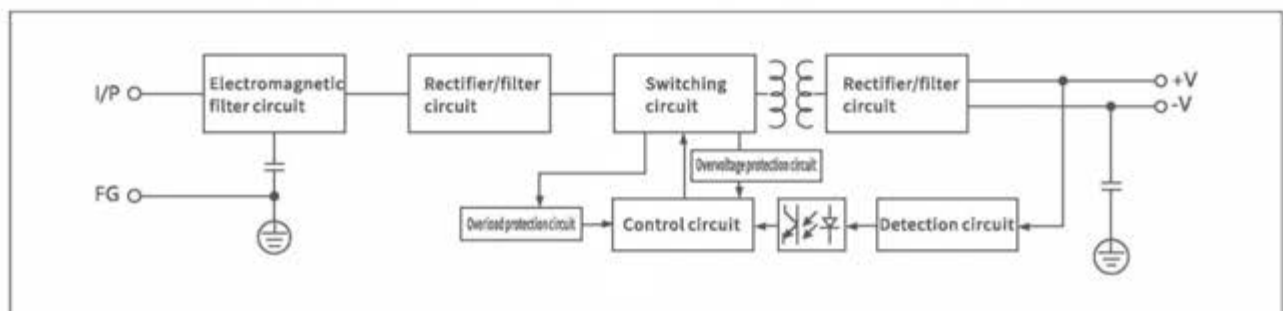


Product overview

The MS-500, 600 series is a 500, 600W single group output enclosed power supply with 110/220VAC selective AC input. The entire series provides 5V, 12V, 15V, 24V, 36V, 48V, and 60V output.

In addition to an efficiency of up to 88%, the metal mesh housing intelligent fan design enhances heat dissipation capabilities, making the MS-500、600 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. Making it easy for the terminal system to meet international energy requirements. The MS-500、600 have complete protection functions and 3G vibration capability; it complies with TUV EN609501、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

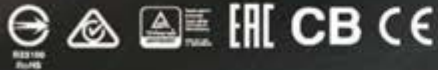
Type		Technical indicators				
Output	DC voltage	12V	18V	24V	36V	48V
	Ripple and noise ①	<150mV	<150mV	<150mV	<240mV	<240mV
	Voltage regulation range	±10%				
	Voltage accuracy	±1.0%				
	Linear adjustment rate	±1%				
	Load adjustment rate	<±1.2%	<±1.2%	<±1%	<±0.5%	<±0.5%
Input	Voltage range/frequency	100-130VAC/180-264VAC 47Hz~63Hz ; 254VDC~370VDC				
	Efficiency (typical) ②	>84%	>84%	>86%	>87%	>88%
	Operating current	<8A 115VAC <5A 230VAC				
	Impulse current	110VAC 25A, 220VAC: 50A				
	Start up time	200ms、50ms、20ms: 230VAC ≤1mA 240VAC				
	Leakage current	≤1mA 240VAC				
Protection characteristics	Overload protection	≥ 105% - 135% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again				
	Short circuit protection	Turn off output				
	Over temperature protection	RTH3: ≥ 60 °C fan startup, ≤ 55C °C fan shutdown, ≥ 85 °C fan shutdown output (12V-18V) RTH3: ≥ 60 °C fan startup, ≤ 55 °C fan shutdown, ≥ 90 °C fan shutdown output (24V-48V)				
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH				
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH				
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute				
	Leakage current	Input - output 1.5KVAC < 6mA				
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ				
Other	Size	215*115*50mm(L*W*H)				
	Net weight/gross weight	874.1g/936.3g				
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.					

Type	MS-500				
DC voltage	12V	18V	24V	36V	48V
Rated current	41.6A	27.8A	20.8A	13.9A	10.5A
Rated power	500W	500W	500W	500W	500W

Type	MS-600				
DC voltage	12V	/	24V	36V	48V
Rated current	50A	/	25A	16.6A	12.5A
Rated power	600W	/	600W	600W	600W

MS-1000

SMALL VOLUME SWITCH POWER SUPPLY

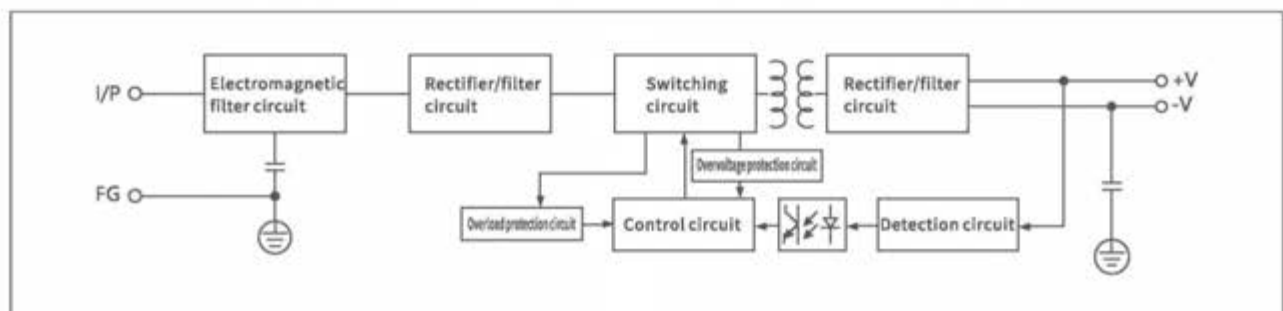


Product overview

The MS-1000 series is a 1000W single group output closed type power supply with 110/220VAC selective AC input. The entire series provides 15V, 24V, 36V, and 48V output.

In addition to an efficiency of up to 88%, the metal mesh housing intelligent fan design enhances heat dissipation capabilities, making the MS-1000 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. Making it easy for the terminal system to meet international energy requirements. The MS-1000 has complete protection functions and 3G vibration capability; It complies with TUV En609501, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators			
Output	DC voltage	24V	36V	48V
	Rated current	41.6A	27.7A	20.8A
	Rated power	1000W	1000W	1000W
	Ripple and noise ①	<240mV	<240mV	<240mV
	Voltage regulation range	±10%		
	Voltage accuracy	±1.0%		
	Linear adjustment rate	<±1%		
	Load adjustment rate	<±1.2%	<±1%	<±0.5%
Input	Voltage range/frequency	90-132/180-264VAC 47Hz~63Hz; 254VDC~370VDC		
	Efficiency (typical) ②	>84%	>84%	>86%
	Operating current	<15A 115VAC <9A 230VAC		
	Impulse current	110VAC 25A, 220VAC: 50A		
	Start up time	200ms、50ms、20ms: 230VAC		
	Leakage current	≤1mA 240VAC		
Protection characteristics	Overload protection	≥ 105% - 135% Type: constant current output+VO reduced to undervoltage point Cut off output reset: power on again		
	Short circuit protection	Turn off output		
	Overvoltage protection	Turn off output when ≥ 115% - 145%		
	Over temperature protection	RTH3: fan slow rotation, ≥ 60 °C fan fast rotation, ≥ 90 °C shutdown output		
Environment	Operating temperature、humidity	-10°C~+50°C; 20%~90RH		
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH		
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute		
	Leakage current	Input - output 1.5KVAC < 6mA		
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ		
Other	Size	241*125*65mm(L*W*H)		
	Net weight/gross weight	1268g/1358g		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.			

DR-30/45/60

DIN RAIL TYPE SWITCH POWER SUPPLY

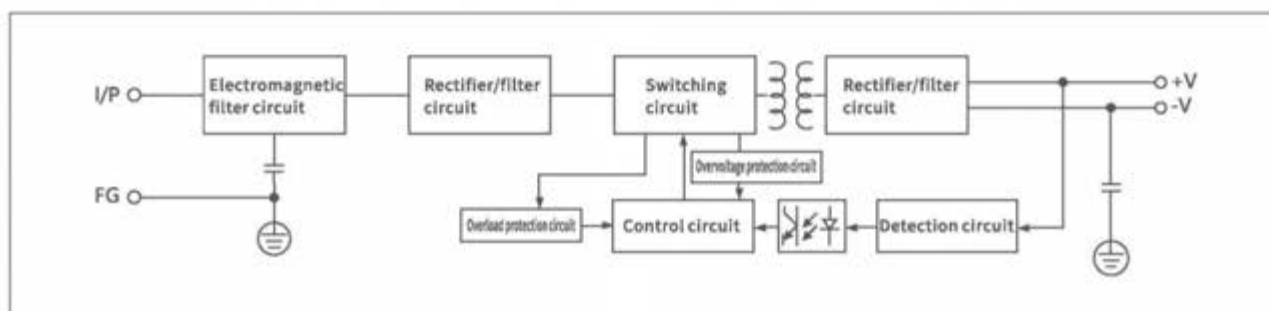


Product overview

The DR-30、45、60 series are 30、45、60 W single group output closed type power supplies that use 85 to 264VAC full range AC input. The entire series provides 5V、12V、15V、24V、36V and 48V output.

In addition to an efficiency of up to 88%, the design of the environmentally friendly flame-retardant housing enhances the heat dissipation capability, allowing the DR-30、45、60 to operate in the temperature range of - 10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The DR-30、45、60 have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators			
Output	DC voltage	5V	12V	15V	24V
	Ripple and noise ①	<80mV	<120mV	<120mV	<150mV
	Voltage regulation range	±10%			
	Voltage accuracy	±2%	±1.0%		
	Linear adjustment rate	<±1%			
Input	Start up time	100ms、30ms、21ms：110VAC/100ms、30ms、100ms：220VAC			
	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)			
	Efficiency (typical) ②	>78%	>81%	>83%	>84%
	Impulse current	110VAC 15A 220VAC 30A			
Protection characteristics	Overload protection	≥ 105% - 150% type: protection mode: hiccup mode automatic recovery after abnormal conditions are removed			
	Short circuit protection	+VO drops to the undervoltage point, closes, and automatically recovers after the abnormal output condition is removed			
Environment	Operating temperature、humidity	-10℃~+50℃；20%~90RH			
	Storage temperature、humidity	-20℃~+85℃；10%~95RH			
Security	Withstand voltage	Input output 3KVAC for 1 minute			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	78*93*56mm(L*W*H)			
	Net weight/gross weight	270g/290g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

Type	DR-30			
DC voltage	5V	12V	15V	24V
Rated current	3A	2.5A	2A	1.25A
Rated power	15W	30W	30W	30W
Load adjustment rate	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
Operating current	<0.8A 110VAC	<0.4A 220VAC		

Type	DR-45			
DC voltage	5V	12V	15V	24V
Rated current	5A	3.5A	2.8A	2A
Rated power	25W	42W	42W	48W
Load adjustment rate	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
Operating current	<1A 110VAC	<0.5A 220VAC		

Type	DR-60			
DC voltage	5V	12V	15V	24V
Rated current	6.5A	4.5A	4A	2.5A
Rated power	32.5W	54W	60W	60W
Load adjustment rate	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$	$\pm 1\%$
Operating current	<1.2A 110VAC	<0.8A 220VAC		

DR-75/120/240/480

DIN RAIL TYPE SWITCH POWER SUPPLY

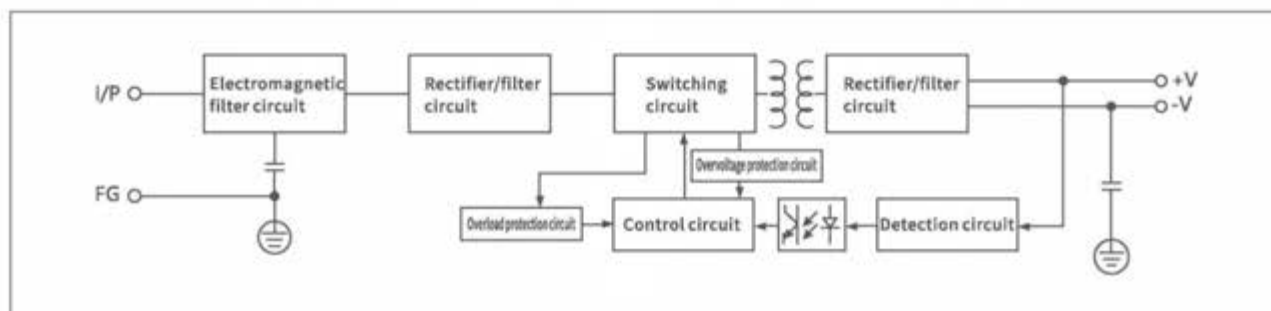


Product overview

The DR-75, 120, 240, 480 series are 75, 120, 240, 480W single group output enclosed power supplies that use 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the metal mesh enclosure enhances the heat dissipation capability, allowing the DRP-75, 120, 240, 480 to operate in the temperature range of -10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The DRP-75, 120, 240, 480 have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators		
Output	DC voltage	12V	24V	48V
	Ripple and noise ①	<120mV	<150mV	<240mV
	Voltage regulation range	±10%		
	Voltage accuracy	±2%	±1.0%	
	Linear adjustment rate	±0.5%		
	Load adjustment rate	±1%		
Input	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)		
	Impulse current	110VAC 20A 220VAC 40A		
	Leakage current	≤1mA 240VAC		
Protection characteristics	Overload protection	≥ 105% - 150% type: protection mode: hiccup mode automatic recovery after abnormal conditions are removed		
	Short circuit protection	+VO drops to the undervoltage point, closes, and automatically recovers after the abnormal output condition is removed		
Environment	Operating temperature、humidity	-10℃~-50℃； 20%~90RH		
	Storage temperature、humidity	-20℃~-85℃； 10%~95RH		
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute		
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ		
Other	Size	55.5*100*125.2mm(L*W*H)		
	Net weight/gross weight	600g/650g		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25℃. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5℃/1000 meters.			

Type	DR-75		
DC voltage	12V	24V	48V
Rated current	6.3A	3.1A	1.5A
Rated power	76W	76W	76W
Start up time	1800ms, 60ms, 12ms : 110VAC/100ms, 60ms, 60ms : 220VAC		
Efficiency (typical) ②	>86%	>86%	>86%
Operating current	<1.2A 110VAC <0.8A 220VAC		

Type	DR-120		
DC voltage	12V	24V	48V
Rated current	10A	5A	2.5A
Rated power	120W	120W	120W
Start up time	500ms, 70ms, 32ms : 110VAC/500ms, 70ms, 36ms : 220VAC		
Efficiency (typical) ②	>86%	>88%	>90%
Operating current	<2.6A 110VAC <1.6A 220VAC		

Technical parameter

Type		Technical indicators	
Output	DC voltage	24V	48V
	Ripple and noise ①	<120mV	<240mV
	Voltage accuracy	±1%	±1%
	Voltage regulation range		±10%
	Load adjustment rate		±1%
	Linear adjustment rate		±0.5%
Input	Efficiency (typical) ②	>84%	>86%
	Impulse current	110VAC 18A	220VAC 50A
	Leakage current	<1.5mA/240VAC	
Protection characteristics	Overload protection	≥ 105% - 150% type: protection mode: hiccup mode automatic recovery after abnormal conditions are removed	
	Overvoltage protection	When the output voltage is greater than 135%, the shutdown output will automatically recover after the abnormal condition is removed	
	Short circuit protection	+VO drops to the undervoltage point and the output is closed After the abnormal condition is removed, the power supply restarts and the automatic recovery is resumed	
	Over temperature protection	>85° turn off output after the temperature drops, the power supply is restarted and restored	
Environment	Operating temperature、humidity	-10°C~+50°C； 20%~90RH	
	Storage temperature、humidity	-20°C~+85°C； 10%~95RH	
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute	
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ	
Other	Size	125.5*100*125.2mm(L*W*H)	
	Net weight/gross weight	1200g/1230g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

Type	DR-240	
DC voltage	24V	48V
Rated current	10A	5A
Rated power	240W	240W
Start up time	85-264VAC 47Hz~63Hz (120VDC~370VDC)	
Efficiency (typical) ②	2000ms, 30ms, 20ms : 220VAC/1200ms, 30ms, 10ms : 115VAC	
Operating current	<4A 110VAC <2.5A 220VAC	

Type	DR-480	
DC voltage	24V	48V
Rated current	20A	10A
Rated power	480W	480W
Start up time	180-264VAC 47Hz~63Hz (120VDC~370VDC)	
Efficiency (typical) ②	3000ms, 100ms, 22ms : 110VAC/1500ms, 1000ms, 28ms : 220VAC	
Operating current	<7.5A 110VAC <4.5A 220VAC	

NDR/EDR-75/120

DIN RAIL TYPE SWITCH
POWER SUPPLY

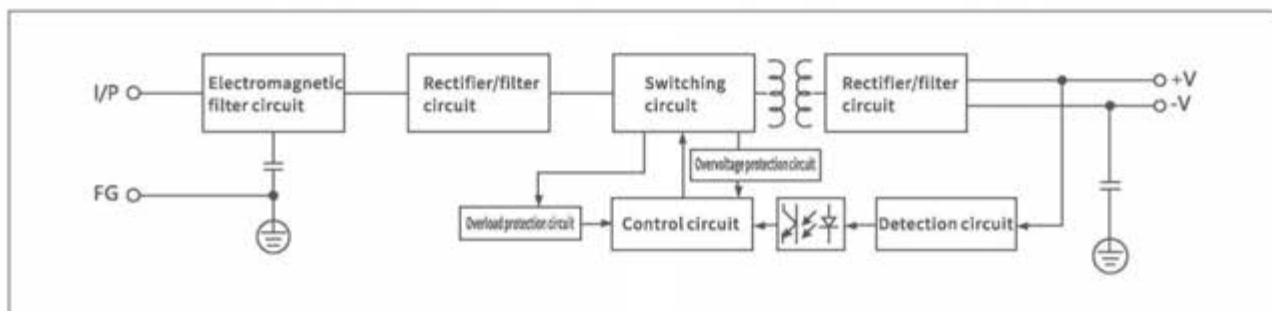


Product overview

The NDR/EDR-75, 120 series is a 75, 120W single group output enclosed power supply with a full range of AC inputs from 85 to 264VAC. The entire series provides 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 90%, the design of the metal mesh enclosure enhances the heat dissipation capability, allowing the NDR/EDR-75, 120 to operate in the temperature range of -10 °C to +60 °C without a fan. Making it easy for the terminal system to meet international energy requirements. NDR/EDR-75, 120 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16.

Principle diagram



Technical parameter

Type		Technical indicators		
Output	DC voltage	12V	24V	48V
	Rated current	10A	5A	2.5A
	Rated power	120W	120W	120W
	Ripple and noise ①	<120MV	<120MV	<150MV
	Voltage accuracy	±2%	±1%	±1%
	Voltage regulation range	±10%		
	Load adjustment rate	±1%		
	Linear adjustment rate	±0.5%		
Input	Voltage range	85-264VAC 47Hz~63Hz (120VDC~370VDC: By connection AC/L(+), AC/N(-)-enables DC input)		
	Efficiency (typical) ②	>86%	>88%	>89%
	Operating current	<2.25A 110VAC <1.3A 220VAC		
	Impulse current	110VAC 20A, 220VAC 35A		
	Start up time	500ms、70ms、32ms : 110VAC/500ms、70ms、36ms : 220VAC		
	Leakage current	<1mA 240VAC		
Protection characteristics	Overload protection	≥ 105% - 150% type: protection mode: hiccup mode automatic recovery after abnormal conditions are removed		
	Overvoltage protection	When the output voltage is greater than 135%, the shutdown output will automatically recover after the abnormal condition is removed		
	Short circuit protection	+VO drops to the undervoltage point and the output is closed After the abnormal condition is removed, the power supply restarts and the automatic recovery is resumed		
Environment	Operating temperature、humidity	-10°C~+60°C; 20%~90RH		
	Storage temperature、humidity	-20°C~+85°C; 10%~95RH		
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute		
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ		
Other	Size	40*125*113mm(L*W*H)		
	Net weight/gross weight	707g/750g		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.			

Technical parameter

Type		Technical indicators		
Output	DC voltage	12V	24V	48V
	Rated current	10A	5A	2.5A
	Rated power	120W	120W	120W
	Ripple and noise ①	<120MV	<120MV	<150MV
	Voltage accuracy	±2%	±1%	±1%
	Voltage regulation range	±10%		
	Load adjustment rate	±1%		
	Linear adjustment rate	±0.5%		
Input	Voltage range	85-264VAC 47Hz~63Hz (120VDC~370VDC: By connection AC/L(+), AC/N(-)enables DC input)		
	Efficiency (typical) ②	>86%	>88%	>89%
	Operating current	<2.25A 110VAC <1.3A 220VAC		
	Impulse current	110VAC 20A, 220VAC 35A		
	Start up time	500ms、70ms、32ms : 110VAC/500ms、70ms、36ms : 220VAC		
	Leakage current	<1mA 240VAC		
Protection characteristics	Overload protection	≥ 105% - 150% type: protection mode: hiccup mode automatic recovery after abnormal conditions are removed		
	Overvoltage protection	When the output voltage is greater than 135%, the shutdown output will automatically recover after the abnormal condition is removed		
	Short circuit protection	+VO drops to the undervoltage point and the output is closed After the abnormal condition is removed, the power supply restarts and the automatic recovery is resumed		
Environment	Operating temperature、humidity	-10℃~+60℃; 20%~90RH		
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH		
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute		
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ		
Other	Size	40*125*113mm(L*W*H)		
	Net weight/gross weight	707g/750g		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.			

NDR-240

DIN RAIL TYPE SWITCH POWER SUPPLY

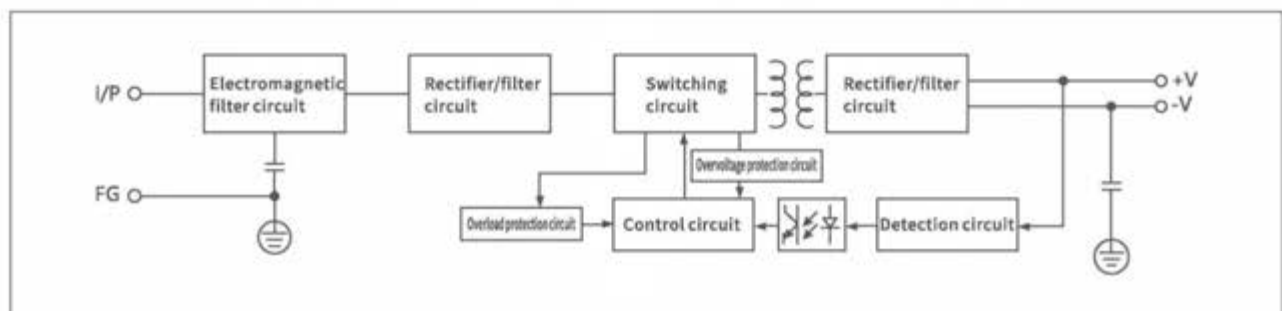


Product overview

The NDR-240 series is a 240W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the metal mesh enclosure enhances the heat dissipation capability, allowing the NDR-240 to operate in the temperature range of -10 °C to +60 °C without a fan. Making it easy for the terminal system to meet international energy requirements. NDR-240 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16.

Principle diagram



Technical parameter

Type		Technical indicators	
Output	DC voltage	24V	48V
	Rated current	10A	5A
	Rated power	240W	240W
	Ripple and noise ①	<150MV	<150MV
	Voltage accuracy	±1%	±1%
	Voltage regulation range	±10%	
	Load adjustment rate	±1%	
	Linear adjustment rate	±0.5%	
Input	Voltage range	85-264VAC 47Hz~63Hz (120VDC~370VDC: By connection AC/L(+), AC/N(-)-enables DC input)	
	Efficiency (typical) ②	>86%	>90%
	Power factor	PF>0.98/115VAC, PF>0.95 /230VAC	
	Operating current	<2.25A 110VAC <1.3A 220VAC	
	Impulse current	110VAC 20A, 220VAC 35A	
	Start up time	3000ms、100ms、22ms : 110VAC/1500ms、100ms、28ms: 220VAC	
	Leakage current	<1mA 240VAC	
Protection characteristics	Overload protection	≥ 105% - 150% type: protection mode: hiccup mode automatic recovery after abnormal conditions are removed	
	Overvoltage protection	When the output voltage is greater than 135%, the shutdown output will automatically recover after the abnormal condition is removed	
	Short circuit protection	+VO drops to the undervoltage point and the output is closed After the abnormal condition is removed, the power supply restarts and the automatic recovery is resumed	
	Over temperature protection	>85°turn off the output and recover after the power is restarted after the temperature drops	
Environment	Operating temperature、humidity	-10°C~-+60°C; 20%~90RH	
	Storage temperature、humidity	-20°C~-+85°C; 10%~95RH	
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute	
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ	
Other	Size	63*125*113mm(L*W*H)	
	Net weight/gross weight	1000g/1100g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

DIN RAIL TYPE SWITCH POWER SUPPLY

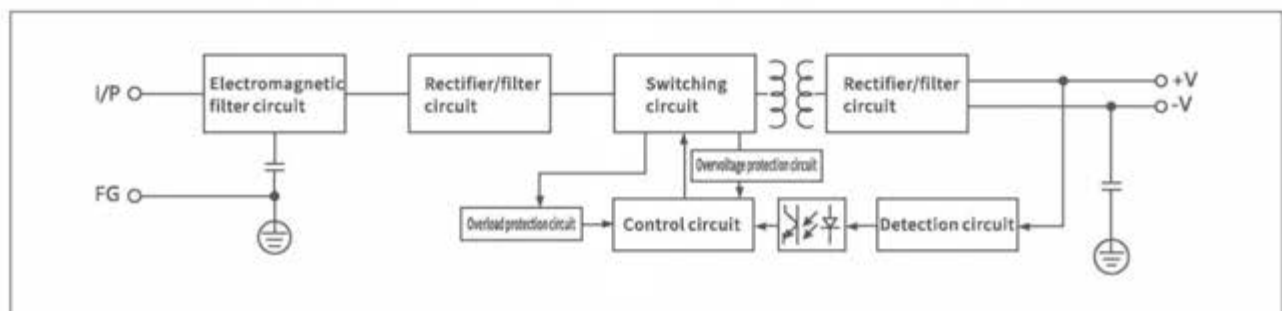


Product overview

The NDR-480 series is a 480W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the metal mesh enclosure enhances the heat dissipation capability, allowing the NDR-480 to operate in the temperature range of -10 °C to +60 °C without a fan. Making it easy for the terminal system to meet international energy requirements. NDR-480 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16.

Principle diagram



Technical parameter

Type	Technical indicators			
Output	DC voltage	12V	24V	48V
	Rated current	40A	20A	10A
	Rated power	480W	480W	480W
	Ripple and noise ①	<120MV	<120MV	<150MV
	Voltage accuracy	±2%	±1%	±1%
	Voltage regulation range	±10%		
	Load adjustment rate	±1%		
	Linear adjustment rate	±0.5%		
Input	Voltage range	85-264VAC 47hz-63hz (120vdc-370vdc: DC input can be realized by connecting AC / L +, AC / N (-))		
	Efficiency (typical) ②	>86%	>88%	>89%
	Working current	<2.25A 110VAC <1.3A 220VAC		
	Impulse current	110VAC 20A, 220VAC 35A		
	Start up time	500ms、70ms、32ms : 110VAC/500ms、70ms、36ms : 220VAC		
	Leakage current	<1mA 240VAC		
Protection characteristics	Overload protection	105% - 150% type: protection mode: automatic recovery after removing the abnormal condition of constant current mode		
	Overvoltage protection	When the output voltage is more than 135%, the output will be turned off. It will recover automatically after the abnormal conditions are removed		
	Short circuit protection	+VO When the abnormal condition of output is released, it will recover automatically		
Environment	Operating temperature、humidity	-10℃~+60℃; 20%~90RH		
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH		
Security	Withstand voltage	Input output: 3kVac input ground: 1.5kVac output ground: 0.5kvac for 1 minute		
	Isolation resistance	Input output, input shell, output shell: 500VDC / 100M Ω		
Other	size	85*125*128.5mm(L*W*H)		
	Net weight / gross weight	1300/1500g		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.			

RUBBER-FILLED RAINPROOF POWER SUPPLY

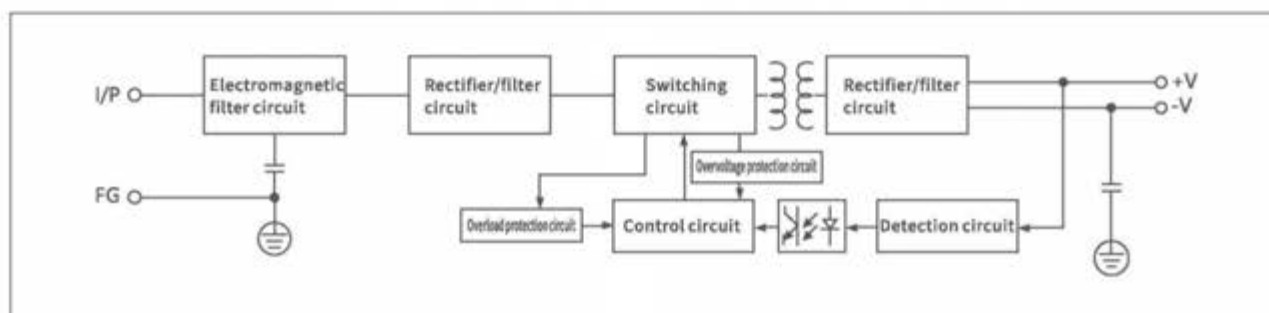


Product overview

The RPS-350, 400 series is a 350, 400W single group output enclosed power supply that uses a full range of 180 to 264VAC AC inputs. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V outputs.

In addition to an efficiency of up to 88%, the design of the metal mesh enclosure enhances heat dissipation capabilities, making the RPS-350, 400 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. RPS-350, 400 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

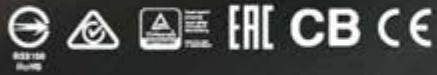
Type		Technical indicators			
Output	DC voltage	5V	12V	24V	48V
	Ripple and noise ①	<75mV	<150mV	<150mV	<240mV
	Voltage regulation range	±10%			
	Voltage accuracy	±1.0%			
	Linear adjustment rate	<±1%			
	Load adjustment rate	<±1.5%	<±1.2%	<±1%	<±0.5%
Input	Start up time	1500ms、200ms、20ms：230VAC			
	Leakage current	<1mA 240VAC			
	Voltage range/frequency	180-264VAC 47Hz~63Hz；254VDC~370VDC			
	Efficiency (typical) ②	>78%	>81%	>83%	>84%
	Impulse current	220VAC：45A			
Protection characteristics	Overload protection	≥ 105% - 150% type: protection mode: hiccup mode automatic recovery after abnormal conditions are removed			
	Short circuit protection	Close output: Reset: Power on again			
Environment	Operating temperature、humidity	-10℃~-+50℃；20%~90RH			
	Storage temperature、humidity	-20℃~-+85℃；10%~95RH			
Security	Withstand voltage	Input - output：1.5KVAC input - case：1.5KVAC output - case: 0.5KVAC duration:1 minute			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	196*118*55mm(L*W*H)			
	Net weight/gross weight	750g/800g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25℃. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5℃/1000 meters.				

Type	RPS-350			
DC voltage	5V	12V	24V	48V
Rated current	50A	29A	14.6A	7.3A
Rated power	250W	348W	350.4W	350.4W
Operating current	4A/230VAC			

Type	RPS-400			
DC voltage	5V	12V	24V	48V
Rated current	55A	33.3A	16.6A	8.3A
Rated power	275W	399.6W	399.6W	398.4W
Operating current	5A/230VAC			

ERP-350

SEMI-FILLED SINGLE-GROUP SWITCHING POWER SUPPLY

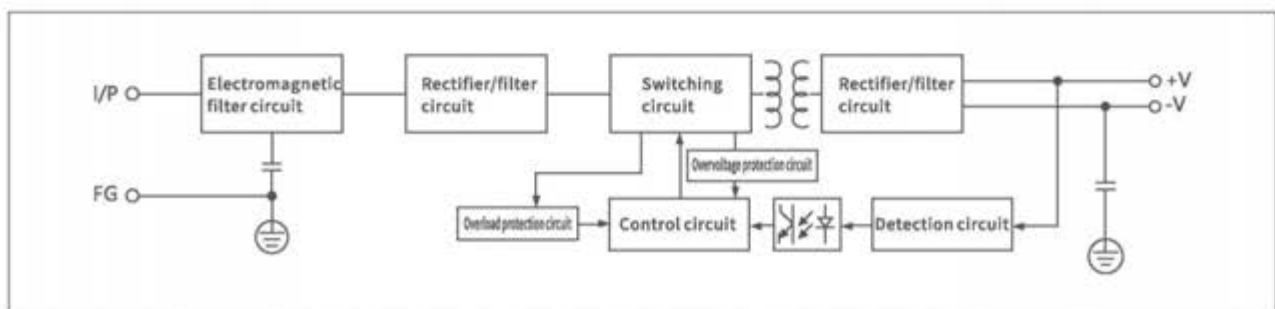


Product overview

The ERP-350 series is a 350W single group output enclosed power supply that uses a full range of 180 to 264VAC AC inputs. The entire series provides 5V、12V、15V、24V、36V and 48V outputs.

In addition to the efficiency of up to 91.5%, the design of the metal mesh enclosure enhances heat dissipation capabilities, making the ERP-350 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. ERP-350 has complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1、EN60335-1、EN61558-1/- 2-16

Principle diagram



Technical parameter

Type		Technical indicators			
Output	DC voltage	12V	24V	36V	48V
	Rated current	26.7A	14.6A	9.7A	7.3A
	Rated power	320.4W	350.4W	349.2W	350.4W
	Ripple and noise ①	<150mV	<150mV	<240mV	<240mV
	Voltage accuracy	±1%			
	Voltage regulation range	±10%			
	Load adjustment rate	±0.5%			
	Linear adjustment rate	±0.5%			
Input	Voltage range	180-264VAC 47Hz~63Hz; 254VDC~370VDC			
	Efficiency (typical) ②	>87%	>89%	>90%	>90%
	Operating current	4A/230VAC			
	Impulse current	220VAC: 50A			
	Start up time	1500ms、200ms、20ms: 230VAC			
	Leakage current	≤1mA 240VAC			
Protection characteristics	Overload protection	When the rated output power is ≥ 105% - 135%: protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions			
	Overvoltage protection	When the output voltage is ≥ 115% - 145%: protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions			
	Short circuit protection	Turn off output: protection mode: hiccup mode, which can be automatically Restored after removing abnormal conditions			
	Over temperature protection	Turn off the output: it can automatically recover when the temperature drops			
Environment	Operating temperature、humidity	-30℃~-+60℃; 20%~90RH			
	Storage temperature、humidity	-30℃~-+85℃; 10%~95RH			
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	220.4*130*48mm(L*W*H)			
	Net weight/gross weight	900g/1200g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25℃. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5℃/1000 meters.				

MDR-10/20

DIN RAIL TYPE SWITCH POWER SUPPLY

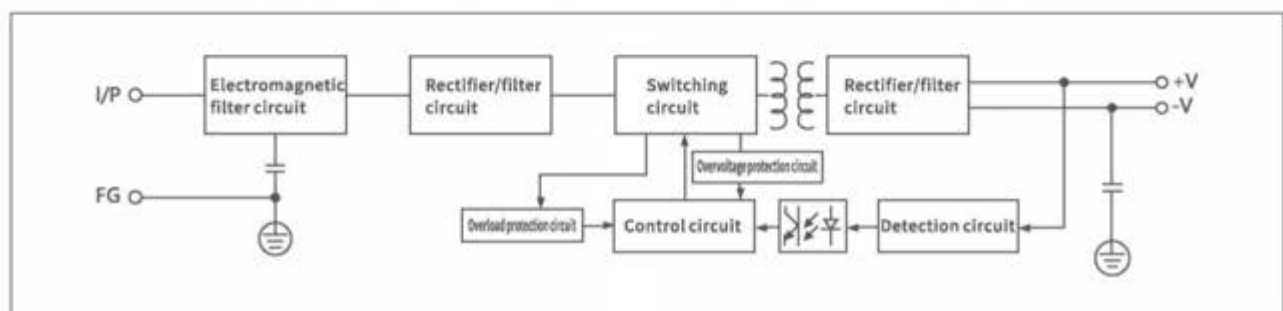


Product overview

The MDR-10、20 series is a 10、20W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V、12V、15V、24V、36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the environmentally friendly flame-retardant housing enhances the heat dissipation ability, allowing the MDR-10、20 to operate in the temperature range of -20 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The MDR-10、20 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators			
Output	DC voltage	5V	12V	15V	24V
	Ripple and noise ①	<80mV	<120mV	<120mV	<150mV
	Voltage regulation range	±10%			
	Linear adjustment rate	±1%			
	Load adjustment rate	±5%	±3%	±3%	±2%
Input	Start up time	1000ms、30ms、25ms：110VAC		500ms、30ms、120ms：220VAC	
	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)			
	Efficiency (typical) ②	>77%	>81%	>81%	>84%
	Impulse current	110VAC 35A， 220VAC 70A			
Protection characteristics	Overload protection	When the rated output power is ≥ 105% - 135%: protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions			
	Overvoltage protection	When the output voltage is greater than 135%, the shutdown output will automatically recover after the abnormal condition is removed			
Environment	Operating temperature、humidity	-20℃~-+70℃; 20%~90RH			
	Storage temperature、humidity	-40℃~-+85℃; 10%~95RH			
Security	Withstand voltage	Input-output: 3KVAC			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	22.5*90*100mm(L*W*H)			
	Net weight/gross weight	170g/185g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

Type	MDR-10			
DC voltage	5V	12V	15V	24V
Rated current	2A	0.84A	0.67A	0.42A
Rated power	10W	10W	10W	10W
Voltage accuracy	±5%	±1%	±1%	±1%
Operating current	0.33A/110VAC 0.21A/230VAC			

Type	MDR-20			
DC voltage	5V	12V	15V	24V
Rated current	3A	1.67A	1.34A	1A
Rated power	15W	20W	20W	24W
Voltage accuracy	±2%	±1%	±1%	±1%
Operating current	0.55A/110VAC 0.35A/230VAC			

MDR-40/60

DIN RAIL TYPE SWITCH POWER SUPPLY

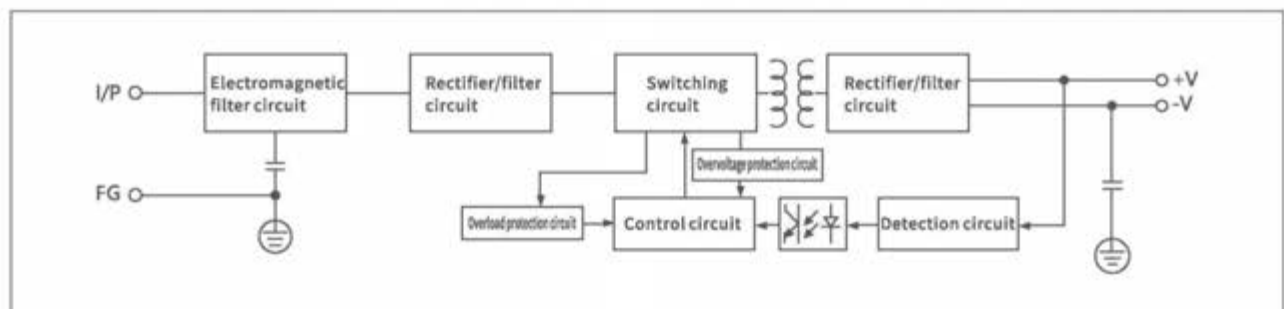


Product overview

The MDR-40, 60 series is a 40, 60W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the environmentally friendly flame-retardant housing enhances the heat dissipation ability, allowing the MDR-40, 60 to operate in the temperature range of -20 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The MDR-40, 60 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators				
Output	DC voltage	5V	12V	15V	24V
	Ripple and noise ①	<80mV	<120mV	<120mV	<200mV
	Voltage regulation range	±10%			
	Linear adjustment rate	±1%			
	Load adjustment rate	±1%	±1%	±1%	±1%
Input	Start up time	500ms、30ms、25ms：110VAC		500ms、30ms、120ms：220VAC	
	Voltage range/frequency	85-264VAC 47Hz~63Hz (120VDC~370VDC)			
	Efficiency (typical) ②	>78%	>86%	>88%	>88%
	Impulse current	110VAC 35A， 220VAC 70A			
Protection characteristics	Overload protection	When the rated output power is ≥ 105%- 135%: protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions			
	Overvoltage protection	When the output voltage is greater than 135%, the shutdown output will automatically recover after the abnormal condition is removed			
Environment	Operating temperature、humidity	-20℃~-+70℃; 20%~90RH			
	Storage temperature、humidity	-40℃~-+85℃; 10%~95RH			
Security	Withstand voltage	Input-output: 3KVAC duration: 1 minute			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	40*90*100mm(L*W*H)			
	Net weight/gross weight	300g/325g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

Type	MDR-40			
DC voltage	5V	12V	24V	48V
Rated current	6A	3.3A	1.7A	0.83A
Rated power	30W	40W	40.8W	39.8W
Voltage accuracy	±2%	±1%	±1%	±1%
Operating current	1.1A/110VAC 0.7A/220VAC			

Type	MDR-60			
DC voltage	5V	12V	24V	48V
Rated current	10A	5A	2.5A	1.25A
Rated power	50W	60W	60W	60W
Voltage accuracy	±2%	±1%	±1%	±1%
Operating current	1.8A/110VAC 1A/230VAC			

MDR-100

DIN RAIL TYPE SWITCH POWER SUPPLY

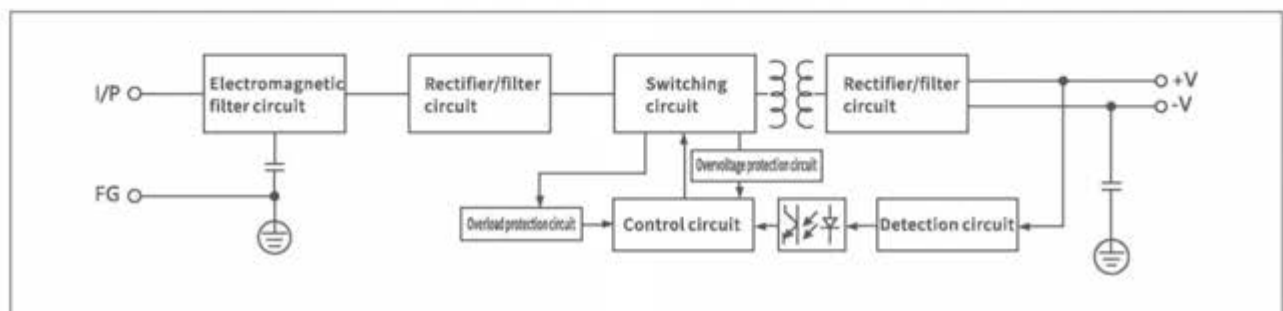


Product overview

The MDR-100 series is a 100W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the environmentally friendly flame-retardant housing enhances the heat dissipation ability, allowing the MDR-100 to operate in the temperature range of -20 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The MDR-100 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators		
Output	DC voltage	12V	24V	48V
	Rated current	7.5A	4A	2A
	Rated power	90W	96W	96W
	Ripple and noise ①	<120mV	<150mV	<200mV
	Voltage accuracy	±1%	±1%	±1%
	Voltage regulation range	±10%		
	Load adjustment rate	±1%	±1%	±1%
	Linear adjustment rate	±1%		
Input	Voltage range	85-264VAC 47Hz~63Hz (120VDC~370VDC)		
	Power factor	PF≥0.95/230VAC PF≥0.98/115VAC (full load)		
	Efficiency (typical) ②	>83%	>86%	>87%
	Operating current	<1.3A 110VAC <0.8A 220VAC		
	Impulse current	110VAC 35A, 220VAC 70A		
	Start up time	3000ms、50ms、20ms：110VAC 3000ms、50ms、50ms：220VAC		
Protection characteristics	Overload protection	When the rated output power is ≥ 105% - 150%: protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions		
	Overvoltage protection	When the output voltage is greater than 135%, the shutdown output will automatically recover after the abnormal condition is removed		
	Over temperature protection	> 85° turn off the output and recover after the power is restarted after the temperature drops		
Environment	Operating temperature、humidity	-20℃~+70℃; 20%~90RH		
	Storage temperature、humidity	-40℃~+85℃; 10%~95RH		
Security	Withstand voltage	Input-output: 3KVAC duration: 1 minute		
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ		
Other	Size	55*90*100mm(L*W*H)		
	Net weight/gross weight	420kg/450kg		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25℃. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5℃/1000 meters.			

HDR-15

DIN RAIL TYPE SWITCH POWER SUPPLY

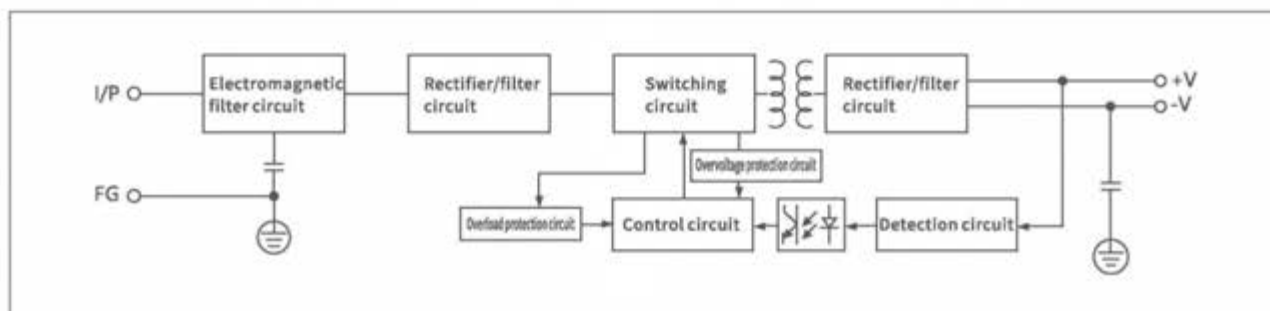


Product overview

The HDR-15 series is a 15W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the environmentally friendly flame-retardant housing enhances the heat dissipation ability, allowing the HDR-15 to operate in the temperature range of -20 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The HDR-15 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	15V	24V	48V
	Rated current	2.4A	1.25A	1A	0.63A	0.32A
	Current range	0~2.4A	0~1.25A	0~1A	0~0.63A	0~0.32A
	Rated power	12W	15W	15W	15.2W	15.4W
	Ripple & noise (max.)	80mV	120mV	120mV	150mV	240mV
	Voltage adj. Range	4.5~5.5V	10.8~13.8V	13.5~18V	21.6~29V	43.2~55.2V
	Voltage tolerance	±2%	±1%	±1%	±1%	±1%
	Line regulation	±1%	±1%	±1%	±1%	±1%
	Load regulation	±1%	±1%	±1%	±1%	±1%
	Set up, rise time	2000ms, 80ms/230VAC 2000ms, 80ms/115VAC at full load				
	Hold up time (typ.)	30ms/230VAC 12ms/115VAC at full load				
Input	Voltage range	85~264VAC(277VAC operational) 120~370VDC(390VDC operational)				
	Frequency range	47 ~ 63Hz				
	Efficiency (typ.)	80%	85%	85.5%	86%	87%
	Ac current (typ.)	0.5A/115VAC 0.25A/230VAC				
	Inrush current (typ.)	Cold start 25A/115VAC 45A/230VAC				
Protection characteristics	Overload	115 ~ 145% rated output power				
		Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed. Constant current limiting within 50% ~100% rated output voltage, recovers automatically after fault condition is removed.				
	Over voltage	5.75~6.75V	14.2~16.2V	18.8~22.5V	30~36V	56.5~64.8V
Environment	Protection type : Shutdown o/p voltage, re-power on to recover					
	Working temp.	-30~+70°C (Refer to "Derating Curve")				
	Working humidity	20~90% RH non-condensing				
	Storage temp., humidity	-40~+85°C, 10~95% RH non-condensing				
	Temp. Coefficient	±0.03%/°C(0~45°C)RH non-condensing				
	Vibration	10~500Hz, 2G 10min./1cycle, period for 60min. each along X,Y, Z axes; Mounting: Compliance to IEC60068-2-6				
Safety	Operating altitude	2000 meters				
	Withstand voltage	I/P-O/P:4KVAC				
Other	Isolation resistance	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH				
	MTBF	3046.3K hrs min. Telcordia SR-332 (Bellcore) ; 535.9K hrs min. MIL-HDBK-217F (25°C)				
	Dimension	17.5*54.5*90mm(L*W*H)				
	Packing	74g;160pcs/12.9kg/1.09CUFT				

HDR-30

DIN RAIL TYPE SWITCH POWER SUPPLY

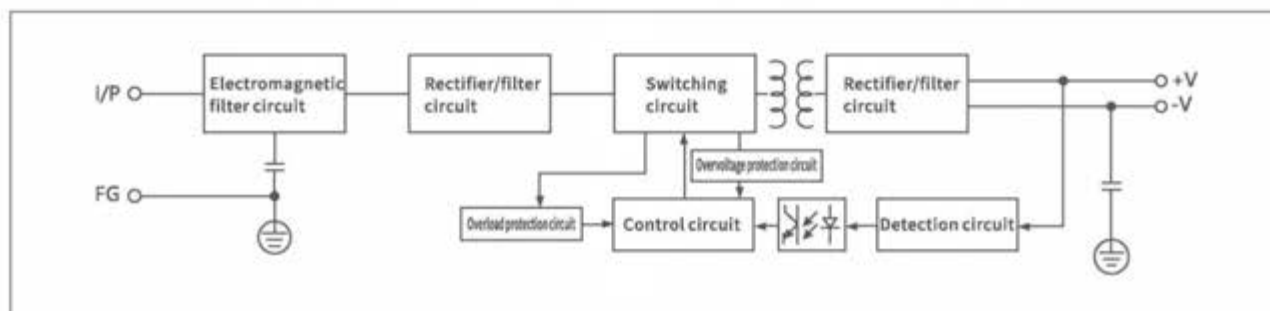


Product overview

The HDR-30 series is a 30W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the environmentally friendly flame-retardant housing enhances the heat dissipation ability, allowing the HDR-30 to operate in the temperature range of -20 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The HDR-30 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators						
Output	DC voltage	5V	12V	15V	24V	48V	
	Rated current	3A	2A	2A	1.5A	0.75A	
	Current range	0~3A	0~2A	0~2A	0~1.5A	0~75A	
	Rated power	15W	24W	30W	36W	36W	
	Ripple & noise (max.)	80mV	120mV	120mV	150mV	240mV	
	Voltage adj. Range	4.5~5.5V	10.8~13.8V	13.5~18V	21.6~29V	43.2~55.2V	
	Voltage tolerance	±2%	±1%	±1%	±1%	±1%	
	Line regulation	±1%	±1%	±1%	±1%	±1%	
	Load regulation	±1%	±1%	±1%	±1%	±1%	
	Set up, rise time	500ms, 50ms/230VAC 500ms, 50ms/115VAC at full load					
	Hold up time (typ.)	30ms/230VAC 12ms/115VAC at full load					
Input	Voltage range	85~264VAC(277VAC operational) 120~370VDC(390VDC operational)					
	Frequency range	47 ~ 63Hz					
	Efficiency (typ.)	82%	88%	89%	89%	90%	
	Ac current (typ.)	0.88A/115VAC 0.48A/230VAC					
	Inrush current (typ.)	Cold start 25A/115VAC 45A/230VAC					
Protection characteristics	Overload	105 ~ 160% rated output power					
		Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed. Constant current limiting within 50% ~100% rated output voltage, recovers automatically after fault condition is removed.					
	Over voltage	5.75~7.5V	15~18V	18.8~22.5V	30~36V	57.6~67.2V	
Environment	Protection type : Shutdown o/p voltage, re-power on to recover						
	Working temp.	-30~+70°C (Refer to "Derating Curve")					
	Working humidity	20~90% RH non-condensing					
	Storage temp., humidity	-40~+85°C, 10~95% RH non-condensing					
	Temp. Coefficient	±0.03%/°C(0~45°C)RH non-condensing					
	Vibration	10~500Hz, 2G 10min./1cycle, period for 60min. each along X,Y, Z axes; Mounting: Compliance to IEC60068-2-6					
Safety	Operating altitude	2000 meters					
	Withstand voltage	I/P-O/P:4KVAC					
Other	Isolation resistance	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH					
	MTBF	3046.3K hrs min. Telcordia SR-332 (Bellcore) ; 535.9K hrs min. MIL-HDBK-217F (25°C)					
	Dimension	35*54.5*90mm(L*W*H)					
	Packing	0.13kg;96pcs/14.2kg/1.04CUFT					

HDR-60

DIN RAIL TYPE SWITCH POWER SUPPLY

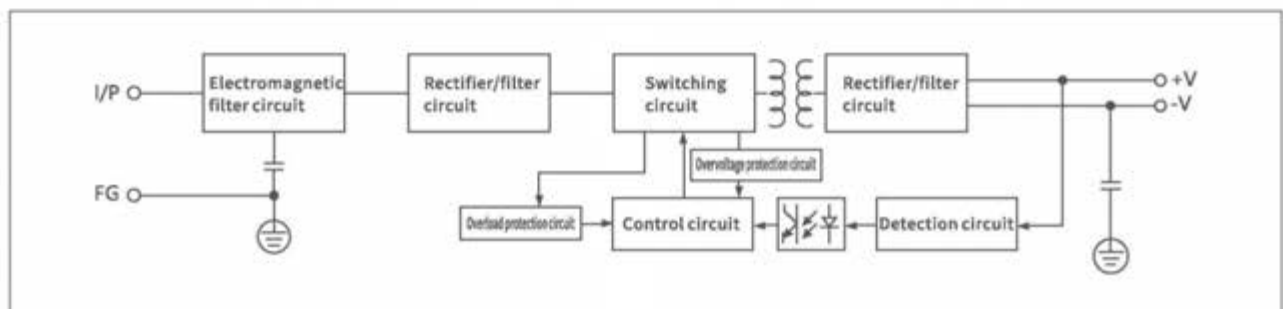


Product overview

The HDR-60 series is a 60W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the environmentally friendly flame-retardant housing enhances the heat dissipation ability, allowing the HDR-60 to operate in the temperature range of -20 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The HDR-60 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators				
Output	DC voltage	5V	12V	15V	24V	48V
	Rated current	6.5A	4.5A	4A	2.5A	1.25A
	Current range	0~6.5A	0~4.5A	0~4A	0~2.5A	0~1.25A
	Rated power	32.5W	54W	60W	60W	60W
	Ripple & noise (max.)	80mV	120mV	120mVp-p	150mVp-p	240mVp-p
	Voltage adj. Range	5.0~5.5V	10.8~13.8V	13.5~18V	21.6~29V	43.2~55.2V
	Voltage tolerance	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Line regulation	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Load regulation	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	Set up, rise time	500ms, 50ms/230VAC 500ms, 50ms/115VAC at full load				
	Hold up time (typ.)	30ms/230VAC 12ms/115VAC at full load				
Input	Voltage range	85~264VAC(277VAC operational) 120~370VDC(390VDC operational)				
	Frequency range	47 ~ 63Hz				
	Efficiency (typ.)	85%	88%	89%	90%	91%
	Ac current (typ.)	1.2A/115VAC 0.8A/230VAC				
	Inrush current (typ.)	Cold start 30A/115VAC 60A/230VAC				
Protection characteristics	Overload	105 ~ 160% rated output power				
		Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed. Constant current limiting within 50% ~100% rated output voltage, recovers automatically after fault condition is removed.				
	Over voltage	5.75~6.75V	14.2~16.2V	18.8~22.5V	30~36V	56.5~64.8V
Environment	Protection type : Shutdown o/p voltage, re-power on to recover					
	Working temp.	-30~+70°C (Refer to "Derating Curve")				
	Working humidity	20~90% RH non-condensing				
	Storage temp., humidity	-40~+85°C, 10~95% RH non-condensing				
	Temp. Coefficient	±0.03%/°C(0~45°C)RH non-condensing				
	Vibration	10~500Hz, 2G 10min./1cycle, period for 60min. each along X,Y, Z axes; Mounting: Compliance to IEC60068-2-6				
Safety	Operating altitude	2000 meters				
	Withstand voltage	I/P-O/P:4KVAC				
Other	Isolation resistance	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH				
	MTBF	3524.8K hrs min. Telcordia SR-332 (Bellcore) ; 927.6K hrs min. MIL-HDBK-217F (25°C)				
	Dimension	52.5*90*54.5mm(L*W*H)				
	Packing	190g;60pcs/13kg/0.91CUFT				

HDR-100

DIN RAIL TYPE SWITCH POWER SUPPLY

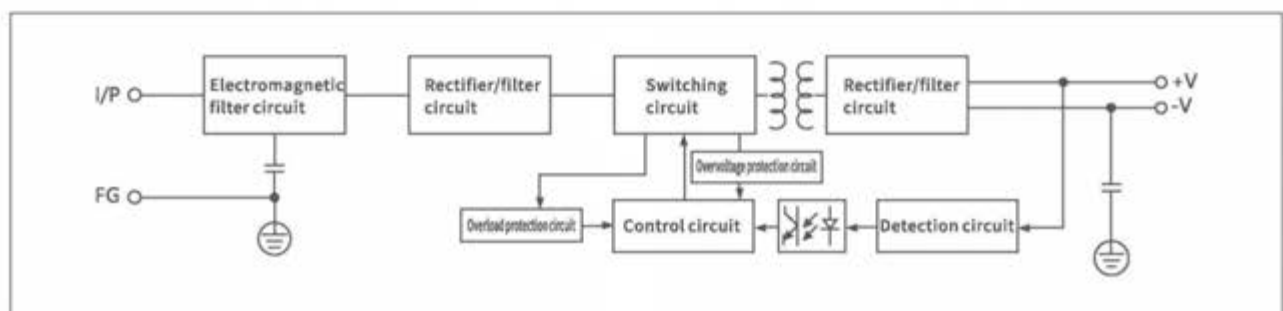


Product overview

The HDR-100 series is a 100W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the environmentally friendly flame-retardant housing enhances the heat dissipation ability, allowing the HDR-100 to operate in the temperature range of -20 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The HDR-100 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators				
Output	DC voltage	12V	15V	24V	48V
	Rated current	4.5A	6.13A	3.83A	1.92A
	Current range	0~4.5A	0~6.13A	0~3.83A	0~1.92A
	Rated power	54W	92W	92W	92.2W
	Ripple & noise (max.)	120mV	120mVp-p	150mVp-p	240mVp-p
	Voltage adj. Range	10.8~13.8V	15~17V	24~25.5V	48~48.7V
	Voltage tolerance	±1.0%	±1.0%	±1.0%	±1.0%
	Line regulation	±1.0%	±1.0%	±1.0%	±1.0%
	Load regulation	±1.0%	±1.0%	±1.0%	±1.0%
	Set up, rise time	500ms, 60ms/230VAC 500ms, 60ms/115VAC at full load			
	Hold up time (typ.)	30ms/230VAC 12ms/115VAC at full load			
Input	Voltage range	85~264VAC(277VAC operational) 120~370VDC(390VDC operational)			
	Frequency range	47 ~ 63Hz			
	Efficiency (typ.)	88%	89%	90%	90%
	Ac current (typ.)	3A/115VAC 1.6A/230VAC			
	Inrush current (typ.)	Cold start 35A/115VAC 70A/230VAC			
Protection characteristics	Overload	HDR-100:102~110% rated output power; HDR-100-XXN:105~150% rated output power Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed. Constant current limiting within 50% ~100% rated output voltage, recovers automatically after fault condition is removed.			
	Over voltage	14.2~16.2V	18.8~22.5V	30~36V	56.5~64.8V
		Protection type : Shutdown o/p voltage, re-power on to recover			
Environment	Working temp.	-30~+70°C (Refer to "Derating Curve")			
	Working humidity	20~90% RH non-condensing			
	Storage temp., humidity	-40~+85°C, 10~95% RH non-condensing			
	Temp. Coefficient	±0.03%/°C(0~45°C)RH non-condensing			
	Vibration	10~500Hz, 2G 10min./1cycle, period for 60min. each along X,Y, Z axes; Mounting: Compliance to IEC60068-2-6			
	Operating altitude	2000 meters			
Safety	Withstand voltage	I/P-O/P:4KVAC			
	Isolation resistance	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH			
Other	MTBF	3271.9K hrs min. Telcordia SR-332 (Bellcore) ; 856.5K hrs min. MIL-HDBK-217F (25°C)			
	Dimension	70*90*54.5mm(L*W*H)			
	Packing	0.27kg; 48pcs/13.74kg/0.96CUFT			

HDR-150

DIN RAIL TYPE SWITCH POWER SUPPLY

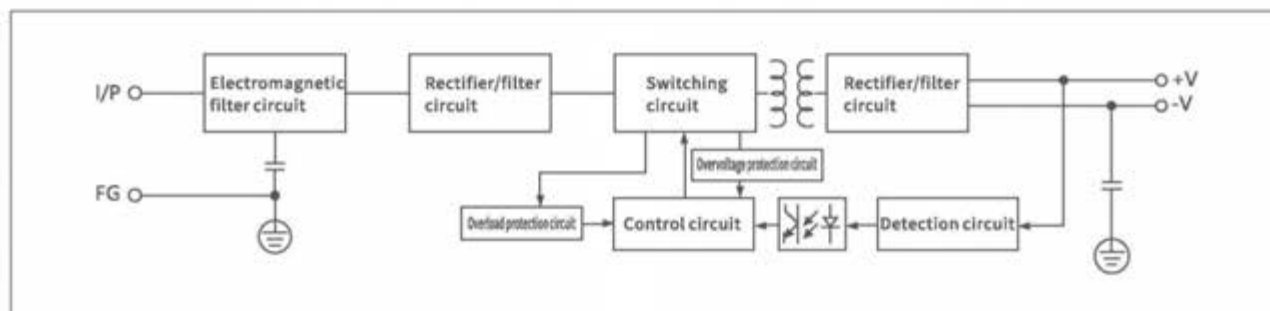


Product overview

The HDR-150 series is a 150W single group output closed type power supply that uses 85 to 264VAC full range AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the environmentally friendly flame-retardant housing enhances the heat dissipation ability, allowing the HDR-150 to operate in the temperature range of -20 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The HDR-150 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators				
Input	DC voltage		12V	15V	24V	48V
	Rated current	115VAC	10.2A	8.55A	5.31A	2.72A
		230VAC	11.3A	9.5A	6.25A	3.2A
	Rated power	115VAC	122.4W	128.3W	127.4W	130.6W
		230VAC	135.6W	142.5W	150W	153.6W
	Ripple & noise (max.)		100mVP-P	120mVP-P	150mVP-P	200mVP-P
Output	Voltage adj. Range		10.8~13.8V	13.5~18V	21.6~29V	43.2~55.2V
	Voltage tolerance		±1%	±1%	±1%	±1%
	Line regulation		±1%	±1%	±1%	±1%
	Load regulation		±1%	±1%	±1%	±1%
	Set up, rise time		500ms, 60ms/230VAC 500ms, 60ms/115VAC at full load			
	Hold up time (typ.)		0ms/230VAC 12ms/115VAC at full load			
Input	Voltage range		85 ~ 264VAC (277VAC operational) 120 ~ 370VDC (390VDC operational)			
	Frequency range		47 ~ 63Hz			
	Efficiency (typ.)		89%	89.5%	90.5%	90.5%
	Ac current (typ.)		3A/115VAC 1.6A/230VAC			
	Inrush current (typ.)		Cold start 35A/115Vac 70A/230Vac			
Protection characteristics	Overload		105 ~ 135% rated output power Hiccup mode when output voltage <50%, recovers automatically after fault condition is removed. Constant current limiting within 50%~100% rated output voltage, recovers automatically after fault condition is removed.			
	Over voltage		14.2~16.2V	18.8~22.5V	30~36V	56.5~64.8V
			Protection type : Shutdown o/p voltage, re-power on to recover			
Environment	Working temp.		-30~+70°C (Refer to "Derating Curve")			
	Working humidity		20~90% RH non-condensing			
	Storage temp., humidity		-40~+85°C, 10~95% RH non-condensing			
	Temp. Coefficient		±0.03%/°C(0~45°C)RH non-condensing			
	Vibration		10~500Hz, 2G 10min./1cycle, period for 60min. each along X,Y, Z axes; Mounting: Compliance to IEC60068-2-6			
	Operating altitude		2000 meters			
Safety	Withstand voltage		I/P-O/P:4KVAC			
	Isolation resistance		I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH			
Other	MTBF		3046.3K hrs min. Telcordia SR-332 (Bellcore) ; 535.9K hrs min. MIL-HDBK-217F (25°C)			
	Dimension		105*54.5*90mm(L*W*H)			
	Packing		0.31Kg; 32pcs/11Kg/1.0CUFT			

WDR-75

DIN RAIL TYPE SWITCH POWER SUPPLY

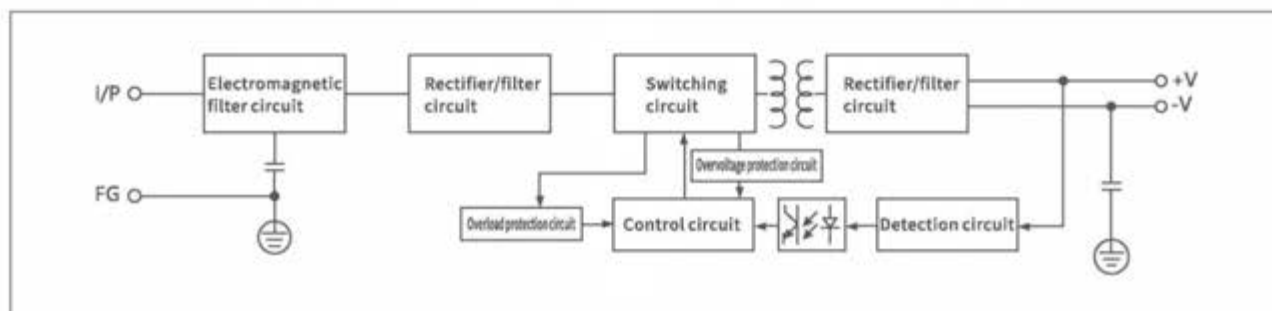


Product overview

The WDR-75 series is a 75W single group output enclosed power supply with a full range of AC inputs from 85 to 264VAC. The entire series provides 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 90%, the design of the metal mesh enclosure enhances the heat dissipation capability, allowing the WDR-75 to operate in the temperature range of -10 °C to +60 °C without a fan. Making it easy for the terminal system to meet international energy requirements. WDR-75 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16.

Principle diagram



Technical parameter

Type		Technical indicators		
Output	DC voltage	12V	24V	48V
	Rated current	6.25A	3.13A	1.56A
	Rated power	75W	75W	75W
	Ripple and noise ①	<120MV	<200MV	<200MV
	Voltage accracy	±1.5%	±1%	±1%
	Output voltage regulation range	±10%		
	Load adjustment rate	±1%		
	Linear adjustment rate	±0.5%		
Input	Voltage range	200~500VAC 47Hz~63Hz (282.8~707VDC)		
	Effhency (typical)②	>86%	>88%	>90%
	Working current	0.4A 400VAC 0.7A 230VAC		
	Impulse cument	Cold start 50A/400VAC 30A/230VAC		
	Start, rise, hold time	1000ms、70ms、20ms：400VAC/2000ms、70ms、10ms：230VAC		
Protection characteristics	Overload protection	105%-150% Type: Protected mode: hiccup mode Automatically recovers after the abnormal condition is removed		
	Short circuit protection	+VO drops to the undervoltage point. the output is off. After the abnormal condition is lifted,the POWER restarts AND automatically recovers		
Environment	Working temperature, humidity	-30℃~+80℃； 20%~90RH		
	Storage temperature, humidity	-40℃~+85℃； 10%~95RH		
Security	Withstand voltage	Input output: 3kVAC input ground: 1.5kVAc output ground: 0.5kVAC for 1 mimute		
	Leakage current	<2mA/500VAC		
	Isolation resistance	Input output, input shell, output shell: 500VDC / 100MΩ		
Other	Size	32*125*97mm(L*W*H)		
	Net weight	330g		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25℃. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5℃/1000 meters.			

WDR-120

DIN RAIL TYPE SWITCH POWER SUPPLY

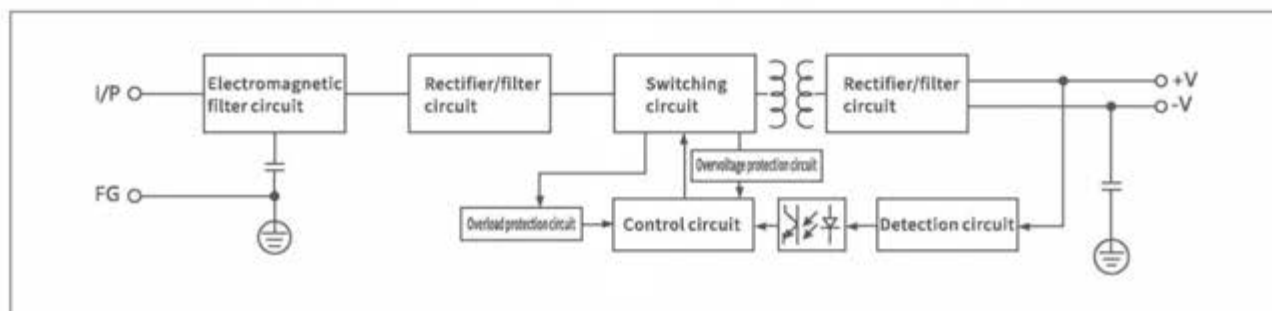


Product overview

The WDR-120 series is a 120W single group output enclosed power supply with a full range of AC inputs from 85 to 264VAC. The entire series provides 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 90%, the design of the metal mesh enclosure enhances the heat dissipation capability, allowing the WDR-120 to operate in the temperature range of -10 °C to +60 °C without a fan. Making it easy for the terminal system to meet international energy requirements. WDR-120 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16.

Principle diagram



Technical parameter

Type		Technical indicators		
Output	DC voltage	12V	24V	48V
	Rated current	10A	5A	2.5A
	Rated power	120W	120W	120W
	Ripple and noise ①	<120MV	<150MV	<200MV
	Voltage accracy	±2%	±1%	±1%
	Output voltage regulation range	±10%		
	Load adjustment rate	±1%		
	Linear adjustment rate	±0.5%		
Input	Voltage range	180-550VAC or 254-780VDC		
	Effhency (typical)②	>86%	>88%	>89%
	Working current	0.7A 400VAC 1.2A 220VAC		
	Impulse cument	400VAC 50A 220VAC 30A		
	Start, rise, hold time	2000ms、70ms、50ms：400VAC/2000ms、70ms、10ms：220VAC		
Protection characteristics	Overload protection	105%- 135% type: protection mode: automatic recovery afer removing the abnormal condition of constant current mode		
	Overvoltage protection	When the output voltage is more than 135%, the output will be turned off it will recover automatically after the abnormal conditions are removed		
Environment	Working temperate and hmdity	-10℃～+60℃；20%～90RH		
	Storage temperature and humidity	-20℃～+85℃；10%～95RH		
Security	Withstand voltage	Input output: 3kVAC input ground: 1.5kVac output ground: 0.5kVAC for 1 minute		
	Leakage current	<1mA/240VAC		
	Isolation resistance	Input output, input shell, output shell: 500VDC / 100MΩ		
Other	Size	40*125.2*113.5mm(L*W*H)		
	Net weight/gross weight	650g/750g		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.			

WDR-240

DIN RAIL TYPE SWITCH POWER SUPPLY

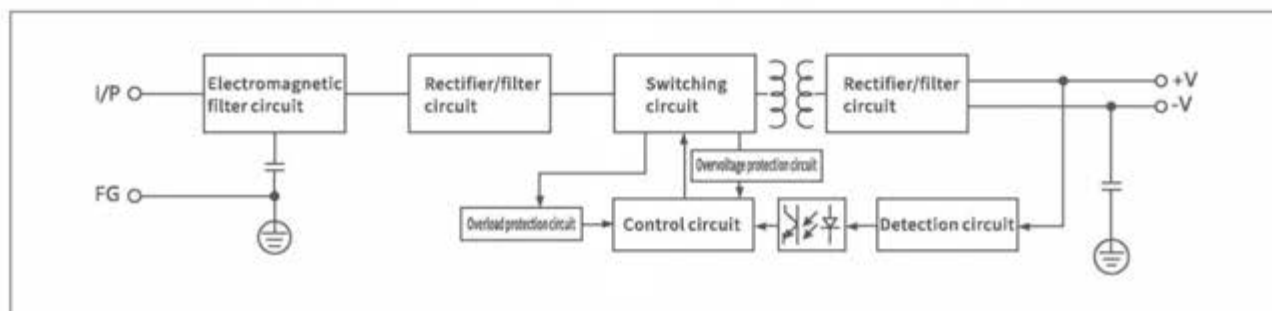


Product overview

The WDR-240 series is a 240W single group output enclosed power supply with a full range of AC inputs from 85 to 264VAC. The entire series provides 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 90%, the design of the metal mesh enclosure enhances the heat dissipation capability, allowing the WDR-240 to operate in the temperature range of -10 °C to +60 °C without a fan. Making it easy for the terminal system to meet international energy requirements. WDR-240 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators	
Output	DC voltage	24V	48V
	Rated current	10A	5A
	Rated power	240W	240W
	Ripple and noise ①	<240MV	<240MV
	Voltage accracy	±1%	±1%
	Output voltage regulation range	±10%	
	Load adjustment rate	±1%	
	Linear adjustment rate	±0.5%	
Input	Voltage range	200~500VAC 47Hz~63Hz (282.8~707VDC)	
	Efhciency (typical)②	>88%	>89%
	Working current	1A 400VAC 2A 230VAC	
	Impulse currennt	Cold start 50A	
	Start, rise, hold time	800ms, 150ms/400VAC 1500ms, 150ms/230VAC	
Protection characteristics	Overload protection	105%-150% Type: Protected mode: hiccup mode Automatically recovers after the abnormal condition is removed	
	Overvoltage protection	When the output voltage is more than 135%, the output will be turned off. After the abnormal condition is removed, the output automatically recovers	
	Short circuit protection	+VO drops to the undervoltage point. the output is off. After the abnormal condition is lifted,the power restarts and automatically recovers	
	Overtemperature protection	The output is off when the temperature is > 85°. After the temperature drops, the power supply restarts and recovers	
Environment	Working temperature, humidity	-30°C~-+80°C; 20%~90RH	
	Storage temperature, humidity	-40°C~-+85°C; 10%~95RH	
Security	Withstand voltage	Input Output:3KVAC input ground:1.5KVAC output ground:0.5KVAC for 1 minute	
	Leakage current	<3.5mA/500VAC	
	Isolation resistance	Input output, input shell, output shell: 500VDC/100MΩ	
Other	Size	63*109*125.2mm(L*W*H)	
	Net weight	660g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

D-30/50/60/120/180

DUAL GROUP SWITCHING POWER SUPPLY

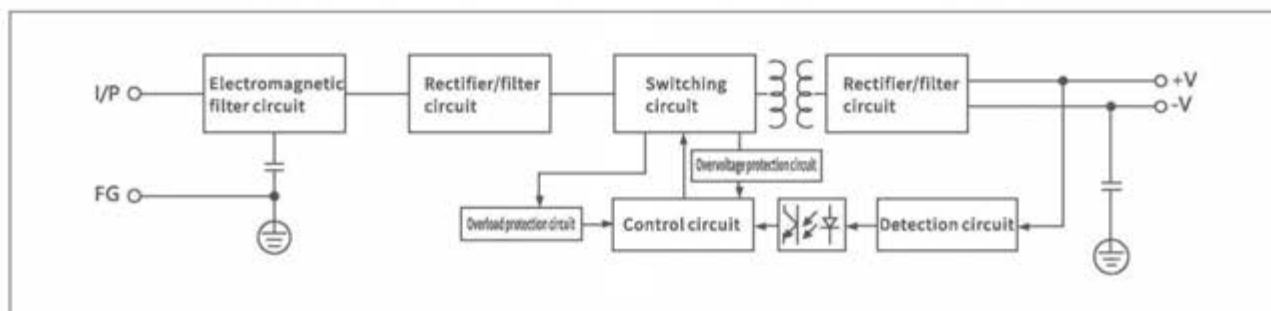


Product overview

The D-30, 50, 60, 120, 180 series is a 30, 50, 60, 120, 180W dual group output closed type power supply, using 110V/220VAC selective AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to the efficiency of up to 91.5%, the design of the metal mesh enclosure enhances the heat dissipation ability, allowing the D-30, 50, 60, 120, 180 to operate in the temperature range of -10 °C to +50 °C without a fan. Making it easy for the terminal system to meet international energy requirements. D-30, 50, 60, 120, 180 have complete protection functions and resistance to 5G vibration; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		D-30A		D-30B	
Output	Output channel	CH1	CH2	CH1	CH2
	Dc voltage	5V	12V	5V	24V
	Rated current	4A	1A	2A	1A
	Current range	0.5-5A	0.1-1.5A	0.5-2A	0.1-1A
	Rated power	32W		35W	
	Ripple and noise ①	<50mV	<120mV	<50mV	<120mV
	Voltage accuracy	±2%	±10%	±2%	±10%
	Voltage regulation range	CH1: ±10%			
	Load adjustment rate	±1.5%	±3.0%	±1.5%	±3.0%
	Linear adjustment rate	±0.5%	±1.0%	±0.5%	±1.0%
Input	Voltage range	85-132VAC/176-264VAC 47Hz~63Hz (254VDC~370VDC)			
	Efficiency (typical) ②	>78%		>81%	
	Operating current	<0.75A 110VAC <0.4A 220VAC			
	Impulse current	110VAC 18A, 220VAC 45A			
	Start up time	500ms、30ms、50ms : 220VAC/1200ms、30ms、10ms : 115VAC			
	Leakage current	≤1mA 240VAC			
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release			
	Short circuit protection	+VO decrease to undervoltage point to close output			
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH			
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH			
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute			
	Leakage current	Input-output 1.5KVAC <5mA			
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ			
Other	Size	129*98*38mm(L*W*H)			
	Net weight/gross weight	400g/430g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

Technical parameter

Type		D-50/60A		D-50/60B		D-50/60C	
Output	Output channel	CH1	CH2	CH1	CH2	CH1	CH2
	Dc voltage	5V	12V	5V	24V	12V	24V
	Ripple and noise ①	<50mV	<120mV	<50mV	<120mV	<120mV	<120mV
	Voltage accuracy	±2%	±10%	±2%	±10%	±1.5%	±10%
	Voltage regulation range	±10%					
	Load adjustment rate	±1.5%	±3.0%	±1.5%	±3.0%	±1.5%	±3.0%
	Linear adjustment rate	±0.5%	±1.0%	±0.5%	±1.0%	±0.5%	±1.0%
Input	Voltage range	85-264VAC 47Hz~63Hz (254VDC~370VDC)					
	Efficiency (typical) ②	>78%		>81%		>81%	
	Operating current	<1.1A 110VAC <0.65A 220VAC					
	Impulse current	110VAC 18A, 220VAC 45A					
	Start, rise, hold time	500ms、30ms、50ms : 220VAC/1200ms、30ms、10ms : 115VAC					
	Leakage current	≤1mA 240VAC					
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release					
	Short circuit protection	+VO decrease to undervoltage point to close output					
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH					
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH					
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute					
	Leakage current	Input-output 1.5KVAC <5mA					
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ					
Other	Size	159*98*38mm(L*W*H)					
	Net weight/gross weight	440g/470g					
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.						

Type	D-50					
	D-50A		D-50B		D-50C	
Output channel	CH1	CH2	CH1	CH2	CH1	CH2
DC voltage	5V	12V	5V	24V	12V	24V
Rated current	5A	2A	5A	1A	2A	1A
Current range	0.5-6A	0.1-3A	0.5-6A	0.1-1.5A	0.5-3A	0.1-1.5A
Rated power	49W		49W		48W	

Type	D-60					
	D-60A		D-60B		D-60C	
Output channel	CH1	CH2	CH1	CH2	CH1	CH2
DC voltage	5V	12V	5V	24V	12V	24V
Rated current	5A	3A	5A	1.5A	3A	1A
Current range	0.5-6A	0.1-3.5A	0.5-6A	0.1-2A	0.5-3.5A	0.1-1.5A
Rated power	61W		61W		60W	

Technical parameter

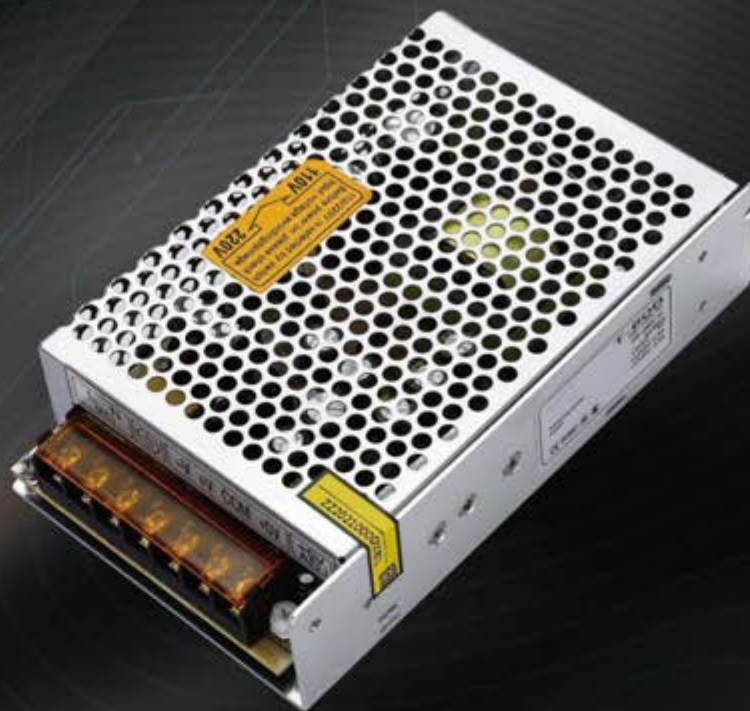
Type		D-120A		D-120B		D-120C	
Output	Output channel	CH1	CH2	CH1	CH2	CH1	CH2
	Dc voltage	5V	12V	5V	24V	12V	24V
	Rated current	12A	5A	12A	2.5A	5A	2.5A
	Current range	0.5-15A	0.1-7A	0.5-15A	0.1-3.5A	0.5-7A	0.1-3.5A
	Rated power	120W		120W		120W	
	Ripple and noise ①	<50mV	<120mV	<50mV	<120mV	<120mV	<120mV
	Voltage accuracy	±2%	±10%	±2%	±10%	±1.5%	±10%
	Voltage regulation range	CH1: ±10%					
	Load adjustment rate	±1.5%	±3.0%	±1.5%	±3.0%	±1.5%	±3.0%
	Linear adjustment rate	±0.5%	±1.0%	±0.5%	±1.0%	±0.5%	±1.0%
Input	Voltage range	85-132VAC/180-264VAC 47Hz~63Hz (254VDC~370VDC)					
	Efficiency (typical) ②	>78%		>81%		>81%	
	Operating current	<2.2A 110VAC <1.1A 220VAC					
	Impulse current	110VAC 18A, 220VAC 45A					
	Start up time	2000ms、30ms、20ms : 220VAC/1200ms、30ms、10ms : 115VAC					
	Leakage current	≤1mA 240VAC					
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release					
	Short circuit protection	+VO decrease to undervoltage point to close output					
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH					
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH					
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute					
	Leakage current	Input-output 1.5KVAC <5mA					
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ					
Other	Size	199*110*50mm(L*W*H)					
	Net weight/gross weight	616.3g/654.3g					
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.						

Technical parameter

Type		D-180A		D-180B		D-180C	
Output	Output channel	CH1	CH2	CH1	CH2	CH1	Ch2
	Dc voltage	12V	5V	24V	5V	24V	12V
	Rated current	12.5A	6A	6.25A	6A	5A	5A
	Current range	1-15A	0.5-7A	1-7.5A	0.5-7A	1-7A	0.5-6A
	Rated power	180W		180W		180W	
	Ripple and noise ①	<120MV	<120MV	<240MV	<120MV	<240MV	<120MV
	Voltage accuracy	±2%	±10%	±2%	±10%	±1.5%	±1.5%
	Voltage regulation range	CH1: ±10%					
	Load adjustment rate	±1.5%	±3.0%	±1.5%	±3.0%	±1.5%	±3.0%
	Linear adjustment rate	±0.5%	±1.0%	±0.5%	±1.0%	±0.5%	±1.0%
Input	Voltage range	85-132VAC/180-264VAC 47Hz~63Hz (254VDC~370VDC)					
	Efficiency (typical) ②	>78%		>81%		>81%	
	Operating current	<2.5A 110VAC <1.2A 220VAC					
	Impulse current	110VAC 20A, 220VAC 50A					
	Start up time	2000ms、30ms、20ms：220VAC/1200ms、30ms、10ms：115VAC					
	Leakage current	≤1mA 240VAC					
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release					
	Short circuit protection	+VO decrease to undervoltage point to close output					
Environment	Operating temperature、humidity	-10℃~+50℃；20%~90RH					
	Storage temperature、humidity	-20℃~+85℃；10%~95RH					
Security	Withstand voltage	Input - output：1.5KVAC input - case：1.5KVAC output - case: 0.5KVAC duration：1 minute					
	Leakage current	Input-output 1.5KVAC <5mA					
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ					
Other	Size	199*110*50mm(L*W*H)					
	Net weight/gross weight	616.3g/654.3g					
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.						

T-30/50/60/120

THREE GROUP SWITCHING POWER SUPPLY

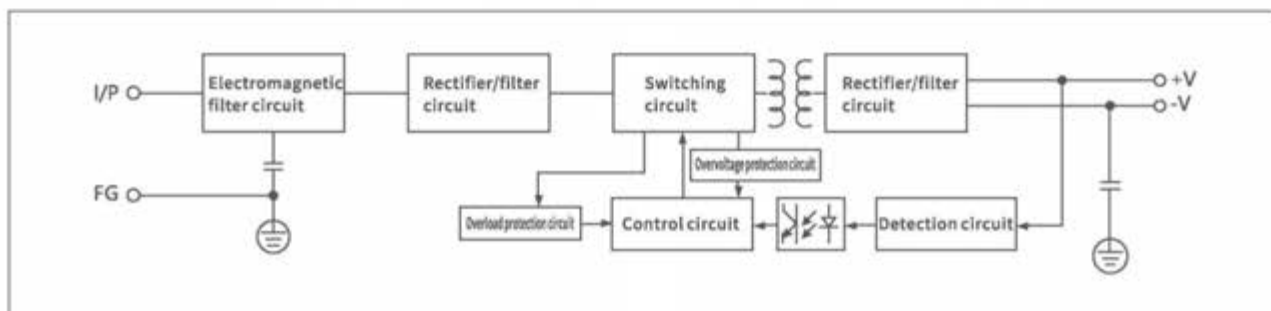


Product overview

The T-30, 50, 60, 120 series is a 30, 50, 60, 120W three group output closed type power supply, using 110V/220V selective AC input. The entire series provides 5V, 12V, -5V/5V, 12V, -12V/5V, 15V, -15V/5V, 24V, 12V output.

In addition to the efficiency of up to 88%, the design of the metal mesh enclosure enhances the heat dissipation ability so that the T-30, 50, 60, 120 operate in the temperature range of -10°C to +50°C without a fan. Making it easy for the terminal system to meet international energy requirements. T-30, 50, 60, 120 have complete protection functions and resistance to 5G vibration; it complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		T-30A			T-30B			T-30C			T-30D		
Output	Output channel	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
	Dc voltage	5V	12V	-5V	5V	12V	-12V	5V	12V	-15V	5V	24V	-12V
	Rated current	3A	1A	0.5A	3A	1A	0.5A	2.5A	1A	0.5A	2.5A	0.5A	1A
	Current range	0.5-4A	0.1-1.5A	0.1-1.5A	0.5-4A	0.1-1.5A	0.1-1.5A	0.5-3.5A	0.1-1.5A	0.1-0.5A	0.5-3.5A	0.1-1A	0.1-1A
	Rated power	29.5W			35W			35W			36.5W		
	Ripple and noise ①	80mV	120mV	120mV	80mV	120mV	120mV	80mV	150mV	150mV	80mV	200mV	120mV
	Voltage accuracy	±2%	±6%	±6%	±2%	±6%	±6%	±2%	±8%	±8%	±2%	±8%	±8%
	Voltage regulation range	CH1: ±10%											
	Load adjustment rate	±1.5%	±3.0%	±3.0%	±1.5%	±3.0%	±3.0%	±1.5%	±3.0%	±3.0%	±1.5%	±3.0%	±3.0%
	Linear adjustment rate	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%
Input	Voltage range	85-132VAC/180-264VAC 47Hz~63Hz (254VDC~370VDC)											
	Efficiency (typical) ②	>78%			>79%			>79%			>79%		
	Operating current	<0.75A 110VAC			<0.5A 220VAC								
	Impulse current	110VAC 18A, 220VAC 45A											
	Start up time	900ms、20ms、20ms : 220VAC/800ms、20ms、10ms : 115VAC											
	Leakage current	≤1mA 240VAC											
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release											
	Short circuit protection	+VO decrease to undervoltage point to close output											
Environment	Operating temperature、humidity	-10℃~-+50℃; 20%~90RH											
	Storage temperature、humidity	-20℃~-+85℃; 10%~95RH											
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute											
	Leakage current	Input-output 1.5KVAC <5mA											
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ											
Other	Size	129*98*38mm(L*W*H)											
	Net weight/gross weight	400g/430g											
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.												

Technical parameter

Type		T-50A			T-50B			T-50C			T-50D		
Output	Output channel	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
	Dc voltage	5V	12V	-5V	5V	12V	-12V	5V	15V	-15V	5V	24V	12V
	Rated current	4A	2A	0.5A	4A	2A	0.5A	4A	1.5A	0.5A	3A	1A	1A
	Current range	0.6-6A	0.2-2.5A	0.1-0.7A	0.6-5A	0.2-2.5A	0.1-0.7A	0.6-5A	0.1-2A	0.1-0.7A	0.6-5A	0.1-1.5A	0.1-1.5A
	Rated power	46.5W			50W			50W			51W		
	Ripple and noise ①	80mV	120mV	120mV	80mV	120mV	120mV	80mV	150mV	150mV	80mV	200mV	120mV
	Voltage accuracy	±2%	±6%	±5%	±2%	±6%	±5%	±2%	±8%	±5%	±2%	±8%	±6%
	Voltage regulation range	CH1: ±10%											
	Load adjustment rate	±1.5%	±3.0%	±1.0%	±1.5%	±3.0%	±1.0%	±1.5%	±3.0%	±1.0%	±1.5%	±3.0%	±3.0%
	Linear adjustment rate	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%
Input	Voltage range	85-132VAC/180-264VAC 47Hz~63Hz (254VDC~370VDC)											
	Efficiency (typical) ②	>76%			>78%			>78%			>80%		
	Operating current	<1.1A 110VAC <0.65A 220VAC											
	Impulse current	110VAC 18A, 220VAC 45A											
	Start up time	900ms、20ms、20ms：220VAC/800ms、20ms、10ms：115VAC											
	Leakage current	≤1mA 240VAC											
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release											
	Short circuit protection	+VO drops to the undervoltage point and closes the output +VO reset: power on again											
Environment	Operating temperature、humidity	-10℃~-+50℃; 20%~90RH											
	Storage temperature、humidity	-20℃~-+85℃; 10%~95RH											
Security	Withstand voltage	Input - output：1.5KVAC input - case：1.5KVAC output - case: 0.5KVAC duration：1 minute											
	Leakage current	Input-output 1.5KVAC <5mA											
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ											
Other	Size	159*98*38mm(L*W*H)											
	Net weight/gross weight	440g/470g											
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.												

Technical parameter

Type		T-60A			T-60B			T-60C			T-60D		
Output	Output channel	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
	Dc voltage	5V	12V	-5V	5V	12V	-12V	5V	15V	-15V	5V	24V	12V
	Rated current	5A	2.5A	0.5A	5A	2.5A	0.5A	5A	2A	0.5A	5A	1A	1A
	Current range	0.6-6A	0.2-3A	0.1-0.7A	0.6-6A	0.2-3A	0.1-0.7A	0.6-6A	0.1-2.5A	0.1-0.7A	0.6-6A	0.1-1.5A	0.1-1.5A
	Rated power	57.5W			61W			62.5W			61W		
	Ripple and noise ①	80mV	120mV	120mV	80mV	120mV	120mV	80mV	150mV	150mV	80mV	200mV	120mV
	Voltage accuracy	±2%	±6%	±5%	±2%	±6%	±5%	±2%	±8%	±5%	±2%	±8%	±6%
	Voltage regulation range	CH1: ±10%											
	Load adjustment rate	±1.5%	±3.0%	±1.0%	±1.5%	±3.0%	±1.0%	±1.5%	±3.0%	±1.0%	±1.5%	±3.0%	±3.0%
	Linear adjustment rate	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%
Input	Voltage range	85-132VAC/180-264VAC 47Hz~63Hz (254VDC~370VDC)											
	Efficiency (typical) ②	>76%			>78%			>78%			>80%		
	Operating current	<1.2A 110VAC <0.7A 220VAC											
	Impulse current	110VAC 18A, 220VAC 45A											
	Start up time	900ms、20ms、20ms : 220VAC/800ms、20ms、10ms : 115VAC											
	Leakage current	≤1mA 240VAC											
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release											
	Short circuit protection	+VO drops to the undervoltage point and closes the output +VO reset: power on again											
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH											
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH											
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute											
	Leakage current	Input-output 1.5KVAC <5mA											
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ											
Other	Size	159*98*38mm(L*W*H)											
	Net weight/gross weight	440g/470g											
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.												

Technical parameter

Type		T-120A			T-120B			T-120C			T-120D		
Output	Output channel	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
	Dc voltage	5V	12V	-5V	5V	12V	-12V	5V	15V	-15V	5V	24V	12V
	Rated current	12A	4.5A	1A	12A	4A	1A	12A	3A	1A	10A	2.5A	1A
	Current range	2-15A	0.5-5.5A	0.1-1A	2-15A	0.5-2.5A	0.1-1A	2-15A	0.5-4A	0.1-1A	2-12A	0.5-3A	0.1-1A
	Rated power	119W			120W			120W			122W		
	Ripple and noise ①	80mV	120mV	120mV	80mV	120mV	120mV	80mV	150mV	150mV	80mV	200mV	120mV
	Voltage accuracy	±2%	±6%	±5%	±2%	±6%	±5%	±2%	±8%	±5%	±2%	±8%	±6%
	Voltage regulation range	CH1: ±10%											
	Load adjustment rate	±1.5%	±3.0%	±1.0%	±1.5%	±3.0%	±1.0%	±1.5%	±3.0%	±1.0%	±1.5%	±3.0%	±3.0%
	Linear adjustment rate	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%
Input	Voltage range	85-132VAC/180-264VAC 47Hz~63Hz (254VDC~370VDC)											
	Efficiency (typical) ②	>79%			>80%			>81%			>82%		
	Operating current	<3A 110VAC <2A 220VAC											
	Impulse current	110VAC 18A, 220VAC 45A											
	Start up time	900ms、20ms、20ms : 220VAC/800ms、20ms、10ms : 115VAC											
	Leakage current	≤1mA 240VAC											
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release											
	Short circuit protection	+VO drops to the undervoltage point and closes the output +VO reset: power on again											
Environment	Operating temperature、humidity	-10℃~-+50℃; 20%~90RH											
	Storage temperature、humidity	-20℃~-+85℃; 10%~95RH											
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute											
	Leakage current	Input-output 1.5KVAC <5mA											
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ											
Other	Size	199*110*50mm(L*W*H)											
	Net weight/gross weight	616.3g/654.3g											
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.												

Q-60/120

FOUR GROUP SWITCHING POWER SUPPLY

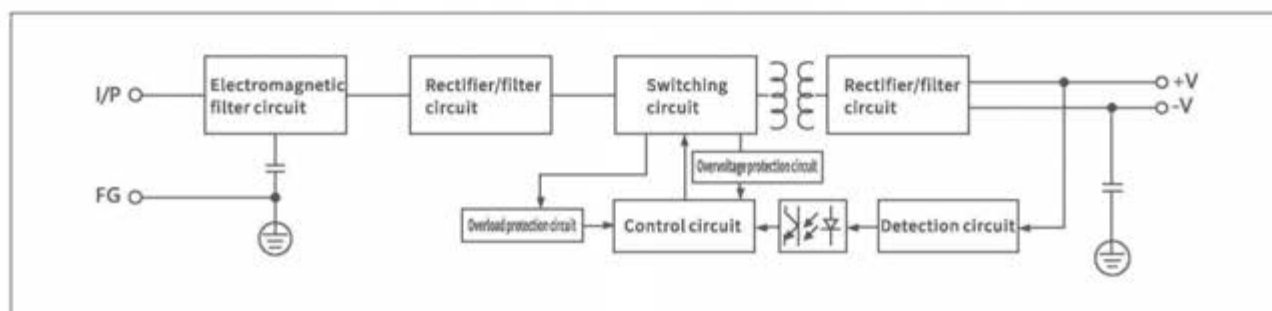


Product overview

The Q-60, 120 series are a 60, 120W four group output enclosed power supply, using 85 to 264VAC full range AC input. The entire series provides $\pm 5V$, $\pm 12V$, $\pm 15V$, 24V and other output voltages.

In addition to the efficiency of up to 88%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the Q-60, 120 to operate in the temperature range of -10°C to $+50^{\circ}\text{C}$ without a fan. Making it easy for the terminal system to meet international energy requirements. Q-60, 120 have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Q-60B				Q-60C				Q-60D			
Output	Output channel	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	Dc voltage	5V	12V	-5V	-12V	5V	15V	-5V	-15V	5V	12V	24V	-12V
	Rated current	5A	2A	0.5A	0.5A	5A	1.5A	0.5A	0.5A	3A	1A	0.5A	0.5A
	Current range	0.5-6A	0.2-3A	0-1A	0-1A	0.5-6A	0.2-2A	0-1A	0-1A	0.5-4A	0.2-15A	0-1A	0-1A
	Rated power	57.5W				57.5W				57.5W			
	Ripple and noise ①	80mV	120mV	100mV	120mV	80mV	120mV	100mV	120mV	80mV	120mV	150mV	120mV
	Voltage accuracy	±2%	±6%	±3%	±3%	±2%	±6%	±3%	±3%	±2%	±6%	±7%-5%	±3%
	Voltage regulation range	CH1: ±10%											
	Load adjustment rate	±0.5%	±3.0%	±1.0%	±1.0%	±0.5%	±3.0%	±1.0%	±1.0%	±0.5%	±3.0%	±3.0%	±1.0%
	Linear adjustment rate	±0.5%	±1.5%	±0.5%	±0.5%	±0.5%	±1.5%	±0.5%	±0.5%	±0.5%	±1.5%	±2.0%	±0.5%
Input	Voltage range	85-264VAC 47Hz~63Hz (254VDC~370VDC)											
	Efficiency (typical) ②	>78%				>78%				>80%			
	Operating current	<1.1A 110VAC <0.6A 220VAC											
	Impulse current	110VAC 18A, 220VAC 45A											
	Start up time	900ms、20ms、20ms : 220VAC/800ms、20ms、10ms : 115VAC											
	Leakage current	≤1mA 240VAC											
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release											
	Short circuit protection	+VO drops to the undervoltage point and closes the output +VO reset: power on again											
Environment	Operating temperature、humidity	-10℃~-+50℃; 20%~90RH											
	Storage temperature、humidity	-20℃~-+85℃; 10%~95RH											
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute											
	Leakage current	Input-output 1.5KVAC <5mA											
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ											
Other	Size	159*98*38mm(L*W*H)											
	Net weight/gross weight	440g/470g											
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.												

Technical parameter

Type		Q-120B				Q-120C				Q-120D			
Output	Output channel	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	Dc voltage	5V	12V	-5V	-12V	5V	15V	-5V	-15V	5V	12V	24V	-12V
	Rated current	11A	4.5A	1A	0.5A	10A	4A	1A	0.5A	8A	2.5A	2A	0.5A
	Current range	0.5-6A	0.2-3A	0-1A	0-1A	2-12A	0.5-4A	0.1-1A	0-1A	2-12A	0.5-4A	0.1-2.5A	0-1A
	Rated power	120W				122.5W				124W			
	Ripple and noise ①	80mV	120mV	80mV	80mV	80mV	120mV	80mV	80mV	80mV	120mV	150mV	80mV
	Voltage accuracy	±2%	±8,3%	±6,10%	±5%	±2%	±8,3%	±6,10%	±5%	±2%	±8,3%	±8%	±5%
	Voltage regulation range	CH1: ±10%											
	Load adjustment rate	±1.0%	±3.0%	±6.0%	±2.0%	±1.0%	±3.0%	±6.0%	±2.0%	±1.0%	±3.0%	±5.0%	±2.0%
	Linear adjustment rate	±0.5%	±1.0%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±1.0%	±0.5%	±1.0%	±1.0%	±1.0%
Input	Voltage range	85-132/180-264VAC 47Hz~63Hz (254VDC~370VDC)											
	Efficiency (typical) ②	>78%				>78%				>80%			
	Operating current	<1.1A 110VAC <0.6A 220VAC											
	Impulse current	110VAC 18A, 220VAC 50A											
	Start up time	2000ms、30ms、20ms : 220VAC/1200ms、30ms、10ms : 115VAC											
	Leakage current	≤1mA 240VAC											
Protection characteristics	Overload protection	≥105%-150% type: hiccup mode, automatic recovery after abnormal release											
	Short circuit protection	+VO drops to the undervoltage point and closes the output +VO reset: power on again											
Environment	Operating temperature、humidity	-10℃~+50℃; 20%~90RH											
	Storage temperature、humidity	-20℃~+85℃; 10%~95RH											
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute											
	Leakage current	Input-output 1.5KVAC <5mA											
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ											
Other	Size	199*110*50mm(L*W*H)											
	Net weight/gross weight	616.3g/654.3g											
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.												

LPV-10/20/30/50/60

WATERPROOF GLUE FILLING SWITCH POWER SUPPLY

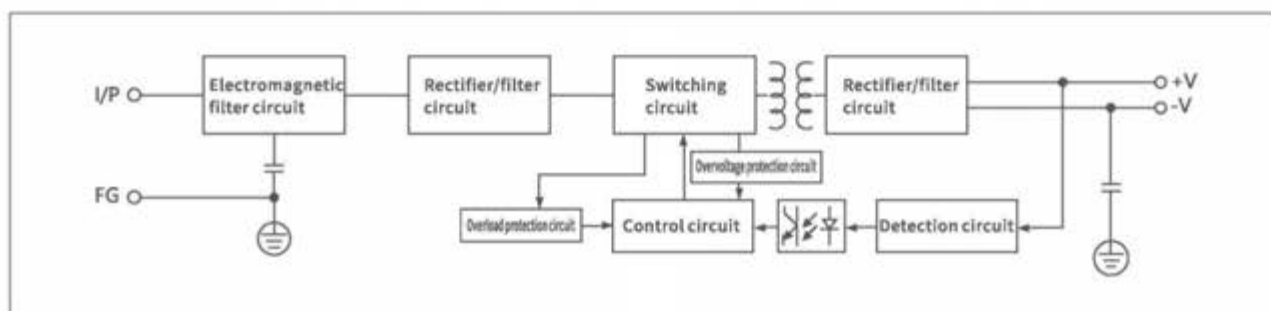


Product overview

The LPV-10、20、30、50、60 series is a 10、20、30、50、60W single group output closed type power supply that uses 85 to 264VAC full range AC input to provide 12V、15V、24V、36V and 48V output for the entire series.

In addition to the efficiency of up to 91.5%, the design of the metal mesh housing and full glue filling enhances the heat dissipation ability, allowing the LPV-10、20、30、50、60 to operate in the temperature range of -30°C to +70°C without a fan. Making it easy for the terminal system to meet international energy requirements. LPV-10、20、30、50、60 have complete protection functions; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators		
Output	Dc voltage	12V	15V	24V
	Ripple and noise ①	<120mV	<120mV	<150mV
	Voltage accuracy	±5%		
	Linear adjustment rate	<2%		
	Load adjustment rate	±1%		
	Start up time	500ms、20ms、16ms: 115VAC 500ms、20ms、50ms : 230VAC		
Input	Voltage range/frequency	90-264VAC 47Hz~63Hz; 127VDC~370VDC		
	Efficiency (typical) ②	>81%	>83%	>83%
	Impulse current	220VAC: 60A		
Protection characteristics	Overload protection	When the rated output power is ≥ 105% - 135%; protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions		
	Overvoltage protection	When the output voltage is ≥ 115% - 145%; protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions		
Environment	Operating temperature、humidity	-30℃~+70℃; 20%~90RH		
	Storage temperature、humidity	-40℃~+85℃; 10%~95RH		
Security	Withstand voltage	Input-output: 3KVAC duration: 1 minute		
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ		
Other	Size	222*30*20mm(L*W*H)		
	Net weight/gross weight	0.25kg/0.26kg		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.			

Type	LVP-10		
DC voltage	12V	15V	24V
Rated current	0.83A	0.66A	0.42A
Rated power	10W	10W	10W
Operating current	0.24A/110VAC 0.14A/230VAC		

Type	LVP-20		
DC voltage	12V	15V	24V
Rated current	1.67A	1.33A	0.84A
Rated power	20W	20W	20W
Operating current	0.55A/110VAC 0.35A/230VAC		

Technical parameter

Type	Technical indicators			
Output	Dc voltage	12V	15V	24V
	Rated current	2.5A	2A	1.25A
	Rated power	30W	30W	30W
	Ripple and noise ①	<120mV	<120mV	<150mV
	Voltage accuracy	±5%		
	Linear adjustment rate	±2%		
	Load adjustment rate	±1%		
	Start up time	500ms、20ms、16ms：115VAC 500ms、20ms、50ms：230VAC		
	Leakage current	≤1mA 240VAC		
Input	Voltage range/frequency	90-264VAC 47Hz~63Hz； 127VDC~370VDC		
	Efficiency (typical) ②	>81%	>83%	>83%
	Operating current	1A/110VAC 0.65A/230VAC		
	Impulse current	220VAC： 60A		
Protection characteristics	Overload protection	When the rated output power is ≥ 105% - 135%: protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions		
	Overvoltage protection	When the output voltage is ≥ 115% - 145%: protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions		
Environment	Operating temperature、humidity	-30℃~-+70℃； 20%~90RH		
	Storage temperature、humidity	-40℃~-+85℃； 10%~95RH		
Security	Withstand voltage	Input-output： 3KVAC duration: 1 minute		
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ		
Other	Size	220*30*20mm		
	Net weight/gross weight	0.25kg/0.26kg		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 ℃. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 ℃/1000 meters.			

Technical parameter

Type		Technical indicators		
Output	Dc voltage	12V	15V	24V
	Ripple and noise ①	<120mV	<120mV	<150mV
	Voltage accuracy	±5%		
	Linear adjustment rate	<2%		
	Load adjustment rate	±1%		
	Start up time	500ms、20ms、16ms: 115VAC 500ms、20ms、50ms : 230VAC		
Input	Voltage range/frequency	90-264VAC 47Hz~63Hz; 127VDC~370VDC		
	Efficiency (typical) ②	>81%	>83%	>83%
	Impulse current	220VAC: 60A		
	Leakage current	≤1mA 240VAC		
Protection characteristics	Overload protection	When the rated output power is ≥ 105% - 135%; protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions		
	Overvoltage protection	When the output voltage is ≥ 115% - 145%; protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions		
Environment	Operating temperature、humidity	-30℃~+70℃; 20%~90RH		
	Storage temperature、humidity	-40℃~+85℃; 10%~95RH		
Security	Withstand voltage	Input-output: 3KVAC duration: 1 minute		
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ		
Other	Size	190*49*34mm(L*W*H)		
	Net weight/gross weight	0.55kg/0.056kg		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.			

Type	LVP-50		
DC voltage	12V	15V	24V
Rated current	4A	3.3A	2A
Rated power	48W	49.5W	48W
Operating current	1.2A/1015VAC 1A/230VAC		

Type	LVP-60		
DC voltage	12V	15V	24V
Rated current	5A	4A	2.5A
Rated power	60W	60W	60W
Operating current	1.5A/110VAC 1.1A/230VAC		

LPV-100/120/300

WATERPROOF GLUE FILLING SWITCH POWER SUPPLY

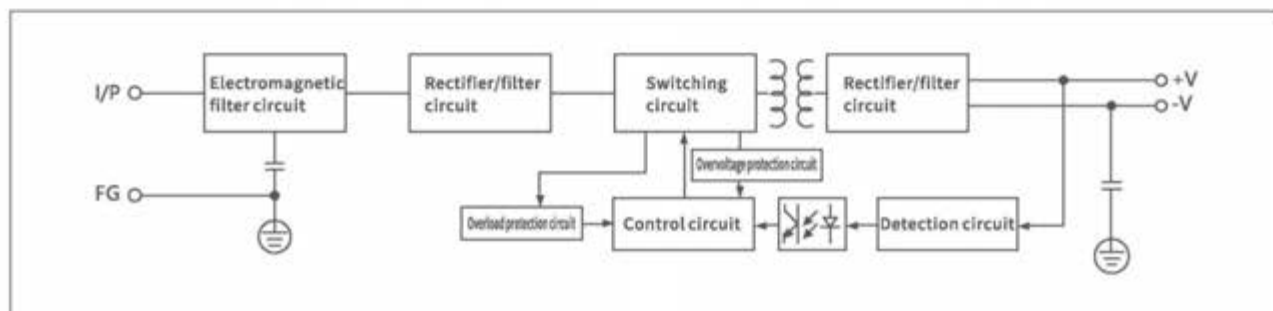


Product overview

The LPV-100, 120, 300 series is a 100, 120, 300W single group output closed type power supply that uses 85 to 264VAC full range AC input to provide 12V, 15V, 24V, 36V and 48V outputs for the entire series.

In addition to the efficiency of up to 91.5%, the design of the metal mesh housing and full glue filling enhances the heat dissipation ability, allowing the LPV-100, 120, 300 to operate in the temperature range of -30 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. LPV-100, 120, 300 have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators		
Output	Dc voltage	12V	15V	24V
	Ripple and noise ①	<120mV	<120mV	<150mV
	Voltage accuracy	±5%		
	Linear adjustment rate	<2%		
	Load adjustment rate	±1%		
	Start up time	2000ms、25ms、15ms：115VAC 2000ms、25ms、50ms：230VAC		
Input	Voltage range/frequency	90-264VAC 47Hz~63Hz； 127VDC~370VDC		
	Efficiency (typical) ②	>85%	>87%	>88%
	Impulse current	220VAC： 60A		
	Leakage current	≤1mA 240VAC		
Protection characteristics	Overload protection	When the rated output power is ≥ 105% - 135%: protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions		
	Overvoltage protection	When the output voltage is ≥ 115% - 145%: protection mode: hiccup mode, which can be automatically restored after removing abnormal conditions		
Environment	Operating temperature、humidity	-30℃~+70℃； 20%~90RH		
	Storage temperature、humidity	-40℃~+85℃； 10%~95RH		
Security	Withstand voltage	Input-output： 3KVAC duration: 1 minute		
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ		
Other	Size	185*69*43mm(L*W*H)		
	Net weight/gross weight	900g/1020g		
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.			

Type	LVP-100		
DC voltage	12V	15V	24V
Rated current	8.5A	6.7A	4.2A
Rated power	102W	100.5W	100.8W
Operating current	2.2A/110VAC 1.2A/230VAC		

Type	LVP-120		
DC voltage	12V	15V	24V
Rated current	10A	8A	4.2A
Rated power	120W	120W	120W
Operating current	2.5A/110VAC 1.4A/230VAC		

Technical parameter

Type		Technical indicators			
Output	Dc voltage	12V	15V	24V	36V
	Rated current	25A	20A	12.5A	8.3A
	Rated power	300W	300W	300W	300W
	Ripple and noise ①	<120mV	<120mV	<200mV	<240mV
	Voltage accuracy	±5%			
	Linear adjustment rate	±2%			
	Load adjustment rate	±1%			
	Start up time	2000ms、25ms、15ms：115VAC 2000ms、25ms、50ms：230VAC			
Input	Leakage current	176-264VAC 47Hz~63Hz；250VDC~370VDC			
	Voltage range/frequency	>87%	>88%	>88%	>89%
	Efficiency (typical) ②	4.5A/110VAC 2.7A/230VAC			
	Operating current	220VAC：60A			
	Impulse current	≤1mA 240VAC			
Protection characteristics	Overload protection	When the rated output power is ≥ 105% - 135%；protection mode：hiccup mode，which can be automatically restored after removing abnormal conditions			
	Overvoltage protection	When the output voltage is ≥ 115% - 145%；protection mode：hiccup mode，which can be automatically restored after removing abnormal conditions			
Environment	Operating temperature、humidity	-30℃~-70℃；20%~90RH			
	Storage temperature、humidity	-40℃~+85℃；10%~95RH			
Security	Withstand voltage	Input-output：3KVAC duration：1 minute			
	Isolation resistor	Input - output and input - shell，output - shell：500 VDC / 100 mΩ			
Other	Size	235*120*56mm(L*W*H)			
	Net weight/gross weight	2650g/2800g			
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

LPV-36F

WATERPROOF GLUE FILLING SWITCH POWER SUPPLY

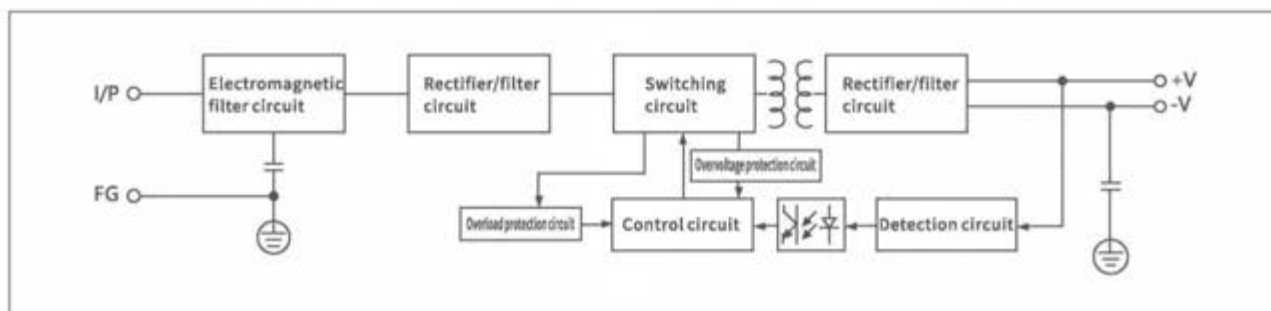


Product overview

The LPV-36F series is a 36W single group output closed type power supply that uses 85 to 264VAC full range AC input to provide 12V, 24V output for the entire series.

In addition to the efficiency of up to 91.5%, the design of the metal mesh housing and full glue filling enhances the heat dissipation ability, allowing the LPV-36F to operate in the temperature range of -30 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. LPV-36F have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators	
Output	Dc voltage	12V	24V
	Rated current	3A	1.5A
	Rated power	36W	36W
	Ripple and noise ①	<120mV	<150mV
	Voltage precision	±5%	
	Load adjustment rate	±2%	
	Linear adjustment rate	±1%	
	Starting and rising time	500ms、20ms、50ms: 230VAC	
Input	Voltage range/frequency	200-240VAC 47Hz~63Hz	
	Efficiency (typical) ②	>81%	>83%
	Working current	0.32A/230VAC	
	Impulse current	220VAC: 60A	
	Leakage current	105%-135% protection type: burping mode, automatic return to normal after removing abnormal conditions	
Protection characteristics	Overload protection	115%-145% protection type: close the output, restart and automatically return to normal	
	Working temperature and humidity	-30℃~+70℃; 20%~90RH	
Environment	Storage tenperature and humidity	-40℃~+85℃; 10%~95RH	
	Withstand voltage	Input output :3KVAC 1 minute	
Security	Leakage current	Input shell: 240VAC <2.5mA	
	Isolation resistance	Input - output and input - shell, output - shell: 500 VDC / 100 MΩ	
Other	Size	126*41*27mm(L*W*H)	
	Net weight/gross weight	310g/340g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LPV-60F

WATERPROOF GLUE FILLING SWITCH POWER SUPPLY

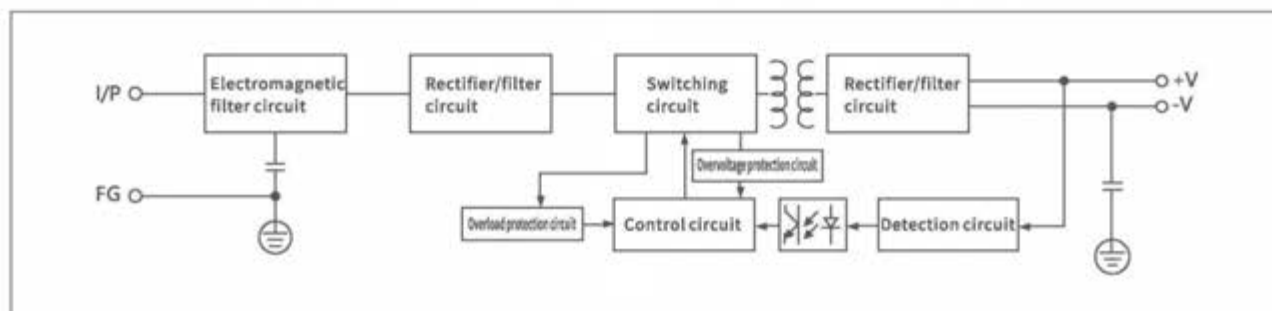


Product overview

The LPV-60F series is a 60W single group output closed type power supply that uses 85 to 264VAC full range AC input to provide 12V, 24V output for the entire series.

In addition to the efficiency of up to 91.5%, the design of the metal mesh housing and full glue filling enhances the heat dissipation ability, allowing the LPV-60F to operate in the temperature range of -30 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. LPV-60F have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram

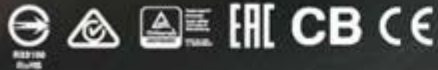


Technical parameter

Type		Technical indicators	
Output	Dc voltage	12V	24V
	Rated current	5A	2.5A
	Rated power	60W	60W
	Ripple and noise ①	<120mV	<200mV
	Voltage precision	±5%	
	Load adjustment rate	±2%	
	Linear adjustment rate	±1%	
	Starting and rising time	500ms、20ms、50ms: 230VAC	
Input	Voltage range/frequency	200-240VAC 47Hz~63Hz	
	Efficiency (typical) ②	>81%	>83%
	Working current	0.54A/240VAC	
	Impulse current	220VAC: 60A	
	Leakage current	105%-135% protection type: burping mode, automatic return to normal after removing abnormal conditions	
Protection characteristics	Overload protection	115%-145% protection type: close the output, restart and automatically return to normal	
	Working temperature and humidity	-30℃~+70℃; 20%~90RH	
Environment	Storage tenperature and humidity	-40℃~+85℃; 10%~95RH	
	Withstand voltage	Input output :3KVAC 1 minute	
Security	Leakage current	Input shell: 240VAC <2.5mA	
	Isolation resistance	Input - output and input - shell, output - shell: 500 VDC / 100 MΩ	
Other	Size	143*49*31mm(L*W*H)	
	Net weight/gross weight	360g/390g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LPV-100F

WATERPROOF GLUE FILLING SWITCH POWER SUPPLY

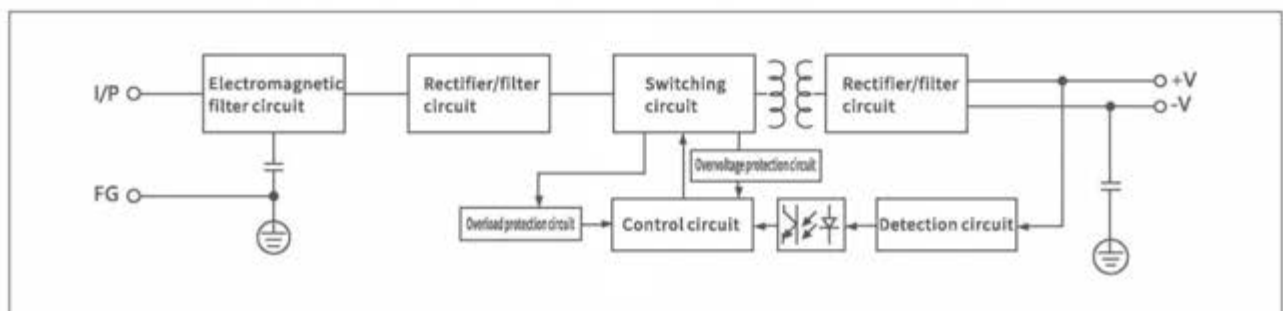


Product overview

The LPV-100F series is a 100W single group output closed type power supply that uses 85 to 264VAC full range AC input to provide 12V, 24V output for the entire series.

In addition to the efficiency of up to 91.5%, the design of the metal mesh housing and full glue filling enhances the heat dissipation ability, allowing the LPV-100F to operate in the temperature range of -30 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. LPV-100F have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators	
Output	Dc voltage	12V	24V
	Rated current	8A	4A
	Rated power	100W	100W
	Ripple and noise ①	<120mV	<200mV
	Voltage precision	±5%	
	Load adjustment rate	±2%	
	Linear adjustment rate	±1%	
	Starting and rising time	2000ms、25ms、50ms: 230VAC	
Input	Voltage range/frequency	200-240VAC 47Hz~63Hz	
	Efficiency (typical) ②	>85%	>88%
	Working current	0.9A/240VAC	
	Impulse current	220VAC: 60A	
	Leakage current	105%-135% protection type: burping mode, automatic return to normal after removing abnormal conditions	
Protection characteristics	Overload protection	115%-145% protection type: close the output, restart and automatically return to normal	
	Working temperature and humidity	-30℃~+70℃; 20%~90RH	
Environment	Storage tenperature and humidity	-40℃~+85℃; 10%~95RH	
	Withstand voltage	Input output :3KVAC 1 minute	
Security	Leakage current	Input shell: 240VAC <2.5mA	
	Isolation resistance	Input - output and input - shell, output - shell: 500 VDC / 100 MΩ	
Other	Size	165*53*31mm(L*W*H)	
	Net weight/gross weight	460g/490g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LPV-200F

WATERPROOF GLUE FILLING SWITCH POWER SUPPLY

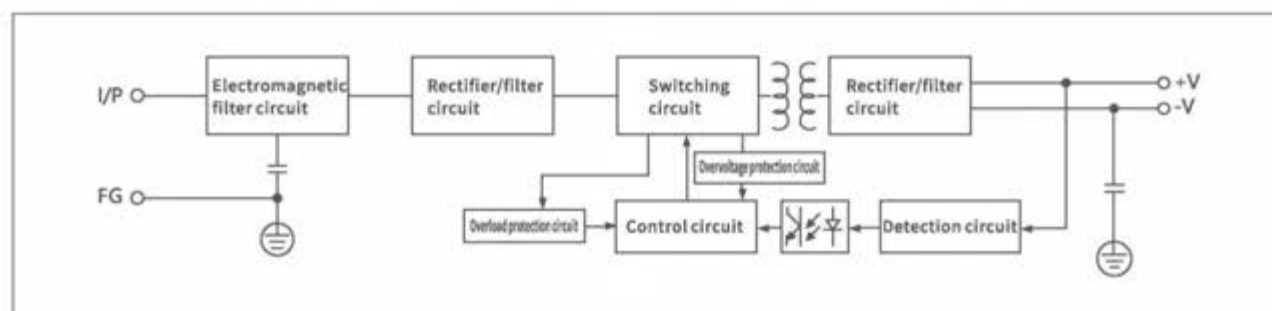


Product overview

The LPV-200F series is a 200W single group output closed type power supply that uses 85 to 264VAC full range AC input to provide 12V, 24V output for the entire series.

In addition to the efficiency of up to 91.5%, the design of the metal mesh housing and full glue filling enhances the heat dissipation ability, allowing the LPV-200F to operate in the temperature range of -30 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. LPV-200F have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators	
Output	Dc voltage	12V	24V
	Rated current	16A	8A
	Rated power	200W	200W
	Ripple and noise ①	<120mV	<200mV
	Voltage precision	±5%	
	Load adjustment rate	±2%	
	Linear adjustment rate	±1%	
	Starting and rising time	2000ms、25ms、50ms: 230VAC	
Input	Voltage range/frequency	200-240VAC 47Hz~63Hz	
	Efficiency (typical) ②	>87%	>88%
	Working current	1.79A/240VAC	
	Impulse current	220VAC: 60A	
	Leakage current	105%-135% protection type: burping mode, automatic return to normal after removing abnormal conditions	
Protection characteristics	Overload protection	115%-145% protection type: close the output, restart and automatically return to normal	
	Working temperature and humidity	-30℃~+70℃; 20%~90RH	
Environment	Storage tenperature and humidity	-40℃~+85℃; 10%~95RH	
	Withstand voltage	Input output :3KVAC 1 minute	
Security	Leakage current	Input shell: 240VAC <2.5mA	
	Isolation resistance	Input - output and input - shell, output - shell: 500 VDC / 100 MΩ	
Other	Size	186*60*36mm(L*W*H)	
	Net weight/gross weight	670g/710g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LPV-300F

WATERPROOF GLUE FILLING SWITCH POWER SUPPLY

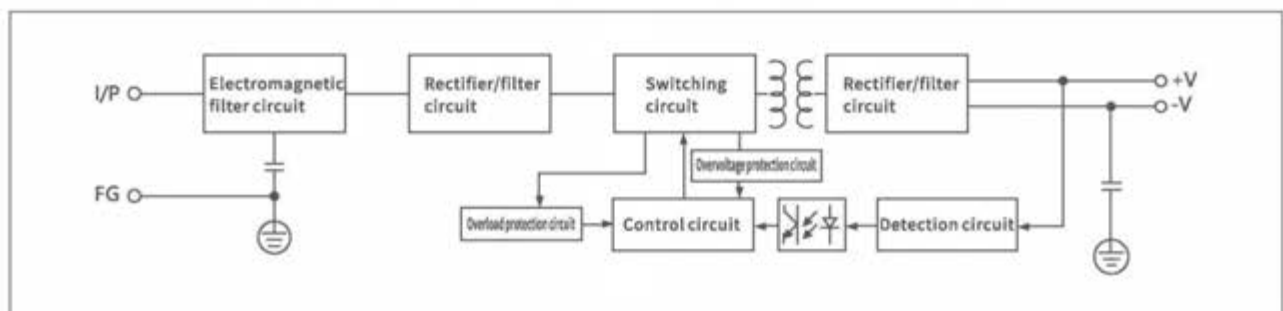


Product overview

The LPV-300F series is a 300W single group output closed type power supply that uses 85 to 264VAC full range AC input to provide 12V, 24V output for the entire series.

In addition to the efficiency of up to 91.5%, the design of the metal mesh housing and full glue filling enhances the heat dissipation ability, allowing the LPV-300F to operate in the temperature range of -30 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. LPV-300F have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators	
Output	Dc voltage	12V	24V
	Rated current	25A	12.5A
	Rated power	300W	300W
	Ripple and noise ①	<120mV	<200mV
	Voltage precision	±5%	
	Load adjustment rate	±2%	
	Linear adjustment rate	±1%	
	Starting and rising time	2000ms、25ms、50ms: 230VAC	
Input	Voltage range/frequency	200-240VAC 47Hz~63Hz	
	Efficiency (typical) ②	>87%	>88%
	Working current	2.68A/240VAC	
	Impulse current	220VAC: 60A	
	Leakage current	105%-135% protection type: burping mode, automatic return to normal after removing abnormal conditions	
Protection characteristics	Overload protection	115%-145% protection type: close the output, restart and automatically return to normal	
	Working temperature and humidity	-30℃~+70℃; 20%~90RH	
Environment	Storage tenperature and humidity	-40℃~+85℃; 10%~95RH	
	Withstand voltage	Input output :3KVAC 1 minute	
Security	Leakage current	Input shell: 240VAC <2.5mA	
	Isolation resistance	Input - output and input - shell, output - shell: 500 VDC / 100 MΩ	
Other	Size	200*67*36mm(L*W*H)	
	Net weight/gross weight	930g/980g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LPV-400F

WATERPROOF GLUE FILLING SWITCH POWER SUPPLY

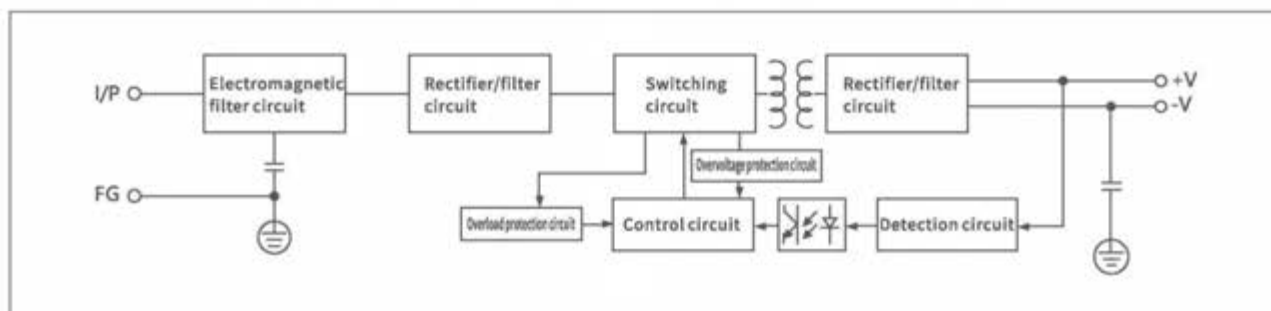


Product overview

The LPV-400F series is a 400W single group output closed type power supply that uses 85 to 264VAC full range AC input to provide 12V, 24V output for the entire series.

In addition to the efficiency of up to 91.5%, the design of the metal mesh housing and full glue filling enhances the heat dissipation ability, allowing the LPV-400F to operate in the temperature range of -30 °C to +70 °C without a fan. Making it easy for the terminal system to meet international energy requirements. LPV-400F have complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators	
Output	Dc voltage	12V	24V
	Rated current	33A	16.7A
	Rated power	400W	400W
	Ripple and noise ①	<120mV	<200mV
	Voltage precision	±5%	
	Load adjustment rate	±2%	
	Linear adjustment rate	±1%	
	Starting and rising time	2000ms、25ms、50ms: 230VAC	
Input	Voltage range/frequency	200-240VAC 47Hz~63Hz	
	Efficiency (typical) ②	>87%	>88%
	Working current	2.68A/240VAC	
	Impulse current	220VAC: 60A	
	Leakage current	105%-135% protection type: burping mode, automatic return to normal after removing abnormal conditions	
Protection characteristics	Overload protection	115%-145% protection type: close the output, restart and automatically return to normal	
	Working temperature and humidity	-30℃~+70℃; 20%~90RH	
Environment	Storage tenperature and humidity	-40℃~+85℃; 10%~95RH	
	Withstand voltage	Input output :3KVAC 1 minute	
Security	Leakage current	Input shell: 240VAC <2.5mA	
	Isolation resistance	Input - output and input - shell, output - shell: 500 VDC / 100 MΩ	
Other	Size	230*67*36mm(L*W*H)	
	Net weight/gross weight	1010g/1060g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LS-60

LED LINEAR THIN POWER POWER SUPPLY

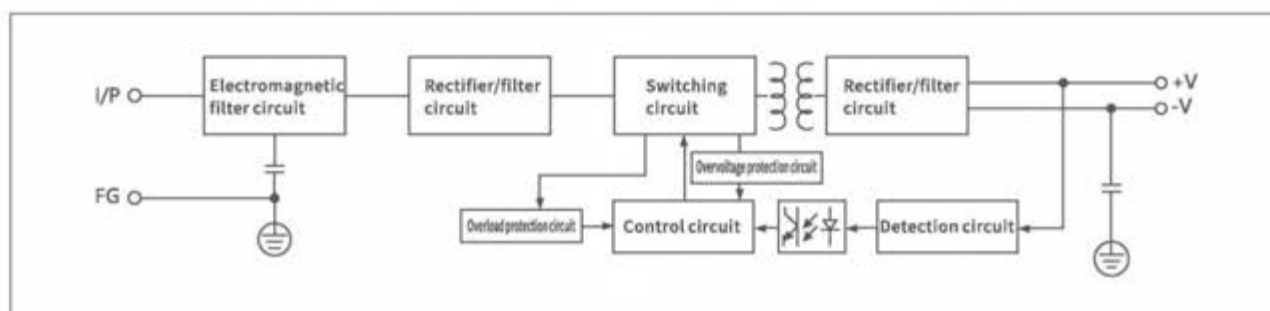


Product overview

The LS-60 series is a 60W single group output closed type power supply with 200~240VAC AC input, and the entire series provides 12V, 24V output.

In addition to the efficiency of up to 86%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LS-60 to operate in the temperature range of - 25 °C to +40 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The LS-60 has complete protection functions; It complies with TUV EN60950-1、EN60335-1、EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators		
Output	Voltage	12V	24V
	Min load	0A	0A
	Rated load (Max)	5A	2.5A
	Peak power	60W	60W
	Output power	60W	60W
	Min load	0A	0A
	Rated load	5A	2.5A
	Power adjustment rate	±3%	±3%
	Load adjustment rate	±5%	±5%
Input	Efficiency	When the input voltage is 220VAC, the efficiency at full load is calculated, with a minimum of 86%	
	Input characteristics	Rated input voltage: 200~240VAC	
	Rated input frequency	50/60Hz	
	Max ripple/noise	350mV p-p	
	AC leakage current	≤3.5mA 240VAC	
Protection characteristics	Overshoot protection	After the overcurrent fault is eliminated, the power supply will automatically resume normal operation	
Environment	Operational requirements	Full load normal operation: - 25 °C - 40 °C	
	Relative humidity	Full load normal operation: 5% (0 °C) - 90% (40 °C) 72 hours, relative humidity	
Other	Size	141*50*29mm	
	Weight	173g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LS-100

LED LINEAR THIN POWER POWER SUPPLY

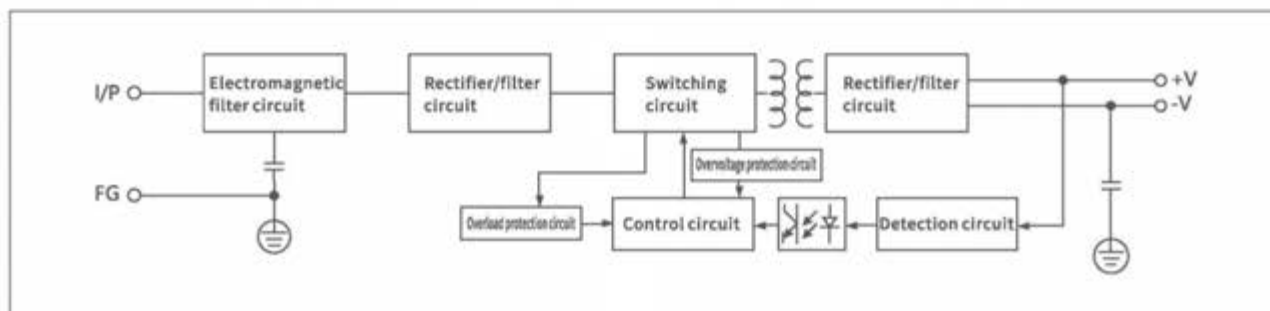


Product overview

The LS-100 series is a 100W single group output closed type power supply with 200~240VAC AC input, and the entire series provides 12V, 24V output.

In addition to the efficiency of up to 90%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LS-100 to operate in the temperature range of - 25 °C to +40 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The LS-100 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators	
Output	Voltage	12V	24V
	Min load	0A	0A
	Rated load (Max)	8.3A	4.2A
	Peak power	100W	100W
	Output power	100W	100W
	Min load	0A	0A
	Rated load	8.3A	4.2A
	Power adjustment rate	±3%	±3%
	Load adjustment rate	±3%	±5%
Input	Efficiency	When the input voltage is 220VAC, the efficiency at full load is calculated, with a minimum of 86%	
	Input characteristics	Rated input voltage: 200~240VAC	
	Rated input frequency	50/60Hz	
	Max ripple/noise	350mV p-p	
	AC leakage current	≤3.5mA 240VAC	
Protection characteristics	Overshoot protection	After the overcurrent fault is eliminated, the power supply will automatically resume normal operation	
Environment	Operational requirements	Full load normal operation: - 25 °C - 40 °C	
	Relative humidity	Full load normal operation: 5% (0 °C) - 90% (40 °C) 72 hours, relative humidity	
Other	Size	141*50*29mm	
	Weight	173g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LS-200

LED LINEAR THIN POWER POWER SUPPLY

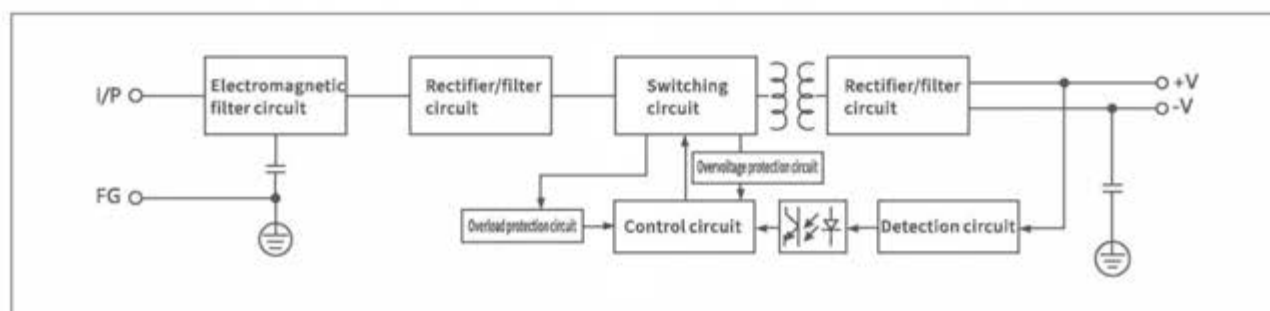


Product overview

The LS-200 series is a 200W single group output closed type power supply with 200~240VAC AC input, and the entire series provides 12V, 24V output.

In addition to the efficiency of up to 92%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LS-200 to operate in the temperature range of -25 °C to +40 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The LS-200 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators	
Output	Voltage	12V	24V
	Min load	0A	0A
	Rated load (Max)	16.6A	16.6A
	Peak power	200W	200W
	Output power	200W	200W
	Min load	0A	0A
	Rated load	8.3A	8.3A
	Power adjustment rate	±3%	±3%
	Load adjustment rate	±5%	±5%
Input	Efficiency	When the input voltage is 220VAC, the efficiency at full load is calculated, with a minimum of 92%	
	Input characteristics	Rated input voltage: 200~240VAC	
	Input current	Lower limit of rated voltage maximum input AC current 2.1a at full load	
	Surge current	When the output is rated load, the ambient temperature is 25 °C, and the input is 240VAC, the maximum surge current during cold startup is less than 50A	
	Rated input frequency	50/60Hz	
	Max ripple/noise	350mV p-p	
	AC leakage current	≤3.5mA 240VAC	
Protection characteristics	Overshoot protection	After the overcurrent fault is eliminated, the power supply will automatically resume normal operation	
Environment	Operational requirements	Full load normal operation: - 25 °C - 40 °C	
	Relative humidity	Full load normal operation: 5% (0 °C) - 90% (40 °C) 72 hours, relative humidity	
Other	Size	180*50*29mm	
	Weight	236g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LS-300

LED LINEAR THIN POWER POWER SUPPLY

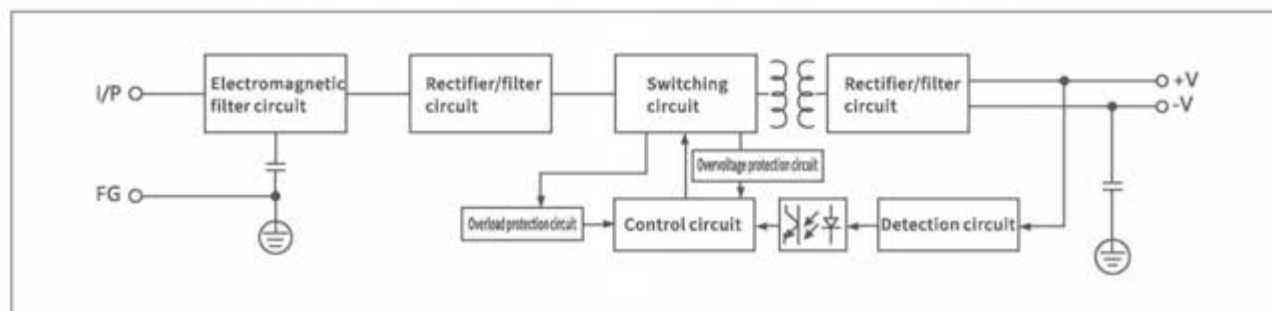


Product overview

The LS-300 series is a 300W single group output closed type power supply with 200~240VAC AC input, and the entire series provides 12V, 24V output.

In addition to the efficiency of up to 92%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LS-300 to operate in the temperature range of -25 °C to +40 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The LS-300 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type		Technical indicators	
Output	Voltage	12V	24V
	Min load	0A	0A
	Rated load (Max)	25A	12.5A
	Peak power	300W	300W
	Output power	300W	300W
	Min load	0A	0A
	Rated load	25A	12.5A
	Power adjustment rate	±3%	±3%
	Load adjustment rate	±5%	±5%
Input	Efficiency	When the input voltage is 220VAC, the efficiency at full load is calculated, with a minimum of 92%	
	Input characteristics	Rated input voltage: 200~240VAC	
	Input current	Lower limit of rated voltage maximum input AC current 2.1a at full load	
	Surge current	When the output is rated load, the ambient temperature is 25 °C, and the input is 240VAC, the maximum surge current during cold startup is less than 50A	
	Rated input frequency	50/60Hz	
	Max ripple/noise	350mV p-p	
	AC leakage current	≤3.5mA 240VAC	
Protection characteristics	Overshoot protection	After the overcurrent fault is eliminated, the power supply will automatically resume normal operation	
Environment	Operational requirements	Full load normal operation: - 25 °C - 40 °C	
	Relative humidity	Full load normal operation: 5% (0 °C) - 90% (40 °C) 72 hours, relative humidity	
Other	Size	208*50*29mm	
	Weight	336g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

LS-400

LED LINEAR THIN POWER POWER SUPPLY

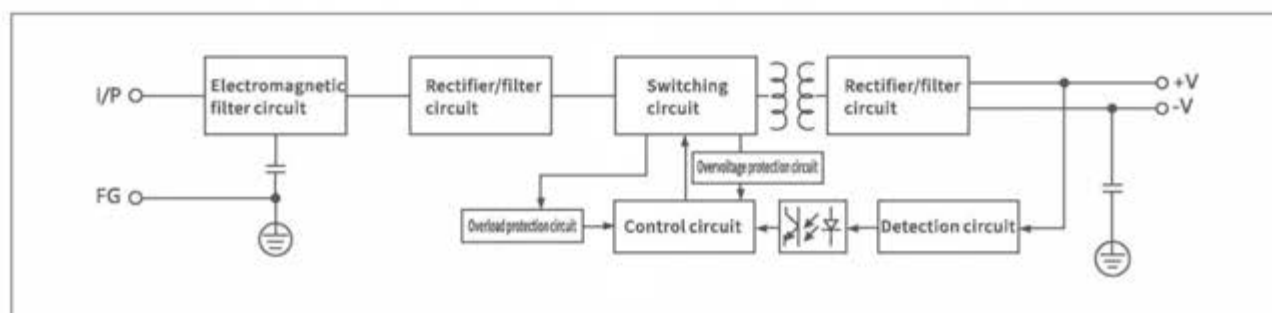


Product overview

The LS-400 series is a 400W single group output closed type power supply with 200~240VAC AC input, and the entire series provides 12V, 24V output.

In addition to the efficiency of up to 92%, the design of the metal mesh housing enhances the heat dissipation ability, allowing the LS-400 to operate in the temperature range of -25 °C to +40 °C without a fan. Making it easy for the terminal system to meet international energy requirements. The LS-400 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram

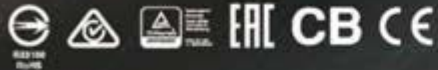


Technical parameter

Type	Technical indicators		
Output	Voltage	12V	24V
	Min load	0A	0A
	Rated load (Max)	33.3A	16.6A
	Peak power	400W	400W
	Output power	400W	400W
	Min load	0A	0A
	Rated load	33.3A	16.6A
	Power adjustment rate	±3%	±3%
	Load adjustment rate	±5%	±5%
Input	Efficiency	When the input voltage is 220VAC, the efficiency at full load is calculated, with a minimum of 92%	
	Input characteristics	Rated input voltage: 200~240VAC	
	Input current	Lower limit of rated voltage maximum input AC current 2.1a at full load	
	Surge current	When the output is rated load, the ambient temperature is 25 °C, and the input is 240VAC, the maximum surge current during cold startup is less than 50A	
	Rated input frequency	50/60Hz	
	Max ripple/noise	350mV p-p	
	AC leakage current	≤3.5mA 240VAC	
Protection characteristics	Overshoot protection	After the overcurrent fault is eliminated, the power supply will automatically resume normal operation	
Environment	Operational requirements	Full load normal operation: - 25 °C - 40 °C	
	Relative humidity	Full load normal operation: 5% (0 °C) - 90% (40 °C) 72 hours, relative humidity	
Other	Size	220*60*29mm	
	Weight	388g	
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.		

NES-350

SINGLE GROUP OUTPUT POWER SUPPLY

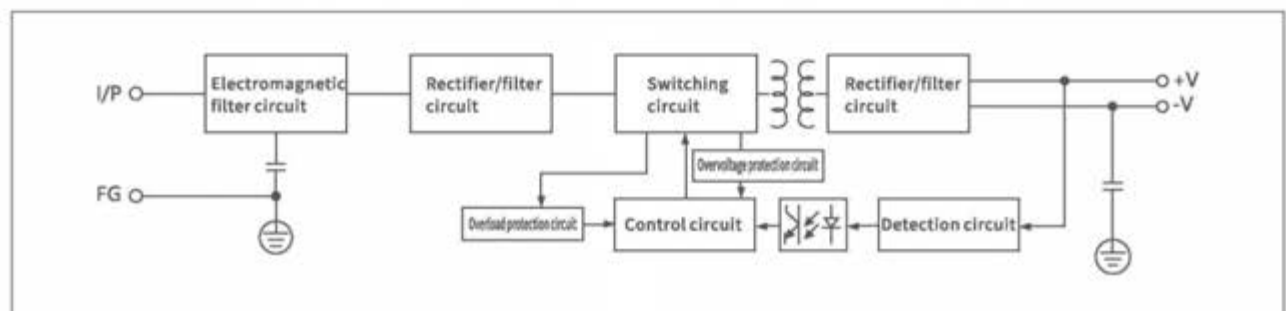


Product overview

The NES-350 series is a single group output closed type power supply that uses 110/220VAC selective AC input. The entire series provides 5V, 12V, 15V, 24V, 36V and 48V output.

In addition to its efficiency of up to 90%, the metal mesh housing intelligent fan design enhances heat dissipation capabilities, making the NES-350 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. NES-350 has complete protection functions; it complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

Principle diagram



Technical parameter

Type	Technical indicators						
Output	Dc voltage	5V	12V	18V	24V	36V	48V
	Rated current	50A	29A	19.4A	14.5A	9.7A	7.3A
	Rated power	250W	350W	350W	350W	350W	350.4W
	Ripple and noise ①	<150mV	<150mV	<150mV	<150mV	<240mV	<240mV
	Voltage accuracy	±2%	±1%				
	Voltage regulation range	±10%					
	Load adjustment rate	<±1.5%	<±1.2%	<±1.2%	<±1%	<±0.5%	<±0.5%
	Linear adjustment rate	<±1%					
Input	Voltage range	90-132VAC/180-264VAC 47Hz~63Hz; 254VDC~370VDC					
	Efficiency (typical) ②	>78%	>85%	>85%	>87%	>87%	>88%
	Operating current	<5.2A 115VAC <2.8A 230VAC					
	Impulse current	110VAC 25A, 220VAC: 50A					
	Start up time	200ms、50ms、20ms：230VAC					
	Leakage current	≤1mA 240VAC					
Protection characteristics	Overload protection	105% - 135% Type: Constant current output+VO reduced to undervoltage point Cut off output reset: Power on again					
	Overvoltage protection	≥115%-145% turn off output					
	Under voltage protection	≤10%-45%					
	Short circuit protection	Turn off output					
	Over temperature protection	RTH3: ≥ 65 °C fan startup, ≤ 55 °C fan shutdown, ≥ 80 °C fan shutdown output (5V-15V) RTH3: ≥ 70 °C fan startup, ≤ 60 °C fan shutdown, ≥ 85 °C fan shutdown output (18V-48V)					
Environment	Operating temperature、humidity	-10°C~-+50°C; 20%~90RH					
	Storage temperature、humidity	-20°C~-+85°C; 10%~95RH					
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute					
	Leakage current	Input-output 1.5KVAC <6mA					
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ					
Other	Size	215*115*50mm(L*W*H)					
	Net weight/gross weight	874.1g/936.3g					
Remarks	①Ripple and noise measurement method: use a 12 twisted pair, and connect 0.1uF and 47uF capacitors in parallel at the terminal, and measure at 20MHz bandwidth. ② The efficiency is tested at the input voltage of 230VAC, rated load and ambient temperature of 25 °C. Precision: including setting error, linear adjustment rate and load adjustment rate. Test method of linear regulation: test from low voltage to high voltage under rated load. Load adjustment rate test method: from 0% to 100% of rated load. The starting time is measured under the cold start state. Fast and frequent startup and shutdown may increase the starting time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.						

SP-320

SINGLE GROUP OUTPUT WITH
PFC FUNCTION POWER SUPPLY

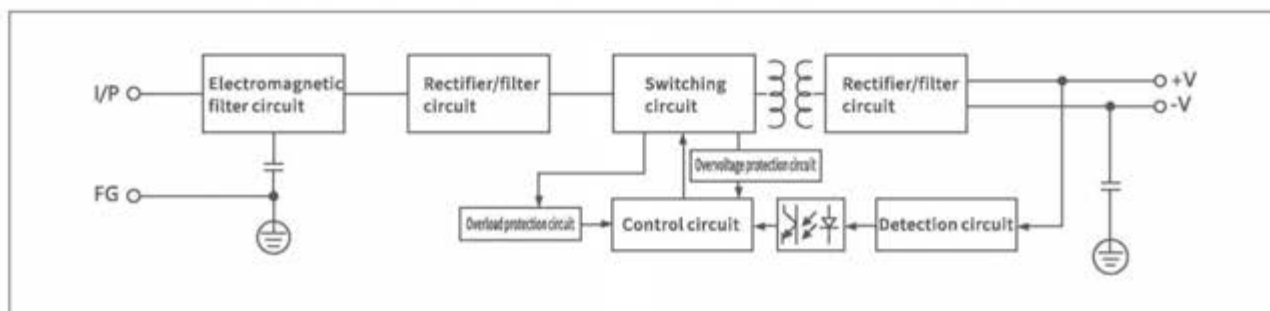


Product overview

The SP-320 series is a single group output closed type power supply that uses 85 to 264VAC full range AC input to provide 5V, 12V, 18V, 24V, 36V and 48V output for the entire series.

In addition to its efficiency of up to 91.5%, the metal mesh housing intelligent fan design enhances heat dissipation capabilities, making the SP-320 more stable in harsh environments, making it easy for the terminal system to meet international energy requirements. The SP-320 has complete protection functions; It complies with TUV EN60950-1, EN60335-1, EN61558-1/-2-16

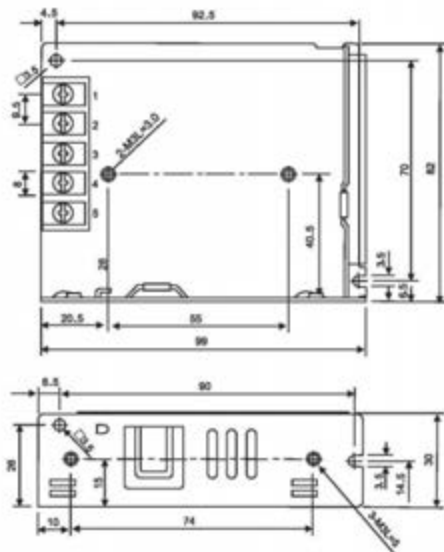
Principle diagram



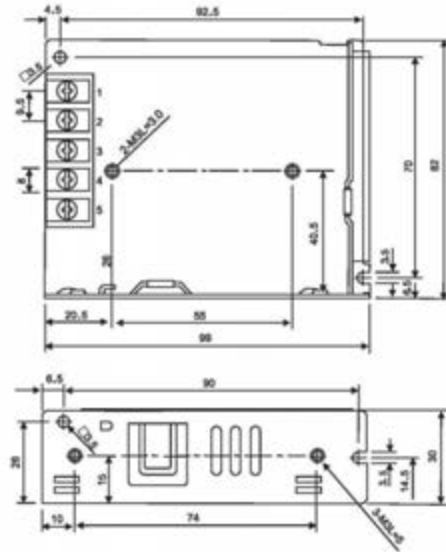
Technical parameter

Type		Technical indicators					
Output	DC voltage	5V	12V	18V	24V	36V	48V
	Rated current	50A	25A	17.5A	13A	8.8A	6.7A
	Rated power	250W	300W	315W	312W	316.8W	312.6W
	Ripple and noise ①	<150mV	<150mV	<150mV	<150mV	<240mV	<240mV
	Voltage accuracy	±2%	±1%				
	Voltage regulation range	±10%					
	Load adjustment rate	<±1.5%	<±1.2%	<±1.2%	<±1%	<±0.5%	<±0.5%
	Linear adjustment rate	<±1%					
Input	Voltage range	85~264VAC 47Hz~63Hz; 124VDC~370VDC					
	Efficiency (typical) ②	>79%	>86%	>86%	>87%	>87%	>89%
	Power factor	≥0.99 110VAC ≥0.97 220VAC					
	Operating current	<5A 115VAC <2.5A 230VAC					
	Impulse current	110VAC 25A, 220VAC: 40A					
	Start up time	200ms、50ms、20ms : 230VAC					
	Leakage current	≤1mA 240VAC					
Protection characteristics	Overload protection	105% - 135% Type: Constant current output+VO reduced to undervoltage point Cut off output reset: Power on again					
	Over/under voltage protection	≥115%-145% turn off output/≤10%-45% turn off output					
	Short circuit protection	Turn off output					
	Over temperature protection	RTH3: ≥ 65 °C fan startup, ≤ 55 °C fan shutdown, ≥ 80 °C fan shutdown output (5V-15V) RTH3: ≥ 70 °C fan startup, ≤ 60 °C fan shutdown, ≥ 85 °C fan shutdown output (18V-48V)					
Environment	Operating temperature、humidity	-10°C~~+50°C; 20%~90RH					
	Storage temperature、humidity	-20°C~~+85°C; 10%~95RH					
Security	Withstand voltage	Input - output : 1.5KVAC input - case : 1.5KVAC output - case: 0.5KVAC duration :1 minute					
	Isolation resistor	Input - output and input - shell, output - shell: 500 VDC / 100 mΩ					
Other	Size	215*115*50mm(L*W*H)					
	Net weight/gross weight	1100g/1200g					

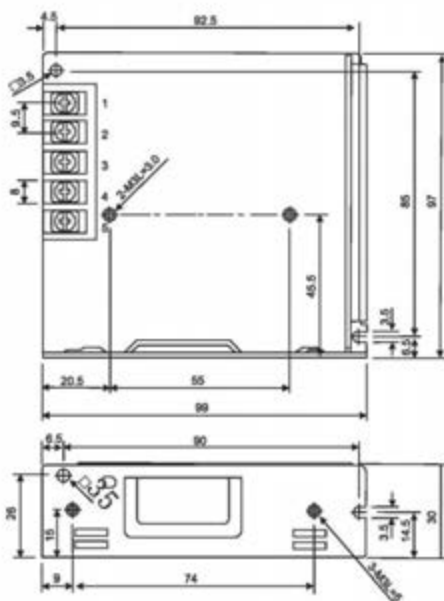
■ LRS-35W



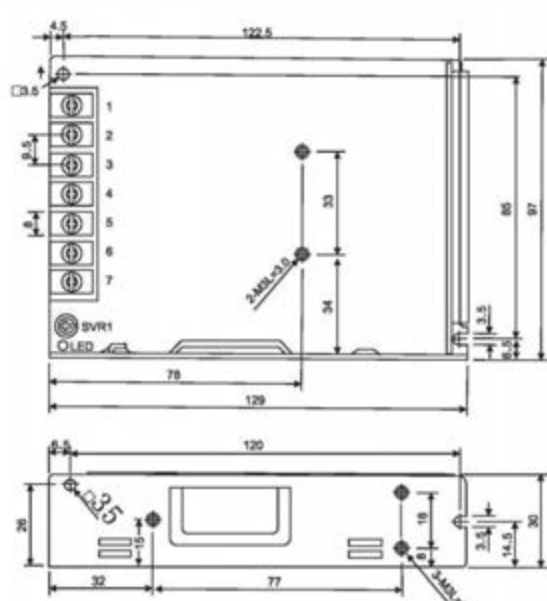
■ LRS-50W



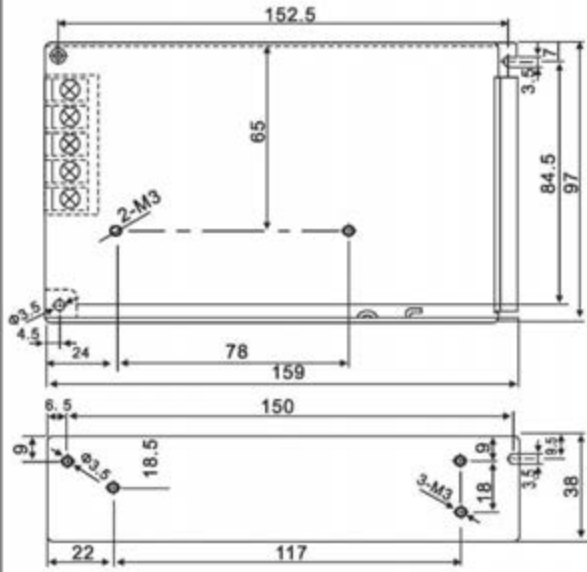
■ LRS-75W



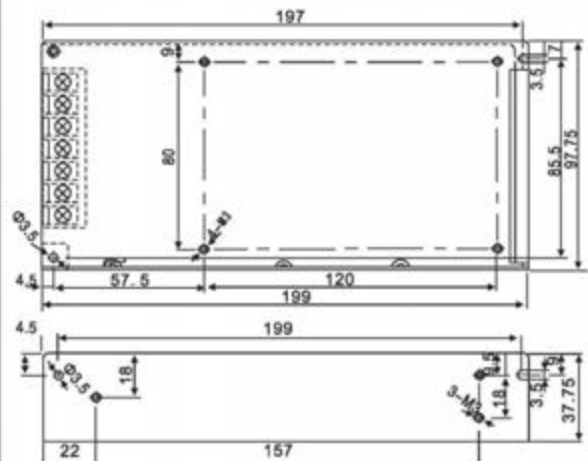
■ LRS-100W



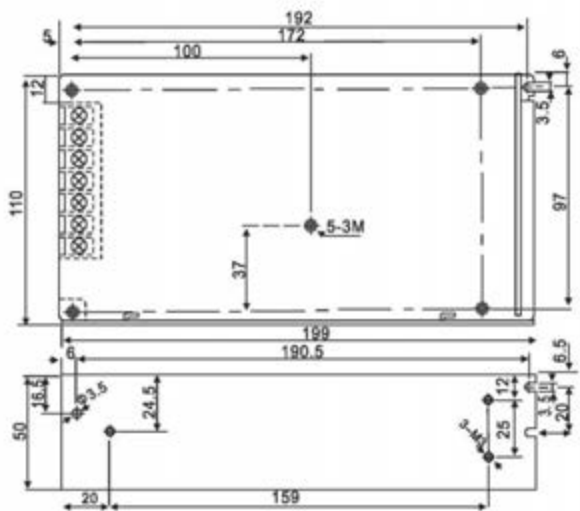
■S-50W



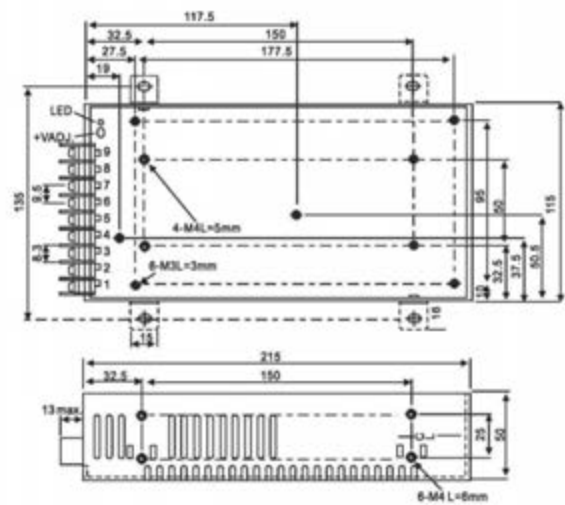
■S-120W



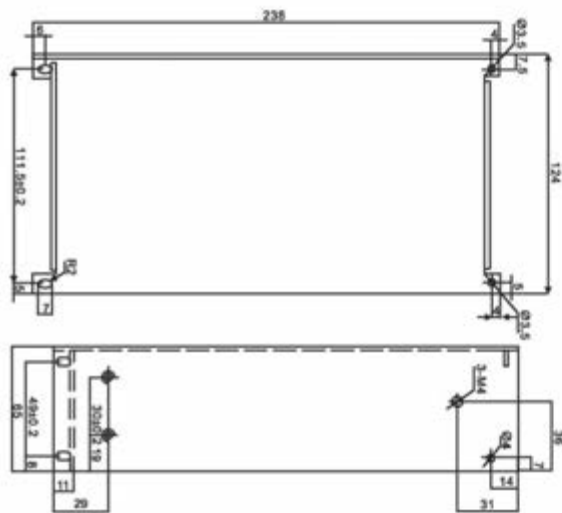
■S-200W



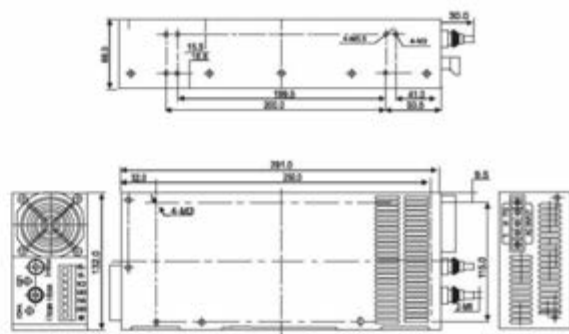
■S-350W



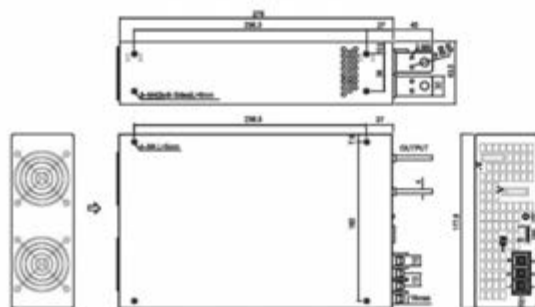
■ S-600W



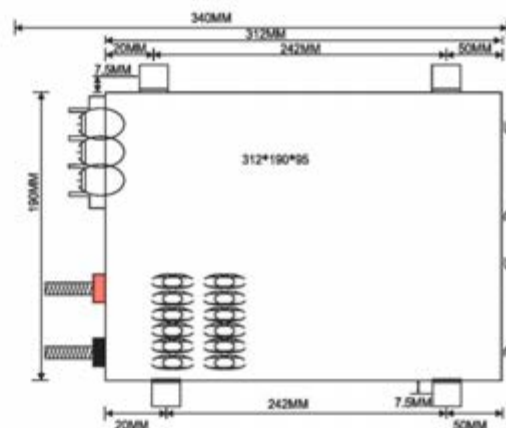
■ S-1000W



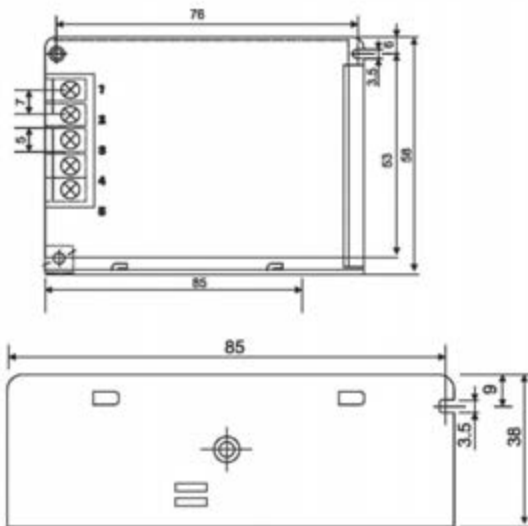
■ S-1500W



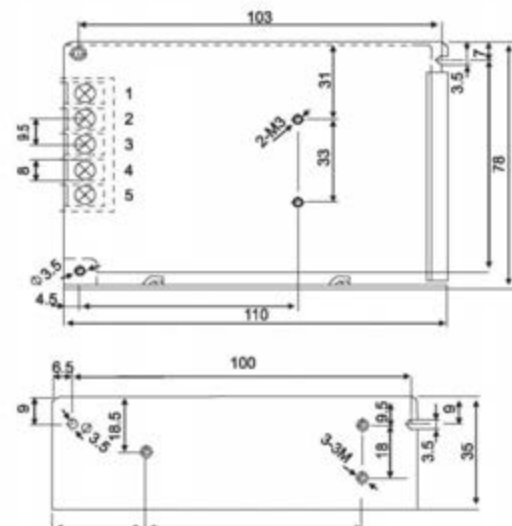
■ S-3000W



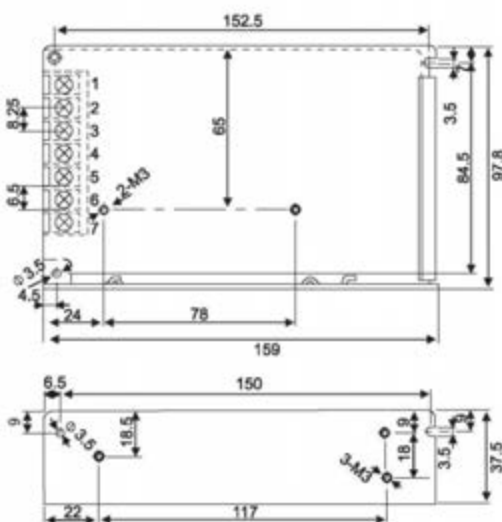
■MS-15W



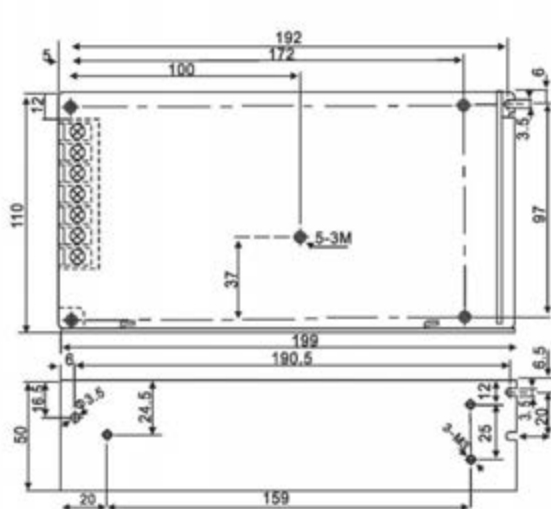
■MS-50W



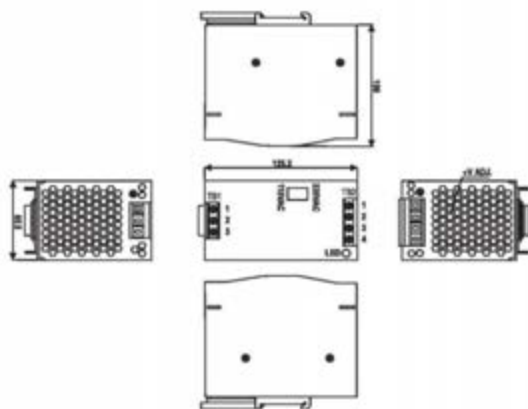
■MS-120W



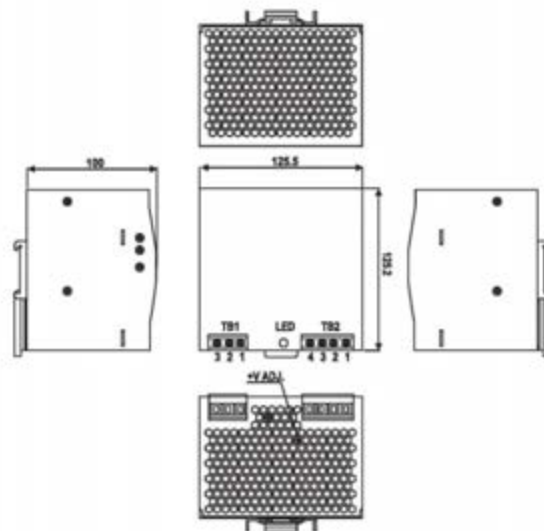
■MS-250W



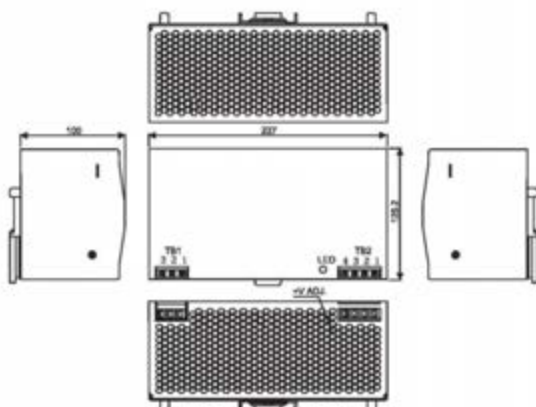
■DR-75W



■DR-240W



■DR-480W





C/ Alejandro Sánchez 109, Madrid

902 19 81 46

info@opaniel.com

www.opaniel.com

MADRID | BARCELONA | DURANGO | VALENCIA | SEVILLA | LISBOA