

Motor Control & Protection

MS Switching Power Supply

General

MS Switching Power Supply is suitable for use in industrial automation control systems, instrumentation, semiconductor manufacturing equipment, LED displays, mechanical and electrical equipment. It serves as control power, lighting power, and signal power for such equipment.

Compliant with Standard: Q/ZT 305

Type designation

MS - 15 - 5

Switching Power Supply	Output Power	Output DC Voltage
MS	15	5
Switching Power Supply	15:15W 25:25W 35:35W 50:50W 60:60W 75:75W 100:100W 120:120W	5:5V 12:12V 24:24V

50-120W (Only 12:12V, 24:24V)

Operating condition

1. Ambient Temperature:-20°C~+60°C.
2. -40°C~+85°C; 10%~95%RH (Non-condensing).
3. Altitude:~≤2000m.
4. Seismic Resistance:10~500Hz, 2G, 10min./1 cycle, duration 60 minutes.

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Technical data

Specifications		MS-15-5	MS-25-12	MS-25-15	MS-25-24	MS-25-27
Output	DC Output Voltage	5V	12V	15V	24V	27V
	Output Voltage Tolerance	±2%	±2%	±1.5%	±1.5%	±1.5%
	Rated Output Current	3A	2A	1.6A	1.0A	1.0A
	Output Current Range	0~3A	0~2A	0~1.6A	0~1.0A	0~1.0A
	Output Power	15W	24W	24W	24W	27W
	Ripple and Noise	100mVp-p	100mVp-p	100mVp-p	120mVp-p	120mVp-p
	DC Voltage Adjustable Range	-9%~+10%				
Start-up, Rise, Hold Time	800ms,50ms,20ms/230VAC					
Input	Input Voltage Range	90~264VAC, 47~63Hz, 135~373VDC				
	AC Input Current	0.5A/115VAC, 0.25A/230VAC		0.55A/115VAC, 0.35A/230VAC		
	Efficiency	77%	84.5%	84.5%	86%	86%
	Inrush Current	Cold Start Current45A/230VAC				
	Leakage Current	<0.5mA/240VAC				
Protection Characteristics	Overload Protection	Rated output power 110%~150% activates overload protection				
		Protection mode: Protection mode: Hiccup mode, which can automatically recover after the abnormal load condition is removed.				
Dimensions		88*58*31(L*W*H)				

Specifications		MS-35-5	MS-35-12	MS-35-15	MS-35-24	MS-35-27
Output	DC Output Voltage	5V	12V	15V	24V	27V
	Output Voltage Tolerance	±2%	±2%	±1.5%	±1.5%	±1.5%
	Rated Output Current	5A	3A	2.4A	1.5A	1.3A
	Output Current Range	0~5A	0~3A	0~2.4A	0~1.5A	0~1.3A
	Output Power	25W	36W	36W	36W	35.1W
	Ripple and Noise	100mVp-p	100mVp-p	100mVp-p	120mVp-p	120mVp-p
	DC Voltage Adjustable Range	-9%~+10%				
Start-up, Rise, Hold Time	800ms,50ms,20ms/230VAC					
Input	Input Voltage Range	90~264VAC, 47~63Hz, 135~373VDC				
	AC Input Current	0.75A/115VAC, 0.45A/230VAC				
	Efficiency	77%	85.5%	85.5%	87.5%	87.5%
	Inrush Current	Cold Start Current45A/230VAC				
	Leakage Current	<0.5mA/240VAC				
Protection Characteristics	Overload Protection	Rated output power 110%~150% activates overload protection				
		Protection mode: Hiccup mode, automatically recovers after the abnormal load condition is removed				
Dimensions		88*58*31(L*W*H)				

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Specifications		MS-50-12	MS-50-15	MS-50-24	MS-50-27
Output	DC Output Voltage	12V	15V	24V	27V
	Output Voltage Tolerance	±2%	±1.5%	±1.5%	±1.5%
	Rated Output Current	4.2A	3.4A	2.1A	1.9A
	Output Current Range	0~4.2A	0~3.4A	0~2.1A	0~1.9A
	Output Power	50.4W	51W	50.4W	51.3W
	Ripple and Noise	120mVp-p	120mVp-p	150mVp-p	150mVp-p
	DC Voltage Adjustable Range	-9%~+10%			
	Start-up, Rise, Hold Time	600ms,30ms,20ms/230VAC. 1000ms,30ms,20ms/115VAC			
Input	Input Voltage Range	90~264VAC 47~63Hz, 135~373VDC			
	AC Input Current	1.00A/115VAC, 0.55A/230VAC			
	Efficiency	86%	86%	88.5%	88.5%
	Inrush Current	Cold Start Current50A/230VAC			
	Leakage Current	<0.5mA/240VAC			
Protection Characteristics	Overload Protection	Rated output power 110%~150% activates overload protection			
		Protection mode: Hiccup mode, automatically recovers after the abnormal load condition is removed			
Dimensions		111*78*31(L*W*H)			

Specifications		MS-60-12	MS-60-15	MS-60-24	MS-60-27
Output	DC Output Voltage	12V	15V	24V	27V
	Output Voltage Tolerance	±2%	±1.5%	±1.5%	±1.5%
	Rated Output Current	5A	4A	2.5A	2.3A
	Output Current Range	0~5A	0~4A	0~2.5A	0~2.3A
	Output Power	60W	60W	60W	62.1W
	Ripple and Noise	150mVp-p	150mVp-p	180mVp-p	180mVp-p
	DC Voltage Adjustable Range	-9%~+10%			
	Start-up, Rise, Hold Time	800ms,30ms,20ms/230VAC. 1200ms,30ms,20ms/115VAC			
Input	Input Voltage Range	90~264VAC 47~63Hz, 135~373VDC			
	AC Input Current	1.20A/115VAC, 0.65A/230VAC			
	Efficiency	86.5%	86.5%	89%	89%
	Inrush Current	Cold Start Current50A/230VAC			
	Leakage Current	<0.5mA/240VAC			
Protection Characteristics	Overload Protection	Rated output power 110%~150% activates overload protection			
		Protection mode: Hiccup mode, automatically recovers after the abnormal load condition is removed			
Dimensions		111*78*31(L*W*H)			

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Specifications		MS-75-12	MS-75-15	MS-75-24	MS-75-27
Output	DC Output Voltage	12V	15V	24V	27V
	Output Voltage Tolerance	±2%	±1.5%	±1.5%	±1.5%
	Rated Output Current	6.3A	5A	3.2A	2.8A
	Output Current Range	0~6.3A	0~5A	0~3.2A	0~2.8A
	Output Power	75.6W	75W	76.8W	75.6W
	Ripple and Noise	150mVp-p	150mVp-p	180mVp-p	180mVp-p
	DC Voltage Adjustable Range	-9%~+10%			
	Start-up, Rise, Hold Time	800ms,30ms,20ms/230VAC. 1200ms,30ms,20ms/115VAC			
Input	Input Voltage Range	90~264VAC 47~63Hz, 135~373VDC			
	AC Input Current	1.50A/115VAC, 0.85A/230VAC			
	Efficiency	86.5%	86.5%	89.5%	89.5%
	Inrush Current	Cold Start Current55A/230VAC			
	Leakage Current	<0.5mA/240VAC			
Protection Characteristics	Overload Protection	Rated output power 110%~150% activates overload protection			
		Protection mode: Hiccup mode, automatically recovers after the abnormal load condition is removed			
Dimensions		111*78*31(L*W*H)			

Specifications		MS-100-12	MS-100-15	MS-100-24	MS-100-27
Output	DC Output Voltage	12V	15V	24V	27V
	Output Voltage Tolerance	±2%	±1.5%	±1.5%	±1.5%
	Rated Output Current	8.3A	6.7A	4.2A	3.7A
	Output Current Range	0~8.3A	0~6.7A	0~4.2A	0~3.7A
	Output Power	99.6W	100.5W	100.8W	99.9W
	Ripple and Noise	150mVp-p	150mVp-p	180mVp-p	180mVp-p
	DC Voltage Adjustable Range	-9%~+10%			
	Start-up, Rise, Hold Time	800ms,50ms,24ms/230VAC. 1200ms,30ms,20ms/115VAC			
Input	Input Voltage Range	90~264VAC, 47~63Hz, 135~373VDC			
	AC Input Current	2.0A/115VAC, 1.2A/230VAC			
	Efficiency	86%	86%	88%	88%
	Inrush Current	Cold Start Current55A/230VAC			
	Leakage Current	<0.5mA/240VAC			
Protection Characteristics	Overload Protection	Rated output power 110%~150% activates overload protection			
		Protection mode: Hiccup mode, automatically recovers after the abnormal load condition is removed			
Dimensions		129*98*38(L*W*H)			

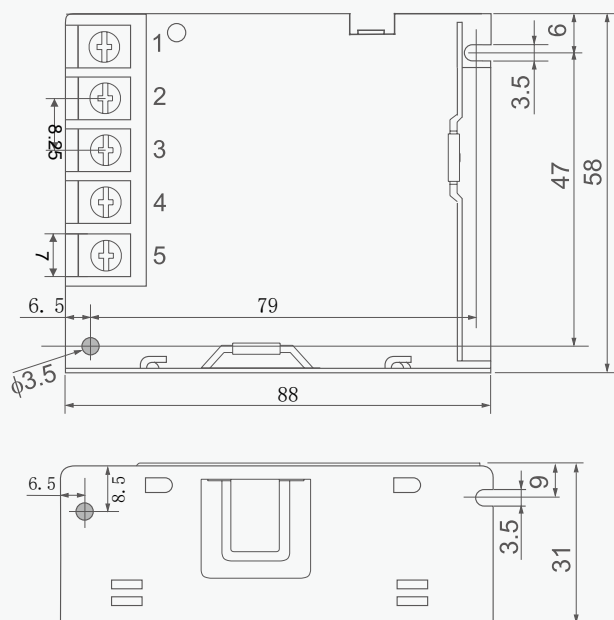
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Specifications		MS-120-12	MS-120-15	MS-120-24	MS-120-27
Output	DC Output Voltage	12V	15V	24V	27V
	Output Voltage Tolerance	±2%	±1.5%	±1.5%	±1.5%
	Rated Output Current	10A	8A	5A	4.5A
	Output Current Range	0~10A	0~8A	0~5A	0~4.5A
	Output Power	120W	120W	120W	121.5W
	Ripple and Noise	150mVp-p	150mVp-p	180mVp-p	180mVp-p
	DC Voltage Adjustable Range	-9%~+10%			
Start-up, Rise, Hold Time	800ms,50ms,24ms/230VAC. 1200ms,30ms,20ms/115VAC				
Input	Input Voltage Range	90~264VAC, 47~63Hz, 135~373VDC			
	AC Input Current	2.6A/115VAC, 1.4A/230VAC			
	Efficiency	86%	86%	88%	88%
	Inrush Current	Cold Start Current65A/230VAC			
	Leakage Current	<0.5mA/240VAC			
Protection Characteristics	Overload Protection	Rated output power 110%~150% activates overload protection			
		Protection mode: Hiccup mode, automatically recovers after the abnormal load condition is removed			
Dimensions		129*98*38(L*W*H)			

Overall and mounting dimensions(mm)

MS-15W,MS-25W,MS-35W



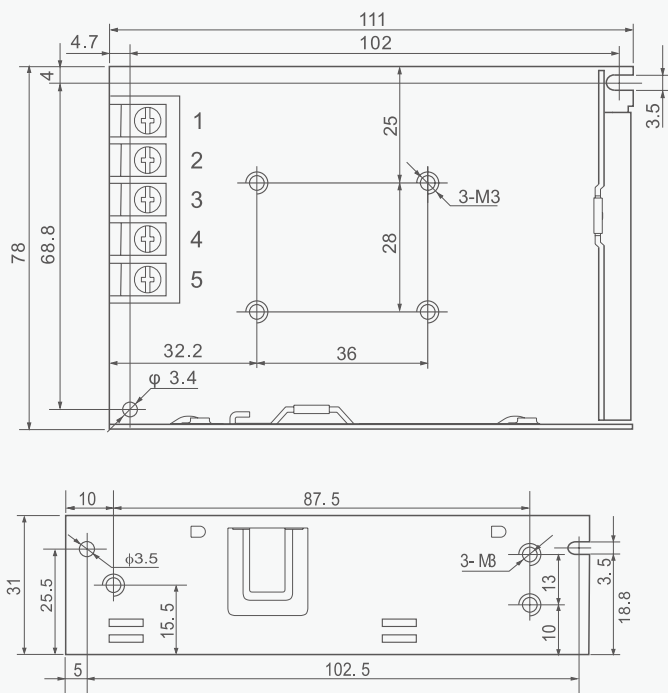
Terminal Pin Assignment

Pin Number	Assignment
1	AC/N
2	AC/L
3	FG \perp
4	DC OUTPUT-V
5	DC OUTPUT+V

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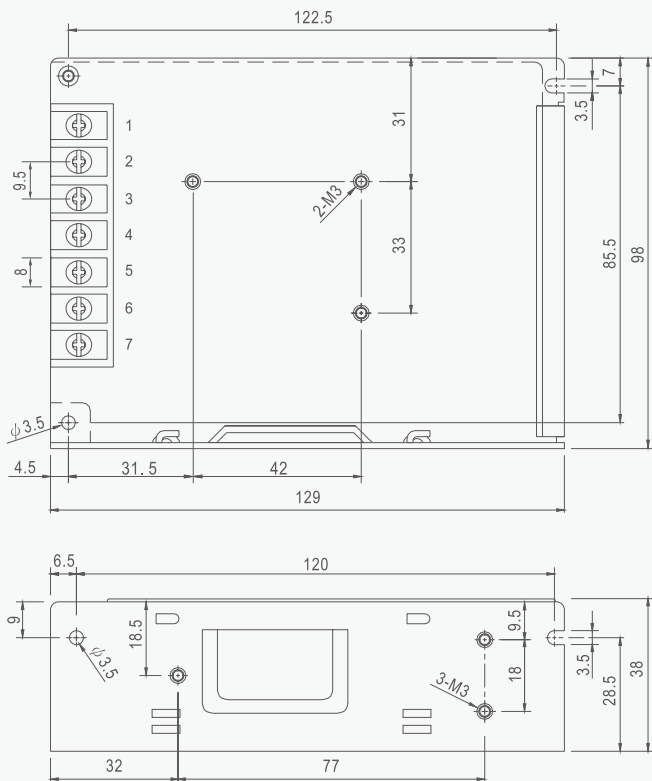
MS-50W,MS-60W,MS-75W



Terminal Pin Assignment

Pin Number	Assignment
1	AC/N
2	AC/L
3	FG \perp
4	DC OUTPUT-V
5	DC OUTPUT+V

MS-50W,MS-60W,MS-75W



Terminal Pin Assignment

Pin Number	Assignment
1	AC/N
2	AC/L
3	FG \perp
4	DC OUTPUT-V
5	DC OUTPUT+V