



## FEATURES

- Universal 90 - 264VAC or 127 - 373VDC Input voltage
- Accepts AC or DC input (dual-use of same terminal)
- Operating ambient temperature range: -20°C to +60°C
- The efficiency is up to 89%
- High I/O isolation test voltage up to 4000VAC
- Low ripple & noise
- Output short circuit, over-current, over-voltage, over-temperature protection
- DIN rail TS-35/7.5 or 15 mountable
- Ultra slim design with 35mm width: suitable for small chassis and narrow space installation
- Safety according to IEC/EN/UL62368, EN60335, GB4943 (CE pending)

SLI120-20BxxR2 is SCHMID-M AC-DC converter series featuring a cost-effective, energy efficient green power supply solution for standard DIN-rail mounting. The products offer a high level of stability and immunity to noise for industrial control equipment, machinery, and other industrial equipment in a variety of harsh environments. These light weight AC-DC converters have an extremely compact design and the standard rail (35mm) installation for space saving. With good EMC performance, compliant with international IEC/EN/UL62368, EN60335, GB4943 standards for EMC and safety.

## Selection Guide

Certification	Part No.	Output Power(W)	Nominal Output Voltage and Current (Vo/Io)	Output Voltage Adjustable Range(V)	Efficiency at 230VAC (%) Typ.	Max. Capacitive Load (µF)
CE (Pending)	SLI120-20B12R2	120	12V/10A	12-14	85	3000
	SLI120-20B24R2		24V/5A	24-28	88	1200
	SLI120-20B48R2		48V/2.5A	48-55	89	800

## Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit	
Input Voltage Range	AC input	90	--	264	VAC	
	DC input	127	--	373	VDC	
Input Voltage Frequency		47	--	63	Hz	
Input Current	115VAC	--	--	2.7	A	
	230VAC	--	--	1.6		
Inrush Current	115VAC	Cold start	--	20		--
	230VAC		--	40		--
Hot Plug		Unavailable				

## Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit	
Output Voltage Accuracy	Full load range	12V	--	±2.0	--	%
		24V/48V	--	±1.0	--	
Line Regulation	Rated load	--	±0.5	--		
Load Regulation	0% - 100% load	--	±1.0	--		





# AC/DC 120W Din Rail Power Supply

## SLI120-20BxxR2 Series

Ripple & Noise*	20MHz bandwidth (peak-to-peak value)	12V	--	--	100	mV
		24V	--	--	120	
		48V	--	--	150	
Temperature Coefficient			--	±0.03	--	%/°C
Minimum Load			0	--	--	%
Hold-up Time	115VAC		8	--	--	ms
	230VAC		16	--	--	
Short Circuit Protection	Recovery time < 5s after the short circuit disappear.		Constant current, continuous, self-recovery			
Over-current Protection			105%-150% Io, constant current mode, automatic recover after fault condition is removed			
Over-voltage Protection	12V		≤ 16V(Output voltage turn off, re-power on for recover)			
	24V		≤ 33V(Output voltage turn off, re-power on for recover)			
	48V		≤ 60V(Output voltage turn off, re-power on for recover)			
Over-temperature Protection			Output voltage turn off, re-power on for recover			

Note: \*The "Tip and barrel method" is used for ripple and noise test, please refer to AC-DC Converter Application Notes for specific information.

### General Specifications

Item	Operating Conditions			Min.	Typ.	Max.	Unit	
Isolation Test	Input - 	Electric strength test for 1min., leakage current <10mA			2000	--	--	VAC
	Input-Output				4000	--	--	
	Output - 				500	--	--	
Insulation Resistance	Input - 	At 500VDC			100	--	--	MΩ
	Input - Output				100	--	--	
	Output - 				100	--	--	
Operating Temperature				-20	--	+60	°C	
Storage Temperature				-40	--	+85		
Storage Humidity	Non-condensing			--	--	95	%RH	
Switching Frequency				--	65	--	kHz	
Power Derating	Operating temperature derating	All series	-20°C to -10°C	115VAC	2.0	--	--	% / °C
			-20°C to -10°C	230VAC	0	--	--	
		+40°C to +60°C	115VAC	2.5	--	--		
		12V	+45°C to +60°C	230VAC	3.33	--	--	
		24V/48V	+50°C to +60°C	230VAC	5	--	--	
	Input voltage derating	90VAC -115VAC			1.0	--	--	%/VAC
Safety Standard				Meet IEC/EN/UL62368/EN60335/GB4943				
Safety Class				CLASS I				
MTBF	MIL-HDBK-217F@25°C			>300,000 h				

### Mechanical Specifications

Case Material	Metal (AL1050, SGCC) and Plastic( PC940)
Dimensions	35.00 x 125.00 x 112.70mm
Weight	500g (Typ.)
Cooling Method	Free air convection

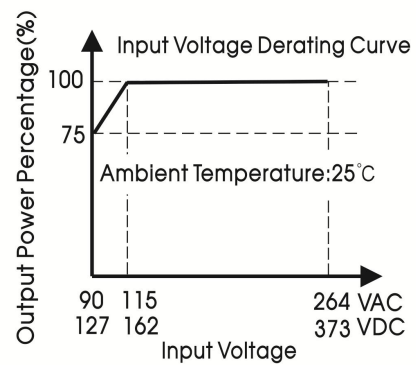
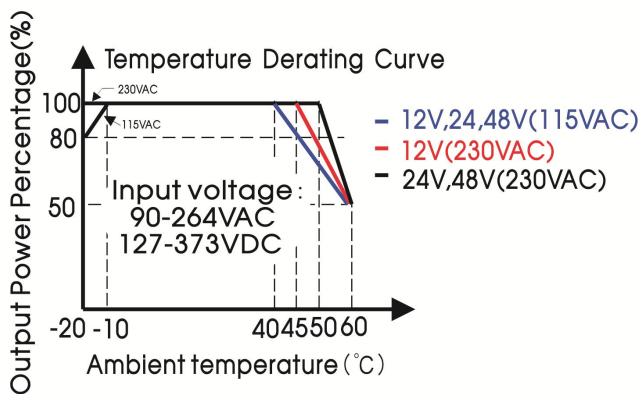
# AC/DC 120W Din Rail Power Supply

## SLI120-20BxxR2 Series

### Electromagnetic Compatibility (EMC)

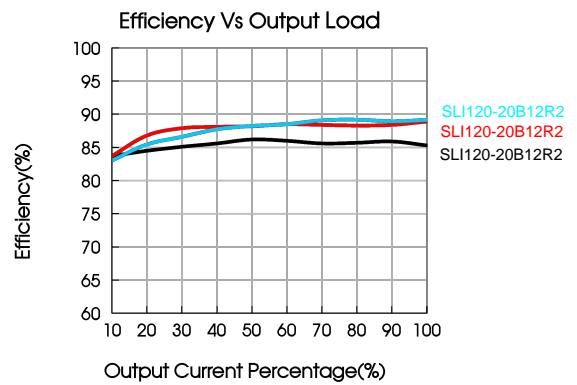
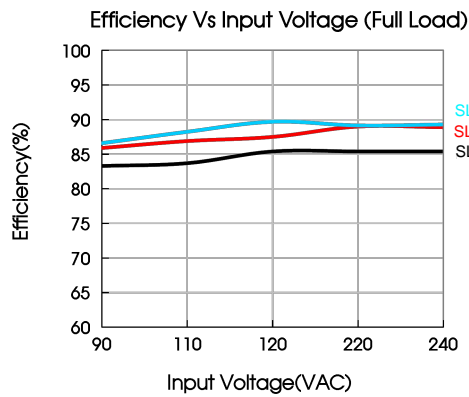
Emissions	CE	CISPR32/EN55032	CLASS A	
	RE	CISPR32/EN55032	CLASS A	
	Harmonic current	IEC/EN61000-3-2	CLASS A(≤80% Load)	
	Voltage flicker	IEC/EN61000-3-3		
Immunity	ESD	IEC/EN 61000-4-2	Contact ±6KV /Air ±8KV	Perf. Criteria B
	RS	IEC/EN 61000-4-3	10V/m	perf. Criteria A
	EFT	IEC/EN 61000-4-4	±4KV	perf. Criteria B
	Surge	IEC/EN 61000-4-5	line to line ±2KV/line to ground ±4KV	perf. Criteria B
	CS	IEC/EN61000-4-6	10 Vr.m.s	perf. Criteria A
	Voltage dips, short interruptions and voltage variations immunity	IEC/EN61000-4-11	0%, 70%	perf. Criteria B

### Product Characteristic Curve



Note: ① With an input voltage between 90-115VAC and a DC input between 127-162VDC the output power must be derated as per the temperature derating curves;

② This product is suitable for applications using natural air cooling; for applications in closed environment please consult SCHMID-M FAE.

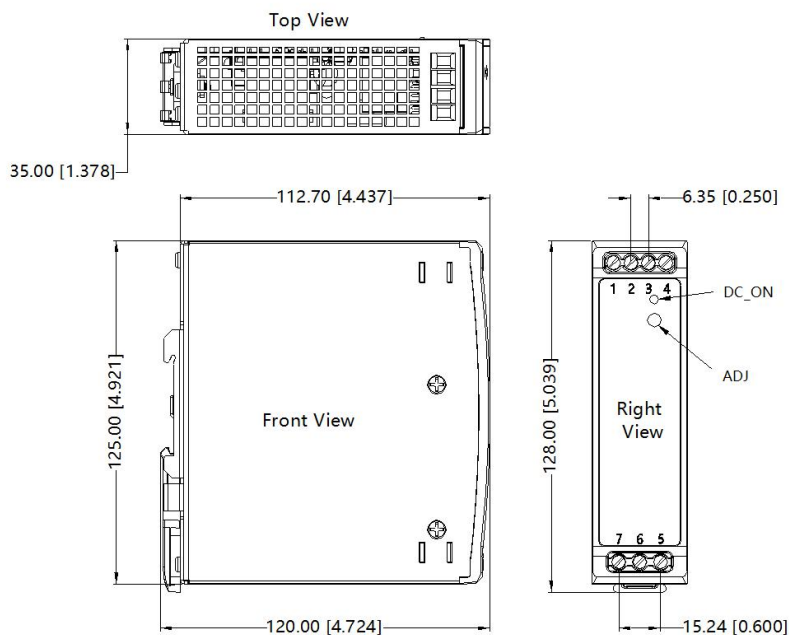


# AC/DC 120W Din Rail Power Supply

## SLI120-20BxxR2 Series

### Dimensions and Recommended Layout

THIRD ANGLE PROJECTION 



Pin-Out	
Pin	Function
1	+Vo
2	+Vo
3	-Vo
4	-Vo
5	AC(N)
6	AC(L)
7	⏏

Note:  
 Unit: mm[inch]  
 ADJ : adjustable resistance to change output voltage  
 Wire range: 26-10 AWG  
 Tightening torque: Max 0.4 N·m  
 Mounting rail: TS35, rail needs to connect safety ground  
 General tolerances:  $\pm 1.00[\pm 0.039]$

Note:

1. Unless otherwise specified, parameters in this datasheet were measured under the conditions of  $T_a=25^\circ\text{C}$ , humidity<75%RH with nominal input voltage and rated output load;
2. The room temperature derating of  $5^\circ\text{C}/1000\text{m}$  is needed for operating altitude greater than 2000m;
3. All index testing methods in this datasheet are based on our company corporate standards;
4. In order to improve the efficiency at high input voltage, there will be audible noise generated, but it does not affect product performance and reliability;
5. We can provide product customization service, please contact our technicians directly for specific information;
6. Products are related to laws and regulations: see "Features" and "EMC";
7. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.