SCHMID-M

SLI120 Series

120W, AC-DC converter

FEATURES

- Universal input range:85~264VAC/120~370VDC
- AC and DC all in one (input from the same terminal)
- Low standby power consumption, high efficiency, 3000VAC safe isolation
- low ripple and noise
- Protection of input under-voltage, output short circuit, output over-current, output over-voltage over-temperature Protection, and Remote control
- Perfect EMC performance, and EFT, surge meet level 4
- Meet IEC61000, UL60950and IEC60950 standards

SLI120---- 120W converter offered by Schmid-M. It features Cost-effective, standard rail mounting, energy efficient. It offers stability and high noise immunity for industrial control equipment, machinery and other harsh environments of industrial equipment. The converter is small, light weight, compact structure, standard rail (35mm) installation and save a lot of space for customers.

Selection Guide

Certification	Model	Output Power	Nominal Output Voltage and Current(Vo/Io)	Efficiency (230VAC, %/Typ.)	Max. Capacitive Load(μF)
UL/CE (Pending)	SLI120-10B24	120W	24V/5A	92	4700

Input Specifications

Item		Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage Range		AC input	85	--	264	VAC
		DC input	120	--	370	VDC
Input frequency			47	--	63	Hz
Input current		115VAC	--	--	1.5	A
		230VAC	--	--	0.75	
Inrush current		115VAC	--	35	--	
		230VAC	--	70	--	
Power Factor		115VAC	--	0.98	--	--
		230VAC	--	0.96	--	
Input under-voltage protection	Start-up Voltage	AC input	76	--	83	VAC
	Shutdown Voltage	AC input	67	--	75	

Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Output Voltage Accuracy		--	--	±1	%
Linear Regulation	Full load	--	--	±0.5	
Load Regulation		--	--	±1	
Output Ripple & Noise*	20MHz bandwidth (peak-peak value)	--	--	100	mV
Temperature Drift Coefficient		--	±0.03	--	%/°C
Stand-by Power Consumption		--	--	0.75	W
Short Circuit Protection		Continuous, self-recovery			
Over-current Protection		110-150% Io, start protecting after 3 seconds, and auto recovery			
Over-voltage Protection		Overvoltage Restart			
Over-temperature Protection		Over-temperature shutdown , and auto recovery			
Min. Load		0	--	--	%
Start-up Time		--	--	1500	ms

AC/DC Converter

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Hold-up Time		115VAC	--	25	--	
		230VAC	--	25	--	
Note: * Rely test method is adopted test the ripple and noise, please see *AC-DC Converter Application Notes* for specific operation methods.						

General Specifications

Item		Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Input-output	Test time: 1min	3000	--	--	VAC
	Input- ⏚		1500	--	--	
	Output- ⏚		500	--	--	
Operating Temperature			-25	--	+70	℃
Storage Temperature			-25	--	+85	
Storage Humidity			--	--	95	%RH
Switching Frequency			--	100	--	kHz
Power Derating		+55℃ to +70℃	2.5	--	--	%/℃
Safety Standard		IEC60950/EN60950/UL60950				
Safety-regulated Certification		EN60950/UL60950 Pending				
Safety Class		CLASS I				
Hot Plug		Unavailable				
MTBF		MIL-HDBK-217F@25°C > 300,000 h				

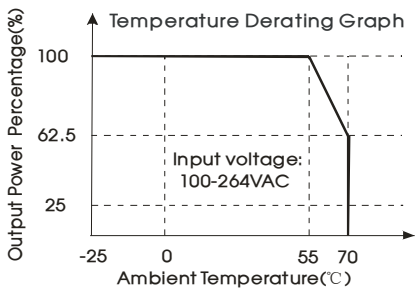
Physical Specifications

Casing Material	heat-resistant plastic (UL94-V0) and metal
Package Dimensions	35.00*125.00*112.70 mm (W*H*D)
Weight	560±20 g
Cooling method	Natural cooling

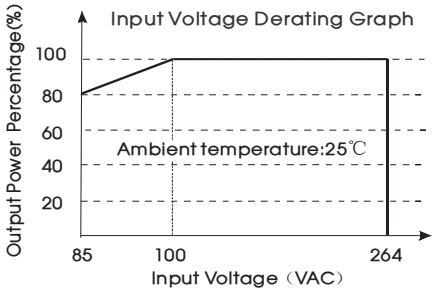
EMC Specifications

EMI	Conducted Disturbance	CISPR22/EN55022, CLASS B	
	Radiated Emission	CISPR22/EN55022, CLASS B	
EMS	Electrostatic Discharge	IEC/EN61000-4-2 Contact ±6KV/Air ±8KV	Perf. Criteria B
	Radiation Immunity	IEC/EN61000-4-3 10V/m	perf. Criteria A
	EFT	IEC/EN61000-4-4 ±4KV	perf. Criteria B
	Surge Immunity	IEC/EN61000-4-5 ±2KV/±4KV	perf. Criteria B
	Conducted Disturbance immunity	IEC/EN61000-4-6 10 Vr.m.s	perf. Criteria A
	Immunity for Power frequency magnetic field	IEC/EN61000-4-8 10A/m	perf. Criteria A
	Immunities of voltage dip, drop and short interruption	IEC/EN61000-4-11 0%-70%	perf. Criteria B

Product Characteristic Curve



Note: Input voltage should be derated based on temperature derating when it is 85-100VAC.



Note: When input DC, VDC=1.414*VAC-20.

AC/DC Converter

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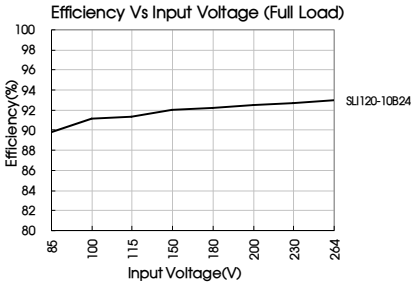
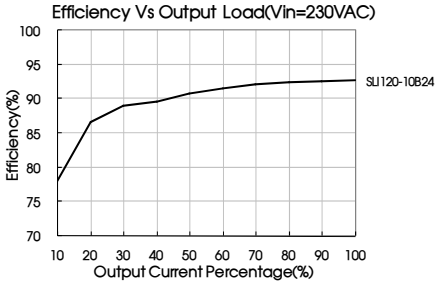




Design Reference

1. Typical application circuit

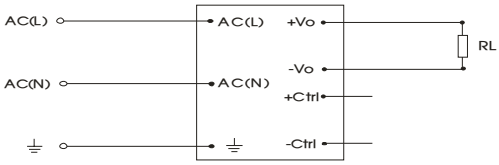


Fig. 1: Typical application circuit

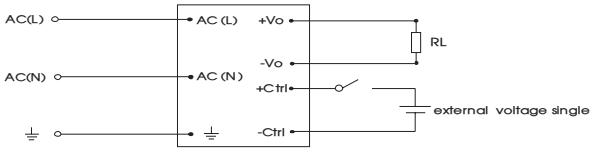
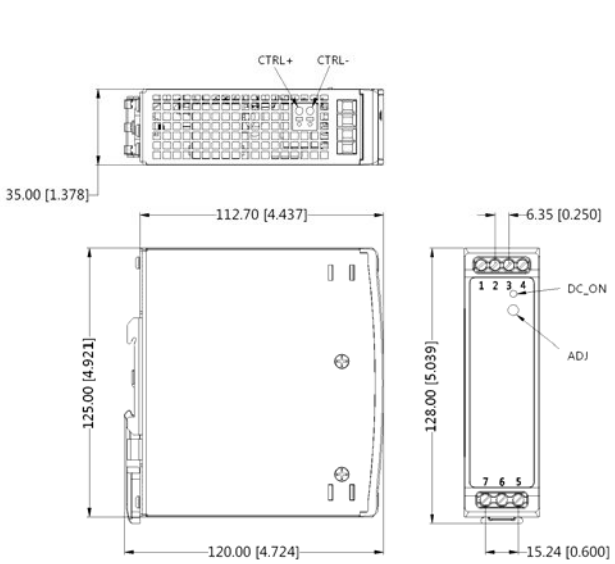


Fig. 2: Remote control Applications circuit

*Note: external voltage single range 4.5 ~ 12.5VDC realize the power off, the single disappears and recovery

2. For more information Please find the application notes on www.schmid-m.com

Dimensions and Recommended Layout



PIN CONNECTION	
Pin	Function
1	+Vo
2	+Vo
3	-Vo
4	-Vo
5	AC(L)
6	AC(N)
7	⏚

Note:
Unit:mm[inch]
General tolerances:±1.00[±0.040]
Wire range:26~10AWG
Strip length:8.0[0.32]

Note:

1. Packing Information please refer to 'Product Packing Information'. Packing bag number: 58220028;
2. Unless otherwise specified, data in this datasheet should be tested under the conditions of Ta=25°C, humidity<75% when inputting nominal voltage and outputting rated load;
3. All index testing methods in this datasheet are based on our Company's corporate standards;
4. The performance indexes of the product models listed in this manual are as above, but some indexes of non-standard model products will exceed the above-mentioned requirements, and please directly contact our technician for specific information;
5. We can provide product customization service;
6. The product specification may be changed at any time without prior notice.