

## AC-DC KNX Bus Power Supply AX/G-P1280.1

### Functional Description

- Smart Home Control
- Modern Building Automation
- Lighting Control
- HVAC Systems
- Security Systems
- Curtains and blinds
- Monitoring system
- Alert Monitoring

### Characteristics

- EIB/KNX Power Supply with Integrated Choke
- Safety Extra-Low Voltage (SELV)
- Protections: Short-Circuit/ Overload (Short-Circuit Withstand) / Overvoltage
- Input Range: 198~264V AC
- Bus Reset Function
- Operating Temperature: -20°C to +70°C
- 3-Year Warranty

### ● Overview

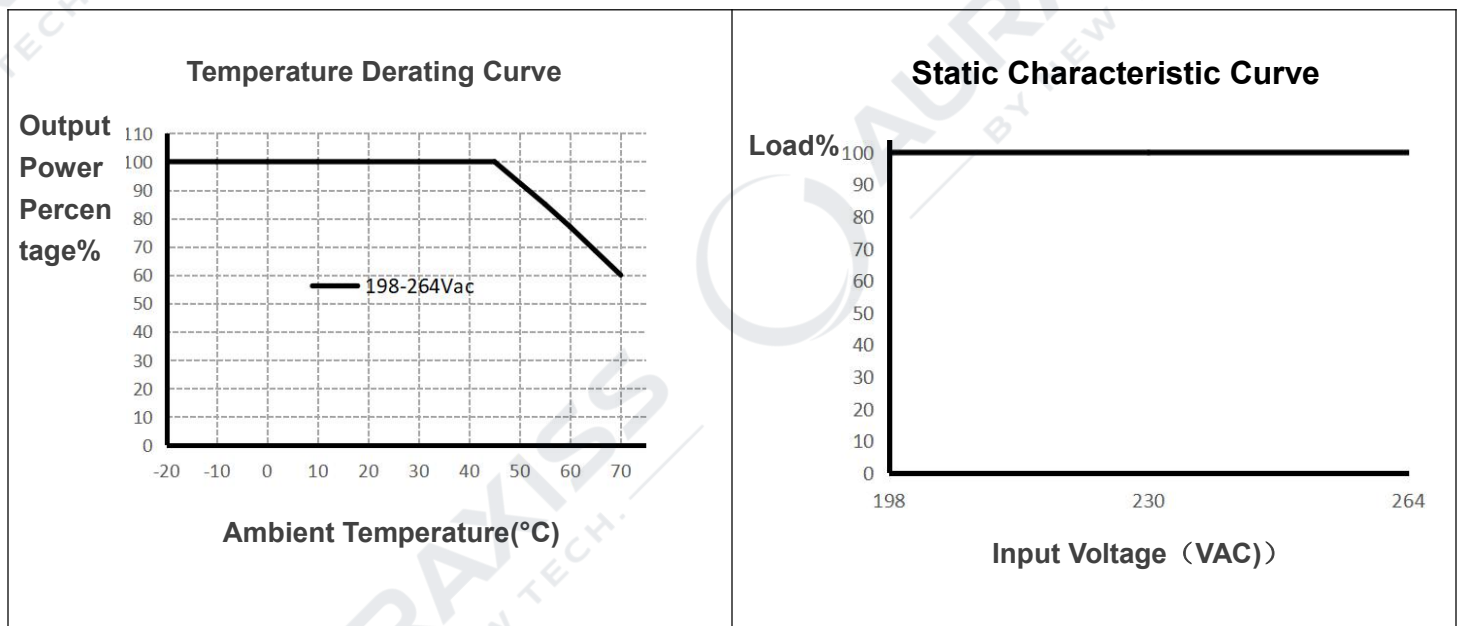
The AX/G-P1280.1 is a highly efficient KNX power supply delivering 1280mA output within an ultra-compact 4SU (72mm) chassis width. It provides choke-filtered KNX bus power along with an auxiliary power output, operating reliably across a broad temperature range of -20°C to +70°C for diverse application scenarios. Equipped with LED indicators displaying normal operation, overload, and reset statuses, this unit is specifically engineered for KNX-compliant smart home and building automation systems.

## 1. Parameters

Model		AX/G-P1280.1	
Input characteristics	AC Input	198~264VAC	
	DC Input	280~370VDC	
	Frequency Range	47~63HZ	
	AC Current	<0.5A	
	Standby Power Consumption	<0.5W	
	Inrush Current	<60A(230VAC, full load)	
	Typical Efficiency	90% (Input efficiency upstream of the choke) (230VAC, full load)	
Output characteristics	Choke-filtered KNX bus voltage output	BUS power 30VDC±5%(KNX Red/Black Terminals)	
	Non-choke-filtered DC voltage output	30VDC±5%(Auxiliary power output)	
	Rated Current	1280mA	
	Rated Power	38.4W	
	Ripple and noise	100mVp-p (Ripple and noise measurement method: Connect 0.1μF and 47μF capacitors in parallel at the output terminals, and measure with a 20MHz bandwidth limit.)	
	short-circuit current	<2.8A	
	Startup rise time	<0.5S(230VAC, full load)	
	Line Regulation	1%	
	Load Regulation	6% main road	
		2% side road	
	Power-off retention time	200mS(230VAC, full load)	
	Overcurrent Protection	200% to 235% of rated output power; self-recoverable after overcurrent fault clearance	
	Overvoltage Protection	33~35V (Output Voltage at Choke Input Side)	
	Reset	A reset button initiates KNX bus product reset after 3-second press; full reset requires at least 23-second activation.	
Protection	Insulation voltage	3000V 5mA 60S Input to output	
	Insulation resistance	>100MΩ @ 500VDC	
	Leakage current	I/P to O/P <5mA	
Operation and Display	LED display	Steady green light	Normal Operation
		Steady red light	Output overcurrent, overvoltage, or undervoltage

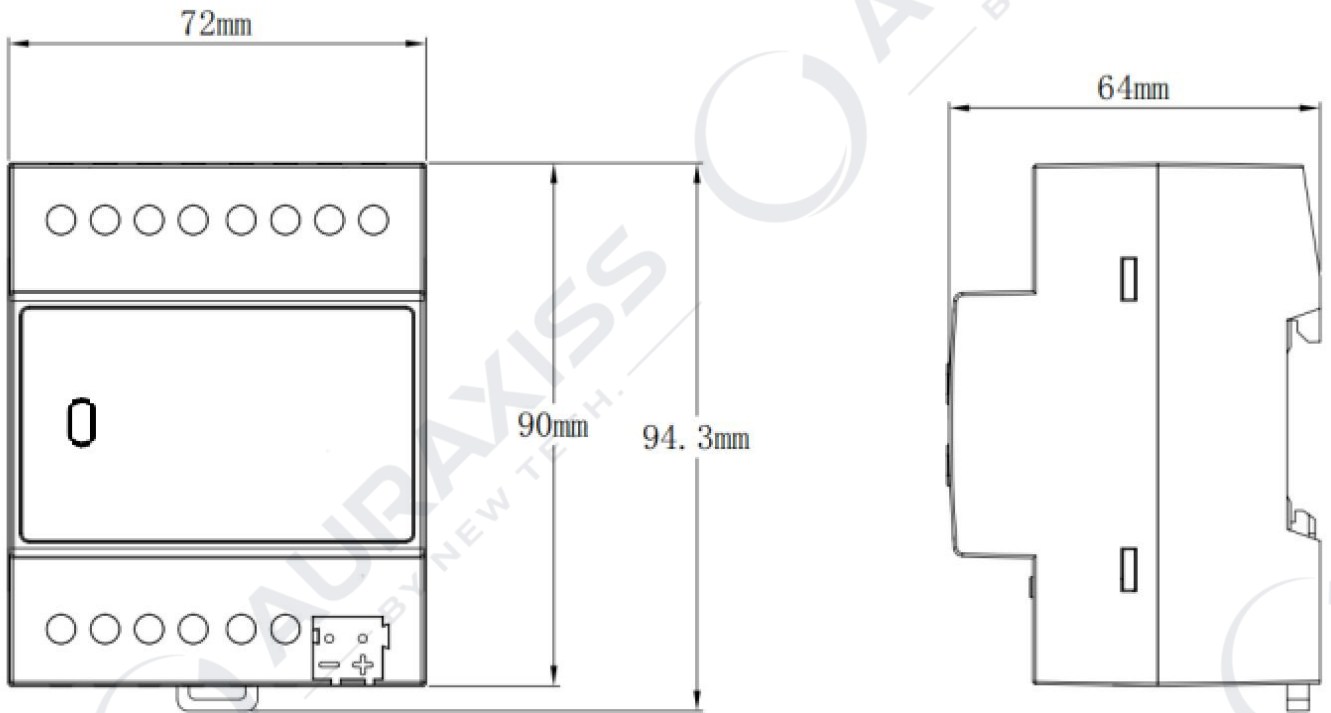
		Steady Orange light	Reset button pressed
Environment	Ta/Operation Tempe	-20~+70°C (Please refer to the reduction curve)	
	Ts/Storage Temp	-20 ~ +85°C	
	Operating Humidity	10 ~ 95% RH Condensation-Free	
	Overvoltage level	III , For reference BS EN/EN60664- 1	
	IP Grade	IP20	
Safety and EMC Standards	Safety Standards	BS EN/EN62368-1	
	EMC Emissions	CISPR22/EN55032	
	EMC Immunity	CISPR22/EN55032	
	Surge Immunity	L-N/2KV	
Connection	Screw-type Terminal Blocks	0.5 – 4.0mm <sup>2</sup> Solid Wire, 0.5 - 2.5mm <sup>2</sup> Multi-strand Wire	
	KNX Bus Terminal Block	0.8mm $\phi$ , Solid Wire	
	Dimension	72*90*64mm (W*H*D)	
	Face Width	4SU	
	Rail Installation	35mmDIN Rail Mounting	
Remark	1. Unless otherwise specified, all specifications are measured at 230VAC input, rated load, and an ambient temperature of 25. 2. Provide the test report issued by a certific.		

## 2. Chart



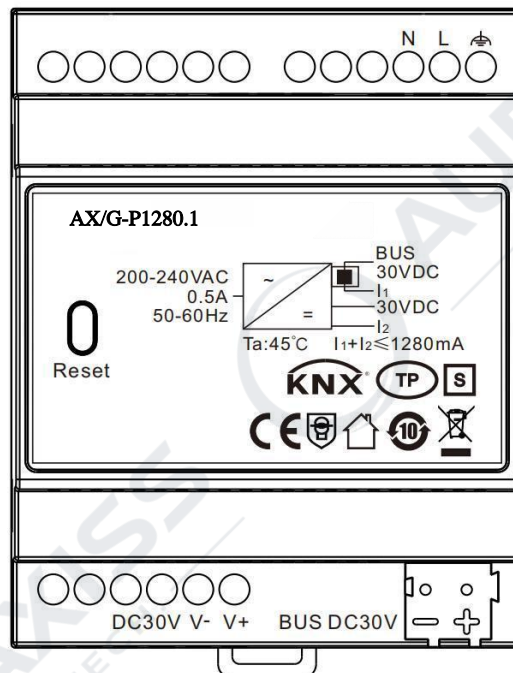
### 3. Dimension

AX/G-P1280.1



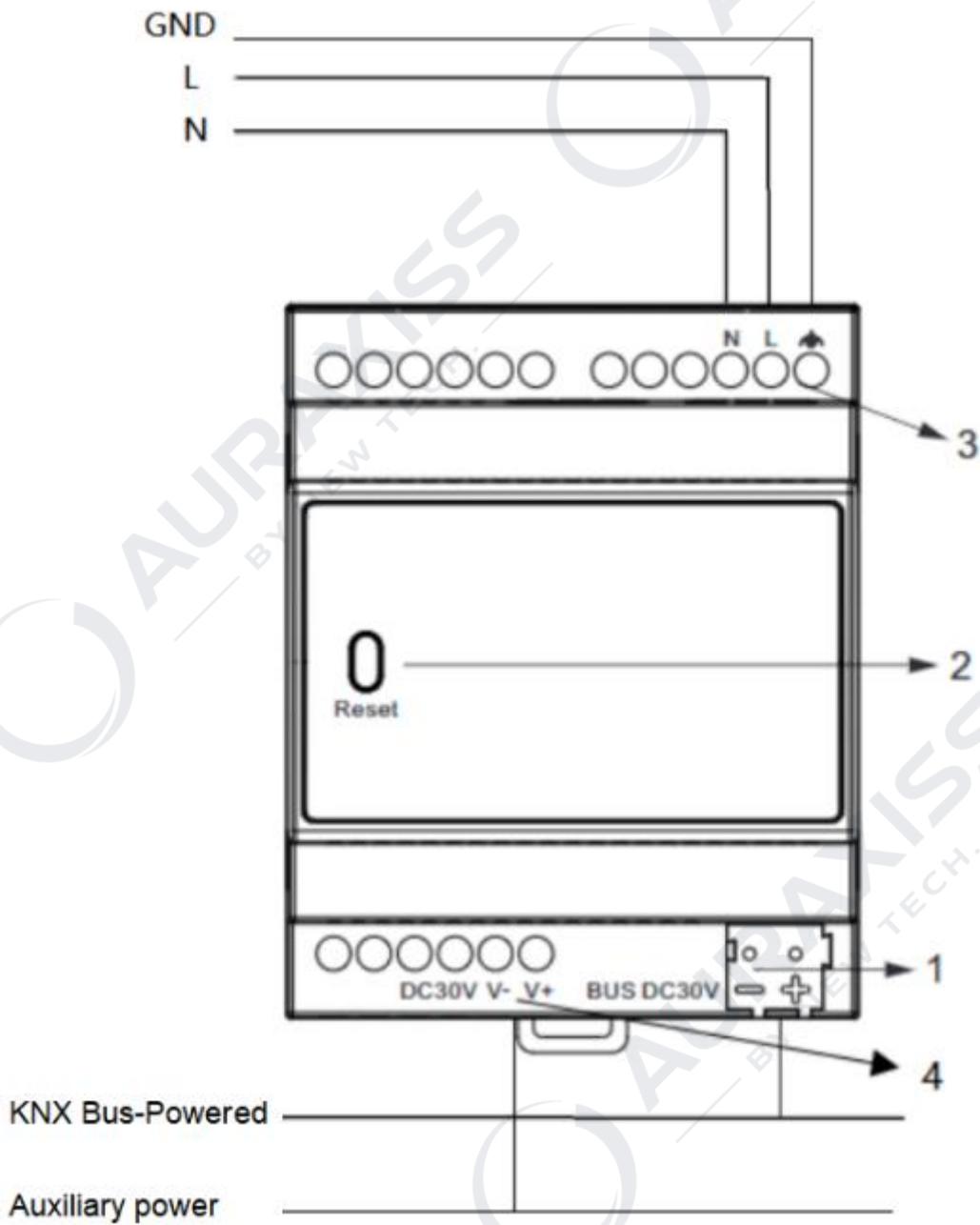
### 4. Label

AX/G- 1280.1



## 5. Wiring Diagram

AX/G-P1280.1



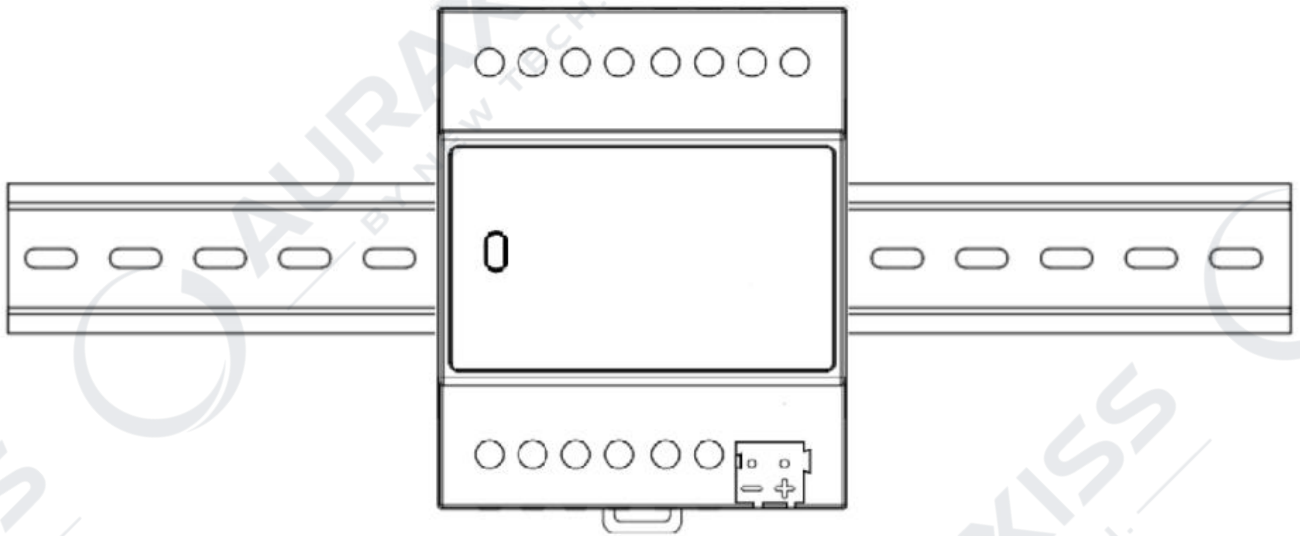
- 1、KNX/EIB Bus Connection Terminal
- 2、Reset Button/Status Indicator
- 3、Input Terminal
- 4、Auxiliary Power Output Terminal

## 6. Mounting Drawing

Step 1. Secure the DIN rail



Step 2. Press the entire module onto the rail and slide it to the desired position until it locks in place.



## 7. Revision History

DATE	REV	Modification details
2025-10-14	V1.0	Initial Release