

iO-GRID *M*

Power Module User Manual



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1. Power Module List

Product No.	Description	Remarks
GFPS-0202	100~240 VAC to 24 VDC Power Module	
GFPS-0303	24 VDC to 5 VDC Power Module	

2. Power Module Specification

2.1 GFPS-0202

Technical Specification	
Rated Input Voltage	100~240 VAC (rated)
Inrush Current (Cold Start)	34 A
Rated Power	48 W / 2 A
Output Voltage	24 VDC \pm 1%
Overload Protection	Hiccup Mode
Overload	120% - 185% Rated Output Power
Overvoltage Protection	Clamper Overvoltage Protection
Overvoltage	30-34 VDC
General Specification	
Dimension (W*D*H)	20 x 100 x 96mm
Weight	126g
Ambient Temperature (Operation)	-20°C...+60°C
Ambient Humidity	RH 20%...90%
Altitude Limit	< 2000 m
Ingress Protection (IP)	IP 20
Pollution Severity	II
Safety Approval	CE
Wiring Range (IEC / UL)	0.2 mm ² ~2.5 mm ² / AWG 26~12
Wiring Ferrules	DN00508D、DN00708D、DN01508D

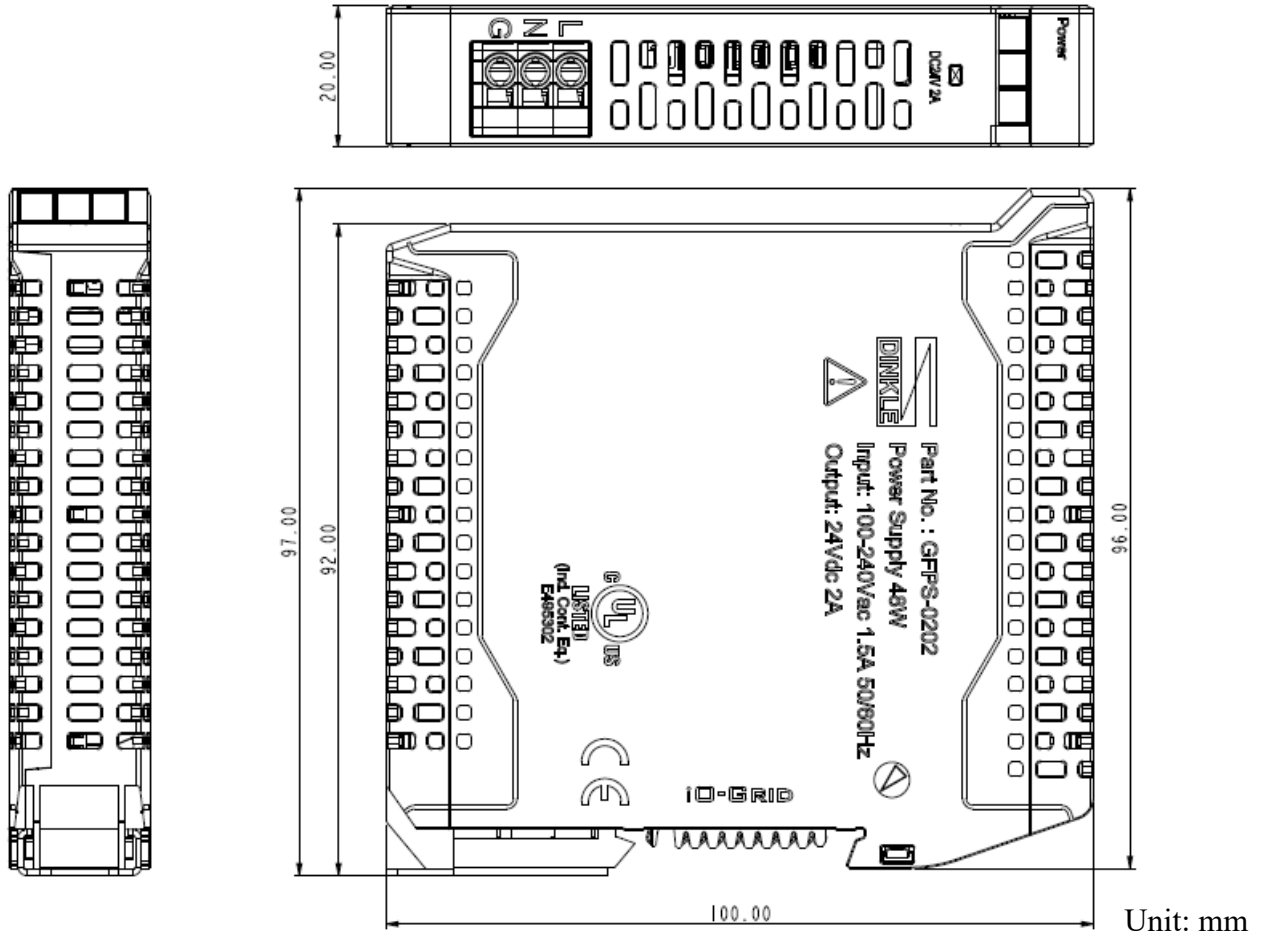
2.2 GFPS-0303

Technical Specification	
Rated Input Voltage	21 ~ 28.8 VDC
Max Input Current	< 1.3 A
Rated Output Power	20 W / 4 A
Output Voltage	5 VDC \pm 5%
Overload Protection	Clamper Overvoltage Protection (Latching)
Overload	127% ~ 170% Rated Output Power
Overvoltage Protection	Clamper Overvoltage Protection
Overvoltage	6.5 VDC ~ 6.7 VDC
General Specification	
Dimension (W*D*H)	12 x 100 x 96mm
Weight	68g
Ambient Temperature (Operation)	-20°C...+60°C
Ambient Humidity	RH 20%...90%
Altitude Limit	< 2000 m
Ingress Protection (IP)	IP 20
Pollution Severity	II
Safety Approval	CE

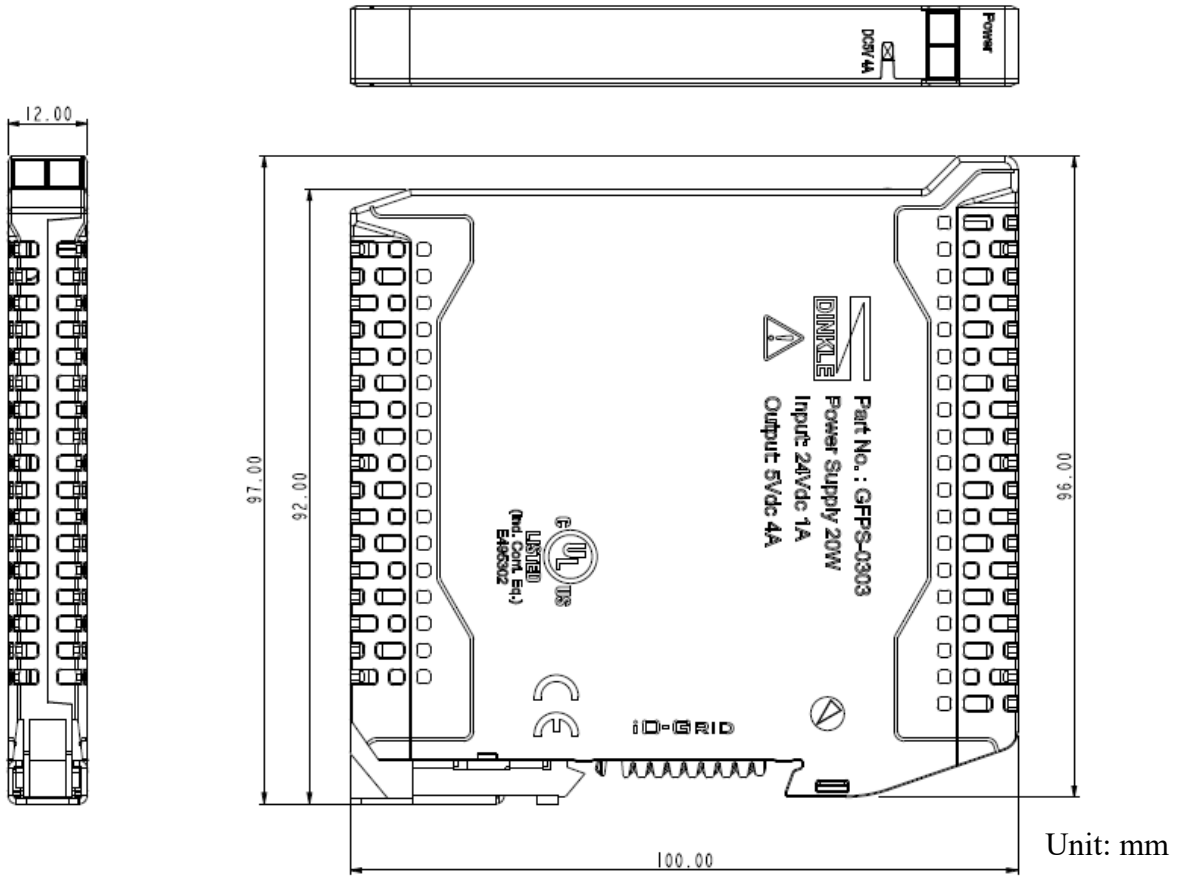
3. Power Module Information

3.1 Power Module Dimensions

I. GFPS-0202

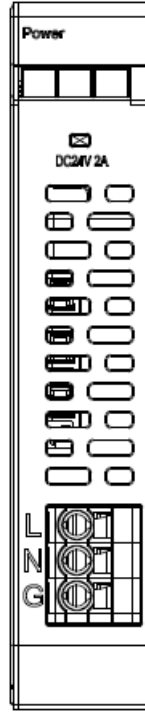


II. GFPS-0303



3.2 Power Module Panel Information

I. GFPS-0202



LED Indicator Light

LED	Color	Status
DC24V 2A	Green	Power Conve Rterunning

I. GFPS-0303



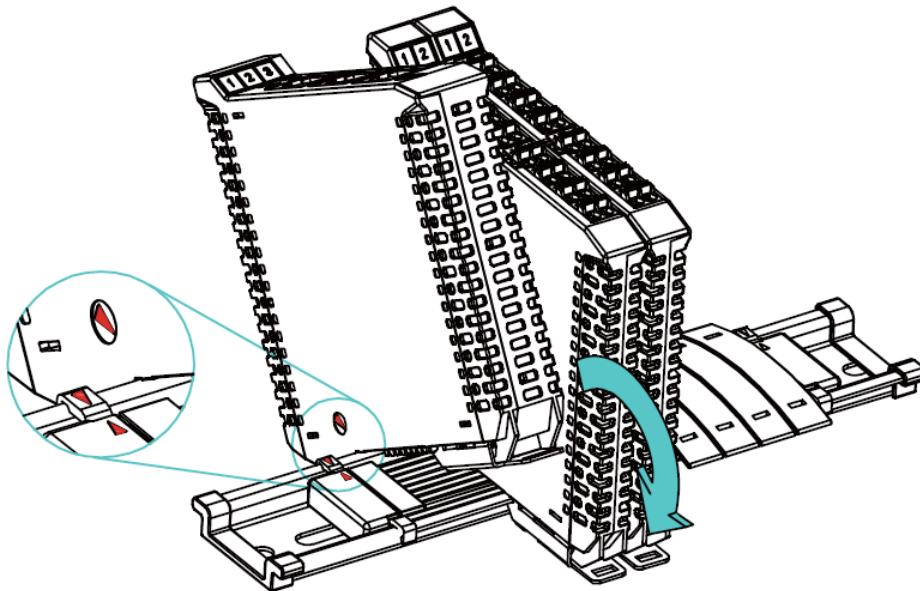
LED Indicator Light

LED	Color	Status
DC5V 4A	Green	Power Converter Running

4. Module Installation/Disassembly

4.1 Installation

- I. Align the red arrow on the side of the module to the arrow on the DIN rail.
- II. Press the module down and the metal clamp will slide (thanks to its spring mechanism) and grab on the other side of the DIN rail. Continue to push down until the metal clamp “clicks”.

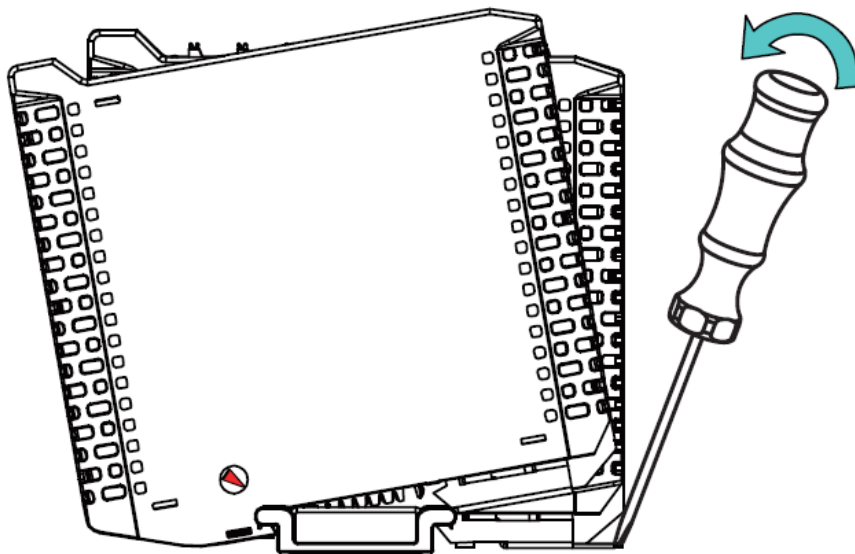


*Note: Make sure the red arrows on the module and the rail are pointing the same direction.

4.2 Removal

- I. Use a screwdriver to pull the metal hook sideways and detach the module from the DIN rail.

- II. Remove all modules from the DIN rail in reverse order of installation.



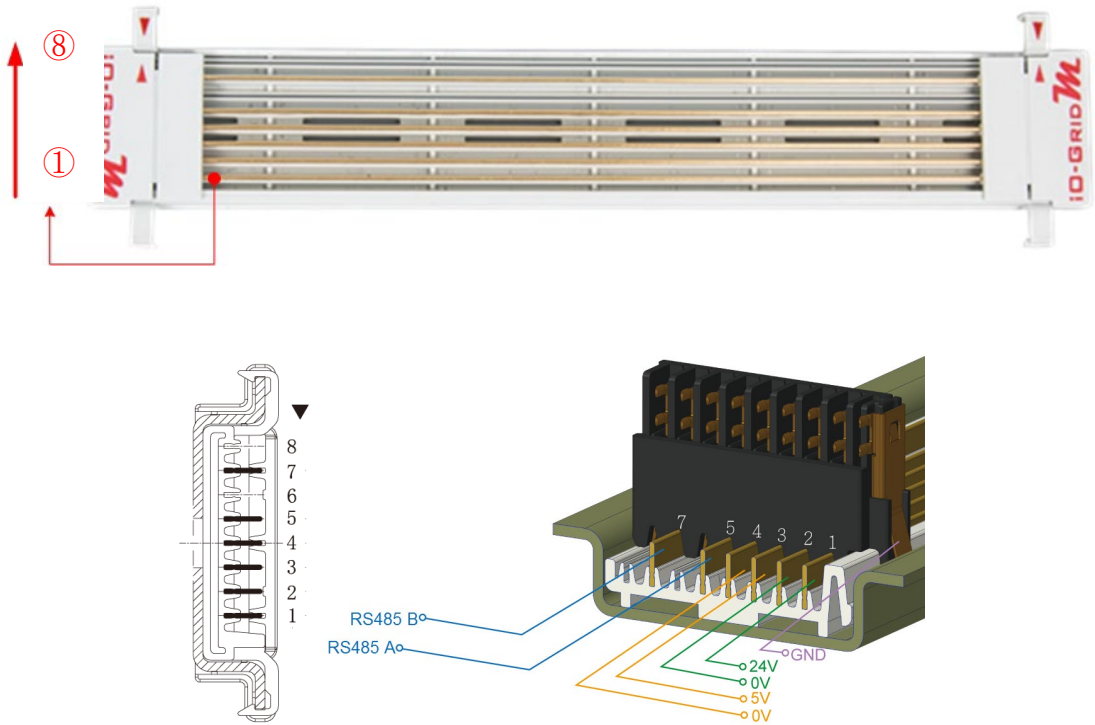
5. iO-GRID^M Series Introduction

iO-GRID^M series utilizes the standard Modbus communication protocol and supports Modbus RTU/ASCII and Modbus TCP. Please choose products and factory controllers to figure your system based on your communication protocol.

5.1 iO-GRID^M Components

I. DINKLE Bus

Rail 1 to 4 are defined for power supply and rail 5 and 7 are defined for communication.



DINKLE Bus Rail Definitions:

Rail	Definition	Rail	Definition
8	—	4	0V
7	RS485B	3	5V
6	—	2	0V
5	RS485A	1	24V

6. Power Module Instructions

6.1 Power Module Assembly and Connections

I. Install the fieldbus to the DIN rail



II. Install GFPS-0202 to the fieldbus and GFPS-0202 will convert the alternating current from the external power supply into 24V direct current and feed it to the fieldbus



III. Install GFPS-0303 to the fieldbus and GFPS-0303 will convert the 24V direct current from the fieldbus into 5V direct current before feeding it to the fieldbus

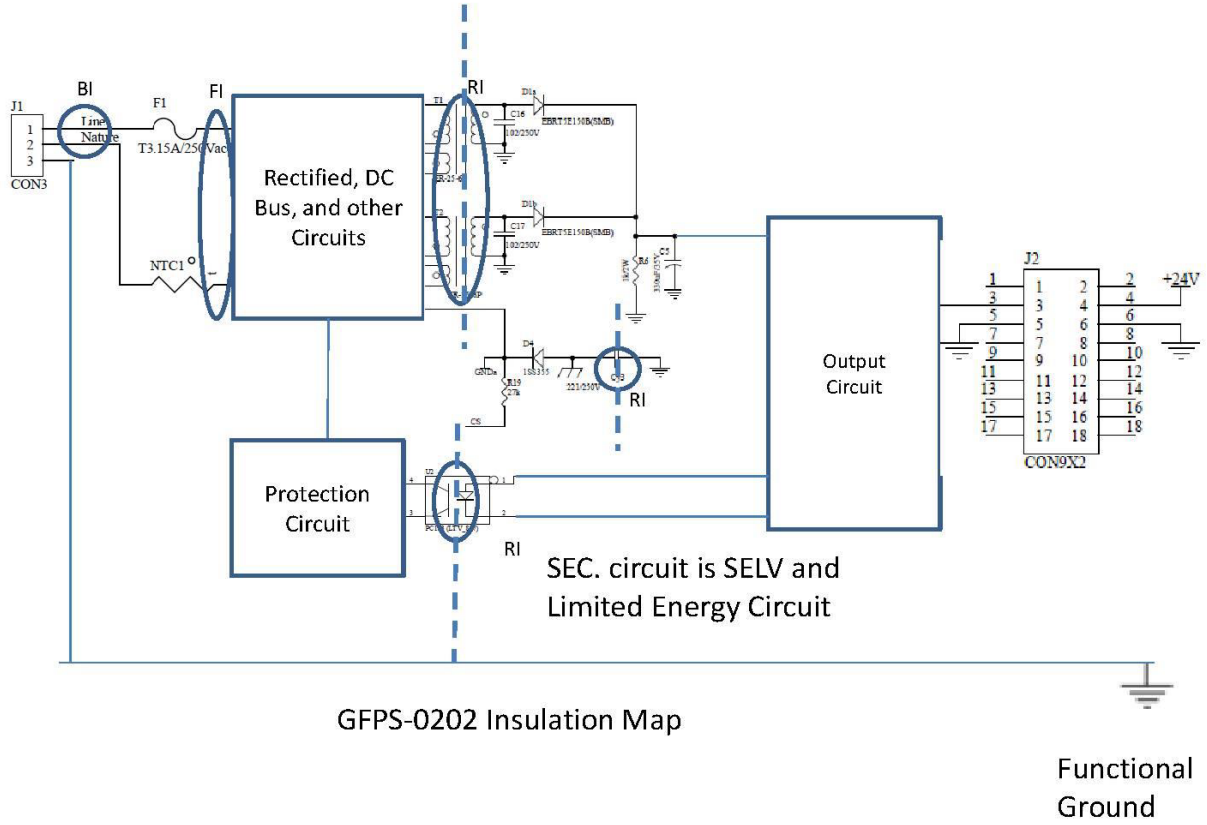


IV. Plug the external alternating current power supply to the “L”, “N” and “G” connectors on GFPS-0202 accordingly

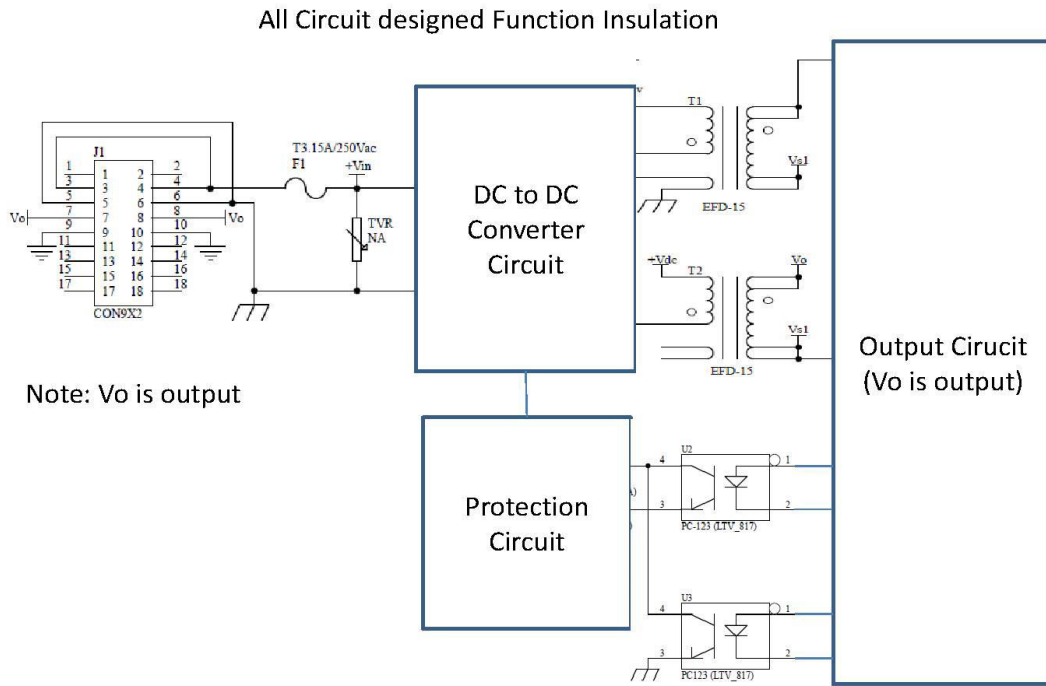


6.2 Power Module Insulation Map

I. GFPS-0202



II. GFPS-0303



GFPS-0303 Insulation Map