

## Operation Guideline for QH100-PV Switching Module

QH100-PV switching module is developed by INVT for Goodrive100-PV series solar pumping inverter with the aim of achieving automatic mains and PV switching. Below is the functional block diagram for this module, in which the "voltage detection/judging circuit" outputs ON/OFF signal S,COM based on the preset threshold. This module can realize automatic mains and PV switching by combining with necessary low voltage apparatus.

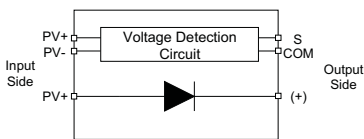


Fig.1: QH100-PV functional block diagram

This guideline mainly introduces module installation and wire connection. In cases where it is required to work with Goodrive100-PV inverter, refer to "Operation Manual for Goodrive100-PV series Solar Pumping Inverter" for more details.

### 1. Type designation and specification

**QH100 – 055A – 4 – PV**

①            ②            ③            ④

Type designation illustration:

| Field identification            | Sign | Detailed description              | Content   |
|---------------------------------|------|-----------------------------------|---|
| Abbreviation for product series | ①    | Abbreviation for product series   | QH100 series mains and PV switching module                                |
| Rated current                   | ②    | Power range for adaptive inverter | 055A—adaptive to 0.4~15kW inverter<br>110A—adaptive to 18.5~37kW inverter |
| Voltage degree                  | ③    | Voltage degree                    | 4: AC 3PH 380V(-15%) ~ 440(+10%)<br>2: AC 3PH 220V(-15%) ~ 240(+10%)      |
| Code                            | ④    | Industry code                     | PV: Photovoltaic water pump series  |

### 2. Installation and dimension

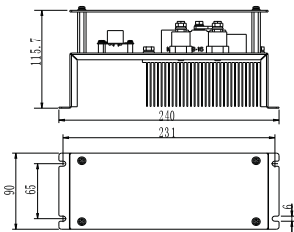


Fig.2: Installation dimensions (unit: mm)

**Caution:** In order to ensure safe and reliable operation of this product, extra cooling method (such as a DC fan) is required.

### 3. Recommended wire connection

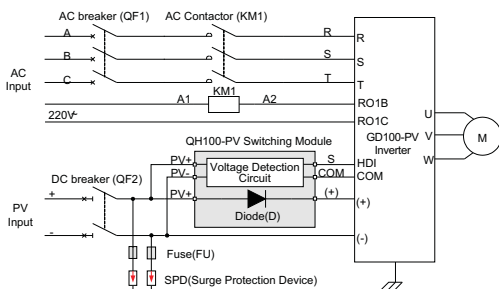


Fig.3: Recommended connection diagram

Terminal instruction:

| Terminal symbol | Terminal name            | Terminal function  |
|-----------------|--------------------------|--|
| PV+             | PV input                 | Voltage detection board input, anode of diode module, connect with PV input anode  |
| PV-             |                          | Voltage detection board input, connect with PV input cathode   |
| (+)             | Switching module output  | Cathode of diode module, connect with inverter (+)   |
| S,COM           | Voltage detection signal | ON/OFF signal, corresponding PV voltage greater/less than preset threshold, connect with HDI, COM terminal of the inverter |

### 4. Parameters setting

When using QH100-PV to work with Goodrive100-PV Inverter, set the parameters as below:

| Parameter | Only PV input | Only mains input | Mains / PV switching |
|-----------|---------------|------------------|----------------------|
| P15.32    | 2             | 1                | 0                    |

### 5. Product and Service Inquires

Address any inquires about the product to your local INVT offices, quoting the type designation and serial number of the unit in question. A list of INVT offices can be found on [www.invt.com.cn](http://www.invt.com.cn).



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