

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.

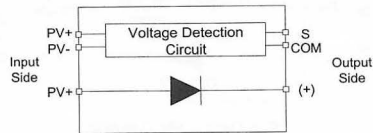


Fig.1: QH100-PV functional block diagram

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 110A—adaptive to 18.5~37kW inverter
Voltage degree	③	Voltage degree	4: AC 3PH 380V(-15%) ~ 440(+10%) 2: AC 3PH 220V(-15%) ~ 240(+10%)
Code	④	Industry code	PV: Photovoltaic water pump series

2. Installation and dimension

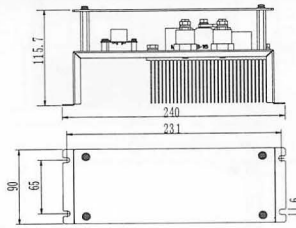


Fig.2: Installation dimensions (unit: mm)

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

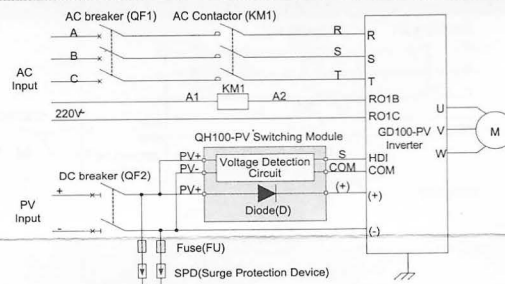


Fig.3: Recommended connection diagram

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.



Part number: 66001-00453

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QH100-PV 是英威腾针对 Goodrive100-PV 系列光伏水泵专用变频器开发的一款实现交/直流自动切换的模块产品。其功能框图如下所示，“电压检测/判断电路”根据预先设定的阈值，输出开/关信号 S-COM。该产品配合必要的低压电器，即可实现交/直流自动切换运行。



图 1 QH100-PV 功能框图

本操作指导主要对安装、接线进行介绍，如需配合 Goodrive100-PV 变频器使用，更多细节请查阅《Goodrive100-PV 系列光伏水泵变频器产品说明书》。

1. 型号与规格

QH100 - 055A - 4 - PV

① ② ③ ④

切换模块产品型号说明：

字段	标识	标识说明	具体内容
产品系列缩写	①	产品系列缩写	QH100 系列交/直流切换模块
额定电流	②	适配变频器功率范围	055A—适配 15kW 及以下变频器 110A—适配 18.5~37kW 变频器
电压等级	③	电压等级	4: AC 3PH 380V(-15%) ~ 440(+10%) 2: AC 3PH 220V(-15%) ~ 240(+10%)
专业代码	④	行业代码	PV: 光伏水泵系列产品

2. 安装及尺寸

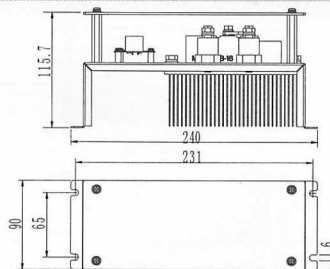


图 2 切换模块安装尺寸（单位：mm）

注意：为了使本产品可靠地运行，需增加外部通风散热措施。

3. 推荐应用接线

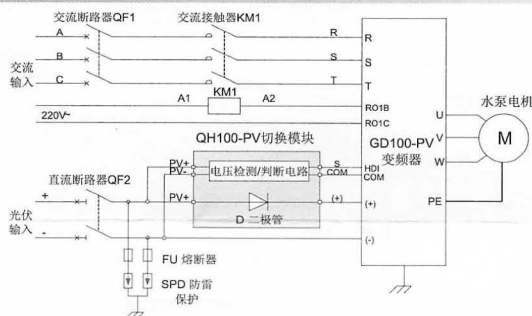


图 3 推荐接线示意图

切换模块端子说明：

端子符号	端子名称	端子功能描述
PV +	光伏输入	电压检测板输入、二极管模块正极，接光伏输入正极
PV -	光伏输入	电压检测板输入，接光伏输入负极
(+)	切换模块输出	二极管模块负极，接变频器 (+)
S、COM	电压检测信号	开/关信号，对应 PV 电压高于/低于设定阈值，接变频器 HDI、COM 端子

4. 参数设置方法

当与 Goodrive100-PV 变频器配合使用时，请按如下参数进行设置：

功能码	仅光伏输入时	仅交流输入时	交流/光伏自动切换应用
P15.32	2	1	0

5. 产品和服务咨询

用户想了解关于本产品的任何信息，均可与当地的 INVT 办事处联系，在咨询时请提供产品的型号以及要咨询的产品的序列号。要了解 INVT 办事处列表可以登陆网页 www.invt.com.cn



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