

Appendix C Power frequency & PV switching solution

C.1 Solution introduction

Generally, VFDs do not allow simultaneous connection to power frequency and PV. If such simultaneous connection is required, switching control circuit must be configured externally. The figure below shows the solution for reference.

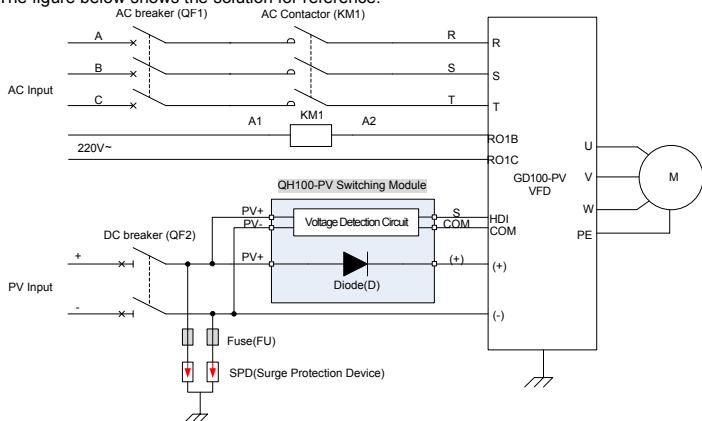


Figure C-1 VFD power frequency & PV switching solution

See C.1.1 for specifications and model selection of QH100-PV switching module, whose necessary low-voltage apparatuses include QF1, KM1, QF2, FU, and SPD. C.1.2 details the models.

C.1.1 QH100-PV switching module

C.1.1.1 Models and specifications

QH100 - 055A - 4 - PV

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Key	Sign	Description	Remarks
Product abbreviation	①	Product abbreviation	QH100 series power frequency&PV switching module
Rated	②	VFD power	055A: applies to VFDs ≤15kW

Key	Sign	Description	Remarks
current			110A: applies to VFDs 18.5–37kW
Voltage degree		Voltage degree	4: AC 3PH 380V (-15%)–440 (+10%) 2: AC 3PH 220V (-15%)–240 (+10%)
Industrial code	④	Industrial code	PV stands for solar pumping.

C.1.1.2 Terminals of QH100-PV switching module

Terminal	Name	Function
PV +	PV input	Connects to the voltage detection board input and diode module positive pole.
PV –	PV input	Connects to the voltage detection board input.
(+)	Switching module output	Connects to the diode module negative pole.
S, COM	Voltage detection signal	Switching on/off signal, corresponding to PV voltage higher/lower than the threshold. Connects to VFD terminals HDI and COM.

C.1.1.3 Installation dimensions

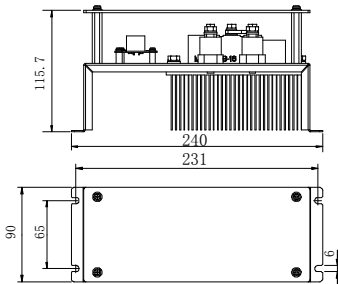


Figure C-2 Switching module installation dimensions (unit: mm)

Note: To ensure the secure running, add external ventilation and heat dissipation measures.