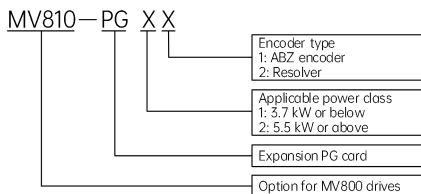


# MV800 Resolver PG Card User Manual

Version: V02

## 1 Product Information

### 1.1 Designation rule



### 1.2 Function

MV810-PG\*2 PG card serves as an option for encoders of the MV800 series drives. It provides the resolver with an interface for excitation signals EXC+/-, and feedback signals SIN+/- and COS+/- that function as the speed/position feedback.

### 1.3 Appearance

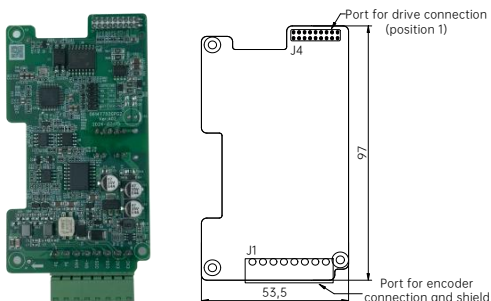


Figure 1-1 PG card appearance

## 1.4 Terminal description

The terminal block of the MV810-PG\*2 card is illustrated as below:



Figure 1-2 Terminal block with screen printing

Definitions of the MV810-PG\*2 terminal pins are explained in Table 1-1 below.

Table 1-1 PG\*2 Terminal functions

Type	Screen printing	Terminal name	Terminal function	Specification
Option for the encoder	SIN+	Encoder SIN+/- signal terminal	Encoder SIN signal feedback input	10 kHz
	SIN-			
	COS+	Encoder COS+/- signal terminal	Encoder COS signal feedback input	10Vp-p (7 Vrms) $\pm 10\%$ 10 kHz
	COS-			
	EXC+	Encoder EXC+/- excitation signal terminal	Excitation signal output for external encoders	10Vp-p (7 Vrms) $\pm 10\%$ 10 kHz
	EXC-			
	PE	PE conversion terminal	Encoder shield connection	-
	PE	PE conversion terminal	PE connection	-

## 1.5 Signal

The excitation signal EXC and the feedback signal SIN/COS of the MV810-PG\*2 card are shown as below:

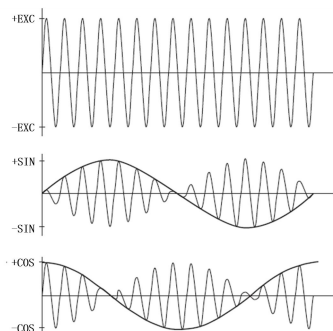


Figure 1-3 Signal of the resolver



## Note:

- ① When the motor is rotating forward, the COS signal is  $90^\circ$  ahead of the SIN signal; when the motor is rotating reversely, the SIN signal is  $90^\circ$  ahead of the COS signal.
- ② The resolver model selection shall be consistent with the parameter requirements of the MV810-PG\*2 PG card. Special attention shall be paid to the input excitation DC resistance, which shall be greater than  $17\ \Omega$ ; otherwise, the MV810-PG\*2 PG card may not be able to function properly.
- ③ To prevent the overload state of the MV810-PG\*2 PG card which may be caused by the selection of a resolver model with an excessively high number of pole pairs, it is recommended that the number of the resolver pole pairs shall be no more than four.

## 1.6 Parameters

Definitions of the items and marks in the parameter table are shown in the table below.

Item	Definition
Default	Value of the function code after the factory default setting is restored
Property	<p>○: Function code modification is available when the encoder is in operation;</p> <p>×: Function code modification is available when the encoder stops operation.</p> <p>*: Function code is read only and not allowed for modification.</p>

Parameter	Name	Range	Default	Property
P04.00	Encoder line count	1 to 65535	1024	×
P04.01	Encoder type	0: None 1: ABZ incremental encoder 2: Resolver	0	○
P04.02	Encoder direction	0: Forward 1: Reverse <b>Note:</b> Phase sequence is automatically identified when the direction is identified.	0 to 1	○
P04.07	Sync motor initial position	Synchronous motor initial position corresponding to the absolute encoder: 0 to 360.0	0	×
P04.08	Resolver correction enable	0: Disable 1: Enable	0 to 1	○

## 2 Installation

The installation method of the MV810-PG\*2 card, including the installation position, interface, and installation steps, is described as below.

## 2.1 Installation position

The MV800 series drive provides two positions for the installation of the expansion/option card, as illustrated in Figure 2-1 (the example is based on Enclosure B; for other enclosure types, refer to this example). Position 1 is for the installation of the PG card of various types; Position 2 is for the installation of the PN bus option, the ECAT bus option, the I/O expansion option, etc.

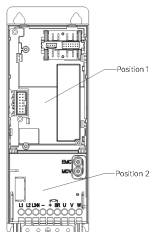


Figure 2-1 Installation position for the expansion/option card

## 2.2 Installation interface

The electrical interface of the PG card and the corresponding interface of the MV800 drive are illustrated in Figure 2-2.

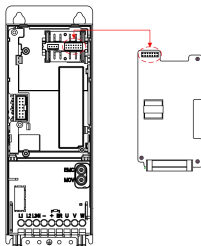


Figure 2-2 Electrical interface for PG card installation

## 2.3 Installation steps

Installation direction: back side mounting (PG card)

- (1) Make sure the drive is in the power off state. Press the granulated area on the middle-upper part of the lower cover, slide it down with proper force till the cover is taken off from the drive, as shown in Figure 2-3-a.
- (2) Use a small-size straight screwdriver to pry open the two spring snaps that connect the bottom of the operating panel with the drive, and take off the operating panel, as shown in Figure 2-3-b and Figure 2-3-c.
- (3) Mount the PG card: hold the card with the terminal block pointing downward, align the three location holes with the location columns on the drive, and press the PG card downward with proper force to secure it by buckling the four spring snaps, as shown in Figure 2-3-d.
- (4) Align the spring snaps of the operating panel, press the panel downward with proper force to secure it by buckling the spring snaps; align and slide the lower cover till it is buckled in place, as shown in Figure 2-3-e and Figure 2-3-f. The installation of the PG card is then completed.

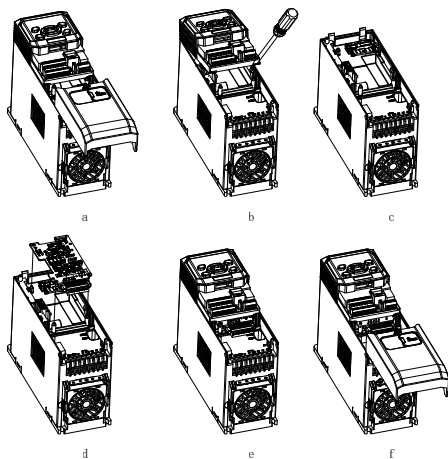


Figure 2-3 Steps of the PG card installation on Position 1

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### MEGMEET

#### Warranty Bill of Communication Option

Customer company:

Detailed address:

Contact:

Tel:

Option model:

Option number:

Purchase date:

Service unit:

Contact:

Tel:

Maintenance date:

### MEGMEET

Shenzhen  
Megmeet  
Electrical Co., Ltd.

Certificate

Checker: \_\_\_\_\_

Manufacturing  
date: \_\_\_\_\_

The product has  
been tested in line  
with design  
standards and  
approved for  
leaving the factory.