MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6SE7033-7EH84-1GG0

SML2 INVERTER WIRING BOARD

Used with the applicable SIMOVERT MASTERDRIVES configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens SIMOVERT MASTERDRIVES VECTOR CONTROL compendium

Compendium

Edition: AN

simovert masterdrives

Vector Control

SIEMENS

For **START-UP** of the unit, please refer to Section **"First Start up"** in the **operating instructions** supplied with the inverters/converters.

In the following, we would like to give you some tips on how to proceed further and how to use the **COMPENDIUM** for detailed **PARAMETERIZATION** of the units.

Preparatory measures for detailed parameterization

- Make yourself familiar with the **connection diagrams of the power and control terminals**: You can find these in the **operating instructions** for the units and options in the section "Connecting-up" and in Section of this Compendium, "Configuration and Connection Examples"
  (in the case of optional boards, consult the "Description" section as well).
  The operating instructions are supplied with the units.
- Make yourself familiar with the **basic functions of the units** (brief introduction):
  see the following sections in this **Compendium**:
  - Section 4: "**Function Blocks and Parameters**"
    (blocks, connectors, binectors, parameters, data sets, BICO system)
  - Sections 5.1 to 5.3: "**Parameterization**"
    (parameter menus, operator control and displays on the PMU (operator control panel))
    (Section 5.4 "Parameter input via the OP1S" and section 5.5 "Drive Monitor" only if necessary)

DETAILED PARAMETERIZATION (COMPENDIUM):

GENERAL TIPS

- The units can be parameterized with the PMU / OP1S (operator control panels) or with a PC and the DriveMonitor software package.
- If you need more detailed information about specific parameters, connectors or binectors, you can find a "**parameter list**", with a **connector and binector list** added onto the end, plus an overview of the **data-set parameters** (assignment of the indices) in the appendix of the Compendium.
  (Please note the "Explanations" at the beginning of the parameter list!)
  These lists can be used as a **reference whenever necessary.**
- If faults or alarms occur during start-up (Fxxx , Axxx), you can find detailed descriptions of them in the appendix under "**Faults and Alarms**".
- The units are delivered with their **factory setting**.
  If you want to restore the factory setting in the case of a repeat start-up, incorrect inputs or a change between the type of start-up indicated below (Sections 1.), 2.) and 3.)), this can be done at any time with the function described in Section 6.1, "**Parameter reset to factory setting**".
  (**Abbreviated instructions:** P053 = 6 > P060 = 2 > P970 = 0)

The following are the different types of start-up. In the annex, there are some tips on information to be found in the internet.

1.) Parameterization of the basic unit during initial start-up

2.) Parameterization of the unit by means of downloading if data backup is provided

- **Annex (tips on information in the internet)**

1.) Parameterization of the basic unit during initial start-up

Choose the method of start-up you require:

1.1) Initial start-up:

a.) Quick parameterization
(QUICK standard start-up in order to quickly "turn" the motor for the first time, for example, and to test its basic functioning)
- See Section 6.2.1.

b.) "Menu-guided start-up" with PC / DriveMonitor
(QUICK standard start-up in order to quickly "turn" the motor for the first time, for example, and to test its basic functioning)
- See DriveMonitor (menu: " Parameters" > submenu: "Menu-guided start-up")

c.) Detailed parameterization
- See Section 6.3 and 6.4
- After completing parameterization in accordance with Section 6.3, you can immediately operate the drive for test purposes:
  (precondition: P366 = 0 (STANDARD)):
  - P555.1 = 5:
    The ON switch of the PMU can be used to switch the drive ON and OFF (coast to stop without electrical braking torque).
  - P462.1 = 10 sec; P464.1 = 10 sec; the raise/lower key of the PMU can therefore be used to adjust the setpoint
    (ramp-up/ramp-down times = 10 sec). In operation, the PMU indicates the actual frequency in Hz.

For further parameterization, see the following "Notes on how to proceed further".

Notes on how to proceed further

You should always **refer to the function diagrams first (graphic illustration of functions)** before carrying out **further parameterization** (process data (control values, setpoints and actual values), functions etc.) or **diagnosis**.
They can be found in the appendix of the Compendium.

The function diagrams are subdivided into those for basic functions, free function blocks and supplementary boards (EBx, SCBx).

Use the list of contents (at the beginning of the function diagrams) to look for functions.

First read the following pages:

- **Basic functions**:
  "General": Pages [10], [12], [14], [15], [20], [30]
  "Diagnostics": Pages [510], [515]
  "Functions": Pages [540]
- **Free function blocks** (if used):
  "Sampling times, sampling sequence": Page [702]
  (see also Section 7.1: "Functions / Basic functions")
  An overview of the setpoint channel, closed-loop and open-loop control modes and also of the general display variables is given by diagrams r0 to r5 and a0 in section 6.2.1 "Parameterizing with parameter modules" (quick parameterization).
  Reference is given there to the relevant page number of the associated function diagram.