

Plug-in EEPROM ("Memory Module")

The frequency inverter is equipped with an internal EEPROM and a plug-in EEPROM ("Memory Module") which operates in parallel to this for the storage and management of parameter data. The data from the device are managed in parallel on both devices, so that a safe and rapid exchange of parameter settings in the device is possible for commissioning or in case of service.

1 Type plate

All of the information which is relevant for the device, including information for the identification of the device can be obtained from the type plate.

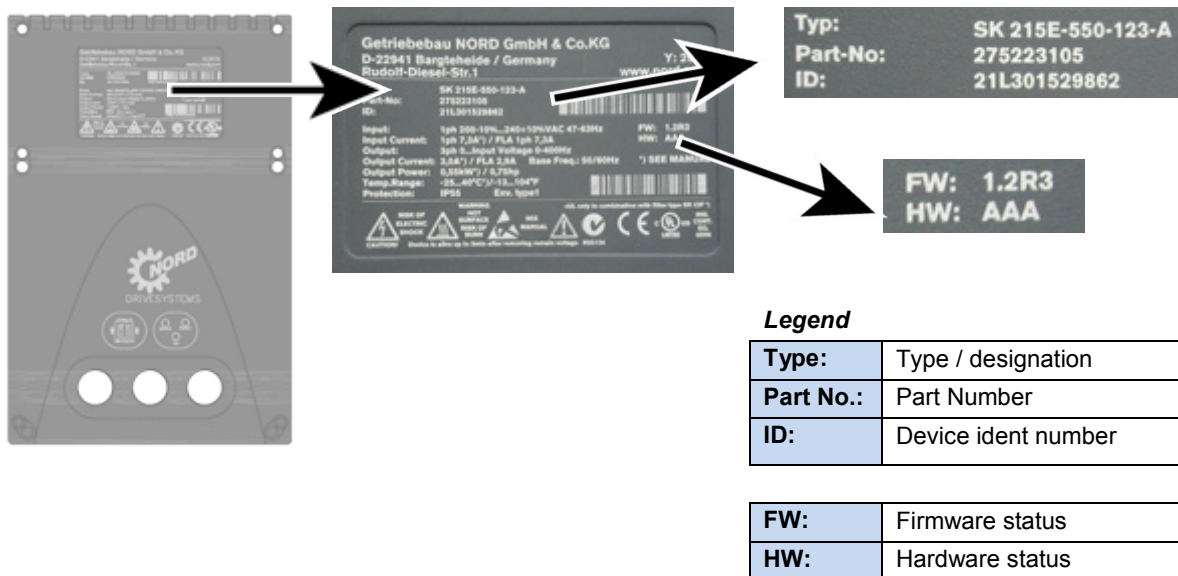


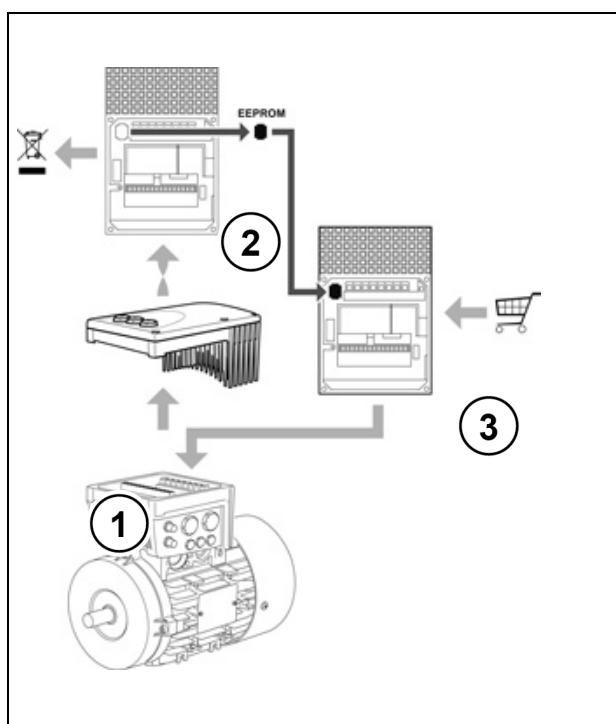
Figure 1: Type plate

Technical Information / Datasheet	Replacing the plug-in EEPROM			
SK 2xxE (SK 200E ... SK 235E)	TI 80-0017	V 1.1	2415	EN

2 Replacing the plug-in EEPROM ("Memory Module")

A decisive advantage in case if servicing of the SK 2xxE is necessary is the simple transfer of data from the failed frequency inverter to the replacement device. However, the following must be noted for the exchange of data via the plug-in EEPROM:

- The data transfer must be deliberately activated (📖 "Copy function").
- Any restrictions which exist due to the change between devices from different generations must be noted.



The plug-in EEPROM is located on the underside of the device.

Access to the EEPROM is enabled by removing the defective frequency inverter (2) from the connection unit (1). The EEPROM is unlocked by lightly pressing the short sides together and then pulling it out.

The EEPROM must be inserted into the new device. The EEPROM is correctly seated when the lock audibly engages. It is not possible to insert the EEPROM so that it is laterally reversed.

(1)	Connection unit
(2)	Frequency inverter defective
(3)	Frequency inverter, replacement device

Figure 2: Replacing the plug-in EEPROM

Devices with hardware version "EAA" and above have a more powerful processor than devices from the 1st. Generation (hardware version "AAA"). This includes a larger range of functions, e.g. integrated PLC functionality (SPS function) and operation of PMSMs.

In order to manage the larger amount of data, the capacity of the plug-in EEPROM ("Memory Module") has been extended. EEPROMs with the larger memory capacity can be identified from an additional raised marking ("II") on the housing. Alternatively, an adhesive label with "V2" may be applied.



Downward compatibility:

In principle it is permissible to operate older generation frequency inverters with an EEPROM from a newer generation and vice versa.

NB:

Before the exchange of data, in addition to the firmware status (software versions) of the two frequency inverters it is also necessary to compare the hardware versions of the frequency inverters and the EEPROMS, because:

- Frequency inverters with the hardware status "EAA" can **only read** the data from a first generation EEPROM (EEPROM without label). The EEPROM cannot be written by the frequency inverter, so that parameter changes are only saved in the device itself and are no longer saved in the EEPROM
- Frequency inverters with the hardware status "AAA" can read and write the data from a second generation EEPROM (EEPROM with label). However, only the data which is saved on the EEPROM which can be processed by the frequency inverter due to its older construction status are used (incompatibility).

Information

Incompatibility

During the transfer of data records between devices with different firmware statuses (software versions) in which the replacement device has an older status than the defective device, incompatibilities between individual functions may occur. Because of this, we recommend an update of the firmware to the currently available software status for the generation of the device.

After the data transfer we recommend that the EEPROM which is included in the scope of delivery of the device is re-inserted in the replacement device and the data from the device are copied into the EEPROM

3 Copy function

The copy function is located in Parameter P550 and is described in detail in the manual. In addition, a copy function is available, which is triggered independently from Parameter P550, simply by setting a DIP switch.

Copy function DIP switches S1 – 6 "COPY"

Through the new function of the DIP switch element S1-6 ("COPY") transfer of data from the external to the internal EEPROM has been made even simpler.

If a 0 → 1 flank is detected on the DIP switch element S1-6 when the frequency inverter is restarted, copying of data from the plug-in EEPROM to the internal EEPROM is triggered.

The copying process takes several seconds. During the copying process, the status LED rapidly flashes red-green alternately.

- If an error is detected during copying of the data, the process is interrupted and an error message (E008.2 "External copying error") is generated.
- If no plug-in EEPROM is detected (not available or defective), the process is interrupted and an error message (E008.2 "External copying error") is generated.
- Interruption of the data transfer, e.g. due to premature switch-off of the mains voltage or the control voltage of the inverter, interrupts the copying process. **No error message is generated!** The interruption can only be identified by checking the parameter settings of the frequency inverter.

If necessary, the copying process must be repeated.

Starting the copy function

To start the copy function, the DIP – switch S1-6 "COPY" must be set from position { 0 } (factory setting) to position { 1 }. On the next start of the frequency inverter („POWER ON“ (24 V)) a 0 → 1 flank is detected here and the copying process is started.

1. Set DIP switch S1-6 "COPY" to { 1 },
2. Switch on the frequency inverter ("POWER ON" (24 V)).
3. → The copying process starts.

A renewed start of the copying process is not performed without a previous change to the DIP switch.

Carry out the following steps to trigger the process again:

1. Set DIP switch S1-6 "COPY" to { 0 },
2. Switch on the frequency inverter ("POWER ON" (24 V)),
3. Switch off the frequency inverter ("POWER OFF" (24 V)),
4. Set DIP switch S1-6 "COPY" to { 1 },
5. Switch on the frequency inverter ("POWER ON" (24 V)).
6. → The copying process starts.

Information

Parameter P550

The COPY function of the DIP switch S1-6 is comparable with the parameter function P550 ("EEPROM copy order" setting { 1 } "Ext. → Int. EEPROM"). This function is still available.
