

Product announcement

New SINAMICS DCM Base Drive packages

Simplify engineering the components required to build the armature, field and control power circuits of a DC drive system

June 2016

Overview

SINAMICS DCM Base Drive packages are available to simplify the engineering process of sizing, selecting and coordinating the accessory components that are needed to assemble the armature, field and control power circuits when building a DC drive system using a SINAMICS DCM DC converter.

Base Drive packages consist of the necessary components shipped together unassembled or loose as a kit and are intended for customers who require designing and building their DC drives in-house.

These customers typically also require packaging their in-house built DC drives differently compared to the SINAMICS DCM Base Drive back panels that are ready to be installed into enclosures and are assembled, wired and tested at the Siemens GA400 factory.

This packaging requirement is typically due to varying retrofit constraints that dictate a different physical layout of the components on the back panel or a different panel size, etc.

SINAMICS DCM Base Drive packages contain the following main accessory components:

- Main contactor (M), includes auxiliary contact (MAUX) and contactor coil suppressor (1SP) (ENSP)
 - AC contactor line side for 15–850A drives
 - DC output contactor for 1200A drive
- Control power transformer (1CTR), includes two primary fuses (1CFU, 2CFU) and one secondary fuse (3CFU)

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- Protective semiconductor fuses
 - Armature AC line supply fuses (1PFU, 2PFU, 3PFU), includes fuse blocks
 - Armature DC circuit fuse (4PFU) for 4Q, includes fuse blocks
 - Field AC line supply fuses (1FSFU, 2FSFU), includes fuse holders
- Terminal blocks (CTB)
 - Field connections (CTB-80, 81)
 - Main contactor's auxiliary contact (CTB-90, 91) (15–850A)
 - Enable relay's auxiliary contact (CTB-92, 93) (1200A)
- Power termination lugs (L1, L2, L3, A1, A2) (600–1200A)
- Grounding lugs (GND)
- Labeling
 - Power termination labels (L1, L2, L3, A1, A2) (125–1200A)
 - Hazardous voltage warning label
 - Ground labels
- Buswork, excludes flexbus and cabling (210, 280, 600, 850, 1200A)
- Standoff insulators for buswork (600–1200A)
- Enable relay (EN) (1200A)
- Rectifier (MREC) for DC contactor (1200A)
- Mounting bracket for DC contactor (1200A)
- Terminal module cabinet (TMC) — G63 option

Note:

The corresponding SINAMICS DCM DC converter would be ordered as a separate line item so that it may be equipped with additional or less options, other than the standard options on stocked DC converters, if the customer desires (additional lead times apply).

Standard options on stocked DC converters:

- Advanced Control Unit DC (CUD) — G00 option
- Communication Board CBE20 (PROFINET, EtherNet/IP, Ethernet TCP/IP, SINAMICS Link) — G20 option
- Micro Memory Card — S01 option
- Basic Operator Panel (BOP20) — standard on stocked converters
- 450–1200A converters include a single-phase fan at 230V AC as standard — L21 option

Refer to pages 3/32-37 in Catalog D 23.1, Edition 2014 for a summary and description of all the options that are available on SINAMICS DCM DC converters.

The accessory components included in the Base Drive packages were selected under the following criteria:

- Harmonized and coordinated with one another
- Dimensioned for the DC I continuous current rating of the corresponding SINAMICS DCM DC converter
- Designed for 60 Hz operation
- Selected based on the parts lists of the SINAMICS DCM Base Drives

The part numbers of the Base Drive packages only differ from that of the Base Drives in the third block:

Base Drive package: 6RA80nn-2Fxy2-OAPO

Base Drive: 6RA80nn-2Fxy2-OAAO

Base Drive packages

DC current DC I continuous current Amps	SINAMICS DCM Base Drive package Model No.
15	6RA8013-2FV62-0AP0*
30	6RA8018-2FV62-0AP0*
60	6RA8025-2Fxy2-0AP0*
90	6RA8028-2Fxy2-0AP0*
125	6RA8031-2Fxy2-0AP0*
210	6RA8075-2Fxy2-0AP0*
280	6RA8078-2Fxy2-0AP0*
450	6RA8082-2Fxy2-0AP0*
600	6RA8085-2Fxy2-0AP0*
850	6RA8087-2Fxy2-0AP0*
1200	6RA8091-2Fxy2-0AP0*

xy= S2 (2 Quad)
V6 (4 Quad)

* Current ratings for the SINAMICS DCM Base Drive packages are the same as the Base Drive panels. Both are designed using the DC I rating which means that fuses, contactors and terminal blocks are sized for the full continuous DC I current. The DC I rating is the maximum current that the converter can supply continuously with no overload. Because an overload is not possible, the DC I rated current is higher than the DC II continuous current rating.

Feature	Customer benefit
Ordering is easy	Base Drive packages facilitate simple ordering. All of the required accessory components for a DC drive system, which are harmonized and coordinated with one another, are supplied as a package.
Optimally adapted	The components of Base Drive packages are optimally adapted to SINAMICS DCM DC converters.
Reliable	The various components (packages) have been taken from the range of accessories for SINAMICS DCM Base Drives and are therefore tested and proven.
Degree of protection	All of the components have an IP00 degree of protection for installation in a control cabinet

Applications

Everywhere

- Base Drive packages extend the portfolio of the SINAMICS DCM DC converter series and can be used for all of the usually encountered applications.
- It is guaranteed that the Base Drive packages can be reliably used due to the fact that these components are also used in the tested and well-proven SINAMICS DCM Base drives.

Notes:

The customer has the overall system responsibility when using SINAMICS DCM Base Drive packages regarding the geometrical arrangement/physical layout and cooling to be selected. Siemens does not accept any responsibility in this regard.

The Base Drive packages have not been conceived for use in parallel connections.

Additional information

Structure
■ The components are packaged in boxes and delivered in one shipment.
Technical information
■ Refer to the SINAMICS DCM USA Supplement for Catalog D 23.1, Edition 2014.
Products
■ SINAMICS DCM Base Drive packages ■ SINAMICS DCM Base Drives ■ SINAMICS DCM DC converters
Pricing /availability
■ Standard pricing is available on SINAMICS DCM Base Drive packages. ■ Base Drive packages will be available from stock.

Please inform your customers, colleagues and partners of the new SINAMICS DCM Base Drive packages

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