

PRODUCT HIGHLIGHT

SINAMICS DCM Base Drive Packages (Auxiliary Component Kits)

Simplify engineering and selection process required to design the armature, field and control power circuits of DC drives rated 480V 3AC, 15-1200A DC

usa.siemens.com/sinamics-dcm

Overview

SINAMICS DCM Base Drive Packages can simplify the engineering process of sizing, selecting and coordinating the auxiliary components needed to assemble the armature, field and control power circuits when building a DC drive 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 assembled, wired and tested at the Siemens factory and are ready to be installed into enclosures.

This packaging requirement is typically due to varying retrofit constraints that require a different physical layout of the components on the back panel or a different panel size or different locations for the connections of the incoming AC line supply cables and outgoing DC motor cables.



Product
highlight

SINAMICS DCM Base Drive Packages contain the following main auxiliary 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)
- 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 is ordered as a separate line item so that it may be equipped with additional or less options, other than the standard options on US stocked DC Converters, if the customer desires (additional lead times will apply).

Standard options on US 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) — available as standard on the DC Converters
- The 450–1200A DC Converters include a single-phase fan at 230V AC as standard — L21 option

Refer to pages 3/33–38 in Catalog D 23.1, Edition 2020 for a summary and description of all the options that are available on SINAMICS DCM DC Converters.

The auxiliary 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 same parts lists that are used to assemble 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-2Fxy2-0AP0 Base Drive: 6RA80nn-2Fxy2-0AAO

Base Drive Packages

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

Note:
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.
Base Drive Packages have not been conceived for use in parallel connections.

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 DC 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 auxiliary components for a DC drive, 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 have been taken from the range of 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
<ul style="list-style-type: none"> 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 same auxiliary components are also used in the tested and well-proven SINAMICS DCM Base Drives.

Additional information

Structure
<ul style="list-style-type: none">■ The components are packaged in boxes and delivered in one shipment
Technical information
<ul style="list-style-type: none">■ Refer to the Catalog D 23.1, Edition 2020■ Refer to operating instructions manual for the Standard Range Base Drives: 15–1200A DCI rated
Products
<ul style="list-style-type: none">■ SINAMICS DCM Base Drive Packages■ SINAMICS DCM Standard Range Base Drives■ SINAMICS DCM DC Converters
Pricing/availability
<ul style="list-style-type: none">■ Standard pricing is available on the SINAMICS DCM Base Drive Packages.■ SINAMICS DCM Base Drive packages are available from stock and are kitted after receipt of order

For additional information about SINAMICS DCM Base Drive Packages, please contact:

Doug Frakes

douglas.frakes@siemens.com

706-362-1974

Published by
Siemens Industry, Inc.

100 Technology Drive
Alpharetta, GA 30005

Order No. DRPH-DCM01-0322

Printed in USA

© 03.2022 Siemens Industry, Inc.

usa.siemens.com/motioncontrol

This document contains only general descriptions or performance features, which do not always apply in the manner described in concrete application situations or may change as the products undergo further development. Performance features are valid only if they are formally agreed upon when the contract is closed. Siemens is a registered trademark of Siemens AG.

Product names mentioned may be trademarks or registered trademarks of their respective companies. Specifications are subject to change without notice.