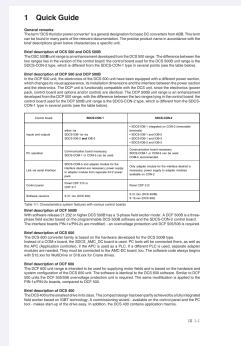


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

3ADT310500R0102

power interface board



PRODUCT	3ADT310500R0102
FAMILY	ABB DCS500 drive systems
FUNCTION	power interface board
STATUS	Verify exact installed equipment

Prepared by Amikon Limited from ABB Drives documentation. This guide supplements the complete manufacturer manual and site procedure.

01

CONFIRM THE ORDERED CONFIGURATION

Board Designation	SDCS-PIN-205A
Converter Family	DCS500
Converter Sizes	C1 and C2
Current Range	100 to 700 A
Voltage Class	500 V
Firing Circuits	Pulse transformer outputs

02

PREPARATION AND CONNECTION

- Confirm the complete 3ADT310500R0102 article number and installed revision.
- Isolate applicable electrical and process energy using the approved site procedure.
- Record every connector, cable, terminal, shield and protective-earth connection before removal.
- Install without forcing keyed parts, then secure terminals, latches, fasteners and cable supports.

OFFICIAL INSTALLATION REFERENCE

1 Quick Guide

General remarks

The term "DCS thyristor power converter" is a general designation for basic DC converters from ABB. This term can be found in many parts of the relevant documentation. The precise product name in accordance with the brief descriptions given below characterizes a specific unit.

Brief description of DCS 500 and DCS 500B

The DCS 500B unit range is an enhancement developed from the DCS 500 range. The difference between the two ranges lies in the version of the control board: the control board used for the DCS 500B unit range is the SDCS-CON-2 type, which is different from the SDCS-CON-1 type in several points (see the table below).

Brief description of DCP 500 and DCP 500B

In the DCP 500 unit, the electronics of the DCS 500 unit have been equipped with a different power section, which changes its visual appearance, its installation dimensions and the interface between the power section and the electronics. The DCP unit is functionally compatible with the DCS unit, since the electronics (power pack, control board and options and/or control) are identical. The DCP 500B unit range is an enhancement developed from the DCP 500 range, with the difference between the two ranges lying in the control board: the control board used for the DCP 500B unit range is the SDCS-CON-2 type, which is different from the SDCS-CON-1 type in several points (see the table below).

Control board	SDCS-CON-1	SDCS-CON-2
Inputs and outputs	either via SDCS-IOB-1 or via SDCS-IOB-2 and IOB-3	• SDCS-IOB-1 integrated on CON-2 (removable terminals) • SDCS-IOB-1 and IOB-2 • SDCS-IOB-1 and IOB-3 • SDCS-IOB-2 and IOB-3
PC operation	Communication board necessary. SDCS-COM-1 or COM-5 can be used.	Communication board necessary. SDCS-COM-1 or COM-5 can be used. COM-5 recommended.
Link via serial interface	SDCS-COM-5 and adapter module for the interface desired are necessary; power supply to adapter module from separate 24-V power pack	Only adapter module for the interface desired is necessary; power supply to adapter modules available on CON-2
Control panel	Panel CDP 310 or CDP 311	Panel CDP 312
Software versions	S 21.1xx (DCS 500)	S 21.2xx (DCS 500B) S 15.xxx (DCS 600)

Table 1/1: Characteristics system features with various control boards

Brief description of DCF 500B

With software release 21.232 or higher DCS 500B has a '3-phase field exciter mode'. A DCF 500B is a three-phase field exciter based on the programmable DCS 500B software and the SDCS-CON-2 control board. The interface boards PIN-1x/PIN-2x are modified; - an overvoltage protection unit DCF 505/506 is required.

Brief description of DCS 600

The DCS 600 converter family is based on the hardware developed for the DCS 500B type. Instead of a COM-x board, the SDCS_AMC_DC board is used. PC tools will be connected there, as well as the APC (Application controller), if the APC is used as a PLC. If a different PLC is used, separate adapter modules are needed. They must be connected to the AMC-DC board, too. The software code always begins with S15.xxx for MultiDrive or S18.xxx for Crane drives.

Brief description of DCF 600

The DCF 600 unit range is intended to be used for supplying motor fields and is based on the hardware and system configuration of the DCS 600 unit. The software is identical to the DCS 600 software. Similar to DCF 500 units the DCF 505/506 overvoltage protection unit is required. The same modification is applied to the PIN-1x/PIN-2x boards, compared to DCF 500.

Brief description of DCS 400

The DCS 400 is the smallest drive in its class. The compact design has been partly achieved by a fully integrated field exciter based on IGBT technology. A commissioning wizard - available on the control panel and the PC tool - makes start-up of the drive easy. In addition, the DCS 400 contains application macros.

04 COMMISSIONING CHECKS

- 01 Confirm product identity and mechanical seating.
- 02 Verify the documented supply before energising.
- 03 Inspect polarity, shielding and protective-earth connections.
- 04 Restore power in the approved sequence and observe status indications.
- 05 Test each connected input, output or communication path.
- 06 Record diagnostics and functional-test results before return to service.

05 CONTROLLED DOCUMENT

Official source	ABB official product documentation
Product record	3ADT310500R0102
Manufacturer	ABB Drives
Warranty	12 months from AMIKON
Support	INFO@AMIKON.CN

AMIKON PRODUCT SUPPORT

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