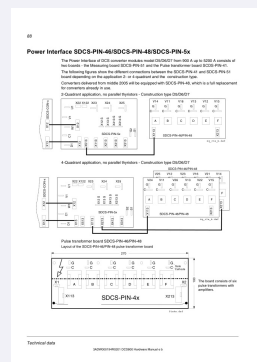


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

ABB SDCS-PIN-51 3ADT220090R0006

current and voltage measuring board



PRODUCT	SDCS-PIN-51 3ADT220090R0006
ARTICLE	3ADT220090R0006
FAMILY	ABB DCS800 DC drives
DOCUMENT	ABB DCS800 Hardware Manual

Prepared from the applicable ABB manufacturer manual. Use this guide with the complete controlled ABB documentation and the approved site safety procedure.

01

CONFIRM THE ORDERED CONFIGURATION

EXACT ARTICLE CODE	3ADT220090R0006
BOARD DESIGNATION	SDCS-PIN-51
DRIVE FAMILY	DCS800
COMPANION BOARD	SDCS-PIN-41
PRIMARY FUNCTION	Current, voltage and temperature measurement
HARDWARE CODING	Power-unit hardware identification
CURRENT TRANSFORMER RATIO	2500:1 or 4000:1

02

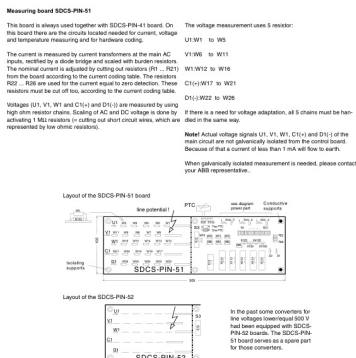
PREPARATION

- Isolate all drive power and verify the DC link is discharged before handling the measuring board.
- Record every plug, conductor, measuring lead and adjacent board position before disconnection.
- Use ESD controls and match SDCS-PIN-51, article 3ADT220090R0006, with the documented DCS800 power section.

OFFICIAL ABB INSTALLATION AND CONNECTION DRAWINGS

The drawings below are reproduced from the applicable ABB manual. Preserve their original orientation and match every connector, switch and terminal designation to the exact product.

89



Technical data

3ACW000194R0001 DCS800 Hardware Manual v 9

90

Settings of the SDCS-PIN-51 board if a DCS converter is equipped with it by ABB

Construction type	D5	D6	D7
Current range (A)	300 1200 1500 2000 1800 2500 3000 3500 3200 3300 4000 5200		
Motor current (A 15s)	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R1-R4 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R5 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R6 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R7 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R8 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R9 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R10 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R11 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R12 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R13 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R14 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R15 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R16 10	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R17 33	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R18 33	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R19 120	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R20 220	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R21 550	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R22 47	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R23 47	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R24 47	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R25 47	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		
R26 100	0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1 0-1		

Source: 3ACW000194R0001 DCS800 Hardware Manual v 9

Voltage coding

Construction type	D5	D6 / D7	D7	D7
Conv. nom. voltage [V] (L1 (V AC))	Y=4 (400V) Y=6 (600V) Y=7 (600V) Y=8 (600V) Y=9 (600V) Y=10 (600V)	Y=4 (400V) Y=6 (600V) Y=7 (600V) Y=8 (600V) Y=9 (600V) Y=10 (600V)	Y=8 (600V)	Y=10 (600V)
Value 1 conv. nom. volt at SELCTING18000	0 0 0 0 0 0	0 0 0 0 0 0	0 0	0 0
Measuring board SDCS	PIN-51 PIN-51 PIN-51 PIN-51 PIN-51 PIN-51	PIN-51 PIN-51 PIN-51 PIN-51 PIN-51 PIN-51	PIN-51	PIN-51
W1 6, 12, 17, 22	0-0 0-0 0-0 0-0 0-0 0-0	0-0 0-0 0-0 0-0 0-0 0-0	0-0	0-0
W2 7, 13, 18, 23	0-0 0-0 0-0 0-0 0-0 0-0	0-0 0-0 0-0 0-0 0-0 0-0	0-0	0-0
W3 8, 14, 19, 24	0-0 0-0 0-0 0-0 0-0 0-0	0-0 0-0 0-0 0-0 0-0 0-0	0-0	0-0
W4 9, 15, 20, 25	0-0 0-0 0-0 0-0 0-0 0-0	0-0 0-0 0-0 0-0 0-0 0-0	0-0	0-0
W5 11, 16, 21, 26	0-0 0-0 0-0 0-0 0-0 0-0	0-0 0-0 0-0 0-0 0-0 0-0	0-0	0-0

0: the converter can be used at lower line voltage than specified by the y-value without hardware modifications, if the nominal line voltage applied to the converter is not lower than 45% for y=5...9 and not lower than 55% for y=4.

Temp. sensor coding R17 as a temp. sensor for D5, D6, D7 0 0 0 0 0 0	2 0 - 4 Q coding W19 0-0 0-0 0-0 0-0 0-0
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Board used as a spare part

- default: all jumpers Wxx, Rxx are in a-e condition
- ensure the correct converter type related settings

Indicates a removed jumper

Technical data

3ACW000194R0001 DCS800 Hardware Manual v 9

04

CONNECTION AND CONFIGURATION

- Reconnect the AC-voltage, DC-voltage, current-transformer and temperature measuring paths exactly as shown in the DCS800 hardware manual.
- Confirm the 2500:1 or 4000:1 current-transformer arrangement and the approved 900–5150 A power-section configuration.
- Seat all board plugs fully and preserve line-potential clearances, shielding and controlled cable routing.

05

INITIAL SYSTEM CHECKS

- Restore control power under the approved DCS800 procedure and review measuring-board diagnostics.
- Compare displayed current, AC voltage, DC voltage and temperature values with safe independent measurements.
- Run the affected converter at a controlled operating point and retain the final readings and diagnostic record.

06

CONTROLLED DOCUMENTS

Official source	ABB DCS800 Hardware Manual
Product record	SDCS-PIN-51 3ADT220090R0006
ABB article	3ADT220090R0006
Support	INFO@AMIKON.CN