

ABB INDUSTRIAL DRIVES

ACS-BP-S Basic control panel User's manual



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User's manual

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3AXD50000032527 Rev B EN Original instructions EFFECTIVE: 2024-09-16

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Further information



Introduction

Applicability

This manual is applicable with the ACS-BP-S basic control panel, the panel software version GPBPS v1.2 and later software versions.

The images and instructions are based on the use of control panel with an ACS580 drive equipped with the Standard control program version 1.6. Note that there may be differences if you use the basic control panel with other equipment or program versions.

Safety

See the appropriate drive hardware manual.

Related manuals

Drive manuals and guides	Code (English)
ACS580-01 hardware manual	3AXD50000018826
ACS580-01 quick installation and start-up guide for frames R0 to R3	3UAU0000076332
ACS580-01 quick installation and start-up guide for frame R5	3AXD50000007518
ACS580-01 quick installation and start-up guide for frame R6 to R9	3AXD5000009286

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ACS580-04 drive modules (200 to 500 kW) hardware manual	3AXD50000015497
ACS580-04 drive modules (200 to 500 kW) quick installation and start-up guide	3AXD50000015469
ACS380 hardware manual	3AXD50000029274
Drive firmware manuals and guides	
ACS580 standard control program firmware manual	3AXD50000016097
ACS380 machinery control program firmware manual	3AXD50000029275
ACS380 quick installation and start-up guide	3AXD50000018553
ACS380 user interface guide	3AXD50000022224

Attach and remove the control panel

You can attach the control panel directly to the drive, or use a separate mounting kit.



Start-up and use

Start up

To start up the drive, you need to set the motor data, motor control, connection macro and drive parameters. See the relevant drive firmware manual for start-up details.

Control panel use



Display

3 4 Loc C 1501rpm 1499.50 Back 2 OK 1 5	ئے۔ Options menu ط
	 The Back button: opens the Options menu Currently monitored value: actual Rotation direction: forward or reverse Currently monitored value: reference The OK button: opens the Main menu

The Options menu

Start and stop the drive

To start the drive, press the Start button on the basic control panel. To stop the drive, press the Stop button on the basic control panel.

Set the speed or frequency reference

 In the Options menu a, move to the speed or frequency reference item with the arrow buttons. Press the OK button to open the item.

3 1499.50	 Press the arrow buttons to set the speed or frequency. Press the OK button to confirm the change.

Change the rotation direction

	 In the Options menu a, move the rotation direction item vith the arrow buttons. Press the OK button to change the rotation direction.
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Set the drive parameters

Loc C 1501rom	
1499 50	open the Main menu — from the Home view.
	2. Scroll to Parameters and press the OK button to open the submenu.
	3. Select the complete parameters list, or
	 Select the modified parameters list with the arrow button and press the OK but- ton.
$\begin{array}{c} 5 \\ \hline 3 \\ \hline 3 \\ \hline 4 \\ \hline 3 \\ \hline 5 \\ \hline 3 \\ \hline 3 \\ \hline 3 \\ \hline 5 \\ \hline \end{array}$	5. The parameters are shown in respective groups. The first two digits of the parameter represent the parameter group. For example, parameters starting with 30 are in the Limits group.
30.12 -15000.00 rpm 30.13 -25000.00 rpm	See the relevant drive firmware manual for the related parameters.

Open diagnostics



Back up data



The main menu structure

The Main menu \blacksquare



Submenus

The Main menu items have submenus where you can change settings and set actions. Some submenus also contain menus and/or option lists. The content of the submenus depend on the drive type.

Motor data	
45	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	 Motor type - AsynM, PMSM Control mode - Scalar, Vector Motor nominal power Motor nominal current Motor nominal voltage Motor nominal frequency Motor nominal speed Motor nominal torque Phase code - U V W, U W V Cos Φ
Motor control	
1 3 5.0s 5.0 Max Max 5 J0rpm 3.40.6 Min 7 rpm	 Start mode - Automatic, Flying start Stop mode - Coast, DC hold, Ramp Acceleration time Deceleration time Maximum allowed speed/frequency Maximum allowed current Minimum allowed speed/frequency
Connection macros 1/0器	The connection macros available depend on the drive type
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	 ABB Standard (2-wire) 3-wire ABB Standard Vector Alternate Motor potentiometer PID Hand/Auto Hand/PID PFC Panel/PID



Troubleshooting

Fault and warning messages

A fault message	 The display shows a fault message code if a problem has been detected. A fault message needs your immediate attention. When a fault message code is displayed: 1. Identify and eliminate the cause. The fault codes are listed in the drive firmware manual. 2. Press Reset in the Fault view.
Warning message Loc ← 1500rpm ① Warning: 2009 ② Warning: 2020 ② Warning: 2009	 The display shows a warning message code if a problem has been detected. Identify and eliminate the cause. To view the warning messages list: Open the Main menu. Select Diagnostics and open the warning messages list. The warning codes are listed in the drive firmware manual.

For information on fault and warning messages, see the relevant drive firmware manual.

Drive and panel communication failure

R	There is a general communication failure, e. g., the drive does not respond to the panel commands.
₽ 0	The drive and panel are not compatible, e.g., the drive does not support the basic panel.

Status light

Green, continuous	The drive is functioning nor- mally.
Green, blinking	There is an active warning in the drive.
Red, continuous	There is an active fault in the drive.

Technical data

Components

COMPONENT	DATA	DETAILS
Connector	RJ-45 female connector.	If a cable is used for the drive connection, the maximum length is 100 meters (328 ft.)
		When using cables over 10 meters (33.8 ft.) long, it is re- commended to use the CDPI- 01 with termination switch off.
Display	128x64 pixel LCD display.	Monochrome, white back- light.

Weight and dimensions

Weight	88 g
Length	130.2 mm [5.12 inches]
Width	73.2 mm [2.88 inches]
Thickness	24.7 mm [0.97 inches]

Degree of protection

Attached to a drive	IP55
Separately	IP20
Control panel as stand-alone connected to RJ45 cable	IP20
Control panel mounted to DPMP-01	IP55
Control panel mounted to DPMP-02 or -03	IP65

Dimensions

Materials

Enclosure	PCB/ABS
Packaging	Cardboard
Screen	Polycarbonate
Disposal	Do not dispose of the control panel in muni- cipal waste. Check local regulations for disposal of elec- tronic products.

Environmental limits

	Operation	Storage	Transportation
Installation site alti- tude	max 4000 m (13123 feet)	-	-
Air temperature	-20 °C to +55 °C (-4 °F to + 131 °F)	-40 °C to +70 °C (-40 °F to +158 °F)	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	95% (non-condensing)		
Contamination levels (IEC 60721-3-3, IE C60721-3-2, IEC 60721-3-1)	3C3		
Sinusoidal vibration	61800-5-1 ed 2. EN 60082-2-6 test Fc (1g)		Class 2M3 in acc. with EN 60082-2-6

Shock	Class 3M4 in acc. EN60082-2-27		Class 2M2 in acc. with EN 60082-2-27
Free fall	IEC-60068-2-31, drop height 1 m. (3.3 ft.)		
EMC compliance	EN 61800-3:2004 + A1:2012		

Disclaimers

Generic disclaimer

The manufacturer shall have no obligation hereunder with respect to any product which (I) has been improperly repaired or altered; (II) has been subjected to misuse, negligence or accident; (III) has been used in a manner contrary to the Manufacturer's instructions; or (IV) has failed as a result of ordinary wear and tear. All material in this manual is subject to change without a further notice. The manual is intended as non-contractual document.

Cyber security disclaimer

This product is designed to be connected to and to communicate information and data via a network interface. It is Customer's sole responsibility to provide and continuously ensure a secure connection between the product and Customer network or any other network (as the case may be). Customer shall establish and maintain any appropriate measures (such as but not limited to the installation of firewalls, application of authentication measures, encryption of data, installation of anti-virus programs, etc.) to protect the product, the network, its system and the interface against any kind of security breaches, unauthorized access, interference, intrusion, leakage and/or theft of data or information.

ABB and its affiliates are not liable for damages and/or losses related to such security breaches, any unauthorized access, interference, intrusion, leakage and/or theft of data or information.

Further information

Product and service inquiries

Address any inquiries about the product to your local ABB representative, quoting the type designation and serial number of the unit in question. A listing of ABB sales, support and service contacts can be found by navigating to www.abb.com/contact-centers.

Product training

For information on ABB product training, navigate to new.abb.com/service/training.

Providing feedback on ABB manuals

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