User Interface Guide

ACS380

ABB

Control panel

1. Status light
2. Local / remote
3. Status icons
4. Reference value
5. Actual value
6. Back / Options
7. Stop
8. Edit value / Move in menus
9. OK / Select / Save / Menu
10. Start

Status light

- green, steady: OK
- green, blinking: Warning
- red, steady: Fault
- red, blinking: Fault, turn power off to reset

Options
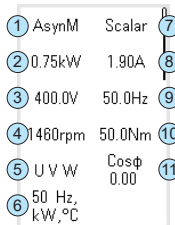
1. Control location
2. Active fault
3. Active warnings
4. Forward / Reverse
5. Reference


Motor data

1. Motor type
   - AsynM
   - PMSM
   - SynRM
2. Nominal power
3. Nominal voltage
4. Nominal speed
5. Phase order
   Change direction without reconnecting motor cables
6. Unit selection
7. Control mode
   Scalar or vector
8. Nominal current
9. Nominal frequency
10. Nominal torque
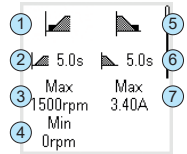11. Nominal cos phi

Parameters

Direct access to all functions (advanced)

1. Complete list
2. Reset to factory defaults
3. Modified only
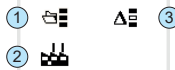
Motor control

1. Start mode
   - Const time
   - Automatic
2. Acceleration time
3. Max. allowed speed
4. Min. allowed speed
5. Stop mode
   - Coast
   - Ramp
   - DC Hold
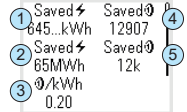6. Deceleration time
7. Max. allowed current

Diagnostics

1. Active fault
2. Active warnings
3. Fault history
4. Connection status

Energy efficiency

1. Saved energy in kWh
2. Saved energy in MWh
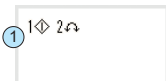3. Cost per kWh
4. Saved money
5. Saved money x1000

I/O ⎏ Control macros

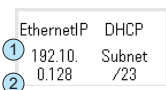The menu content depends on the installed extension module.

I/O control:

1. I/O control macro

Fieldbus control:

1. Protocol
2. Address settings

EthernetIP	DHCP
192.10.	Subnet
0.128	/23

1◇ 2⌒ Standard (2-wire)

AI1:	Speed / freq.(0…10V)
DI1:	Start / Stop
DI2:	Forward / Reverse
DI3:	Constant speed/freq. sel1
DI4:	Constant speed/freq. sel2
DIO1:	Ramp pair selection
DIO2:	Ready run

AC500 Modbus RTU

Protocol: Modbus RTU
Node Address: 1
Baud rate: 3 (19,2 kbit/s)
Parity: 2 (8E1)

For the full manual, go to:

3AXD50000022224 Rev. C EN

1↘ 2↙ Alternate

AI1:	Reference
DI1:	Start forward
DI2:	Start reverse
	(if DI1 = DI2, stop)
DI3:	Constant speed sel1
DI4:	Constant speed sel2
DIO1:	Ramp pair selection
DIO2:	Ready run

◇ 2⌒ / + 4 Motor potentiometer

DI1:	Start / Stop
DI2:	Forward / Reverse
DI3:	Reference up
DI4:	Reference down
DIO1:	Constant sel1
DIO2:	Ready run

PID PID

AI1:	Setpoint
AI2:	Feedback
DI1:	Start / Stop
DI2:	Constant setpoint 1
DI3:	Constant setpoint 2
DI4:	Constant speed/freq. 1
DIO1:	Run enable 1 source
DIO2:	Ready run

Torque

AI1:	Ext1 speed reference
AI2:	Torque reference
DI1:	Start / Stop
DI2:	Forward / Reverse
DI3:	Speed/Torque control
DI4:	Constant speed sel1
DIO1:	Ramp pair selection
DIO2:	Run enable source

Warnings/Faults

Warning	Fault	Description
⚠ A2A1	⊗ 2281	Warning: Current calibration is done at the next start. Fault: Output phase current measurement fault
⚠ A2B1	⊗ 2310	Overcurrent. The output current is more than the internal limit. This can be caused by an earth fault or phase loss.
⚠ A2B3	⊗ 2330	Earth leakage. A load unbalance that is typically caused by an earth fault in the motor or the motor cable.
⚠ A2B4	⊗ 2340	Short circuit. There is a short circuit in the motor or the motor cable.
	⊗ 3130	Input phase loss. The intermediate DC circuit voltage oscillates.
	⊗ 3181	Cross connection. The input and motor cable connections are incorrect.
⚠ A3A1	⊗ 3210	DC link overvoltage. There is an overvoltage in the intermediate DC circuit.
⚠ A3A2	⊗ 3220	DC link undervoltage. There is an undervoltage in the intermediate DC circuit.
	⊗ 3381	Output phase loss. All three phases are not connected to the motor.
⚠ A5A0	⊗ 5091	Safe torque off. The Safe torque off (STO) function is on.
⚠ AFF6		Identification run. The motor ID run occurs at the next start.
	⊗ FA81	Safe torque off 1. The Safe torque off circuit 1 is broken.
	⊗ FA82	Safe torque off 2. The Safe torque off circuit 2 is broken.