

| Operation of keypad Example: P420.02 | | | |
|---|--|--------------------------------|--|
| | | Group 0 – Favourites | |
| | | Group 1 – Diagnostics | |
| | | Group 2 – Basic setting | |
| | | Group 3 – Motor control | |
| | | Group 4 – I/O setting | |
| | | Group 5 – Network setting | |
| | | Group 6 – Process controller | |
| | | Group 7 – Additional functions | |
| | | Group 8 – Sequencer | |

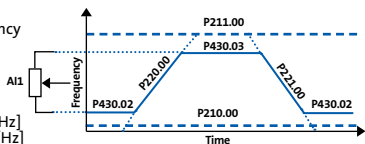
Group 0 - Favourites: Quick access to most important parameters (*)

Procedure during commissioning

1. Load default setting: Set P700.01 = 1
2. Select language: P705.00 1 = English; 2 = German
3. Basic setting V/f characteristic control:

- *P208.01 Set mains voltage
- *P303.01 Basic voltage = Rated motor voltage
- *P303.02 Basic frequency = Rated motor frequency

- *P210.00 Minimum frequency [Hz]
- *P211.00 Maximum frequency [Hz]
- *P220.00 Acceleration time [s]
- *P221.00 Deceleration time [s]
- *P430.02 Analog input 1: Min frequency value [Hz]
- *P430.03 Analog input 1: Max frequency value [Hz]



Control of inverter by means of keypad

Set parameters:

- *P200.00 = 1 (Keypad as control source)
- *P201.01 = 1 (Keypad as setpoint source) or

Operation:



Reverse direction of rotation

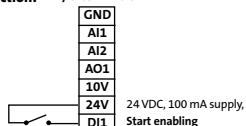


Change frequency setpoint



Start/stop motor

Connection: I/O terminals

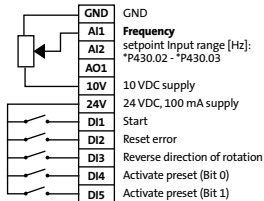


Control of inverter by means of terminals (default setting)

Set parameters:

- *P450.01 Frequency setpoint presets: Freq. preset 1 [Hz]
- *P450.02 Frequency setpoint presets: Freq. preset 2 [Hz]
- *P450.03 Frequency setpoint presets: Freq. preset 3 [Hz]

Connection:



Save parameter: > 3 **SET** Flashes = Not saved On = Saved

Flexible I/O configuration

Default setting

*P201.01
(configured AI1 as
standard setpoint)

*P400.02

*P400.04

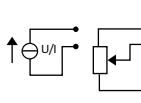
*P400.13 Reverse direction of rotation

*P400.18 Active preset (Bit 0)

*P400.19 Active preset (Bit 1)

*P420.02

*P420.01



Start

Reset error

Reverse direction of rotation

Active preset (Bit 0)

Active preset (Bit 1)

DO1 triggered when

Release brake

set Relay triggered when

Ready for operation set

24E

GND

AI1

AI2

AO1

10V

24V

DI1

DI2

DI3

DI4

DI5

DO1

GND

NO

COM

NC

Optional external 24 V supply (only i550)

GND for analog and digital signals

Analog input 1 Config.: *P430.01 (0 ... 10 VDC signal)

Analog input 2 Range [Hz]: *P430.02 – *P430.03

Analog output 1

10 VDC supply for potentiometer

24 VDC, 100 mA supply, reference for digital inputs

Digital input 1

Digital input 2

Digital input 3

Digital input 4

Digital input 5

Digital output 1

GND for analog and digital signals

Relay NO-contact

Relay Middle contact

Relay NC-contact

bit 1 bit 0 Frequency presets

0 1 Preset 01 (*P450.01)

1 0 Preset 02 (*P450.02)

1 1 Preset 03 (*P450.03)

- **Set standard setpoint source** *P201.01. Run forwards/backwards (static), Start forwards/backwards (edge)
- **Activate quick stop** *P400.03: Bring motor to a standstill in shortest time possible.
- **Jog forwards** *P400.10 (Preset 05) and **Jog backwards** *P400.11 (Preset 06): Initiate status-controlled motor rotation with setpoint preset.
- **Reverse direction of rotation** *P400.13: Invert frequency setpoint.

Diagnostics

*P100.00 Output frequency

*P102.00 Frequency setpoint [Hz]

*P103.00 Current actual value

P125.01 Active control source

P125.02 Active setpoint source

| RDY | ERR | Status/meaning |
|-----|-----|--|
| off | off | No supply voltage. |
| | | Safe torque off (STO) active. |
| | | Safe torque off (STO) active, warning active. |
| | | Inverter inhibited. |
| | | Inverter inhibited, no DC-bus voltage. |
| | | Inverter inhibited, warning active. |
| | | Inverter inhibited, error active. |
| | | Inverter enabled and motor rotating or quick stop is active. |
| | | Inverter enabled and motor rotating, warning signalled. |
| | | Inverter enabled, quick stop as response to fault active. |

| Error message | Cause (W. = Warning, T. = Fault, F. = Error) | Remedy |
|---------------|--|---|
| .2382/.2383 | Ixt error/Ixt warning. | Reduce load, adapt ramps |
| .3210/.3211 | Overvoltage DC bus/ Warning Overvoltage DC bus. | Ramp time too short or motor is running in generator mode |
| .3220/.3221 | Undervoltage DC bus/ Warning Undervoltage DC bus. | Check supply |
| .3222 | DC-bus voltage to low for switch-on. | Check supply |
| .4310 | Motor overtemperature problem (PTC). | Check ambient temperature and motor load |
| .6280 | Trigger/functions incorrectly connected. | In the case of flexible I/O configuration *P200.01, Inverter enable *P400.01 or Start *P400.02 must have been assigned to an I/O. Do not use Start forwards/backwards and Run forwards/backwards at the same time. |
| .FF37 | Automatic start inhibited. | Remove start enable signal |