











Operation of keypad Example: P420.02   	Group 0 – Favourites		Navigation in the menu Parameter alteration
	Group 1 – Diagnostics		Go to Menu/Parameters Confirm parameter
	Group 2 – Basic setting		Quit Menu/Parameters
	Group 3 – Motor control		Keypad control
	Group 4 – I/O setting		Start motor
	Group 5 – Network setting		Change direction of rotation
	Group 6 – Process controller		Stop motor
	Group 7 – Additional functions		
	Group 8 – Sequencer		

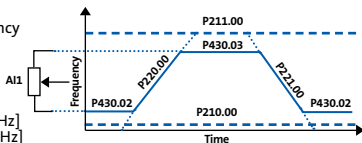
Group 0 - Favourites: Quick access to most important parameters (*)

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

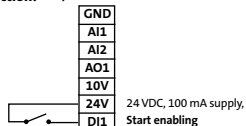


Change frequency setpoint



Start/stop motor

Connection: I/O terminals

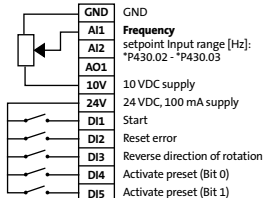


Control of inverter by means of terminals (default setting)

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]

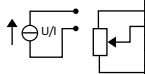
Connection:



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
*P400.18
*P400.19
*P420.02

Start
Reset error
Reverse direction of rotation
Active preset (Bit 0)
Active preset (Bit 1)
DO1 triggered when
Release brake

*P420.01

set Relay triggered when
Ready for operation set

24E Optional external 24 V supply (only i550)

GND GND for analog and digital signals

AI1 Analog input 1 Config: *P430.01 (0 ... 10 VDC signal)

AI2 Analog input 2 Range [Hz]: *P430.02 – *P430.03

AO1 Analog output 1

10V 10 VDC supply for potentiometer

24V 24 VDC, 100 mA supply, reference for digital inputs

DI1 Digital input 1

DI2 Digital input 2

DI3 Digital input 3

DI4 Digital input 4

DI5 Digital input 5

DO1 Digital output 1

GND GND for analog and digital signals

NO Relay NO-contact

COM Relay Middle contact

NC 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












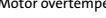



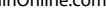
*P100.00 Output frequency

*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