10.1 ACCESSORIES AND OPTIONS

Drivon has been designed based on a modular approach so that its standard features can be expanded through appropriate hardware expansions which can be selected upon ordering. All optional accessories, with the exception of the Intelligent Keypad (KP), must be selected when ordering.

Smart keypad (option KP)

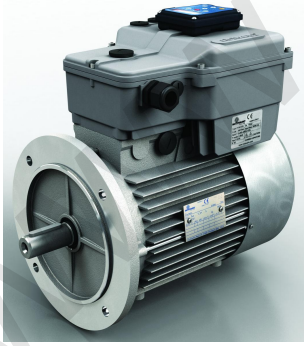
The optional keypad KP provides a control and monitoring interface for user to

- Start the inverter motor in both operating directions with two specific buttons.
- Set the inverter motor parameters by using the menus, easily available thanks to the keypad.
- Copy up to 4 different configuration sets and duplicate them infinitely on Drivon motor-inverters requiring the same operating parameters
- Monitoring motor-inverter state and diagnose its operation
- Operate the motor in JOG mode

The keypad can be used in one of the following modes:

1. **Temporary remote connection**
   User quickly connects the keypad to the inverter through the suitable RJ connector accessible on the cover (IP20 degree of protection).
2. **Permanent remote connection**

   User connects the keypad to the inverter through a cable gland (IP55 degree of protection). The keypad is not mechanically fixed to the inverter.
3. **Permanent integrated connection**



   User connects the keypad electrically and mechanically to the inverter (IP66 degree of protection).

10.1 ACCESSORIES AND OPTIONS

I/O expansion module (options IOA, IOB)

The I/O expansion module provides additional digital and analogue interfaces to supplement standard motor-inverter interfaces. These expansions make the following connections available:

- PT100/NTC/PTC temperature sensor input
- No.1 Auxiliary analogue input +/-10V or 4-20mA
- No.1 Digital input with frequency up to 100KHz at 24V
- No.1 24V auxiliary digital output
- No.1 Switching relay digital output (max 250V)
- No.1 0-10V analogue output with 500Hz maximum band

The same module comes in two versions – IOA and IOB – with different electric connections to the outside environment:

- IOA: version with cable gland
- IOB: version with two M12 A-code connectors (male connector for Input signals, female connector for Output signals)

Potentiometer and mode selector (option PS)

This supplementary module provides the user with an external Potentiometer and an external Direction Selector (IP66 degree of protection) for manual start and speed selection control.

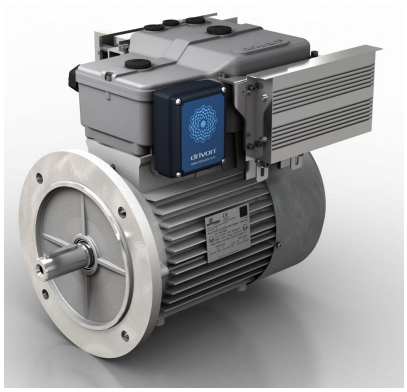
- Single-turn rotary potentiometer for frequency selection 0....fmax (Hz)
- Three-position direction selector FWD/STOP/REV

Minimum and maximum frequencies, as well as acceleration and deceleration ramps are factory presets. User may make changes to these presets from the KP keypad or via the USB connection to the PC using the Motovario BSi software tool.

Electro-mechanical braking module (option EMB)
The electro-mechanical braking module implements the Operation and Control feature for a self-braking motor equipped with DC brake. This module independently activates and deactivates the brake in perfect sync with motor behaviour through flexible (user-selectable) parameter setting for response timing and speeds. It is available for all Drivon power supply options (1ph230V and 3ph400V). The inverter independently provides the brake coil with the appropriate power supply. User need not carry out any assembly or wiring connections as they are done at the factory.
This option must be requested upon ordering.

10.1 ACCESSORIES AND OPTIONS

Dynamic braking module (chopper) (option BC)



Drivon has a four-segment operating principle. This means it can control the motor even when it is acting as a generator under braking and, generally speaking, when mechanical loading causes the motor to run faster than command speed. Option BC dissipates regenerated energy from the motor to an additional resistor enabling Drivon to brake the load with a power equal to nominal motor power. It consists of a resistive element and an electronic control element, both fixed to the side of the inverter. On self-braking motors, the BC module doubles as EMB module.

Profibus communication module DPV1 (option PDP)

This optional module enables the communication through standard Profibus DPV1 field bus. This module makes it possible to assign a network address through on-board manual rotary selector switches. In addition, the user can activate a termination resistor through jumpers as required. Two M12 B-code connectors (a male and female connector) are provided on the outside of the module for Line connection to field network.

Ethercat communication module (option ETC)

This optional module implements hardware and software interfaces for Real-Time-Ethernet networks over Ethercat profile. Two M12 D-code connectors (a male and a female connector) are provided on the outside of the module for Line connection to field network.

Emergency stop button (option FEM)
This option consists in an external emergency stop button that activates the Drivon's STO function.
Pressing the button cuts power to the motor in full safety in accordance with EN ISO 13849-1 and EN61508, whereas the inverter remains powered.