



## Agile Inverter Series. Active Cube Inverter Series.

**Agile. Compactness, user friendliness and reliability to keep your wind turbine drive always under control.**

The advanced series of standard sensorless inverters Agile from Bonfiglioli are well suited for applications where easy start up, space saving and downtime prevention are primary needs, as for example Yaw Drives in wind turbines.

**Active Cube. Versatility, promptness, accuracy.**

A full series of solution & servo drives, compact and flexible, is suitable to be used in wind turbine's drives where outstanding performance in terms of accuracy and response time are requested, as for example Pitch Drives.

Type	Power kW
AGL402 - 09	1.1
AGL402 - 11	1.5
AGL402 - 13	2.2
AGL402 - 15	3.0
AGL402 - 18	4.0
AGL402 - 19	5.5
AGL402 - 21	7.5
AGL402 - 22	9.2
AGL402 - 23	11

*Other sizes available.*

Type	Power kW
ACU401 - 21	7.5
ACU401 - 22	9.2
ACU401 - 23	11
ACU401 - 25	15
ACU401 - 27	18.5
ACU401 - 29	22
ACU401 - 31	30
ACU401 - 33	37

*Other sizes available.*

## Yaw Drives Power Range

1.1kW up to 11kW / 3-Phase 320V...528V  
45Hz...66 Hz

## Type of Control

Innovative control dedicated to open loop drives:  
Sensor-less vector speed and torque control for induction motor  
Sensor-less vector speed and torque control for brushless motor  
V/f scalar sensor-less control

## Type of Motor

Asynchronous AC induction motor  
Synchronous AC permanent magnets motor without feedback Group drive possible

## Main Standard Features

DC link connection  
Integrated braking chopper  
Short circuit / earth fault protected  
Plug-in and programmable control terminals  
Integrated safety architecture  
Integrated RS485 Modbus / CANopen / Systembus interfaces  
MMC memory cards for easy and fast start up parameter copy  
6 digital inputs, 2 configurable A/D multi-function inputs  
1 configurable I/O port, 1 digital output,  
1 configurable A/D/pulse multi-function output, 1 alarm relay, +24VDC output, +10VDC output, +24VDC input

## Optional Features

Fanless version available for smaller ratings  
"Long life" available on request  
Wide operating temperature range  
(Operation -30 to +50 °C)  
Coated boards against harsh ambient conditions  
Expansion of inputs / outputs

## Optional Communication Modules

Profibus-DP, CANopen

## Main Software Features

Four data sets  
Static and dynamic energy saving functions  
Application mask ready to use  
Maintenance integrated assistant  
Drive and motor status backup  
Self diagnosis  
Integrated PLC functions with graphical editor  
Integrated scope function

## Pitch Drives Power Range

7.5 up to 37kW / 3-Phase 320V...528V / 45Hz...66Hz

## Type of Control

Open and closed loop selectable control function:  
Vector speed, torque and position control for induction motor  
Vector speed, torque and position control for brushless motor  
V/f scalar sensor-less control

## Type of Motor

Asynchronous AC induction motor  
Synchronous AC permanent magnets motor

## Main Standard Features

Operation supplied by DC link connection  
Integrated braking chopper  
Short circuit / earth fault protected  
Plug-in and programmable control terminals  
Motor temperature monitoring  
Integrated safety architecture  
External 24VDC supply for control board and electronics  
6 digital inputs, 1 multi-function input  
1 digital output, 1 multifunction output,  
1 relay output

## Optional Features

Assembly available in Feed-Through or Coldplate versions  
Wide operating temperature range  
(Operation -30 to +50 °C)  
Coated boards against harsh ambient conditions  
Expansion of inputs / outputs, additional encoder or resolver input  
Management up to 2 feedbacks:  
standard HW encoder interface combined with expansion module for feedback from motors

## Optional Communication Modules

RS232, RS485, Profibus-DP, CANopen

## Main Software Features

Motion sequence functionality with 32 blocks  
Four data sets  
Drive and motor status backup  
Self diagnosis  
Integrated PLC functions  
Integrated scope function  
Brake logic control directly from the inverter