

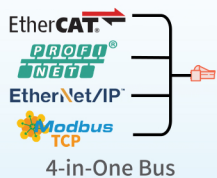
INOVANCE

MD630 General-Purpose Compact AC Drive

High Functionaliy & Flexibility



Harsh Environments



4-in-One Bus



Predictive Maintenance



Open & closed loop motor control supported



STO
SIL3



EtherCAT

PROFINET

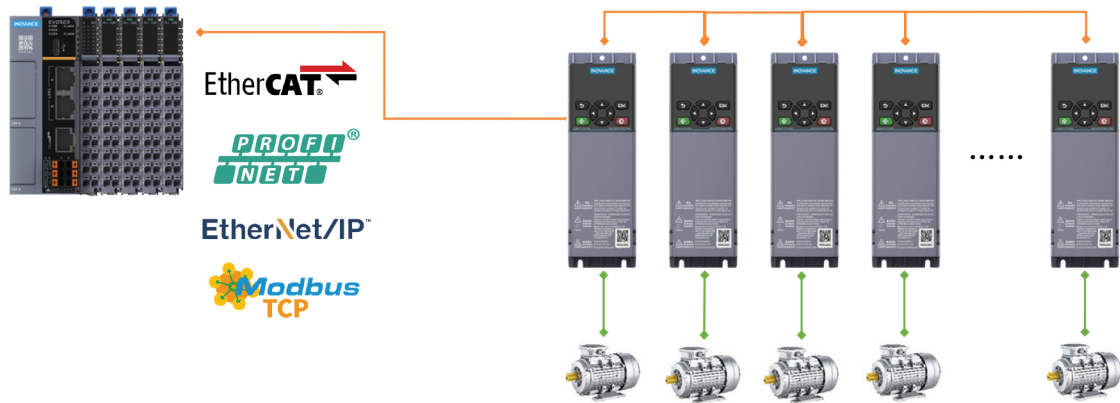
EtherNet/IP

Modbus

Features & Functions

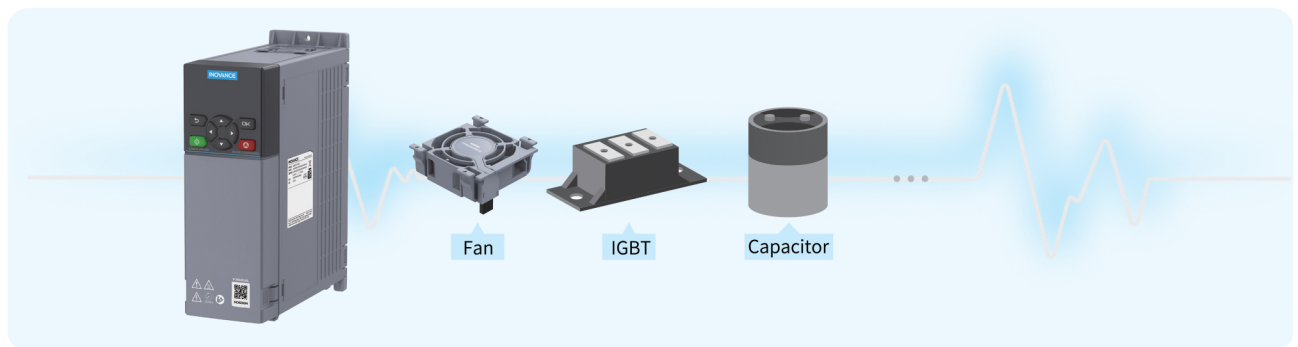
4-in-One Fieldbus Onboard

- The MD630N supports 4-in-one fieldbus: EtherCAT, PROFINET, EtherNet/IP and Modbus TCP.



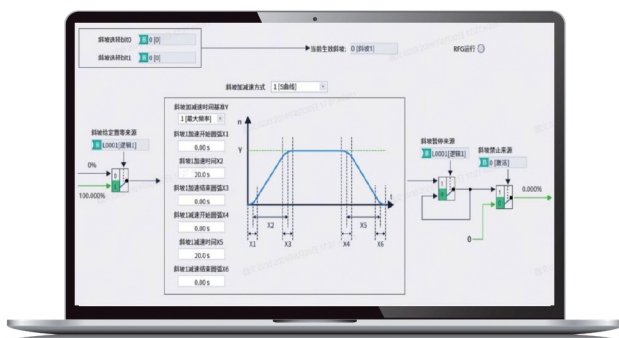
Life-time estimation for predictive maintenance

- Life-time prediction for the key components of the AC drive, such as fan, IGBT, capacitor.

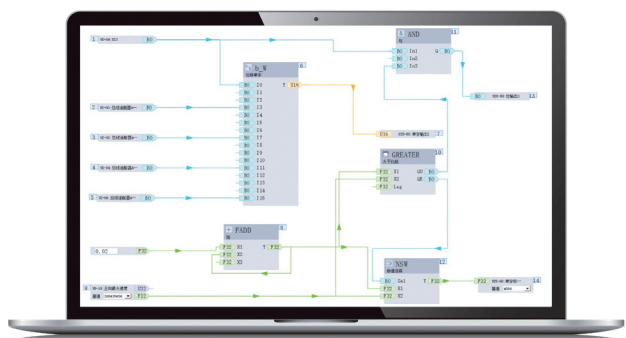


INOVANCE's new commissioning software platform iFA Drive

- New software platform common for AC Drives and Servo Drives.



Function diagram guided debugging



Graphical free programming

Features & Functions

MD630N - Ethernet communication model

MD630S - serial communication model

Control Interfaces

+24 VDC auxiliary control supply
I/Os: 2x DI, 2x AI, 1x DO, 1x RO
1x Ethernet port: EtherCAT, PROFINET and
EtherNet/IP Modbus TCP communication



Common Features

Human-machine interface

Easy to read colour LED keypad (5-bit digital display)
USB Type-C commissioning port
1×RS485 commissioning port
(for PC or external keypad connection)

Control functions

Induction, PM synchronous and synchronous
reluctance motor in open loop and closed loop

Interface expansion

1x Option card slot
(motor feedback interface, I/O expansion)

Complete functionality

STO SIL 3 PL e
Built-in braking transistor

Environmental features

IP20 rating
Operating ambient temperature: -20 to +60°C
Built-in EMC filter (C3 for 10 m)



Control Interfaces

I/Os: 7x DI, 2x AI, 1x DO, 1x RO, 1x AO, 1x PO
1x RS485 serial port: Modbus RTU protocols

■ Design for reliable and stable operation



Advanced functionality cooling fan

Auto-speed regulation based on actual temperature, without the need of additional settings (the cooling fan starts automatically when the drive is in operation or the heatsink temperature is above 40°C). An alarm will be triggered when the fan stops rotating unexpectedly. MD630 can estimate fan life, operate the fan in forward and reverse rotation to clean the air duct, preventing fan blockage and drive shutdown in dusty environments.

Built-in EMC filter

Ensure stable operation, for application with high EMC requirements.

Up to 60°C operation temperature

Maximum operating ambient temperature 60°C, with derating above 50°C.

Various accessories for harsh environments



Junction box protection kit, for preventing ingress of dust



Cable shield bracket, enhance electromagnetic compatibility



Vibration damping mount support, increase vibration resistance

■ Designed for compact installation

- MD630 AC Drive supports side-by-side installation.
- Taking the 1.5kW model as an example:
When installing the MD630 drives side-by-side*, the volume is reduced by 34%, and the footprint is reduced by 41%, compared with MD520 drive.

* Note: When installing side-by-side, drive's output current should be de-rated above 40°C ambient temperature.

