

CMZ

Company profile

soga  energyteam

# SYSTEMS & SOLUTIONS FOR MOTION CONTROL

2025



COMPANY

APPLICATIONS

PRODUCTS

WHERE WE ARE

## CMZ engineers and produces in Italy electronic systems for industrial automation.



### HARDWARE

- IEC61131 controllers
- Drives and Motors
- Planetary gearboxes
- Peripherals & I/OS
- HMIs

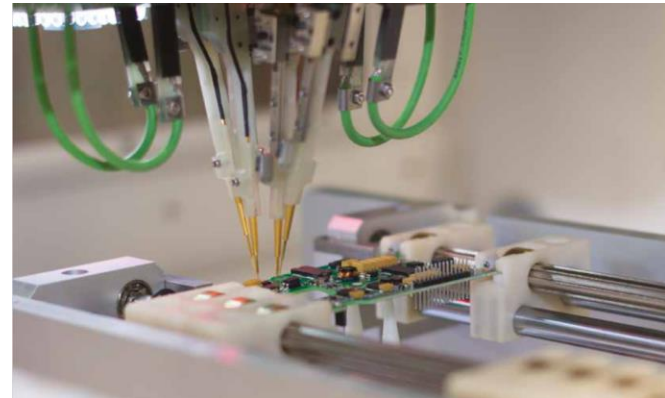
### SOFTWARE

- Communication, motion and utility libraries
- Configurable dedicated applicatives

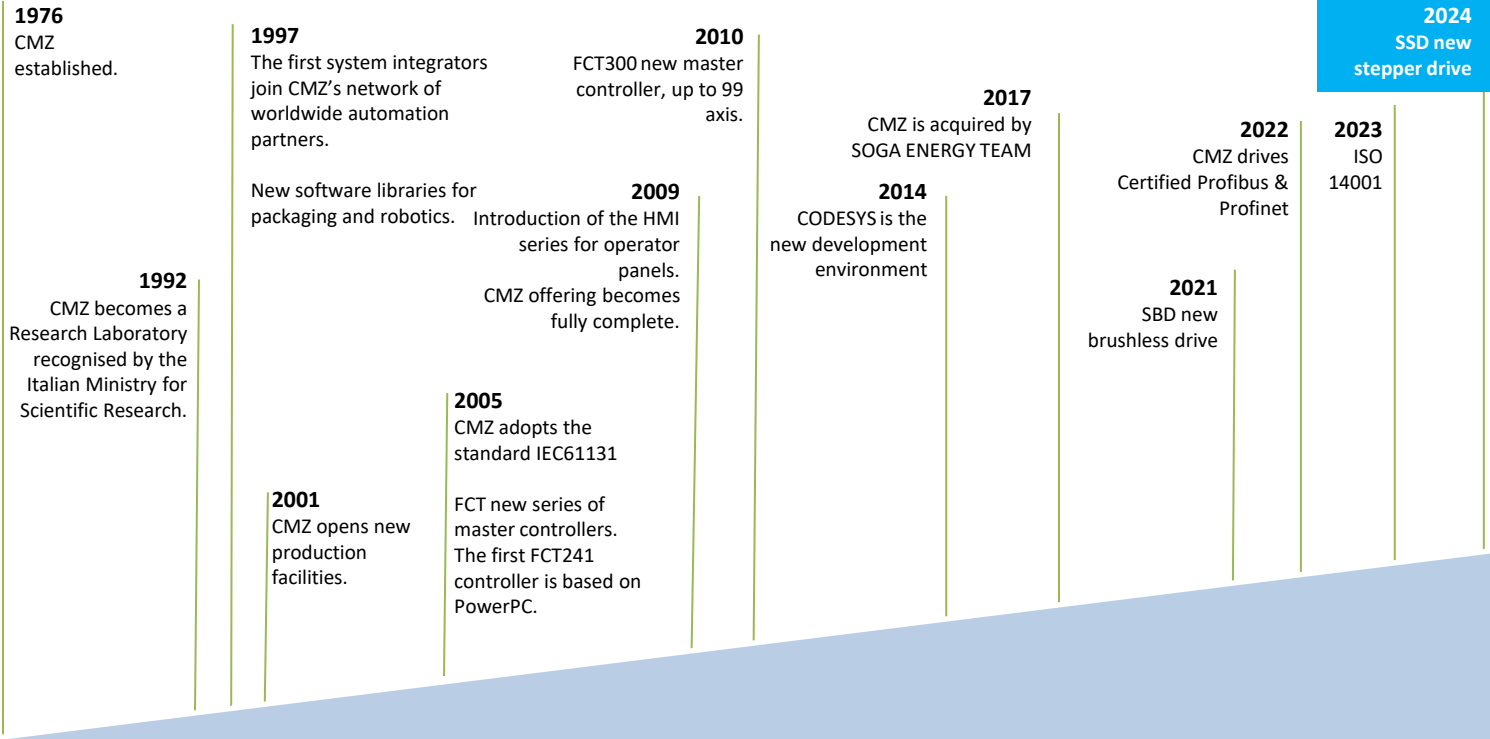
### SERVICE

- Engineering & Co-Design
- Remote technical assistance
- Maintenance programs
- Revamping

**CMZ MISSION** is to be a recognized reliable Partner for **Original Equipment Manufacturers** and **system integrators** for the co-development of automatic machines and equipment with **customized** and specific configuration in **multi axis motion**.



# KEY MILESTONES



Volume of Business 2024  
(Order Intake, mln €)

9,0



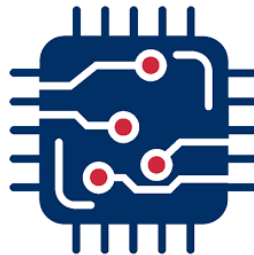
Headcount



65

Investment in R&D  
(OpEx & CAPEX; % of Revenue)

18,3%



# of R&D SW and HW engineers

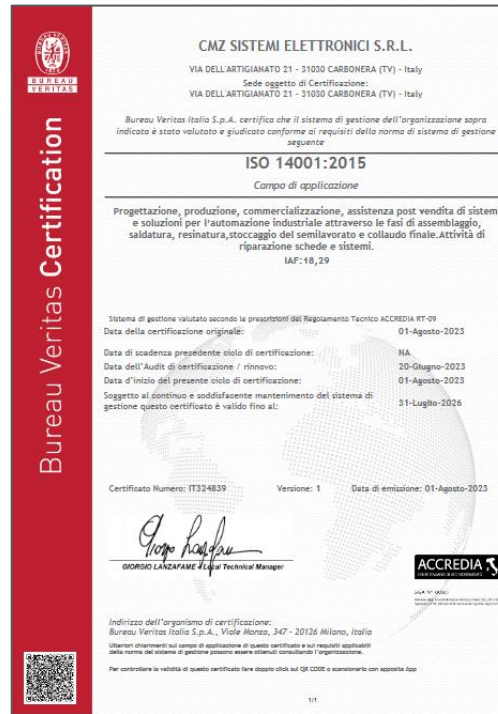
28



ISO 9001:2015



ISO 14001:2015



Our first ESG Rating in 2024.  
 CMZ is in category BBB



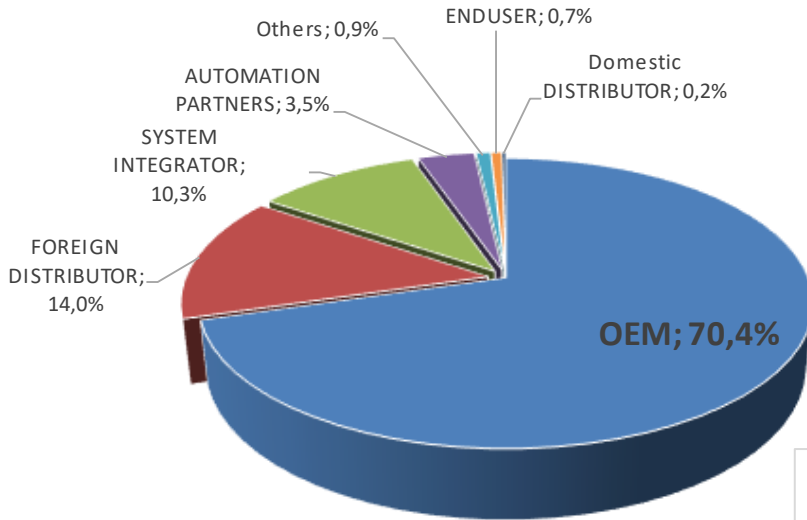


**SOGA S.p.A**

Group headquarter

COMPANIES	BRANDS	
Soga S.p.A	<b>soga</b> <sup>®</sup> AC electric motors	ENERGY
	<b>sincro</b> <sup>®</sup> AC and DC alternators and welders	
	<b>agrowatt</b> PTO tractor-driven generators	
	<b>sogaenergies</b> AC generators for renewables and special projects	
Sincro d.o.o	Industrial alternators	
CMZ Sistemi Elettronici S.r.l	<b>CMZ</b> Electronic systems for industrial automation	AUTOMATION
Veneta Press S.p.A	<b>VENETA PRESS</b> Aluminium die-casting	FOUNDRY

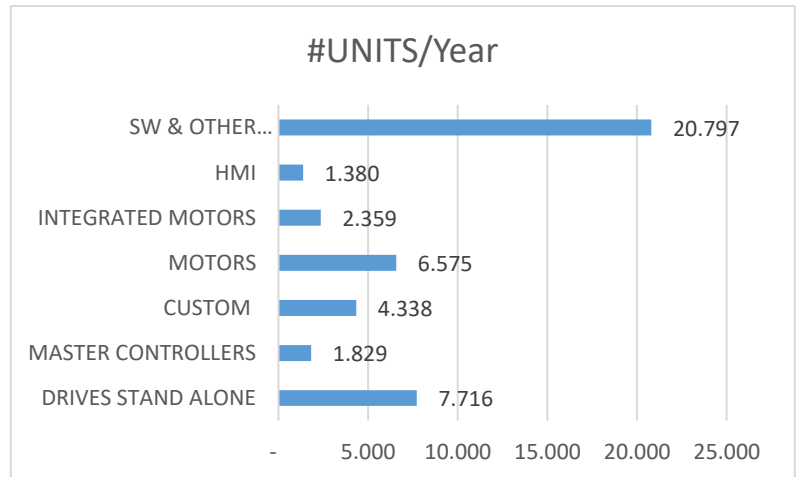
- **6 brands**
- **Group Turnover 80.000.000,00 €**  
(results 2023)
- **7 production plants** in Italy and Croatia
- **Export in 90 countries**
- **~ 400 employees**



With a team of 28 SW and HW engineers CMZ is the ideal partner to support the OEM's

CMZ provides a **full service** platform to a wide installed base:

- 500 Active Clients
- 250.000 Units







COMPANY

APPLICATIONS

PRODUCTS

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# KEY APPLICATION MARKETS



**Packaging**

**24,3%**



**Dosing & Weighing**

**9%**



**20,2%**

**Beverage**



**Converting**

**7,2%**



**Special Machines**

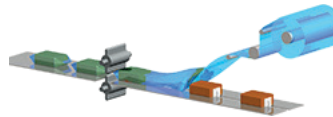
**24,9%**



**14,4%**

**Textile**

# Packaging



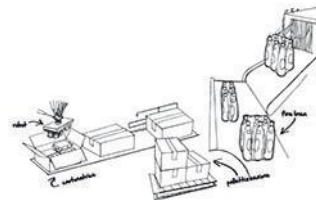
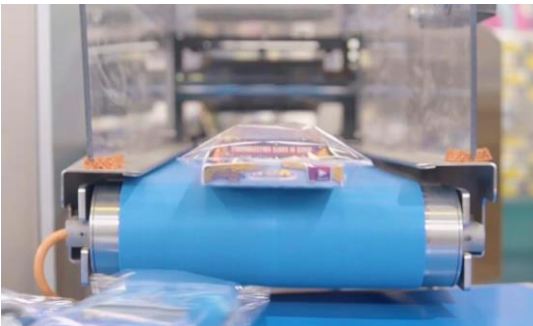
HORIZONTAL PACKAGING MACHINE



VERTICAL PACKAGING MACHINE



LOADING SYSTEMS  
SMART BELTS



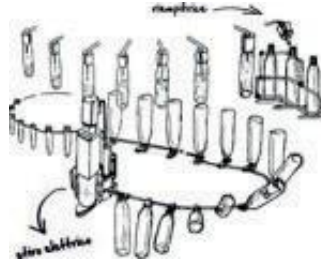
END LINE



# Food & Beverage

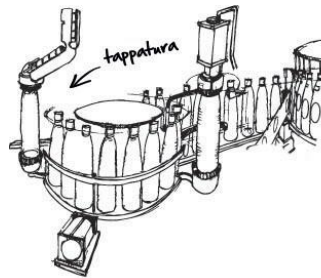


LABELLING MACHINES



FILLING MACHINES

BLOWING MACHINES



CAPPING MACHINES

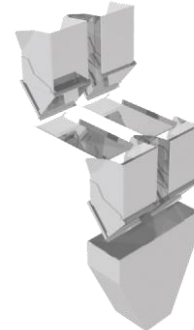
# Dosing & Weighing



MULTIHEAD WEIGHERS



LINEAR WEIGHERS



VIBRATING FEEDERS



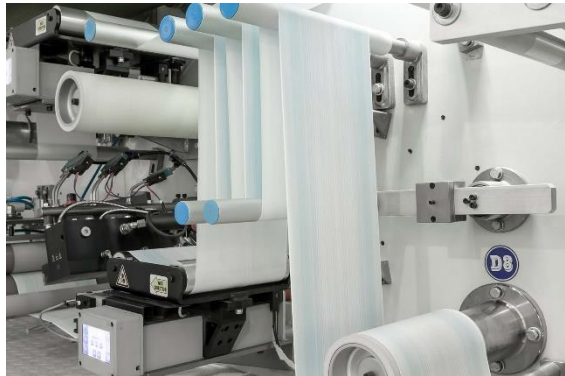
## Printing



SYNCHRONIZATION OF PRINTING CYLINDERS

REGISTRATION CONTROL OF PRINTING CYLINDERS

## Paper converting



INTERFOLDERS

REWINDERS CUTTING LINE

FLEXO MACHINES

## Textile



MACHINES FOR FIBERS TREATMENT  
(SYNTHETIC AND NATURAL) SUCH AS:  
COMBING MACHINES, DRAW FRAME MACHINES

CROCHET AND JACQUARD MACHINES

SEWING/EMBROIDERY MACHINES

SINGLE AND MULTI NEEDLE QUILTING MACHINES

## ISO interpreter (G-code)



CNC MACHINES



## Glass



THREADING MACHINES

SEALING MACHINES EDGERS

MACHINES COATING REMOVERS

GLASS CUTTING

## Metal sheet



FLYING SHEAR

DEFORMATION

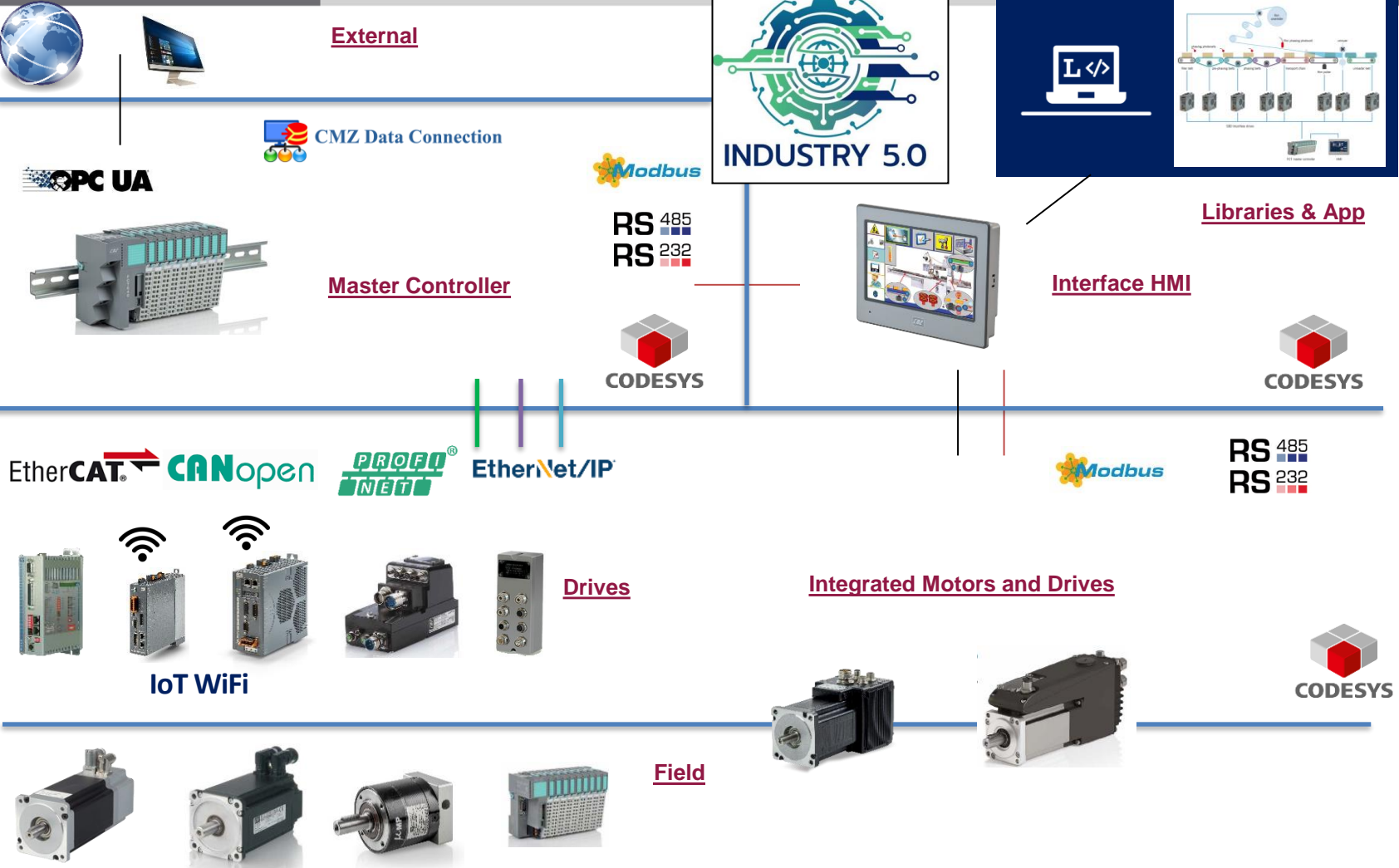
COMPANY

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## FCT640 | FCT641: Master Controllers

### Up to 99 axes

#### Processor:

CPU: RISC dual core 64bit, 1.0 GHz three level cache

#### Memory capability:

1 GB Nand Flash for storage

512 MB DRAM high bandwidth 64 bit 1666 MT/s

32 KB Ferromagnetic RAM (non-volatile PLC data)

SD-Card

#### Communication ports:

1xRJ45 Ethernet 10/100 MBit TCP/IP (Debug)

2xRJ45 Ethernet 10/100 MBit (Fieldbus)

1xRJ45 CAN-Bus (CANopen Master)

#### Local I/O modules:

64 modules, each with a maximum of 16-bit IO (1024 digital) or

8 channels analog (512 analog) - Big variety of modules available.

#### Wide variety of modules available

#### Fieldbus:

EtherCAT Master, CANopen Master

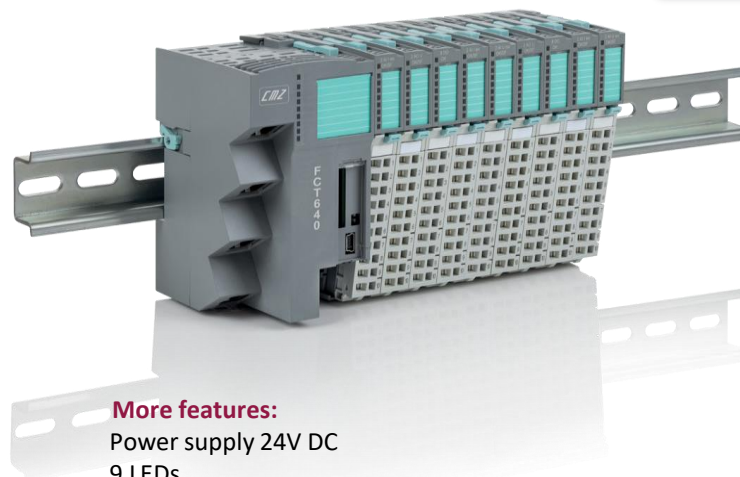
#### Connectivity:

OPC-UA

Modbus TCP Master/Slave

Communications based on UDP-TCP

WEB server, PLCHandler



#### More features:

Power supply 24V DC

9 LEDs

RTC with CR2032 Battery

Reset-Button – Restore-Button

0° - 50°C ambient temp

Fanless

CANopen

EtherCAT

PROFI  
NET

EtherNet/IP

OPC UA

Modbus  
TCP/IP

## SSD: Smart Drives

Stepper drives with CANopen, EtherCAT and Profinet interface

- 5 A Nominal
- 110 or 230 Vac single phase
- Feedback: Incremental encoder
- Auxiliary encoder input
- Analog and digital IO on board
- STO (under certification)



## SBD: Smart Drives

Brushless drives with CANopen, EtherCAT and Profinet interface

- from 5 to 20 A Nominal
- 230 Vac single phase or 400 Vac 3-phases
- Feedback: Resolver, Incremental encoder, absolute Hiperface Encoder
- Auxiliary encoder input
- Analog and digital IO on board
- STO (under certification)

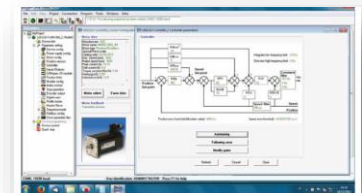


## RP064: I/O module

CANopen Coupler  
32 Di + 32 Do + 2 Ai + 2 Ao

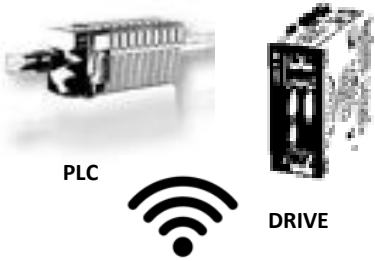


CMZ PROPRIETARY SOFTWARE ENVIRONMENT



1

CMZ is investing for introducing WiFi connection on its main devices



2

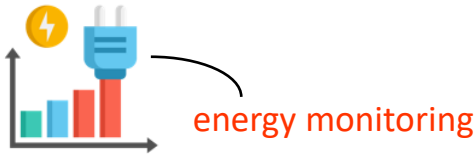
What is WiFi useful for?



Cloud Storage



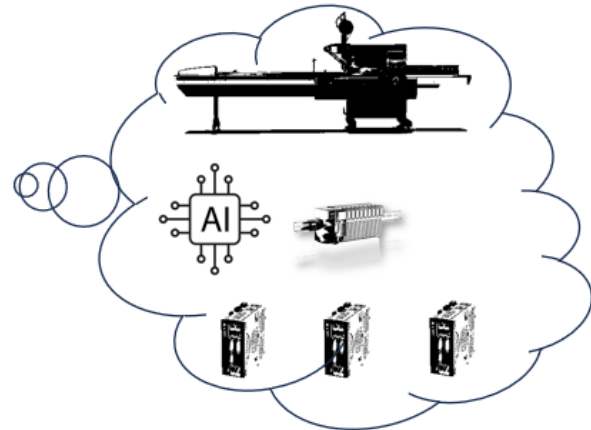
Cloud Service



Energy Consumption

3

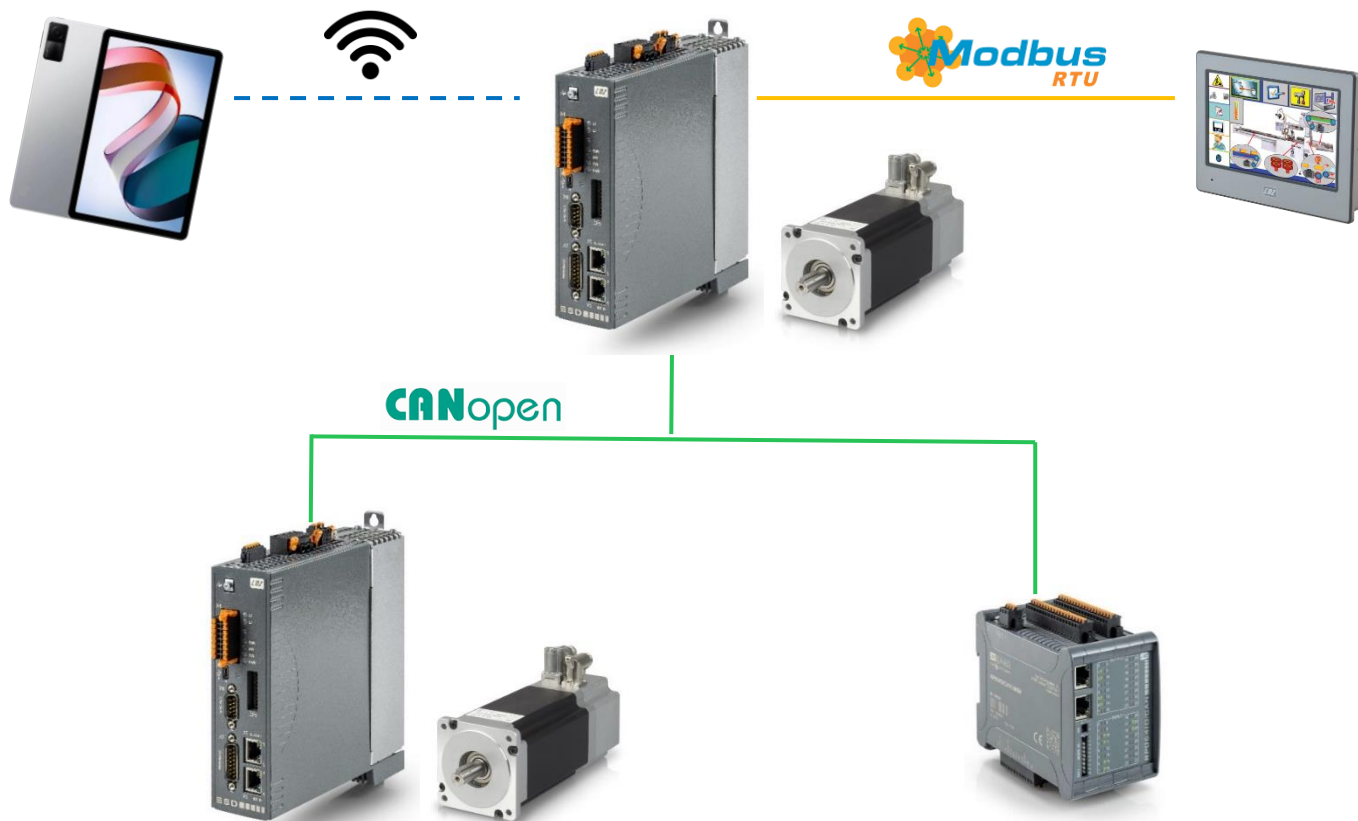
Complete package HW and SW with integrated IoT functions



**NEW**  
2024

**UNDER CONSTRUCTION**

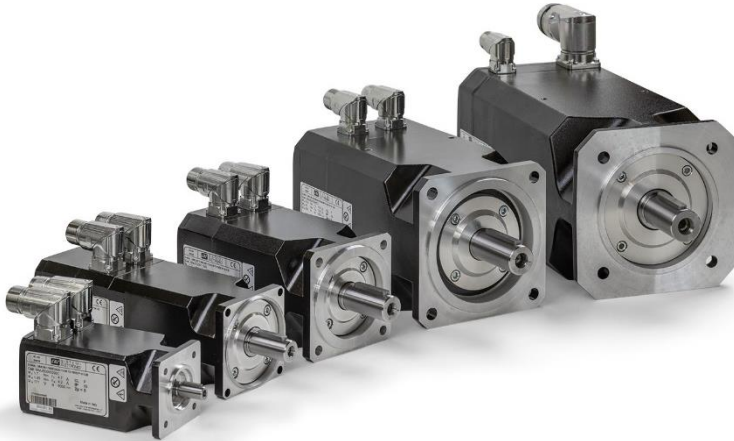
CMZ system new architecture. The IoT era has been starting!





## MMD/B/S: Servo Motors

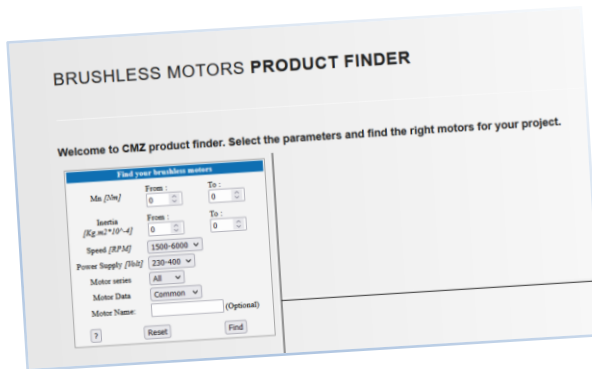
Brushless motors



### WEB CONFIGURATOR

TRY IT ON OUR WEBSITE!

[www.cmz.it/en/brushless-motors-product-finder/](http://www.cmz.it/en/brushless-motors-product-finder/)



### TORQUE RANGE

- From 0,5 to 120 Nm stall torque

### POWER SUPPLY

- 230 Vac and 400 Vac

### SPEED

- From 1500 to 6000 rpm

### FLANGE

- From 70 to 240 mm

### FEEDBACK

- Resolver / Incremental / Absolute – Hyperface / DSL

### OPTIONS

- Brake / Flywheel / IP67





PPG: Precision Planetary Gearboxes



TR series



MP series



TR/MP\_G series



TR/MP\_IS series



TR/MP\_MB series



LC series



LCK series



SL series



KR series



TQ series



TQFEK series



TQK series



TQF series



## IBD: Integrated Brushless Drives

**Power supply:** 275 ÷ 730 Vdc (560 Vdc Nominal)

**Logic supply:** 24 Vdc

**Torque range**

Stall torque 1,3 - 2,8 – 4 - 5,6 – 6 - 15,4 - 30 Nm

**Rated speed:**

Vn=5000 rpm (for 1,3 Nm)

Vn=3000 rpm (for 2,8 – 4 - 5,6 – 6 - 15,4 - 30 Nm)

**Feedback**

**HIPERFACE absolute encoder single or multiturn**

**On board I/O's**

**for size 1,3 Nm:**

3 digital inputs PNP 24 V

2 digital outputs PNP 24 V

1 programmable input/output PNP 24 V

**for sizes from 2,8 Nm to 30 Nm:**

6 digital IN 24 Vdc general purpose, configurable as:

PSTOP, NSTOP, Enable, Home, Capture, Step/Direction

3 digital OUT 24 Vdc 250mA, general purpose

1 digital IN/OUT 24 Vdc with configurable function

3 differential I/O's configurable as master incremental encoder

1 Analogue IN +/-10 V

**Interface:**

EtherCAT, CANopen

PROFINET (IBD up to 6 Nm)

**Safety:**

-For size 1,3 Nm: SIL3 (pending)

-For sizes from 2,8 Nm to 30 Nm:

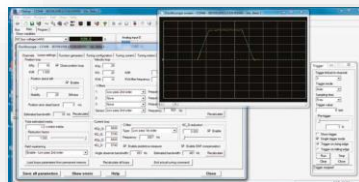
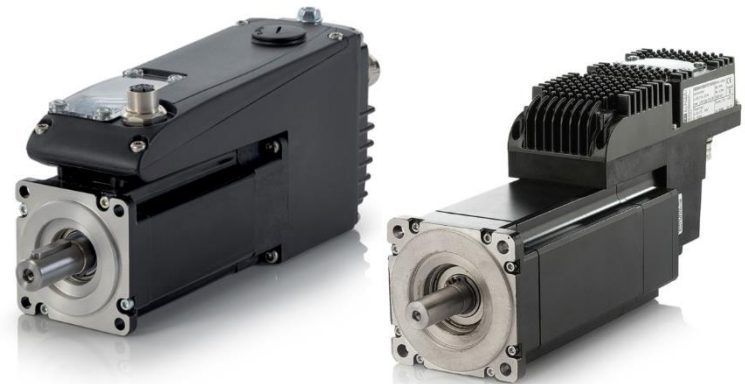
STO 2 channels (only CAN and ETC) SIL3 (pending)

**Protection:**

IP65

**Option:**

Internal brake



**SOFTWARE ENVIRONMENT**

SD Setup

**NBD: Nearby Servo Drives**

**Drive IP65 for linear and rotating brushless motors**

**Power supply:** 275 ÷ 730Vdc (560Vdc Nominal)

**Rated current:** 8Arms

**Peak motor current:** 15Arms

**Logic supply:** 24Vdc

**Protection:** IP65

**Security:** STO 2 channels

**Input/Output:**

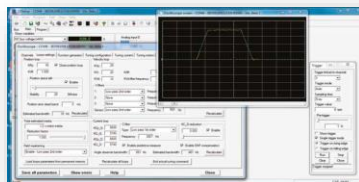
3 digital inputs PNP 24V 2

digital outputs PNP 24V

2 digital input/digital output bidirectional PNP 1

analog input +/- 10V

Encoder master input + 5V out



**SOFTWARE ENVIRONMENT**

SD Setup



**SVM: Stepless Servo Drives**

**MM: Stepless Motors**

Interface: CANOpen, Profibus DP,  $\pm 10V$ , RS485 Modbus, pulse/direction  
Profiles of speed, position and torque

Internal PLC programmable in IEC 61131 dedicated and general purpose IN/OUT's

**Motors sizes** available up to 21 Nm  
on 5 sizes, DC power supply up to 160 Vdc



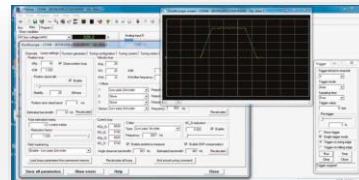
**ISD: Integrated Stepless Drives**

**Up to 12 Nm, DC power supply up to 130 Vdc**

Interface: CANOpen, Profibus DP,  $\pm 10V$ , RS485 Modbus, pulse/direction

Profiles of speed, position and torque

Internal PLC programmable in IEC 61131 dedicated and general purpose IN/OUT's



**SOFTWARE ENVIRONMENT**  
SD Setup

\* through external gateway



## TSC: Nearby Servo Drives

### Drive for 3 stepper motors

**Power supply:** 48 Vdc

**Protection:** IP65

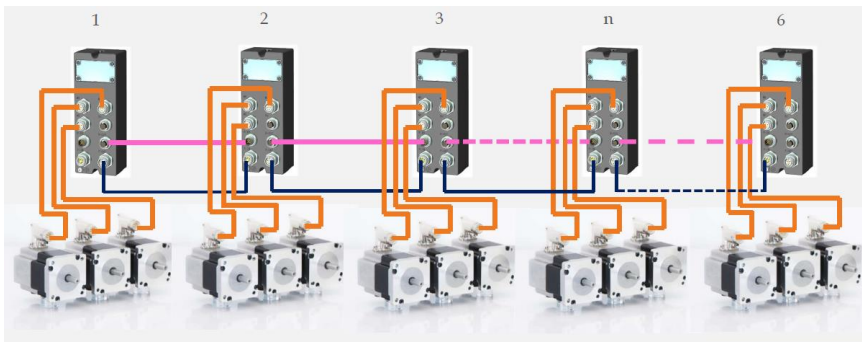
**Input:** 1 analog input +/- 10V

**Daisy chain connection:** up to 3 devices

**Stepper motors size 60 mm**

**Torque:** 1,65 and 3,1 Nm

**Feedback:** Absolute single turn encoder



CANopen

PROFI<sup>®</sup> \*  
INDUSTRIAL ETHERNET  
NET



\* through external gateway

## PT2 Series: HMI

### HMI panels

- Premium level panels suitable for Industry 4.0
- Embedded touch system
- Sizes from 4,3" to 15" LCD display
- TFT-LCD
- Max. colors 16-bit
- LED
- CPU: RISC ARM9 32 bit
- Working Memory 64 MB
- USB
- IP66
- 5 years life battery



RS 485  
RS 232

EtherNet/IP™

SOFTWARE ENVIRONMENT

Panel Master Designer





CUSTOM PRODUCTS



STEPPER MOTOR CONTROL  
**CPMSGO**



VIBRATING FEEDERS CONTROL  
**CP6V16**



POWER SUPPLY  
FOR ISD AND SVM DRIVES  
**SDPOW1 - SDPOWR**



LOAD CELLS ACQUISITION  
**SGACQA**



VIBRATING FEEDERS CONTROL  
**CP4PWM**



POWER SUPPLY  
FOR IBD AND NBD DRIVES  
**BDPOW**

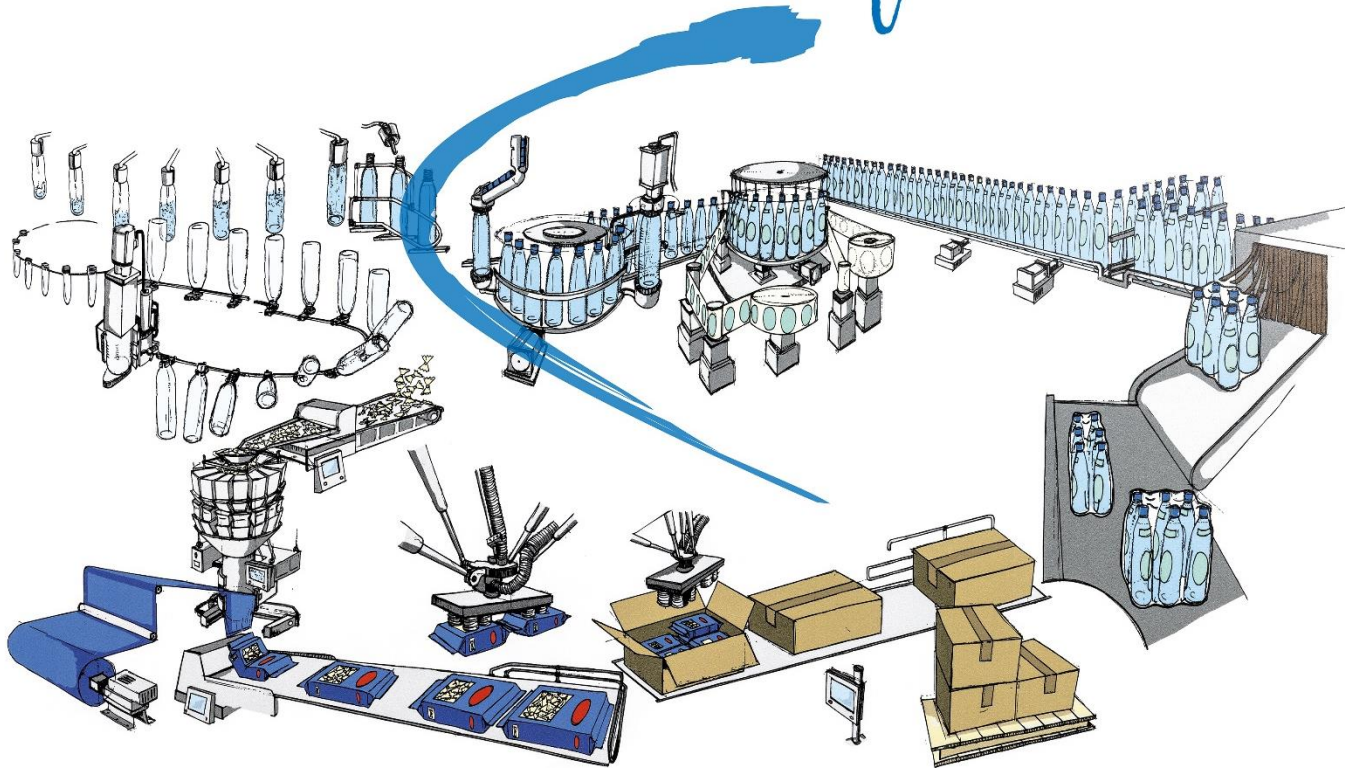


THERMOCOUPLES  
**CP6TS0**



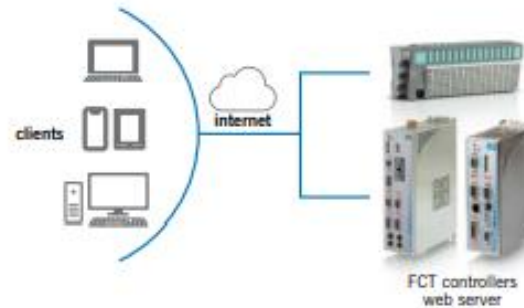
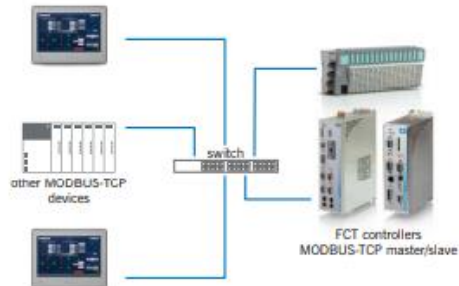
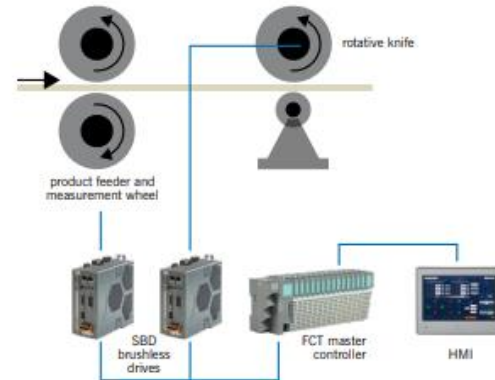
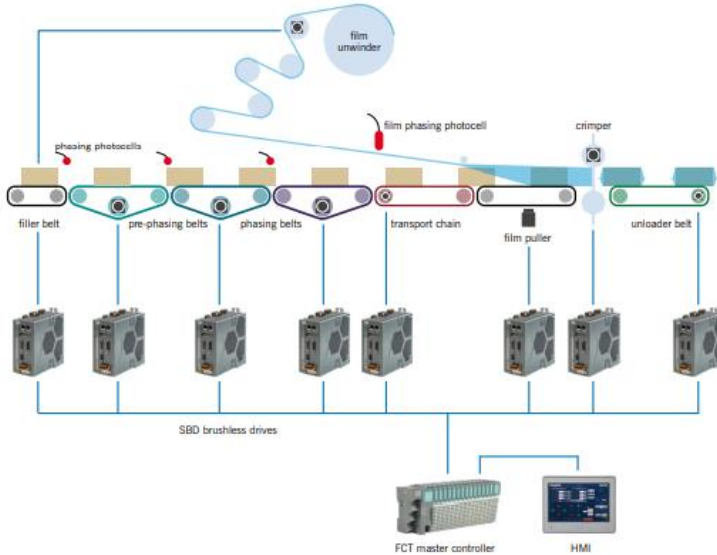
FCT300 & FCT200  
**I/O LOCAL MODULES**

# *tailor made software*





### SOFTWARE: Codesys Solutions



COMPANY

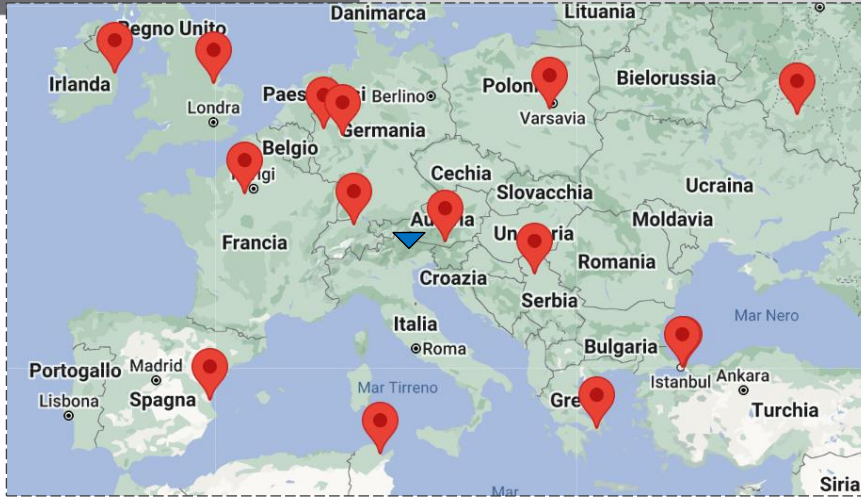
APPLICATIONS

PRODUCTS

WHERE WE ARE



## AUTOMATION PARTNERS NETWORK WORLDWIDE



▲ CMZ HQ

▼ AUTOMATION PARTNERS

[cmz.it/en/automation-partners](https://cmz.it/en/automation-partners)



CMZ

soga  energyteam



[cmz.it](http://cmz.it)



soga  energyteam

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