CronaTech

HDT®
Motors & Digital Drives

TMC240 EVO
DIGITAL BRUSHLESS & DC SERVODRIVE
MADE IN ITALY

TomCat240Evo SERVODRIVE
Evolution in Motion

TomCat240Evo

Digital servodrive for brushless and DC motors

Digital, sinusoidal, 4-quadrant bidirectional drives, with internal brake switch, supplied with 220/240VAC single phase and three phase, for the control of rotary and linear brushless and DC motors with rated current up to 6A.
Designed to work in EtherCat CoE, ProfiNet RT, ProfiBus DPV0, CanOpen DS402, ModBus RTU, with analogue speed or frequency/direction reference. Hall sensors feedback, incremental encoder or absolute encoder.
Enriched with software functionality, TomCat Evo is a concentrate of tecnology, easy to manage, reliable and with a competitive price.

FIRMWARE FUNCTIONALITIES

- Speed control with adjustable ramps with or without Jerk
- Torque control with cogging compensation
- Torque limit control
- Multipositioner up to 64 indexes
- Asse elettricoElectronic gear
- Electronic cam
- Rotary, linear and tubolar motor control
- Electronic brake management
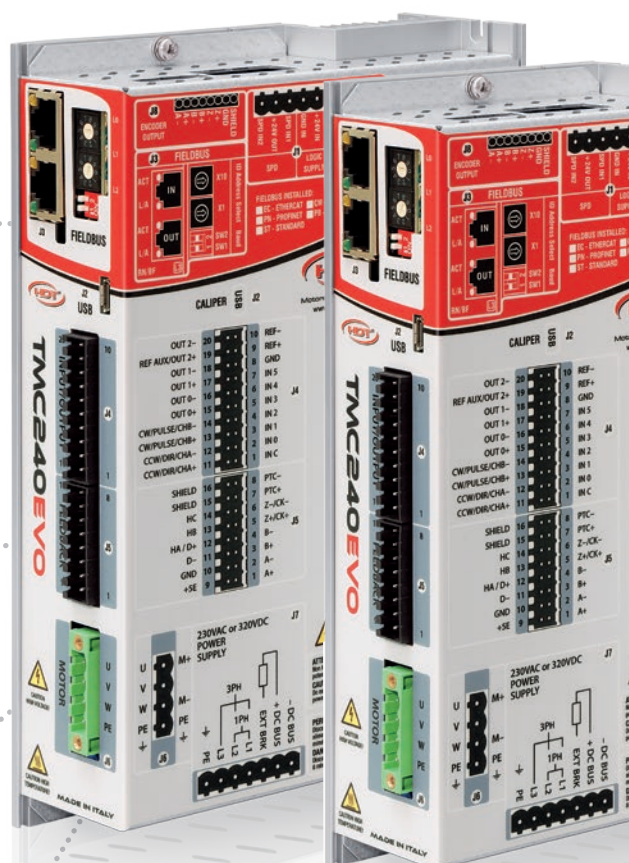- Digital filters

SPEED FEEDBACK

- Hall signals at 120°
- Incremental Encoder Line Driver 5V with/without Hall (+5V)
- Absolute Encoder SSI
- Sensorless
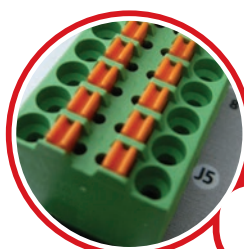
INPUTS AND OUTPUTS

- Analog differential main input +/-10V (12bit)
- Analog auxiliary input 0/+10V (12bit) single ended
- 6 digital programmable inputs
- 3 digital programmable outputs
- Auxiliary encoder input
- Encoder's channels repetition output
- Pulse/direction input for frequency reference
- CCW and CW pulse train input

PROTECTIONS

- Alarm signals via 3 led
- Short-circuit of motor
- Power supply overvoltage
- Power supply undervoltage
- Heatsink overtemperature
- Rated current limit
- Hall sensor break
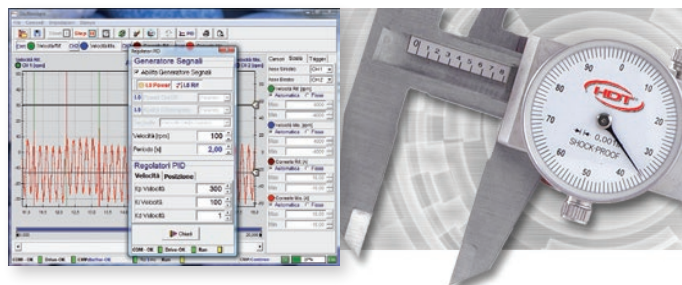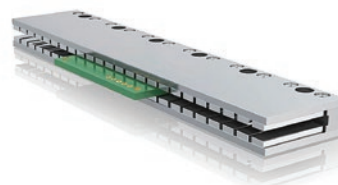- Motor temperature thermal image

240VAC
up to 2kW

Easy-to-wire terminals

USB 2.0 for programming

CALIPER 4.0

- Programming software via USB2.0 for update e debug.
- Realtime oscilloscope with 100µs samplng on 4 simultaneous channels
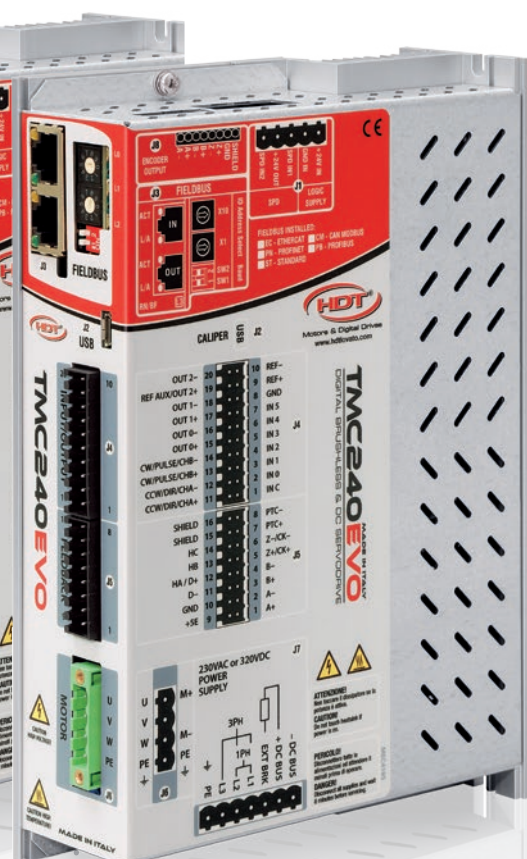- Possibility to update firmware by remote.

LINEAR MOTORS

TUBOLAR LINEAR MOTORS

AC BRUSHLESS MOTORS

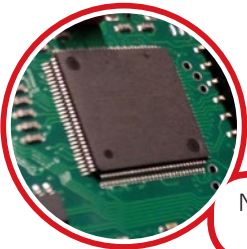**DC MOTORS**

ADVANCED COMMUNICATION

The new TomCat Evo is not only faster thanks to a new CPU, but also more avanced in communication. Developed in 3 power sizes up to 2kW and 5 versions with different Fieldbuses that make it even more versatile.

New CPU 32 Bit FPU high performance

ST

VERSIONE STANDARD
Analogue and pulses train
- Speed control
- Torque control
- Electronic gear
- Multipositioner
- Electronic cam

EtherCAT®

ETHERCAT / COE
Protocollo DS 402
- Electronic Gear
- Position Mode
- Velocity Mode
- Profile Velocity Mode
- Profile Torque Mode
- Homing Mode
- Interpolated Position Mode
- Cyclic Sync Position Mode
- Cyclic Sync Velocity Mode
- Cyclic Sync Torque Mode
- Touch Probe

CANopen®

CANOPEN CoE
Protocollo DS 402
- Electronic Gear
- Position Mode
- Velocity Mode
- Profile Velocity Mode
- Profile Torque Mode
- Homing Mode
- Interpolated Position Mode
- Cyclic Sync Position Mode
- Cyclic Sync Velocity Mode
- Cyclic Sync Torque Mode
- Touch Probe

Modbus

Modbus RTU
- Speed control
- Torque control
- Electronic gear
- Multipositioner
- Electronic cam

PROFIBUS®

PROFIBUS DPV0*
Profidrive Protocol
- Speed control
- Manual positioner

PROFINET®

PROFINET RT
Profidrive Protocol (CA e CB)
- Speed control (AC1)
- Positioner in Program Mode(AC3)
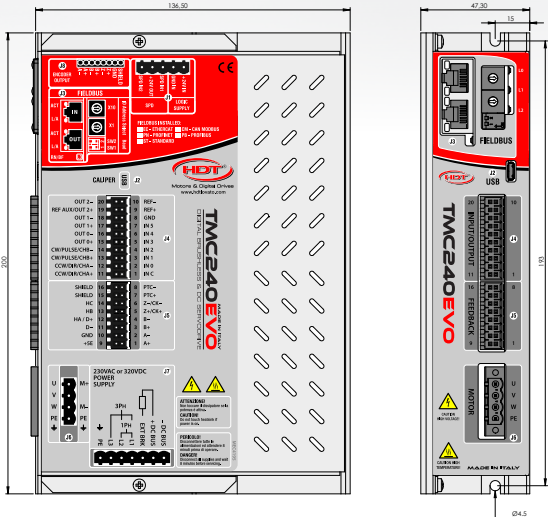- Manual positioner (AC3)

*Under development.

Technical specifications

SIZES	U of M	TomCat240 EVO		
		2	4	6
Applied voltage	V	230 VAC 1Ph and 3Ph		230VAC 3Ph
Min/Max supply voltage	V	200÷230VAC -15% +10%, 50/60Hz		
Rated current	A	2	4	6
Peak current for 2"	A	4	8	12
Max output power	KW	0,65	1,30	2,00
Max output power (DC brushed)	KW	0,56	1.12	1.67
Control method		IGBT/PWM, sinusoidal or trapezoidal for brushless motors and control for brushed DC motors		
Logic power supply	VDC	+24VDC ± 20%		
Feedback		Hall's sensors- Incremental enc. 5V Line Driver with/without Halls sensors- Absolute enc. SSI - Sensorless		
Type of motors driveable		Rotary, linear and tubolar AC/DC brushless motors- DC brushed permanent magnet motors with encoder		
Fieldbus		Modbus RTU - CanOpen DS402 - EtherCat COE - ProfiNet- ProfiBus*		
Analogue main reference		±10V differential speed and torque - 12Bit		
Analogue auxiliary reference		0/+10Vspeed and speed with torque limit- 12Bit		
Frequency reference		Pulse/Diection- A/B 5V Line Driver channels- CW/CCW (2MHz)		
Digital Inputs and Outputs		6 programmable inputs NPN/PNP- 3 programmable outputs NPN/PNP		
Control modes		Speed- Adjustable ramps- Torque control- Multipositioner - Electronic gear - Electronic cam		
Limit switch management function		Braking in torque limit in case of P-OT, N-OT		
Digital filters		Notch filter, Iq filter, Digital Inputs filter		
Protection functions		Short-circuit - Over/Undervolt. - Drive overtemp. - Hall's sensor break - Current limit		
Drive signalings		3 LED for status and alarm		
Safety funtions		STO: SafeTorqu Input circuit according to IEC61800-5-2:2007**		
Brake management		Integrated. Immediate stop or in ramp		
Drive setting		Through CALIPER 4.0 software via USB 2.0 port		
Approximstive weight	Kg	1	1,1	1,16

Drive/Motors matching

HDT motors	Tn	TomCat EVO - current sizes		
		2	4	6
B05S	Nm	0,5		
B05M	Nm	0,9		
B05L	Nm	1,2		
B07S	Nm		1,2	
B07M	Nm		1,9	
B07L	Nm		2,6	
B07G	Nm		3,4	
B10S	Nm		4,0	4,0
B10N	Nm			4,7
MS04M	Nm	0,32		
MS06M	Nm	1,27		
MS08L	Nm		2,45	

Dimensions

*under development - ask HDT for availability
**pending approval

HDT®
Motors & Digital Drives

1969/2017
48
YEARS
IN THE ELECTRONIC
WORLD

(UK)

ORDER CODE FOR TOMCAT240 EVO

Model Drive: TomCat Evo

TMC   2 4 0   6 1 2   ☐ C M

Power Voltage: 220/230VAC

Type of Mains: 1Ph [M]   3Ph [ ] (leave empty)

ST = No fieldbus   CM = CanOpen/ModBus   EC = EtherCat CoE   PN = ProfiNet RT

Current Size:	2/4	2 4
4/8:	4 8
6/12:	6 1 2

| Example: | TMC 240 612 CM | TomCat240Evo 6A/12A three-phases version with CanOpen/Modbus option. |

CronaTech Drives AB

www.cronatech.se   info@cronatech.se

Tel +46 31 961520

HDT®
Motors & Digital Drives