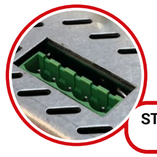
ADVANCED COMMUNICATION

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 4 versions with different Fieldbuses that make it even more versatile.



STO - Certified SafeTorque Off Input circuit

STANDARD

STANDARD VERSION
Analogue and pulses train
- Speed control
- Torque control
- Electronic gear
- Multipositioner
- Electronic cam
- Pressure Control

(ST)

EtherCAT

ETHERCAT / COE
CiA 402 Protocol
- 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
- Electronic Gear
- Pressure Control

(EC)

CANopen

CANOPEN
CiA 402 Protocol
- 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
- Electronic Gear
- Pressure Control

(CM)

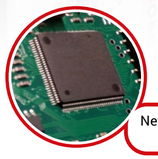
Modbus

Modbus
RTU Protocol
- Speed control
- Torque control
- Electronic gear
- Multipositioner
- Electronic cam
- Pressure Control

(PN)

PROFINET

PROFINET RT - IRT
Profidrive Protocol
- Speed control (AC1)
- Positioner in Program Mode(AC3)
- Manual positioner (AC3)
- Isochronous Control (AC4)
- Pressure Control



New CPU 32 Bit FPU high performance

Motors & Digital Drives

TMC240EVO1120UK

1969/2019 50 YEARS IN THE ELECTRONIC WORLD

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UK

ORDER CODE FOR TOMCAT240 EVO

Model Drive: TomCat Evo

TMC	2	4	0	EVO	-	6	/	1	2	-	T	-	C	M	-	R

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

Power Voltage: 220/230VAC

Type of Mains: 1Ph M 3Ph T

ST = No fieldbus CM = CanOpen/ModBus EC = EtherCat CoE PN = Profinet RT-IRT

[ ] = No Feedback option [R] = Optional Resolver

Example: TMC 240 EVO-6/12-T-CM-R TomCat240Evo 6A/12A three-phases version with CanOpen/Modbus and Resolver options

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Motors & Digital Drives

Motors & Digital Drives

EtherCAT. PROFINET CANopen

1969/2019 50 YEARS IN THE ELECTRONIC WORLD

TomCat240Evo servodrive

Evolution in Motion

TomCat240Evo

Digital servodrive for brushless and DC motors

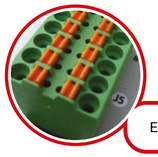
Digital, sinusoidal, 4-quadrant bidirectional drives, with internal brake switch, supplied with 220/240VAC single phase and three phase, for the control of rotary and linear brushless, DC motors and asynchronous motors with rated current up to 6A.
Designed to work in EtherCat CoE, ProfiNet RT-IRT, CanOpen CiA 402, ModBus RTU, with analogue speed or frequency/direction reference.
Hall sensors feedback, incremental encoder, absolute encoder or optional resolver.
Enriched with software functionality, TomCat Evo is a concentrate of technology, 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 tubular motor control
- Electronic brake management
- Digital filters
- Pressure Control

SPEED FEEDBACK
- Hall signals at 120°
- Incremental Encoder Line Driver 5V with/without Hall (+5V)
- 32bit Absolute Encoder SSI(Bin), BiSS(B-C), EnDat(2.1-2.2)
- Sensorless
- Resolver option

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
- Feedback output (repeated/emulated)
- 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
- Feedback break (Hall/Resolver)
- Motor temperature thermal image
- SafeTorque Off (STO)



Easy-to-wire terminals

Micro USB 2.0 for programming

PROGRAMMING SOFTWARE

CALIPER 4.0
- Programming software via Micro USB2.0 for update e debug.
- Realtime oscilloscope with 100µs sampling on 4 simultaneous channels
- Possibility to update firmware by remote.

LINEAR MOTORS

AC ASYNCHRONOUS MOTORS

TUBULAR LINEAR MOTORS

AC BRUSHLESS MOTORS

DC MOTORS

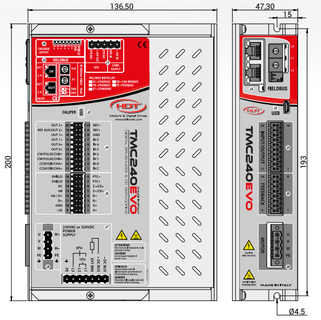
Technical specifications

SIZES	U of M	TomCat240 EVO		
		2	4	6
Applied voltage	V	230 VAC 1Ph and 3Ph		230VAC 3Ph
Min/Max supply voltage	V	230VAC ±15% 50/60Hz - 200VDC÷ 360VDC		
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, control for brushed DC motors and Asynchronous AC motors (V/f)		
Logic power supply	VDC	+24VDC ± 20%		
External resistor (Optional)	VDC	R50W47R	R90W39R	
Feedback Input		Hall's sensors- Incremental enc. 5V Line Driver with/without Halls sensors- Abs. enc. SSI, BiSS, EnDat - Sensorless - Resolver option		
Feedback Output		Encoder's channel repetition or emulated encoder		
Type of motors driveable		Rotary, linear and tubular AC/DC brushless motors - DC brushed permanent magnets motors - Asynchronous motors		
Fieldbus		Modbus RTU - CanOpen CiA 402 - EtherCat COE - ProfiNet RT-IRT		
Analogue main reference		±10V Differential - 12Bit		
Analogue auxiliary reference		0/+10V Single ended - 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 - Pressure Control		
Limit switch management function		Braking in torque limit in case of P-OT, N-OT		
Digital filters		Notch filter - Iq filter - Digital inputs filter - Position Observer		
Protection functions		Short-circuit - Over/Undervolt. - Drive overtemp. - Hall's sensor break - Current limit		
Drive signalings		3 LED for status and alarm		
Hardware Safety functions		STO: SafeTorque Input circuit according to IEC61800-5-2:2007 [1]		
Software Safety functions		Fault Reaction and Emergency Stop modes: Inertia Stop - Ramp Stop - Torque Limit Stop Braking in torque limit in case of a limit switch.		
Brake management		Integrated. Immediate stop or in ramp		
Drive setting		Through CALIPER 4.0 software via Micro USB 2.0 port		
Approximative weight	Kg	1	1.1	1.16

Drive/Motors matching

		TomCat EVO - current sizes		
HDT motors	Tn	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
SR04M	Nm	0,32		
SR06M	Nm	1,27		
SR08L	Nm		2,45	

Dimensions



1= Pending approval