



MACK
TRON 2

MKT2 B 60

**POWERED
BRUSHLESS
MOTOR**



CANopen

EtherCAT

Modbus-RTU - RS485

48

VDC

0,6 / 2,16 pk

Nm

P.N.: D.S. / 15.11.22 / MKT2 B 60 / 00

MODEL		MKT2 B 60
SIZE		L
M1	Torque at 100Rpm (TA=40°C)	0,6 Nm
Mpk	Peak Torque	2,16 Nm
Power Supply		*48 Vdc
Brake Supply (only with brake presence)		24 Vdc (-0 +5%) - 0,5A
Battery Supply (for absolute multiturn encoder)		3.6 ÷ 5 Vdc - 10µA
WINDING CODE		J42
Nn	Rated Speed at 48VDC Power Supply	3000 Rpm
J	Rotor Inertia	Kgm ² ·10 ⁻⁴ 0.28 - (0.29 with brake)
Brake	stall Torque	Nm 2
W	weight	kg 1.4 - (1.7 with brake)
Max radial force	in middle shaft at 3000Rpm	N 266 - (283 with brake)

* 24Vdc Power Supply permitted with speed derating: contact Axor for details.

STANDARD FEATURES

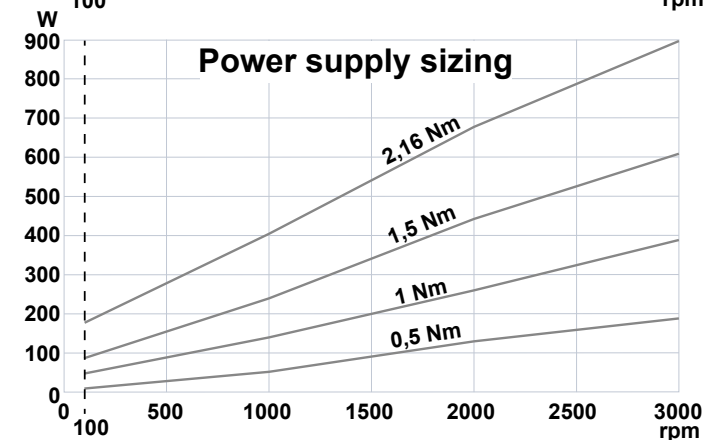
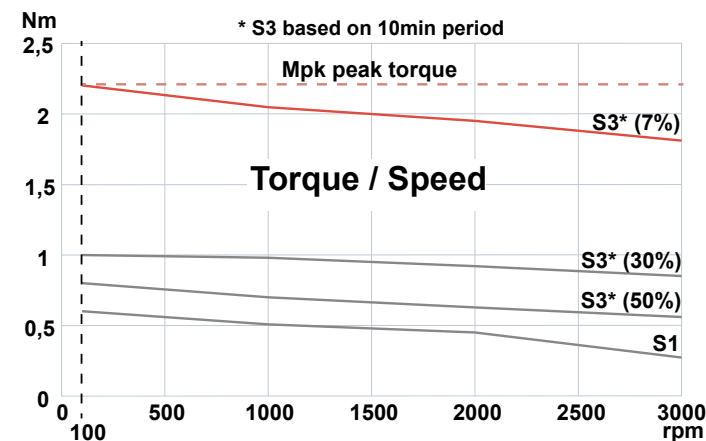
- ◆ Motor with 8 poles sinusoidal B.E.M.F. and waveform current
- ◆ EI1 Single-turn absolute Encoder feedback (14 bit)
- ◆ CB Can BUS control mode
- ◆ Device status notification with bicolor LED
- ◆ Speeder-One.2[®] software interface
- ◆ Modbus RTU RS485 for setting, monitoring and positioning
- ◆ Ambient temp.¹:... - operating at rated data: 0°C / + 40°C(no derating)
- storage - 20 °C / + 55°C
- ◆ Ambient Humidity¹ - operating & storage 85% RH max
- ◆ Altitude (a.m.s.l.):... - operating & storage 1000m
- ◆ Protection rating:..... IP54
- ◆ Storage time:..... 1 year²

¹ Free from condensation

² After one year storage the electrolytic capacitors must be reformed. Contact AXOR for details.

OPTIONS

- ◆ EA1 Multi-turn absolute Encoder (14+12 bit)
- ◆ EC EtherCAT control mode
- ◆ STO Safe Torque Off safety function
- ◆ SBC Safe Brake Control safety function (with holding brake only)
- ◆ AT Analog throttle speed/torque control
- ◆ Holding brake
- ◆ LS limit switch input
- ◆ IP65 Class Protection



PERFORMANCES AND TEST CONDITIONS:

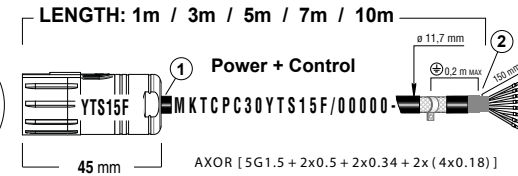
- 1) Ambient temperature Ta 40°C
- 2) Power supply 48Vdc
- 3) 10m of MKTC cable
- 4) Motor thermally insulated.
- 5) Motor w/out holding brake
(with holding brake performances are reduced: contact Axor)

CABLE SPEC.

- ◆ Mobile usage for chain tracks, flame / oil resistance
- ◆ External sheathing: Vinylflex - PVC
- ◆ Cycles: 5 million
- ◆ Minimum bending radius: 60mm static - 120mm dynamic
- ◆ Operating temperature: -20°C / +80°C (dynamic)
- ◆ Trail speed: 300m / min. max - Acceleration: 20m / sec²
- ◆ UL RoHS CE DIN VDE



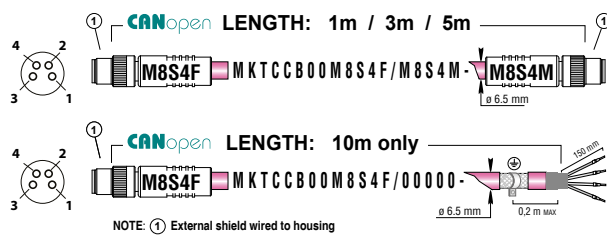
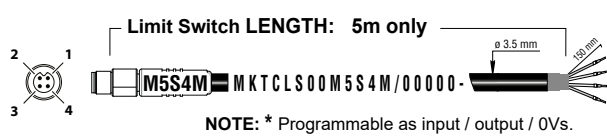
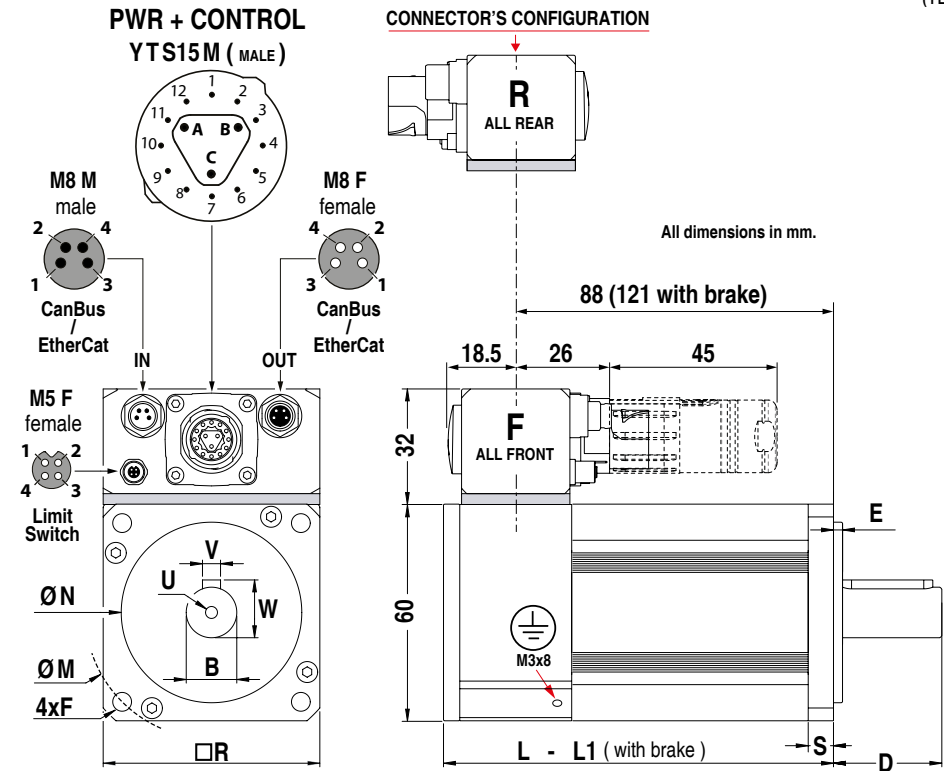
TYPE	L	L1	B	D	V _{h9}	W	U	N	M	F	E	S	R
mm													
MKT2 B 60 L	108	141	14 h7	30	5 x 25	16	M4 x 10	50 h6	70	5.2	2.5	7	60



NOTE: ① All shields wired to housing ② Int. and ext. shields wrapped together

* Pin function based on MKT2 feedback version: With EI1 single-turn absolute enc. = SIGNAL EARTH cabinet. With EA1 multi-turn absolute enc. = -V Ext. Battery
 ** For EA1 multi-turn absolute encoder feedback only

YT	DATA	WIRE	SIZE (mm ²)
A	+ Power	Brown-Red	1.5
C	- Power	Blue-Black	1.5
B	RESERVED	Gray-Black	1.5
1 / 2	+ / - V BRAKE	Red / Black	0.5
3	+V Ext. Battery **)	Brown	0.18
4	SEE NOTE *)	Violet	0.18
5 / 6	A / B RS485	White / Blue	0.18
8 / 10	STO_1 + / -	Yellow / Pink	0.18
9 / 11	STO_2 + / -	Green / Gray	0.18
7 / 12	RESERVED	White-Red / White-Black	0.34
-	N.C.	Gray-Red	1.5
HOUSING	PE	Green-Yellow	1.5



M5	DATA	WIRE	SIZE (mm ²)
1	+Vs OUT	Brown	0.14
2	IN.2	White	0.14
3*	IN.3 / OUT.1	Blue	0.14
4	IN.1	Black	0.14

M8	DATA	WIRE	SIZE (AWG)
1	Can H	Brown	22
2	GND	Green	22
3	-	Yellow	22
4	Can L	White	22
Housing	Ext. Shield	-	-

M8	DATA	WIRE	SIZE (AWG)	RJ45
1	Tx+	White-Orange	24	1
2	Rx+	White-Green	24	3
3	Rx-	Green	24	6
4	Tx-	Orange	24	2
Housing	Ext. Shield	-	-	Housing

MACKTRON	HW CODE	SW CODE	MACKTRON CABLE	ORDERING CODE
MKT2 B 60L	J42 - 0 D 0 X 0 EI1 CB 0 0 R 1 X	Sxxx (X000 / X000)	MKTC PC30 YTS15F / 00000 - 030 Sxxx	
PWR SUPPLY: B = 48 VDC SIZE: 60 L WINDING CODE: see table MOUNTING FLANGE: 0 = standard HOLES: D = B5 thru (std) C = B14 threaded (opt) SHAFT DIAMETER: 0 = standard SHAFT KEY: X = with key (std), W = w/out key (opt) BRAKE: 0 = w/out (std), 1 = with (opt)	GEARBOX: X = w/out (std) H = with (opt) CONNECTOR'S CONFIG.: R = all Rear (std), F = all Front (opt) LS Limit Switch : 0 = w/out (std), 1 = with (opt)	SPEC IP CLASS: 1 = 54(std), 2 = 65(opt) CONF. FILE LS Limit Switch : 0 = w/out (std), 1 = with (opt) SAFETY: 0 = w/out (std), 1 = STO (opt), 2* = STO+SBC (opt) *with brake only CONTROL MODE: CB = CAN Bus (std), EC = Ether CAT (opt), AT = Analog throttle (opt)	CABLE LINE TYPE (mobile): LS00 = Limit Switch CB00 = CanBus EC00 = EtherCat PC30 = Pwr + Control	ASSEMBLY MACKTRON SIDE: YTS15F = Straight 15p Female M5S4M = M5 Straight 4p Male M8S4F = M8 Straight 4p Female ASSEMBLY OTHER SIDE: 00000 = Flying leads (no connector) M8S4M = M8 Straight 4p Male RJ45M = RJ45 Male SPEC LENGTH: 010 = 1m 030 = 3m 050 = 5m 070 = 7m 100 = 10m