



MACK TRON 2

MKT2 B 60

INTEGRATED BRUSHLESS SERVOMOTOR



CANopen

EtherCAT

Modbus-RTU - RS485

48

VDC

0,6 / 2,16 pk

Nm

P.N.: D.S. / 19.05.25 / MKT2 B 60 / 02

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

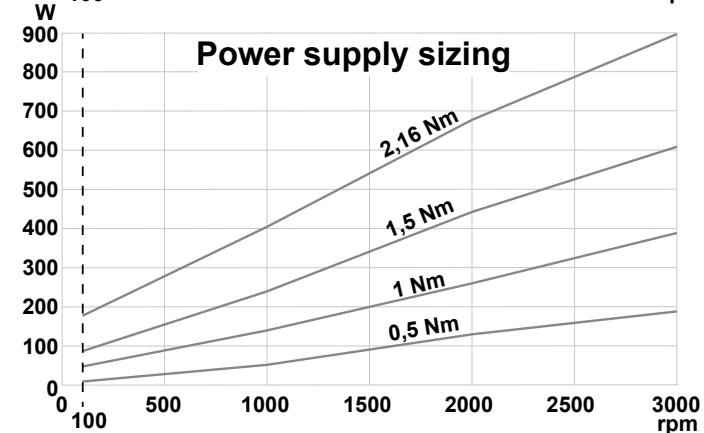
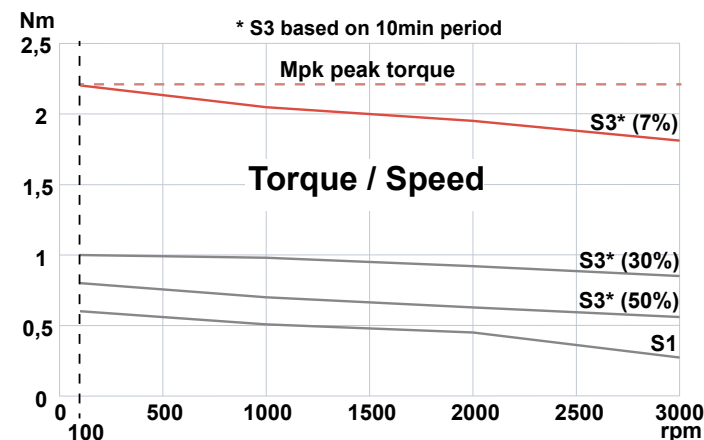
- ♦ Motor with 8 poles sinusoidal B.E.M.F. and waveform current
- ♦ EI1 Single-turn absolute Encoder feedback (14 bit)
- ♦ CB Can BUS control mode
- ♦ Device status notification with bicolor LED
- ♦ Speeder-One.2® software interface
- ♦ Modbus RTU RS485 for setting, monitoring and positioning
- ♦ Ambient 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)

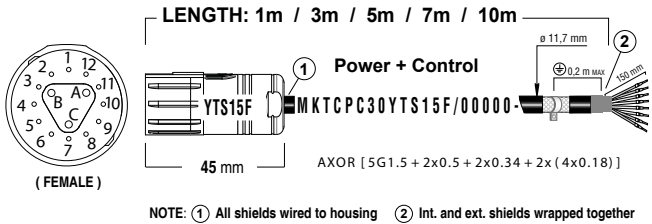
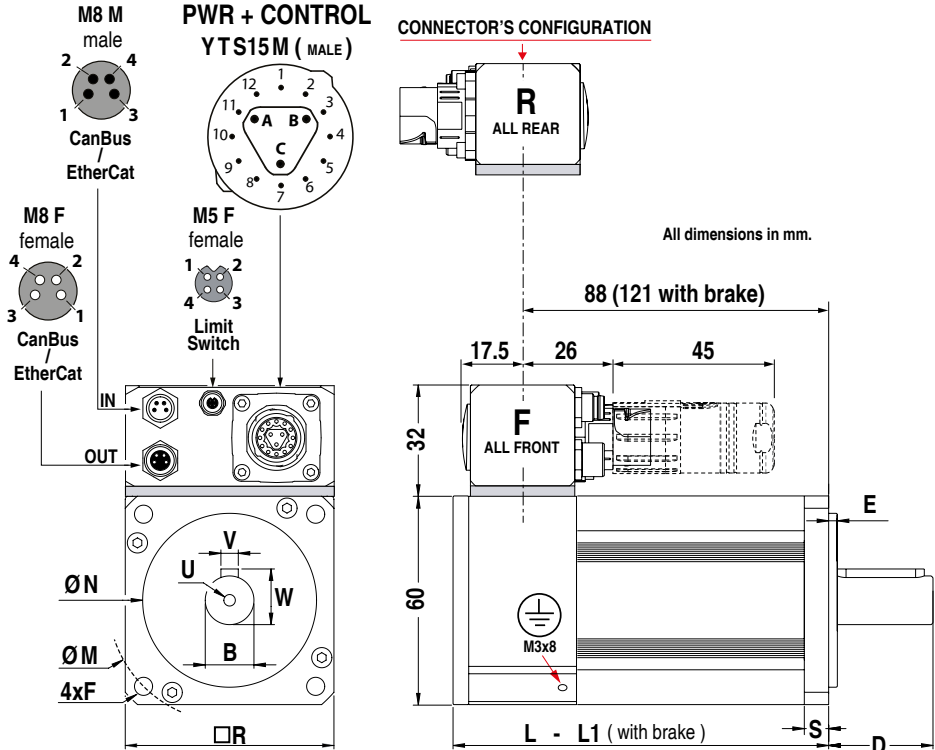
CABLE SPEC.

- ♦ Mobile usage for chain tracks, flame / oil resistance
- ♦ External sheating: 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
- ♦ DIN VDE



AXOR IND. viale Stazione, 5 - 36054 Montebello Vic.no - Vicenza - Italy - phone: (+39) 0444 440441 - www.axorindustries.com - e-mail: info@axorindustries.com

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

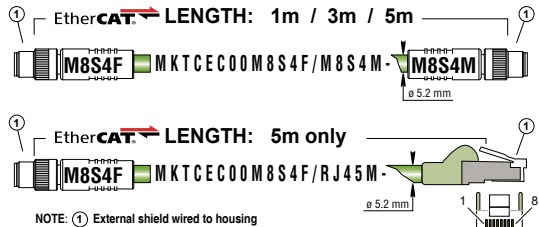
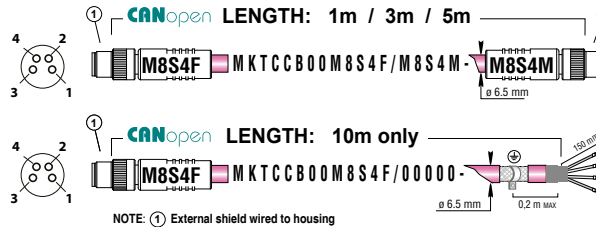


YT	DATA	WIRE	SIZE (mm²)
A	+ Power	Brown-Red	1.5
C	- Power	Blue-Black	1.5
B	RESERVED	Gray-Black	1.5
1	+ V BRAKE	Red	0.5
2	- V BRAKE	Black	0.5
3	+V Ext. Battery *)	Brown	0.18
4	- V Ext. Battery *)	Violet	0.18
5	DATA + RS485	White	0.18
6	DATA - RS485	Blue	0.18
7	RESERVED	White-Red	0.34
8	STO_1 +	Yellow	0.18
9	STO_2 +	Green	0.18
10	STO_1 -	Pink	0.18
11	STO_2 -	Gray	0.18
12	RESERVED	White-Black	0.34
N.C.	N.C.	Gray-Red	1.5
HOUSING	PE	Green-Yellow	1.5

*) For EA1 multi-turn absolute encoder feedback only



M5	DATA	WIRE	SIZE (mm²)
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

MKT2 B 60L

HW CODE

J42 - 0 D 0 X 0 E1 CB 0 0 R 1 X

SW CODE

Sxxx (X000 / X000)

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)

SPEC

IP CLASS: 1 = 54(std), 2 = 65(opt)

FW

CONF. FILE

CONNECTOR'S CONFIG.: R = all Rear, F = all Front

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)

FEEDBACK: E11 = Single-turn absolute Enc. 14 bit (std)

EA1 = Multi-turn absolute Enc. 14+12 bit (opt)

MACKTRON CABLE

MKTC PC30

ORDERING CODE

YTS15F / 00000 - 030 Sxxx

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

AXOR IND. viale Stazione, 5 - 36054 Montebello Vic.no - Vicenza - Italy - phone: (+39) 0444 440441 - www.axorindustries.com - e-mail: info@axorindustries.com

P.N. : D.S. / 19.05.25 / MKT2 B 60 / 02