



DRIVE MODEL		MKYD 230				
SIZE (A)		1.5/3	2.5/5	3.5/7	5/10	8/16
Rated Current / Peak Current x 5 sec	(Arms)	1.5 / 3	2.5 / 5	3.5 / 7	5 / 10	8 / 16
Power & Backup Logic Supply		1 x 230 V _{AC} (±10%) - 50/60 HZ (grounded system only)				
Case		A			A-V Ⓢ	

MOTOR MODEL	SIZE	MKM 42		MKM 60		MKM 70			MKM 85			
		M	L	M	L	S	M	L	S	M	L	
Mo stall Torque (Δt = 100°C)	(Nm)	0.16	0.32	0.65	1.3	0.9	1.5	2.0	1.8	3.3	5	
WINDING CODE		F36	F46	J36	J46	K26	K36	K46	Q26	Q36	Q46	
230 VAC	Io ¹ Stall Current	(Arms)	0.5	0.9	1.45	2.4	1.1	1.5	2	2	3.3	4.7
Drive's Voltage	K _T Torque Constant	(Nm / Arms)	0.33	0.33	0.41	0.5	0.7	0.9	0.9	0.8	0.9	0.95
	N _n Rated Speed	(Rpm)	3000									
Power	(W)	50	100	200	400	280	470	630	570	1050	1600	
W weight / W1 with brake	(kg)	0.35 / 0.44	0.5 / 0.59	1 / 1.4	1.4 / 1.8	1.4 / 1.6	1.9 / 2.1	2.4 / 2.6	2.2 / 2.5	3.2 / 3.5	4.2 / 4.5	
J Rotor Inertia / J _B with brake	(Kgm ²) · 10 ⁻⁴	0.03 / 0.05	0.04 / 0.06	0.14 / 0.15	0.24 / 0.25	0.35 / 0.4	0.7 / 0.75	1.0 / 1.05	1.3 / 1.5	2.2 / 2.4	3.1 / 3.3	
BRAKE	stall torque (24 VDC +6% -10%)	0,4 Nm (0.5 A _{OC})		2 Nm (0.5 A _{OC})		2 Nm (0.45 A _{OC})			4.5 Nm (0.5 A _{OC})			

Mo : speed 5 - 100rpm - mounted on AL flange (300x300x6.5 mm, 65°C max) - Resolver - no brake

Mo¹ : motor with encoder, refer to Mo¹ (Mo -10%) - with brake -5%

STANDARD FEATURES

- ◆ Driving motor range up to 5 Nm (2500W)
- ◆ Built-in in-rush and regen circuits
- ◆ Speeder-One® software interface with USB for setting and monitoring
- ◆ SE Serial Encoder Feedback
- ◆ CD0 Clock and Direction Command
- ◆ Operating frequency 8KHz ◆ Loop bandwidth: 2KHz current / 200Hz speed
- ◆ Ambient temp.¹: - operating at rated data: 0 - 40°C (no derating)
- rated & pk current derating: 40 - 55°C max (2.5% / °C)
- storage -20 - 55°C
- ◆ Ambient Humidity¹: - operating & storage 85% RH max
- ◆ Altitude (a.m.s.l.): - operating & storage 1000m
- rated & pk current derating: up to 2500m (1.5% / 100m)
- ◆ Protection rating: IP20 ◆ Storage time: 1 year²

OPTIONS

- ◆ RD0 differential analog ref. ± 10v (13 bit)
- ◆ M3 Emulated Encoder connector
- ◆ ST0 Safe Torque off safety function
- ◆ AE Absolute Multiturn Encoder feedback
- ◆ CB0 Can Bus
- ◆ EMC Line filter
- ◆ EC Comm. Enc. feedback
- ◆ ETC Ether CAT control mode

MOTOR SPEC.

- ◆ 8 Poles sinusoidal B.E.M.F. permanent rare earth magnets
- ◆ Medium - high rotor inertia
- ◆ Very low torque fluctuation at minimum speed
- ◆ 3 x stall torque overload capacity
- ◆ Feedback: Serial Incremental Encoder (std)
Comm. Incremental Encoder (opt)
Absolute Multiturn Encoder (opt)
- ◆ Ambient temp.¹: operating at rated data 0 - 40°C
storage -20 - 60°C
- ◆ Ambient Humidity¹: operating & storage 85% RH max
- ◆ Altitude (m.s.l.): operating & storage 1000m
- ◆ Vibration: 5g max
- ◆ Insulation class: F ◆ Protection rating: IP54 (IP65 optional)
- ◆

CABLE SPEC.

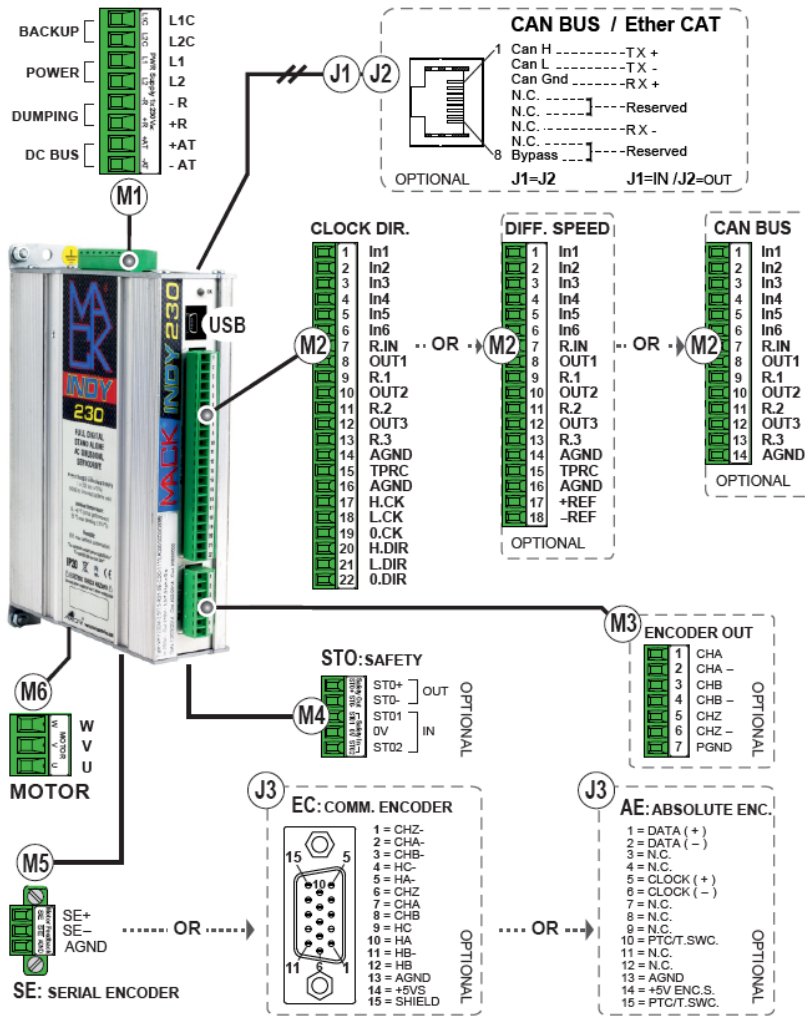
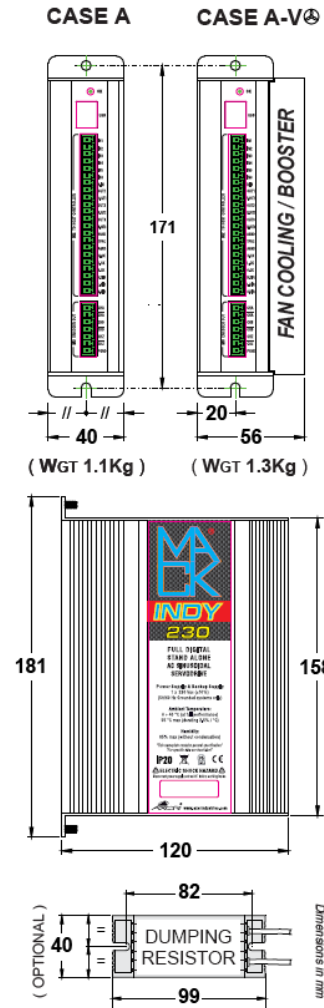
- ◆ Mobile usage for chain tracks, flame / oil resistance
- ◆ External sheathing: PUR polyurethane
- ◆ Cycles: 5 million ◆ Minimum bending radius: 7 x Ø
- ◆ Operating temperature: -25°C / +80°C
- ◆ Trail speed: 300m / min. max ◆ Acceleration: 20m / sec²
- ◆



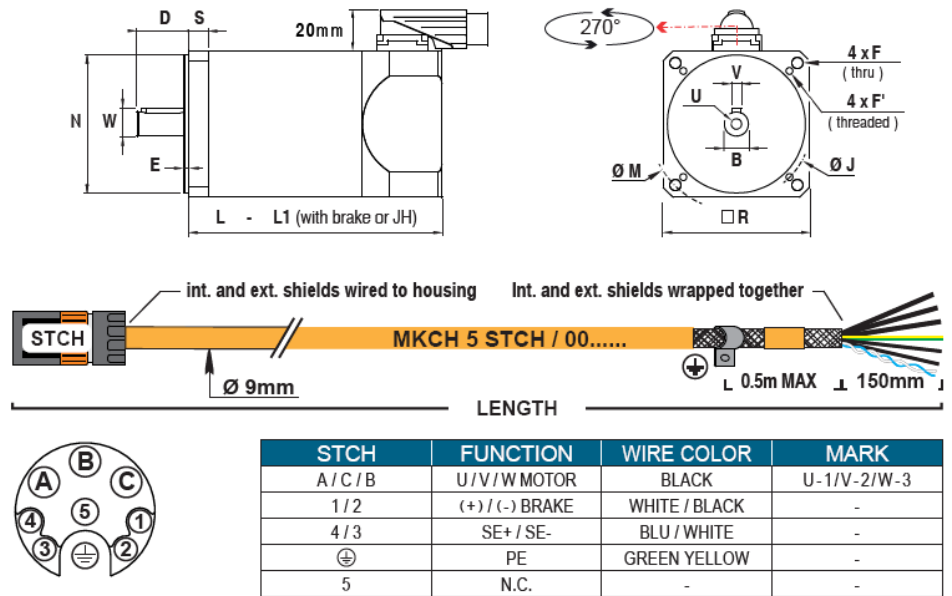
P.N. : D.S. /21.06.17/MKYDSM / 06

NOTE: ¹ Free from condensation ² After one year storage the electrolytic capacitors must be reformed. Contact us for details.





TYPE	Mo - Pwr	L	L1	B h6	D	V h9	W	U	N h7	M	F	J	F'	E	S	R
MKM 42 M	0.16 - 50	93	121	8	25	3 x 12	9.2	M3 x 6	30	45/48	3.2	-	-	2.5	7.5	42
MKM 42 L	0.32 - 100	107	135	14	30	5 x 20	16	M5 x 10	50	70	5.2	-	-	2.5	7	60
MKM 60 M	0.65 - 200	91	124	11	23	4 x 18	12.5	M4 x 10	60	90	5.5	75	Ø4.2 x 10	2.5	10	75
MKM 60 L	1.3 - 400	105	138	14	30	5 x 25	16	M4 x 10	80	100	6.5	-	-	3	11	85
MKM 70 S	0.9 - 280	100	125	14	30	5 x 25	16	M4 x 10	80	100	6.5	-	-	3	11	85
MKM 70 M	1.5 - 470	125	150	14	30	5 x 25	16	M4 x 10	80	100	6.5	-	-	3	11	85
MKM 70 L	2.0 - 630	150	175	14	30	5 x 25	16	M4 x 10	80	100	6.5	-	-	3	11	85
MKM 85 S	1.8 - 570	115	145	14	30	5 x 25	16	M4 x 10	80	100	6.5	-	-	3	11	85
MKM 85 M	3.3 - 1050	145	175	14	30	5 x 25	16	M4 x 10	80	100	6.5	-	-	3	11	85
MKM 85 L	5.0 - 1600	175	205	14	30	5 x 25	16	M4 x 10	80	100	6.5	-	-	3	11	85



MACK® INDY	HARDWARE CODE	SW CODE	MACK® MOTOR	MACK® CABLE
MKYD 230M	15/3-D01	SE-CD0-0000-Sxxx	(X000/X000/X000)	MKM85 M Q36-000 D 00X P 0 MKES1 STR 1X X Sxxx
DRIVE LINE	MODEL: 230M = 1x230V _{AC}	SIZE: (see table on reverse)	DUMPING CIRCUIT SIZE: D01= for R01 / 300 (100W / 39Ω ext. resistor) (std) (ext. resistor is not included)	FEEDBACK: SE = Serial Enc. (std) , EC = Comm. Enc. (opt) AE = Absolute Multiturn Enc. (opt)
CONTROL MODE: CD0 = Clock Dir. (std) RD0 = Diff. ref. (opt) CB0 = CAN Bus (opt) ETC = Ether CAT (opt)	EMC (line filter): 0 = w/out (std) 1 = with (opt)	T (Tropicalized): 0 = w/out (std) 1 = with (opt)	M3 (Emulated Enc.): 0 = w/out (std) 1 = with (opt) (std for RD0)	STO (Safe torque Off): 0 = w/out (std) 1 = with (opt)
SPEC	FW	SW	CONFIG FILE	SPEC
SERIES: SIZE: S, M, L	WINDING CODE: see table	MOUNTING FLANGE: 000 = std (see table)	HOLES: D = B5 thru (std) C = B14 threaded (opt)	SHAFT DIAMETER: 00 = std (see table)
SHAFT KEY: X = with key (std), W = w/out key (opt)	TH.PROTECTION: P = PTC (std) N = w/out (opt)	BRAKE: 0 = w/out (std) 1 = with (opt)	FEEDBACK: MKES1= Mack® Serial Enc. (std) MKEC1= Mack® Comm. Enc. (opt)	CONNECTION: ST = Sprigtec M15 (std)
CONNECTION ORIENTATION: R = Rear (std), F = Front (opt), T = Top (opt)	IP CLASS: 1 = IP54 (std) 2 = IP65 (opt)	SPEC	GEARBOX: R = With (opt) X = W/out (std)	ASSEMBLY MOTOR SIDE: STCH = Sprigtec M15 conn.
ASSEMBLY DRIVE SIDE: 00 = Flying leads (no conn.)	INERTIA: X = (std) H = High (opt)	ASSEMBLY DRIVE SIDE: 00 = Flying leads (no conn.)	LENGTH: 030 = 3m, 050 = 5m, 070 = 7m, 100 = 10m	