



**SOLUTIONS FOR BATTERY VEHICLES
TRACTION UNITS**



CANopen

Safety over
EtherCAT

LET'S MOVE TO THE NEXT STEP

ENTER INTO THE FUTURE



EtherCAT

**QUALITY
SOLUTIONS
TECHNOLOGY**



MOTOR-IN-WHEEL DRIVE MIWD5K-28



PRODUCT CODE	KLMT04688-A
DESCRIPTION	<i>MIWD8K-28</i>
MAXIMUM LOAD CAPACITY	15 Kg
RATIO	28 : 1
UNIT NOMINAL SPEED	0,7 m/s
CONTINUOUS WHEEL TORQUE	1,1 Nm
WHEEL DIMENSIONS	Ø 49 x 14 mm
WHEEL TYRE	<i>Urethane 65° SHORE A</i>
SERVICE LIFE	20.000 h

- MODULAR DESIGN motors power, gearbox ratio, sensors as per your needs
- smallest SIZE EVER of traction wheel. You can keep it in your hands
- BLDC MOTOR TECHNOLOGY, with double feedback for higher precision
- high efficiency mechanical and electrical solution
- SHORE could be customize as per your application

MOTOR-IN-WHEEL DRIVE DIF7K-8



Safety over
EtherCAT 

PRODUCT CODE

KLMT04691-A

DESCRIPTION

DIFFERENTIAL DRIVE DIF7K

MAXIMUM LOAD CAPACITY

500 Kg

RATIO

8,3 : 1

UNIT NOMINAL SPEED

1,2 m/s

CONTINUOUS WHEEL TORQUE

4 Nm

WHEEL DIMENSIONS

Ø 73 x 19 mm

WHEEL TYRE

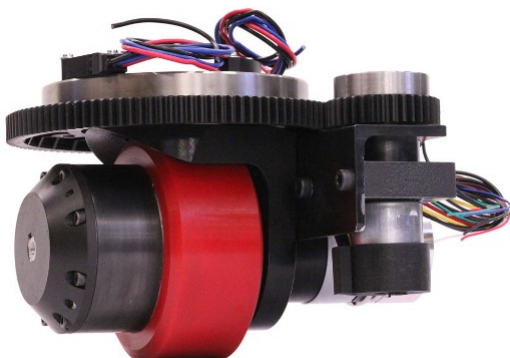
Urethane 95° SHORE A

SERVICE LIFE

10.000 h

- MODULAR DESIGN motors power, gearbox ratio, sensors as per your needs
- smallest SIZE of AGV traction wheel with high PAYLOAD, integrating ELMO
- BLDC MOTOR TECHNOLOGY, with double feedback for higher precision
- integrated electromagnetic EMERGENCY/PARKING BRAKE
- integrated traction drive ELMO PLATINUM TWITTER drive with FSoE
- integrating POWER and SIGNALS SLIPRINGS for 360° continuous rotation

MOTOR-IN-WHEEL DRIVE MIWD11K-16



PRODUCT CODE

KLMT04122-A

DESCRIPTION

STEERING MIWD11K-16A

MAXIMUM LOAD CAPACITY

300 Kg

RATIO

16 : 1

UNIT NOMINAL SPEED

1,2 m/s

CONTINUOUS WHEEL TORQUE

9 Nm

WHEEL DIMENSIONS

Ø 110 x 48 mm

WHEEL TYRE

Urethane 95° SHORE A

SERVICE LIFE

20.000 h

- MODULAR DESIGN motors power, gearbox ratio, sensors as per your needs
- smallest SIZE of AGV traction wheel, complete with servo steering
- BLDC MOTOR TECHNOLOGY, with double feedback for higher precision
- integrated electromagnetic EMERGENCY/PARKING BRAKE
- POWER and SIGNALS SLIPRINGS available for 360° continuous rotation

TRACTION UNIT TR16K-24250.23.E



PRODUCT CODE	KLMT04478-S / KLMT04478-D
DESCRIPTION	<i>TR16K-24250.23.E</i>
MAXIMUM LOAD CAPACITY	50 Kg
RATIO	23,3 : 1
UNIT NOMINAL SPEED	1,6 m/s
CONTINUOUS WHEEL TORQUE	30 Nm
WHEEL DIMENSIONS	Ø 160 x 40 mm
WHEEL TYRE	<i>Rubber 65° SHORE A</i>
SERVICE LIFE	10.000 h

- high volume design with optimize price but less flexibility of customization
- BLDC MOTOR TECHNOLOGY, with double feedback for higher precision
- integrated electromagnetic EMERGENCY/PARKING BRAKE
- integrated INCREMENTAL ENCODER

MOTOR-IN-WHEEL DRIVE MIWD16K-25



PRODUCT CODE	KLMT04570-A
DESCRIPTION	MIWD16K-25A
MAXIMUM LOAD CAPACITY	600 Kg
RATIO	25 : 1
UNIT NOMINAL SPEED	1,6 m/s
CONTINUOUS WHEEL TORQUE	60 Nm
WHEEL DIMENSIONS	Ø 163 x 80 mm
WHEEL TYRE	Urethane 95° SHORE A
SERVICE LIFE	20.000 h

- MODULAR DESIGN motors power, gearbox ratio, sensors as per your needs
- BLDC MOTOR TECHNOLOGY, with double feedback for higher precision
- integrated electromagnetic EMERGENCY/PARKING BRAKE
- integrated INCREMENTAL ENCODER
- integrated STEERING ABSOLUTE ENCODER
- POWER and SIGNALS SLIPRINGS available for 360° continuous rotation

MOTOR-IN-WHEEL DRIVE MIWD21K-25



EtherCAT 

PRODUCT CODE	KLMT04435-A
DESCRIPTION	<i>MIWD21K-25A</i>
MAXIMUM LOAD CAPACITY	1000 Kg
RATIO	25 : 1
UNIT NOMINAL SPEED	1,6 m/s
CONTINUOUS WHEEL TORQUE	160 Nm
WHEEL DIMENSIONS	Ø 214 x 80 mm
WHEEL TYRE	<i>Urethane 95° SHORE A</i>
SERVICE LIFE	20.000 h

- MODULAR DESIGN motors power, gearbox ratio, sensors as per your needs
- BLDC MOTOR TECHNOLOGY, with double feedback for higher precision
- integrated traction drive ELMO GOLD SOLO TWITTER
- etherCAT bus communication
- integrated electromagnetic EMERGENCY/PARKING BRAKE
- integrated SAFETY INCREMENTAL ENCODER SIL2
- accessible USB connection for programming

MOTOR-IN-WHEEL DRIVE MIWD21K-25



Safety over
EtherCAT 

PRODUCT CODE	KLMT04669-A
DESCRIPTION	<i>MIWD21KP-25A</i>
MAXIMUM LOAD CAPACITY	1200 Kg
RATIO	25 : 1
UNIT NOMINAL SPEED	1,8 m/s
CONTINUOUS WHEEL TORQUE	160 Nm
WHEEL DIMENSIONS	Ø 214 x 80 mm
WHEEL TYRE	<i>Urethane 95° SHORE A</i>
SERVICE LIFE	20.000 h

- MODULAR DESIGN motors power, gearbox ratio, sensors as per your needs
- BLDC MOTOR TECHNOLOGY, with double feedback for higher precision
- integrated traction drive ELMO PLATINUM TWITTER
- etherCAT bus communication with FSoE (SAFETY OVER ETHERCAT)
- integrated electromagnetic EMERGENCY/PARKING BRAKE
- accessible USB connection for programming

MOTOR-IN-WHEEL DRIVE MIWD24K-25



CANopen®

PRODUCT CODE	KLMT04494-A
DESCRIPTION	<i>360 ° STEERING MIWD24K-25A w/ SLIPRING</i>
MAXIMUM LOAD CAPACITY	1200 Kg
RATIO	25 : 1
UNIT NOMINAL SPEED	1,8 m/s
CONTINUOUS WHEEL TORQUE	160 Nm
WHEEL DIMENSIONS	Ø 239 x 80 mm
WHEEL TYRE	<i>Urethane 95° SHORE A</i>
SERVICE LIFE	20.000 h

- MODULAR DESIGN motors power, gearbox ratio, sensors as per your needs
- BLDC MOTOR TECHNOLOGY, with double feedback for higher precision
- integrated traction drive ELMO GOLD TWITTER R80/80
- integrated traction drive ELMO DOUBLE GOLD TWITTER R1600/80
- POWER and SIGNALS SLIPRINGS for 360° continuous rotation
- integrated electromagnetic EMERGENCY/PARKING BRAKE
- integrated SAFETY INCREMENTAL ENCODER SIL2
- etherCAT bus communication
- BLUETOOTH or SERIAL connection for programming and diagnostic

MOTOR-IN-WHEEL DRIVE MIWD32KM-35



EtherCAT 

PRODUCT CODE	<i>KLMT04541-R/KLMT04541-L</i>
DESCRIPTION	<i>MIWD32KM-35A</i>
MAXIMUM LOAD CAPACITY	750 Kg
RATIO	35 : 1
UNIT NOMINAL SPEED	1,6 m/s
CONTINUOUS WHEEL TORQUE	160 Nm
WHEEL DIMENSIONS	Ø 320 x 150 mm
WHEEL TYRE	<i>MECANUM WHEEL w/Urethane 95° SHORE A ROLLERS</i>
SERVICE LIFE	20.000 h

- MODULAR DESIGN motors power, gearbox ratio and sensors as you needs
- BLDC MOTOR TECHNOLOGY, with double feedback for higher precision
- integrated traction drive ELMO GOLD SOLO TWITTER R80/80
- etherCAT bus communication
- integrated electromagnetic EMERGENCY/PARKING BRAKE
- integrated SAFETY INCREMENTAL ENCODER SIL2
- accessible USB connection for programming
- MECANUM wheel for omnidirectional high performances vehicles

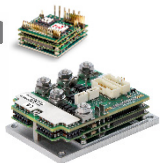


HIGH PERFORMANCE BRUSHLESS MOTORS w/ INTEGRATED DRIVE

from 12 to 300 V
from 10 W to 20 kW
from 1 to 20000 rpm

MOTOR- IN-WHEEL DRIVES and VERTICAL DRIVES READY TO GO

from 12 to 120 V
from 50 Kg to 15 tons
with or without integrated drivers



ELMO MOTION CONTROL PARTNER

motion control drives for high performance solution & amazing integrated application

www.elmomc.com

GEBRÜDER FREI OFFICIAL DEALER

control system for transport technology for any kind of applications and for any environment

www.frei.de/en/



ROBOTEQ SOLUTION PARTNER

brushless and induction low voltage motor controllers to get max performance from our motors

www.roboteq.com/

SCHABMULLER OFFICIAL PARTNER

AGV Italian business responsibility southern Europe SERIVE CENTRE more than 50'000 spare parts on stock

www.schabmueller.de/en/



REPAIRING THE IMPOSSIBLE

with almost 70 years experience, we are specialized in electrical motor service traction, steering and electrical pump motors for forklifts, AGVs, tugs, walkies, electric cars and all electrical vehicles

KELVIN S.r.l.

*via Massimo d'Azeglio, 28
21010 Besnate - VA
ITALY*

phone +39 0331 274136

fax +39 0331 275550

info@kelvin.it

www.kelvin.it