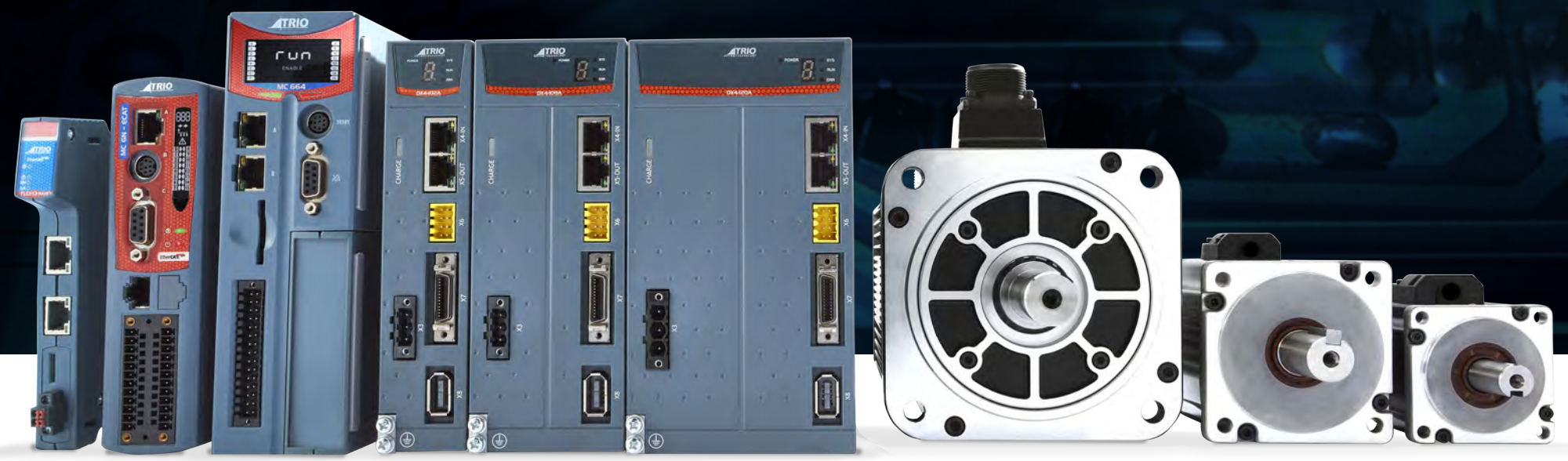


NEW



TRIO MOTION TECHNOLOGY DX4 SERVO PACKAGES



THE MOTION SPECIALIST

DX4

200V Servo Solutions

The DX4 Servo drive and motor system... Everything you need, nothing more!

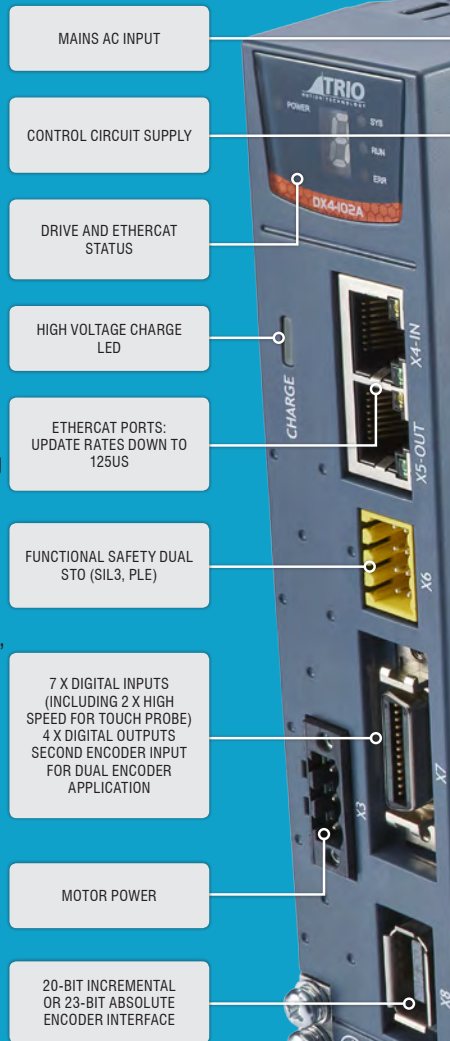
Introducing DX4, our all new servo drive and motor packages that provide performance and dependability. Optimised in every detail to do more with less and with features to deliver scalable servo-based solutions in demanding motion centric machine automation.

DX4 servo drives and matched motor packages provide performance and dependability machinery designers expect, and additionally are optimized in every detail to 'do more with less'. This philosophy is achieved by tightly integrated drive control and axis functions within the motion controller and seamless integration within the software tool *Motion Perfect*. By providing optimal functionality at drive level and system level expansion at controller level, DX4 provides an everything needed without added complexity. System level scalable servo-based solutions can be solved thanks to deterministic real-time performance of EtherCAT, adding hardware at network level as needed and combined with Trio motion expertise in demanding motion-centric machine automation.

Designed to work seamlessly with Trio's EtherCAT controllers, DX4 is fully integrated into Trio's application development tool, *Motion Perfect*, our single software environment for system planning, configuration virtualisation and machine programming.

Your system needs can easily be scaled within our Trio solution architecture, through our range of *Motion Coordinators* and high performance of EtherCAT distributed Flexslice I-O systems, adding function where it is needed, as it is needed, simplifying the drive system for optimal motion centric machine applications.

With a focus on ease of use, and electronic name plate function, the DX4 solution minimizes setup time allowing you to focus on your application.



- Drive and *Motion Coordinator* fully integrated into *Motion Perfect*
- Matched with MX motor range of low and medium inertia motors
- Internal drive protection functions
- Comprehensive tuning technology including: Auto-tuning function, adaptive vibration suppression, friction compensation
- Field upgradable firmware
- Electronic nameplate motor identification for simplified drive set-up



DX4 200V Servo Solutions

Frame sizes to suit all requirements

50W - 400W

DX4-1A5A
DX4-101A
DX4-102A
DX4-104A

750W - 1.5kW

DX4-108A
DX4-110A
DX4-115A

2kW - 3 kW

DX4-120A
DX4-130A

DX4 comes in power ratings from 50W to 3kW matched with the MX series motors it offers a high-dynamic performance, and high-precision with absolute 23-bit encoder and electronic nameplate to simplify configuration for machine solutions.



TRIO PRODUCTS

200V System Solutions

Motion Optimised Automation Package



EtherCAT Motion Coordinator

The *Motion Coordinator* system allows you to control up to 128 servo or stepper motors with Digital I/O and additional equipment such as HMI's all controlled from a single master. Systems may be used with a stand alone program or alternatively commands can be sent from an external computer.

EtherCAT I/O Expansion

The EtherCAT Flexslice System is designed to let you do more!

It offers fast flexible compact I/O expansion for the MC4 and newer range of *Motion Coordinators* and can be used with Trio or 3rd Party Masters.

DX4 200V Servo Drive Range

Drive and *Motion Coordinator* fully integrated into *Motion Perfect v5*.

Compact size.

Zero stacking gap installation.

200V ac from 50W up to 3kW.

350% overload capability.

Matched with MX motor range of low and medium inertia motors.

MXL Low and MXM Medium Inertia Motors

Low and medium inertia options to match the load.

23-bit absolute multi-turn (battery option required) offers tighter control and eliminates homing cycles.

Pre-made cables with in-line battery option (absolute encoder).

IP65 rated connectors.

Motion Perfect 200V Servo Solutions

Design, Develop, Test, Deploy and Secure

Motion Perfect v5 enhances the programming experience for the *Motion Coordinator* and *DX4*.

This new release has been improved to make setup, diagnostics and commissioning even more straight-forward. Built on Trio's **Motion-ix** core technology, it provides the user with a re-designed easy to understand interface for rapid application development, controller and drive configuration and monitoring of functions.

The commissioning of your drives is made simple with a series of Device Configuration Screens allowing access to status information and diagnostics at a glance. Network configuration is just as easy and includes a selection of pre-defined EtherCAT profiles or custom EtherCAT profiles can be designed using a checkbox interface.

The oscilloscope tool allows simulation and visualisation of up to 8 drive parameters.

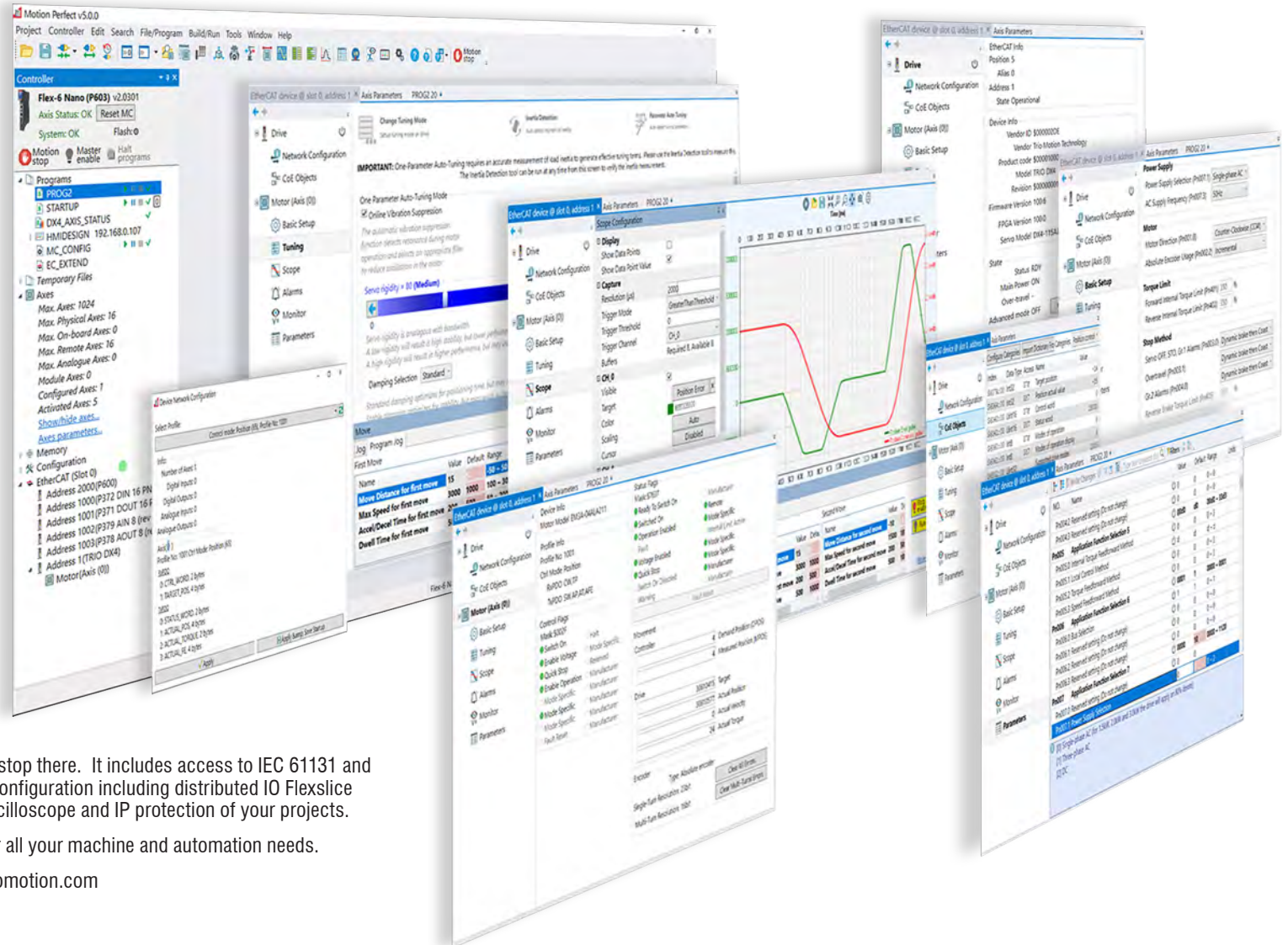
All motor axes can be detected, setup, monitored and controlled in real-time from the easy to use dialogue windows.

Tuning is catered for using a choice of three modes: Tuningless, One Parameter Auto Tuning and Manual Tuning. Whichever mode is chosen, *Motion Perfect* adapts the Intelligent screen to allow full access to the tuning tools.

The integration of *DX4* and *Motion Perfect* doesn't stop there. It includes access to IEC 61131 and PLCopen and our robotics solution; RPS, system configuration including distributed IO Flexislice systems, advanced visualisation including a 3D oscilloscope and IP protection of your projects.

All this and more makes *Motion Perfect* the tool for all your machine and automation needs.

Download and try *Motion Perfect v5* FREE from triomotion.com



APPLICATION SOLUTIONS

200V Servo Solutions

Scalable System Solutions for Machinery OEMs

Factory Automation

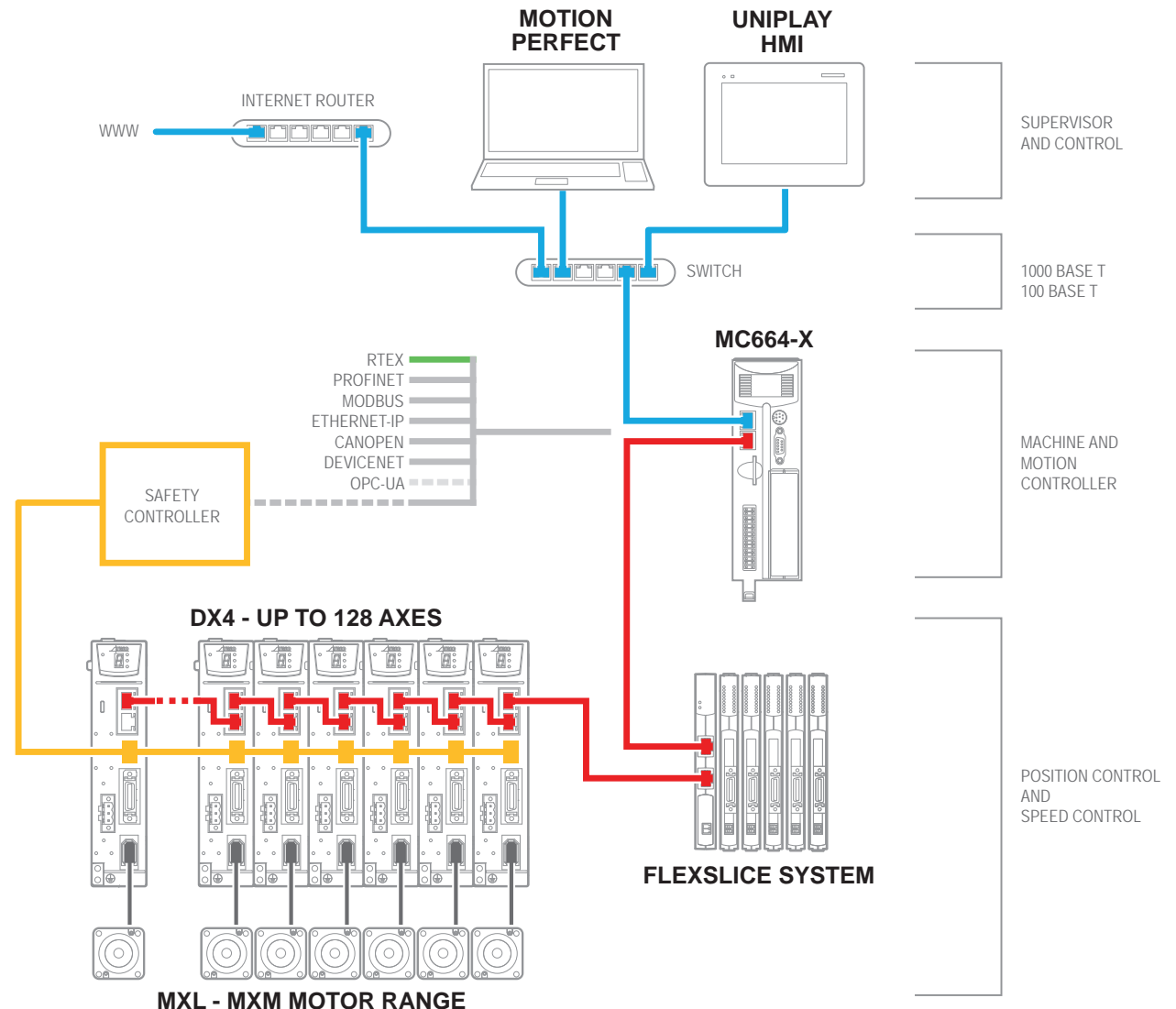
Communicate on all major Ethernet Technologies and Fieldbus level networks.

Automation Packages for Machine Control

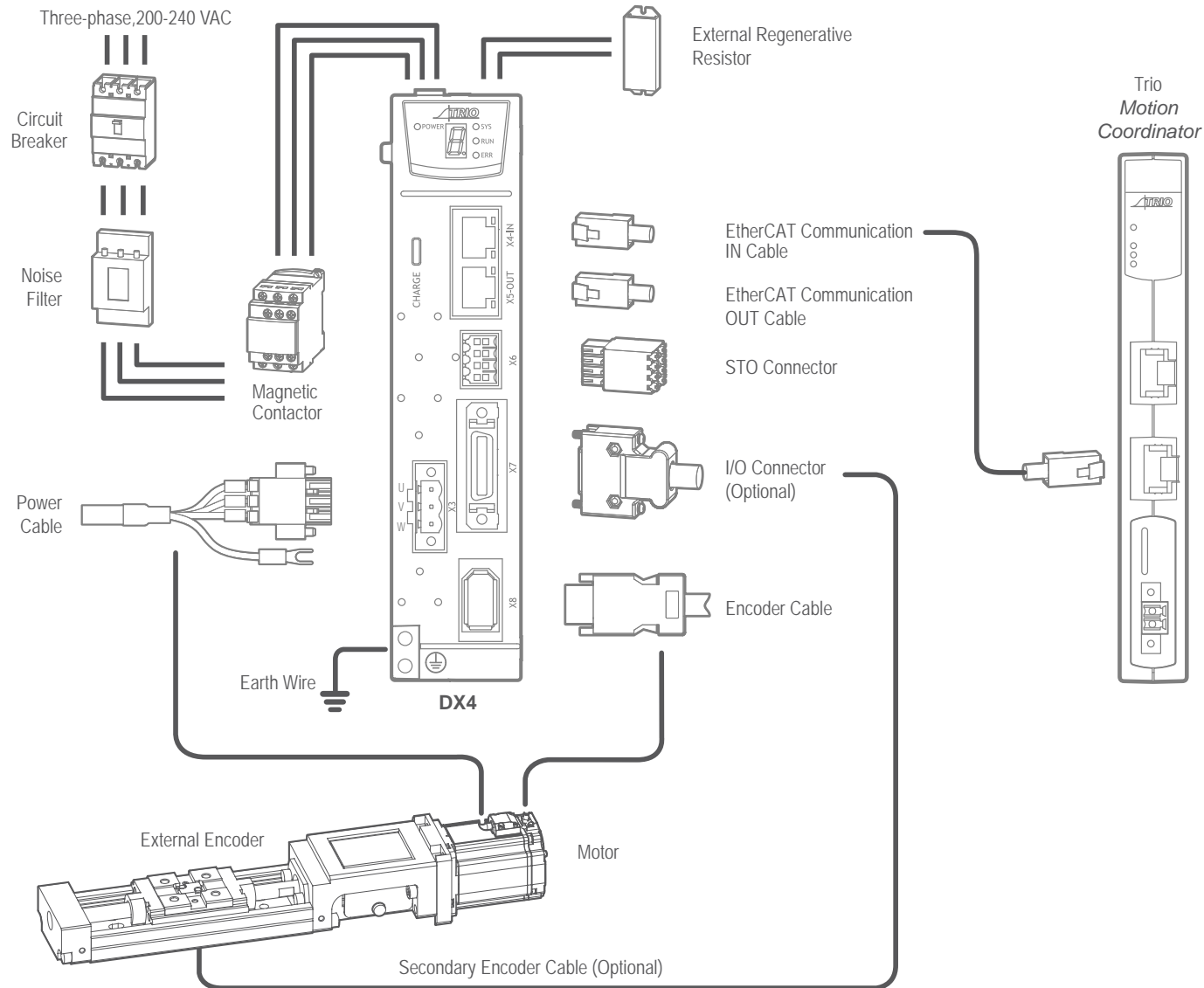
Scalable Control Architectures.
Open Communications and Tools.
Safety.

Motion Control Range

Motion Coordinator with scalable CPU performance.
Packaged Servo Offering.
Modular Decentralised IO Systems:
Digital / Analogue IO, Stepper & Servo axes, Temperature Control and more.



DX4 Wiring Solution Example



DX4 200V Servo Solutions

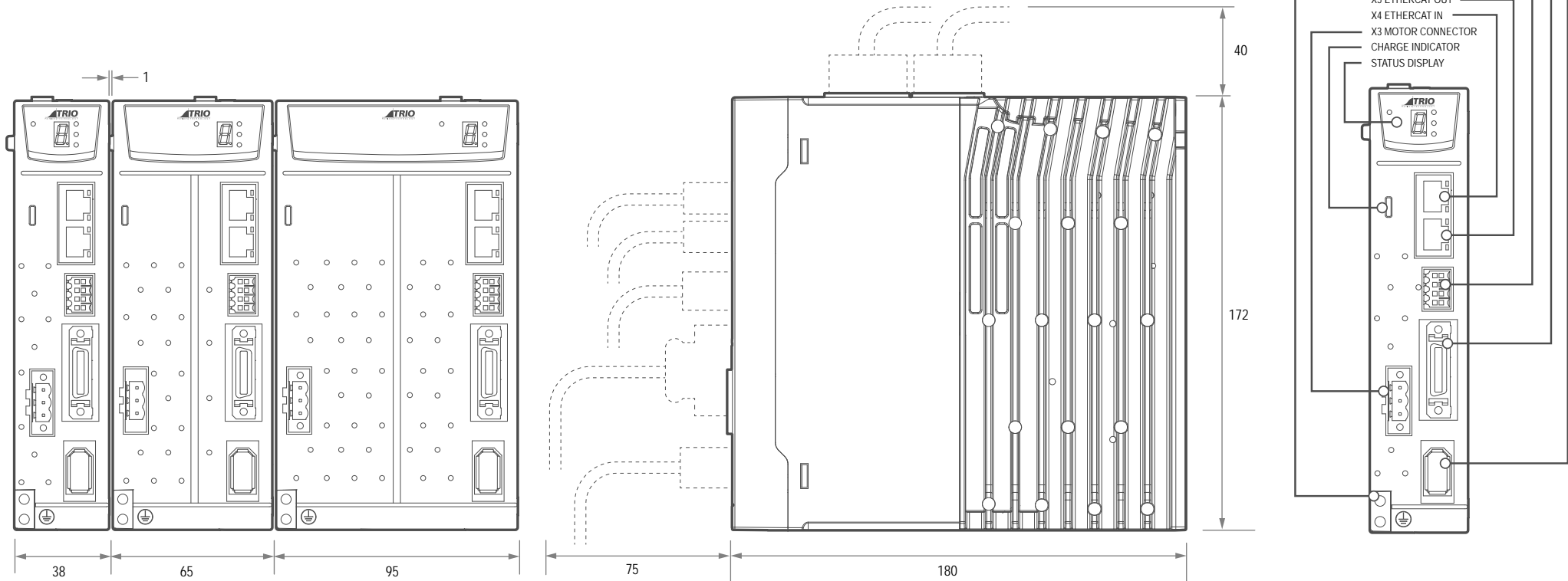
Specification

| Drive Model: DX4- | | 1A5A | 101A | 102A | 104A | 108A | 110A | 115A | 120A | 130A |
|---|----------------------------------|--|------|------|------|------|------|------|------|------|
| Continuous Output Current [Arms] | | 0.9 | 1.1 | 1.5 | 2.9 | 5.1 | 6.9 | 8.2 | 11.3 | 16 |
| Instantaneous Max Output Current [Arms] | | 3.3 | 4 | 5.8 | 11.5 | 19.5 | 21 | 24.6 | 33.9 | 54 |
| Power Supply Capacity [kVA] | Single-phase | 0.2 | 0.3 | 0.6 | 1.2 | 1.9 | 2.6 | 4 | - | - |
| | Three-phase | 0.2 | 0.3 | 0.5 | 0.9 | 1.6 | 2 | 3 | 3.5 | 4.5 |
| Power Supply | Main Circuit | Single-phase or Three-phase 200V ac to 240V ac. • -15% to +10%, 50Hz or 60Hz 270V dc to 324V dc. • -15% to +10% DX4-115* is de-rated to 1.2kW when used with a single-phase supply. DX4-120* and DX4-130* can only be used with a three-phase supply. | | | | | | | | |
| | Control Circuit | Single-phase 200V ac to 240V ac • -15% to +10%, 50Hz or 60Hz 270V dc to 324V dc. • -15% to +10% | | | | | | | | |
| Control Method | | SVPWM | | | | | | | | |
| Feedback | | Serial encoder: • 20-bit single-turn incremental encoder. • 23-bit single-turn, 16-bit multi-turn absolute encoder. | | | | | | | | |
| Environmental Conditions | Temperature | Ambient temperature: -5°C to 55°C (recommended max ambient temperature not below 40° for zero stacking installation). Storage temperature: -20°C to +85°C | | | | | | | | |
| | Humidity | Both operating and storage: 5% to 95% (with no condensation). | | | | | | | | |
| | Protection Class | IP20 | | | | | | | | |
| | Altitude | 1,000m or less | | | | | | | | |
| | Vibration Resistance | 4.9m/s ² | | | | | | | | |
| | Shock Resistance | 19.6m/s ² | | | | | | | | |
| | Power System | TN System | | | | | | | | |
| Mounting | | Base-mounted | | | | | | | | |
| Performance | Speed Control Range | 1:5000 | | | | | | | | |
| | Coefficient of Speed Fluctuation | ±0.01% of rated speed max. (For a load fluctuation of 0% to 100%) | | | | | | | | |
| | | 0% of rated speed max. (For a rated Voltage fluctuation of ±10%) ±0.1% of rated speed max. (For a temperature fluctuation of 25°C ±25°C) | | | | | | | | |
| I/O Signals | Second Encoder Input | Supports A, B, and Z TTL differential type sensor signal. Maximum line frequency of 500kHz. | | | | | | | | |
| | Input Signals | Allowable voltage range: 24V dc ±20% Number of input points: 7 (2 for high-speed optocoupler inputs, fixed as Touch Probe) Touch Probe Signals: TP1 (Touch Probe 1), TP2 (Touch Probe 2). All other inputs are general purpose but can be assigned specific functions during commissioning. These inputs can also be inverted so act as active-low. | | | | | | | | |
| | | Allowable Voltage range: 5V dc to 30V dc | | | | | | | | |
| | Output Signals | Number of output points: 4 All outputs are general purpose but can be assigned specific functions during commissioning. These outputs can also be inverted so act as active-low. | | | | | | | | |

| Drive Model: DX4- | | 1A5A | 101A | 102A | 104A | 108A | 110A | 115A | 120A | 130A |
|-----------------------------|-------------------------------------|---|------|------|------|------|------|------|------|------|
| EtherCAT Communications | Applicable Communications Standards | IEC 61158 Type12, IEC 61800-7 CiA402 Drive Profile | | | | | | | | |
| | Physical Layer | 100BASE-TX (IEEE802.3) | | | | | | | | |
| | Communications Connectors | X4-IN (RJ45): EtherCAT signal input connector X5-OUT (RJ45): EtherCAT signal output connector | | | | | | | | |
| | Cable | Category 5, Shielded/Foiled Twisted Pairs (CAT5e SF/UTP) | | | | | | | | |
| | Sync Manager | SM0: Mailbox output, SM1: Mailbox input, SM2: Process data output, and SM3: Process data input | | | | | | | | |
| | FMMU | FMMU 0: Mapped in process data output (RxPDO) area. FMMU 1: Mapped in process data input (TxPDO) area. FMMU 2: Mapped to mailbox status. | | | | | | | | |
| | EtherCAT Commands (Data Link Layer) | APRD, FPRD, BRD, LRD, APWR, FPWR, BWR, LWR, ARMW, FRMW (APRW, FPRW, BRW, and LRW commands are not supported.) | | | | | | | | |
| | Process Data | Assignments can be changed with PDO mapping. | | | | | | | | |
| | MailBox (CoE) | Emergency messages, SDO requests, SDO responses. | | | | | | | | |
| | Distributed Clocks | Free-Run Mode and DC Mode (Can be switched). Applicable DC cycles: 125 µs to 8 ms | | | | | | | | |
| Slave Information Interface | 256 bytes (read-only) | | | | | | | | | |
| CiA402 Drive Profile | | Cyclic Synchronous Position Mode Cyclic Synchronous Velocity Mode Cyclic Synchronous Torque Mode Touch Probe Function Torque Limit Function | | | | | | | | |
| Display | | One 7-segment LED | | | | | | | | |
| Indicator Lamps | | CHARGE, POWER, RUN, SYS, ERR, L/A IN, L/A OUT | | | | | | | | |
| Regenerative Processing | | DX4-1A5*, DX4-101*, DX4-102* and DX4-104* must connect an external regenerative resistor. Other models are built in. | | | | | | | | |
| Protective Functions | | Overcurrent, Overvoltage, Undervoltage, Overload, Regeneration Error, Overspeed, etc. | | | | | | | | |
| Utility Functions | | Alarm history, Jogging, Load inertia identification, Auto-Tuning, etc. | | | | | | | | |
| Safe Torque Off | | According to IEC 61800-5-2. Cat.4, PLe according to ISO 13849-1, SIL3 according to IEC 61508, IEC 62061. | | | | | | | | |

DX4 200V Servo Solutions

Dimensions



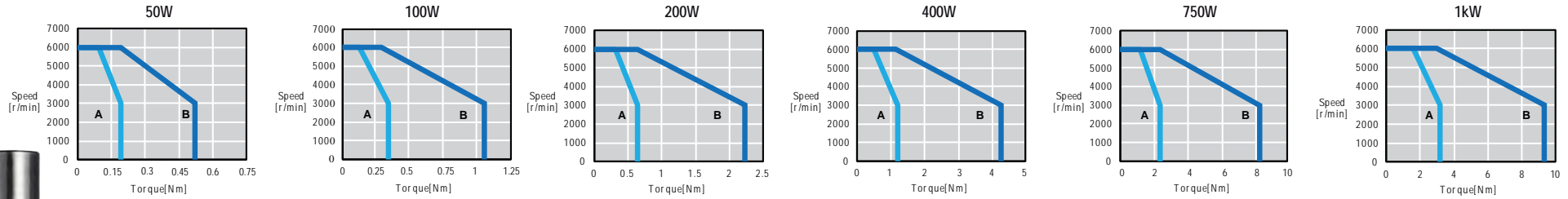
- DX4-1A5A DX4-108A DX4-120A
- DX4-101A DX4-110A DX4-130A
- DX4-102A DX4-115A
- DX4-104A

| Product | Output Power | Height (mm) | Width (mm) | Depth (mm) |
|----------|--------------|-------------|------------|------------|
| DX4-1A5A | 50W | 172 | 38 | 180 |
| DX4-101A | 100W | 172 | 38 | 180 |
| DX4-102A | 200W | 172 | 38 | 180 |
| DX4-104A | 400W | 172 | 38 | 180 |
| DX4-108A | 750W | 172 | 65 | 180 |
| DX4-110A | 1kW | 172 | 65 | 180 |
| DX4-115A | 1.5kW | 172 | 65 | 180 |
| DX4-120A | 2kW | 172 | 95 | 180 |
| DX4-130A | 3kW | 172 | 95 | 180 |

All Models : Voltage = 200V ac

MXL Motors

Low Inertia High Speed (MXL) Servo Motors



A: Continuous Working Area B: Repeatedly Working Area

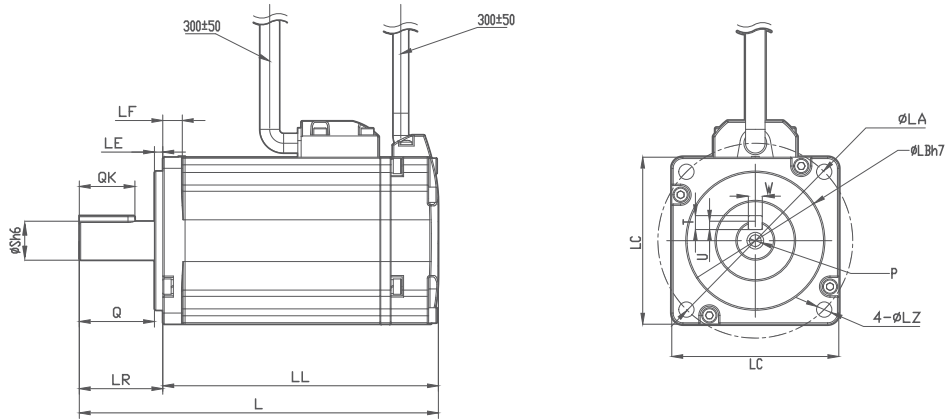


- Choose motor to match the load and dynamics, inertia, brake / no brake
- 20-bit Incremental or 23-bit Absolute high performance encoders
- IP65 rated
- Oil seal as standard
- 200V ac supply Voltage

| Servo Motor Detail | | 50W | 100W | 200W | 400W | 750W | 1kW |
|---------------------------|---|---|--------------------|------------------|------------------|-----------------|----------------|
| Rated Output | kW | 0.05 | 0.1 | 0.2 | 0.4 | 0.75 | 1 |
| Rated Torque | N-m | 0.159 | 0.318 | 0.63 | 1.27 | 2.39 | 3.18 |
| Instantaneous Peak Torque | N-m | 0.557 | 1.11 | 2.21 | 4.45 | 8.37 | 9.55 |
| Rated Current | Arms | 0.9 | 1.1 | 1.5 | 2.9 | 5.1 | 6.9 |
| Instantaneous Max current | Arms | 3.3 | 4.0 | 5.8 | 11.5 | 19.5 | 21.0 |
| Rated Speed | r/min | 3000 | | | | | |
| Max. Speed | r/min | 6000 | | | | | |
| Rotor Moment of Inertia | $\times 10^{-4} \text{kg} \cdot \text{m}^2$ | 0.023 (0.0268) | 0.0428 (0.0465) | 0.147 (0.179) | 0.244 (0.276) | 0.909 (1.07) | 1.14 (1.30) |
| Weight | kg | 0.368 (0.588) | 0.491 (0.696) | 0.9 (1.3) | 1.3 (1.7) | 2.6 (3.2) | 3.1 (3.8) |
| Brake Rated Voltage | | DC24V \pm 10% | | | | | |
| Brake Rated Power | W | 4.0 | | 7.4 | | 9.6 | |
| Brake Rated Torque | Nm | 0.32 | | 1.5 | | 3.2 | |
| Encoder | | 20-bit Incremental Encoder 1048576 P/R; 23-bit Absolute Encoder 8388608P/R | | | | | |
| Insulation Class | | F | | | | | |
| Ambient Temperature | | 0 ~ +40°C (No freezing) | | | | | |
| Ambient Humidity | | 20%~80% RH (No condensing) | | | | | |
| Vibration | | Vibration: Dynamic $\leq 49 \text{m/s}^2$ 5G; Static $\leq 24.5 \text{m/s}^2$; Shock: $\leq 98 \text{m/s}^2$ (10G) | | | | | |
| Enclosure | | Totally Enclosed, Self-cooled, IP65 | | | | | |

Note: The data inside parenthesis represents the values with brake.

MXL Motors



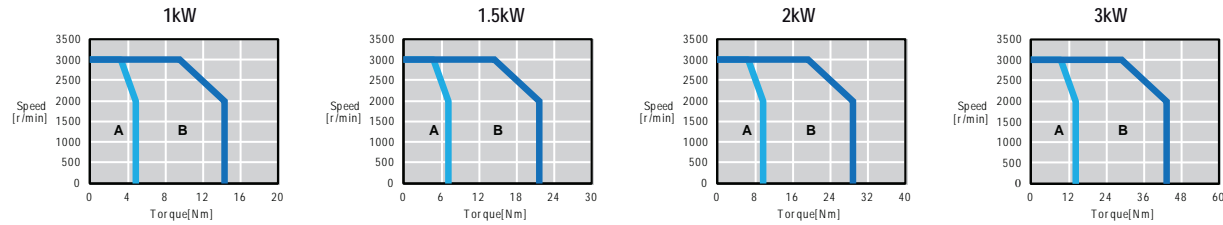
| POWER | MXL- | L | LL | Flange Side | | | | | | | | S | Threaded hole x Depth | Key | | | | |
|-------|----------|---------------|---------------|-------------|-----|----|----|----|----|-----|----|-------|-----------------------|-----|---|-----|------|--|
| | | | | LR | LE | LF | LC | LA | LB | LZ | QK | | | W | T | U | Q | |
| 50W | A5A0430L | 87.5 (121) | 62.5 (96) | 25 | 2.5 | 5 | 40 | 46 | 30 | 4.3 | 8 | M3X6 | 14 | 3 | 3 | 1.8 | 22.5 | |
| 100W | 01A0430L | 103.5 (137) | 78.5 (112) | 25 | 2.5 | 5 | 40 | 46 | 30 | 4.3 | 8 | M3X6 | 14 | 3 | 3 | 1.8 | 22.5 | |
| 200W | 02A0630L | 108 (137) | 78 (107) | 30 | 3 | 7 | 60 | 70 | 50 | 5.5 | 14 | M5X12 | 20 | 5 | 5 | 3 | 27 | |
| 400W | 04A0630L | 129 (158) | 99 (128) | 30 | 3 | 7 | 60 | 70 | 50 | 5.5 | 14 | M5X12 | 20 | 5 | 5 | 3 | 27 | |
| 750W | 08A0830L | 141 (184) | 111 (144) | 40 | 3 | 8 | 80 | 90 | 70 | 6.6 | 19 | M6X12 | 25 | 6 | 6 | 3.5 | 37 | |
| 1kW | 10A0830L | 155 (198) | 125 (158) | 40 | 3 | 8 | 80 | 90 | 70 | 6.6 | 19 | M6X12 | 25 | 6 | 6 | 3.5 | 37 | |
| 200W | 02A0630F | 126.5 (155.5) | 96.5 (125.5) | 30 | 3 | 7 | 60 | 70 | 50 | 5.5 | 14 | M5X12 | 20 | 5 | 5 | 3 | 27 | |
| 400W | 04A0630F | 147.5 (176.5) | 117.5 (146.5) | 30 | 3 | 7 | 60 | 70 | 50 | 5.5 | 14 | M5X12 | 20 | 5 | 5 | 3 | 27 | |
| 750W | 08A0830F | 169.5 (202.5) | 129.5 (162.5) | 40 | 3 | 8 | 80 | 90 | 70 | 6.6 | 19 | M6X12 | 25 | 6 | 6 | 3.5 | 37 | |
| 1kW | 10A0830F | 183.5 (216.5) | 143.5 (176.5) | 40 | 3 | 8 | 80 | 90 | 70 | 6.6 | 19 | M6X12 | 25 | 6 | 6 | 3.5 | 37 | |

Note: Numbers inside parentheses represents the values with brake.

| MXL | - | Rated Power | Supply Voltage | Flange | Rated Speed | Encoder | Revision | Shaft End | Option Parts | Connector Type |
|-----|---|-------------|----------------|--------|-------------|------------|----------|-----------|---------------|----------------|
| A5 | | 50W | A | 04 | 30 | F | A | 2 | 2 | 2 |
| 01 | | 100W | | 06 | 3000 RPM | 20-bit inc | - | With key | With oil seal | Water proof |
| 02 | | 200W | | 80mm | | 23-bit abs | | | With oil seal | |
| 04 | | 400W | | | | | | | With brake | |
| 08 | | 750W | | | | | | | | |
| 10 | | 1kW | | | | | | | | |

MXM Motors

Medium Inertia Medium Speed (MXM) Servo Motors



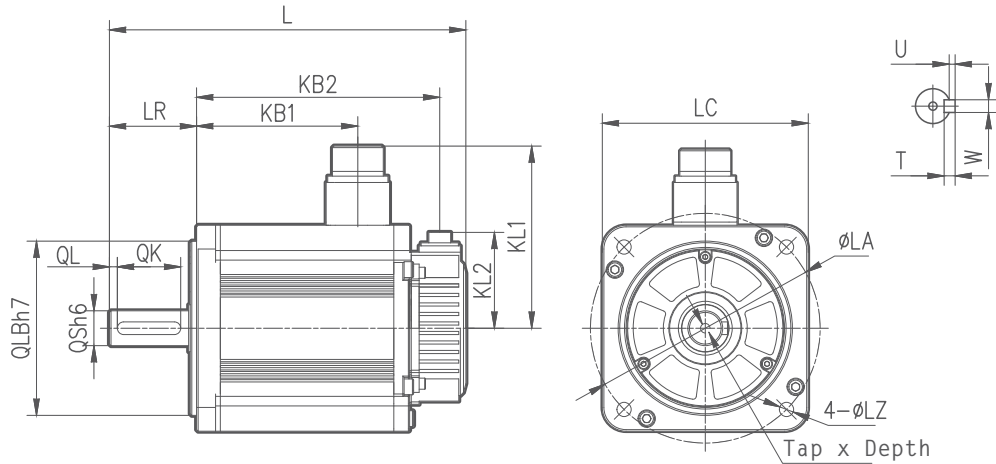
A: Continuous Working Area B: Repeatedly Working Area

- Choose motor to match the load and dynamics, inertia, brake / no brake
- 20-bit Incremental or 23-bit Absolute high performance encoders
- IP65 rated
- Oil seal as standard
- 200V ac supply Voltage

| Servo Motor Detail | | 1kW | 1.5kW | 2kW | 3kW |
|---------------------------|---|--|----------------|----------------|------------------|
| Rated Output | kW | 1.0 | 1.5 | 2.0 | 3.0 |
| Rated Torque | N-m | 4.78 | 7.16 | 9.55 | 14.3 |
| Instantaneous Peak Torque | N-m | 14.3 | 21.5 | 28.7 | 40 |
| Rated Current | Arms | 5.8 | 8.2 | 11.3 | 18.0 |
| Instantaneous Max current | Arms | 17.4 | 24.6 | 33.9 | 54.0 |
| Rated Speed | r/min | 2000 | | | |
| Max. Speed | r/min | 3000 | | | |
| Rotor Moment of Inertia | $\times 10^{-4} \text{kg} \cdot \text{m}^2$ | 13.2 (14.3) | 18.4 (19.5) | 23.5 (24.6) | 41.3 (44.5) |
| Weight | kg | 7 (8.5) | 8.9 (10.4) | 10.8 (12.3) | 16.63 (20.23) |
| Brake Rated Voltage | | DC24V \pm 10% | | | |
| Brake Rated Power | W | 19.5 | | | 35 |
| Brake Rated Torque | N-m | 12 | | | 40 |
| Encoder | | 20-bit Incremental Encoder 1048576 P/R; 23-bit Absolute Encoder 8388608P/R | | | |
| Insulation Class | | F | | | |
| Ambient Temperature | | 0 ~ +40°C (No freezing) | | | |
| Ambient Humidity | | 20%~80% RH (No condensing) | | | |
| Vibration | | 24.5m/s ² | | | |
| Enclosure | | Self-cooled, IP65 (excluding Connecting Joint With Cable) | | | |

Note: The data inside parenthesis represents the values with brake.

MXM Motors



| POWER | MXM- | L | LL | KB1 | KB2 | KL1 | KL2 | Flange Side | | | | | | S | Threaded hole x Depth | Key | | | | | | | | | |
|-------|----------|----------------|----------------|----------------|----------------|-----|------|-------------|-----|----|-----|-----|-------|-----|-----------------------|-------|----|----|----|---|---|--|--|--|--|
| | | | | | | | | LR | LE | LF | LC | LA | LB | | | LZ | QK | QL | W | T | U | | | | |
| 1KW | 10A1320F | 203 (245.5) | 148 (190.5) | 80 (103.2) | 131.5 (174) | | | | | | | | | | | | | | | | | | | | |
| 1.5KW | 15A1320 | 225 (267.5) | 170 (212.5) | 102 (125.2) | 153.5 (196) | 117 | 60.5 | 55 | 4 | 12 | 130 | 145 | 110 | 9 | 22 | M6×20 | 40 | 5 | 8 | 7 | 4 | | | | |
| 2KW | 20A1320 | 247 (289.5) | 192 (234.5) | 124 (147.2) | 175.5 (218) | | | | | | | | | | | | | | | | | | | | |
| 3KW | 30A1820 | 307 (378) | 228 (299) | 143 | 203 (274) | 140 | 79 | 79 | 3.2 | 18 | 180 | 200 | 114.3 | 135 | 35 | M8×16 | 55 | 6 | 10 | 8 | 5 | | | | |

Note: Numbers inside parentheses represents the values with brake.



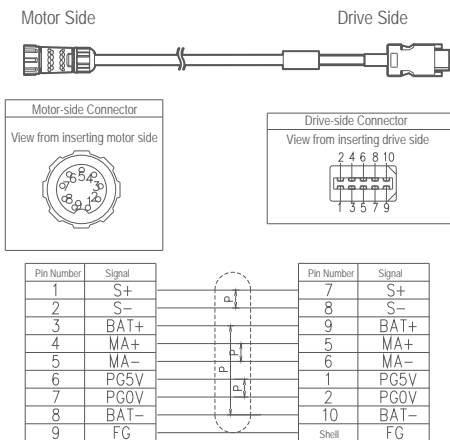
| MXM | - | Rated Power | Supply Voltage | Flange | Rated Speed | Encoder | Revision | Shaft End | Option Parts | Connector Type |
|-----|---|--|----------------|----------------------|-------------|------------------------------|-------------------|------------|--|----------------|
| | | 10 1kW 15 1.5kW 20 2kW 30 3kW | A 200VAC | 13 130mm 18 180mm | 20 2000 RPM | F 20-bit inc L 23-bit abs | A - B - D - | 2 With key | 2 With oil seal 4 With oil seal With brake | 3 On motor |

CABLES

Encoder Cables

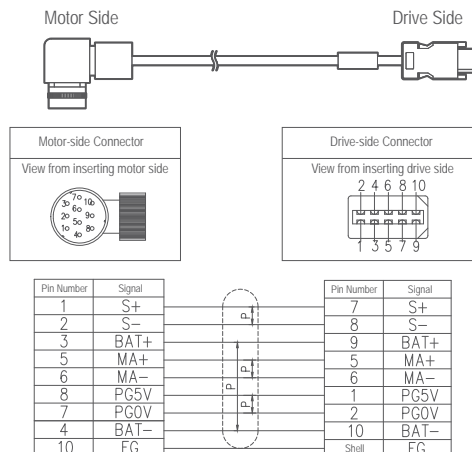
MXL Motors (50W - 1kW)

EC3S-I1724-XX (Inc Encoder)



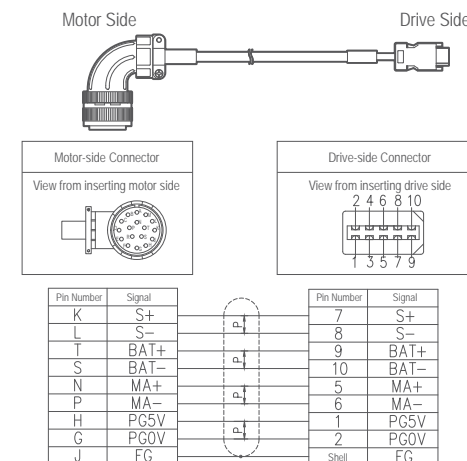
MXM Motors (1kW - 2kW)

EC3S-I1324-XX (Inc Encoder)

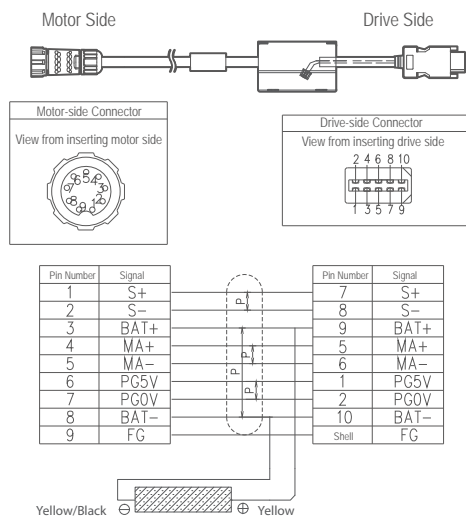


MXM Motors (3kW)

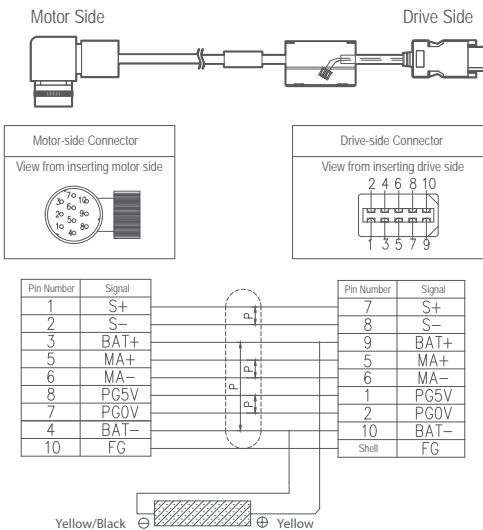
EC3S-I1424-XX (Inc Encoder)



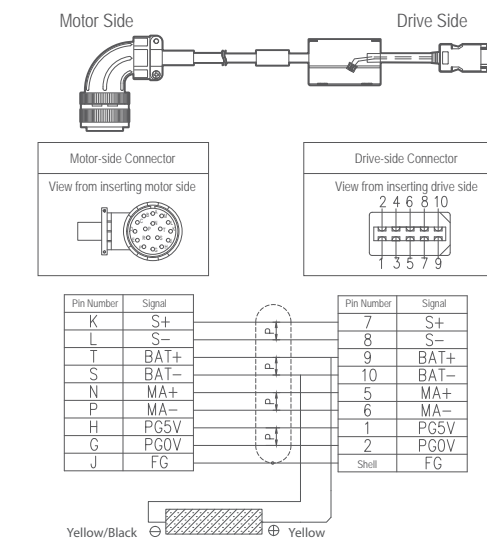
EC3S-A1724-XX (Abs Encoder)



EC3S-A1324-XX (Abs Encoder)



EC3S-A1424-XX (Abs Encoder)



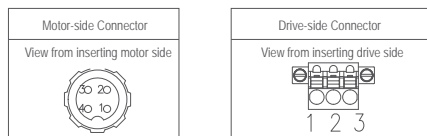
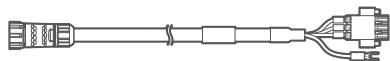
CABLES

Power Cables

MXL Motors (50W - 1kW)

EC3P-N1718-XX (No Brake)

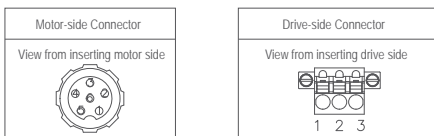
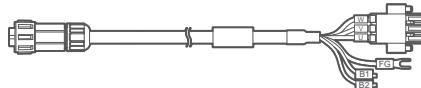
Motor Side Drive Side



| Pin Number | Signal | Pin Number | Signal |
|------------|--------|----------------|--------|
| 1 | U | 1 | U |
| 2 | V | 2 | V |
| 3 | W | 3 | W |
| 4 | FG | Crimp Terminal | FG |

EC3P-B1718-XX (With Brake)

Motor Side Drive Side

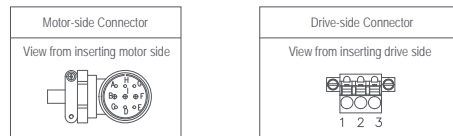
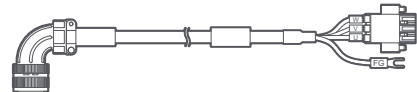


| Pin Number | Signal | Pin Number | Signal |
|------------|--------|----------------|--------|
| 1 | U | 1 | U |
| 2 | V | 2 | V |
| 3 | W | 3 | W |
| 4 | FG | Crimp Terminal | FG |
| 5 | B1 | 5 | B1 |
| 6 | B2 | 6 | B2 |

MXM Motors (1kW - 1.5kW)

EC3P-N1314-XX (No Brake)

Motor Side Drive Side

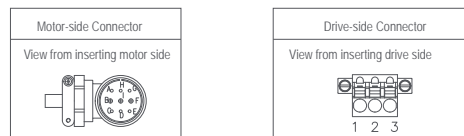
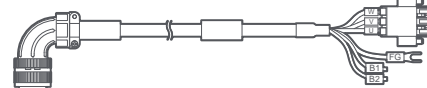


| Pin Number | Signal | Pin Number | Signal |
|------------|--------|----------------|--------|
| B | U | 1 | U |
| I | V | 2 | V |
| F | W | 3 | W |
| C | FG | Crimp Terminal | FG |
| D | FG | | |

Shorting Stub, Cable BVR1.5mm²

EC3P-B1314-XX (With Brake)

Motor Side Drive Side



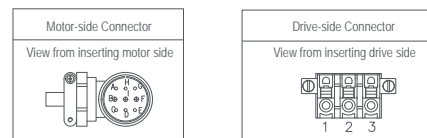
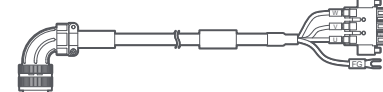
| Pin Number | Signal | Pin Number | Signal |
|------------|--------|----------------|--------|
| B | U | 1 | U |
| I | V | 2 | V |
| F | W | 3 | W |
| C | FG | Crimp Terminal | FG |
| D | FG | | |
| G | B1 | | B1 |
| H | B2 | | B2 |

Shorting Stub, Cable BVR1.5mm²

MXM Motors (2kW)

EC3P-N2314-XX (No Brake)

Motor Side Drive Side

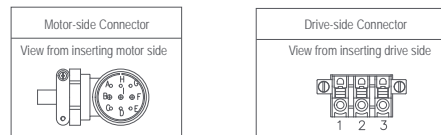
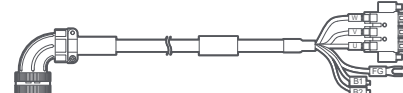


| Pin Number | Signal | Pin Number | Signal |
|------------|--------|----------------|--------|
| B | U | 1 | U |
| I | V | 2 | V |
| F | W | 3 | W |
| C | FG | Crimp Terminal | FG |
| D | FG | | |

Shorting Stub, Cable BVR1.5mm²

EC3P-B2314-XX (With Brake)

Motor Side Drive Side



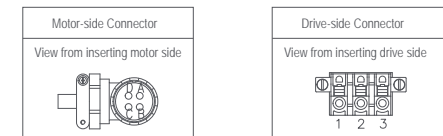
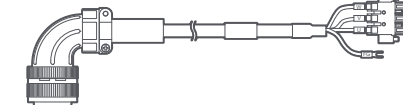
| Pin Number | Signal | Pin Number | Signal |
|------------|--------|----------------|--------|
| B | U | 1 | U |
| I | V | 2 | V |
| F | W | 3 | W |
| C | FG | Crimp Terminal | FG |
| D | FG | | |
| G | B1 | | B1 |
| H | B2 | | B2 |

Shorting Stub, Cable BVR1.5mm²

MXM Motors (3kW)

EC3P-N2413-XX

Motor Side Drive Side



| Pin Number | Signal | Pin Number | Signal |
|------------|--------|----------------|--------|
| A | U | 1 | U |
| B | V | 2 | V |
| C | W | 3 | W |
| D | FG | Crimp Terminal | FG |

Power Cable With Brake

Brake cable for the 3kW MXM motor is separate to the motor power cable, the brake cable connector is available as part number **MC10-SP2S-S**.

Selection Table

200V Servo Solutions

Part Numbers

| Description | Drive | | Motor | | Encoder Cable | | Power Cable | |
|---|----------|------------|----------|------------------|---------------|---------------------|-------------|---------------|
| | Part No. | Model | Part No. | Model | Part No. | Model | Part No. | Model |
| 50W, Low Inertia, 23-bit Abs Encoder, No brake | D0108* | DX4-1A5AJA | M0758 | MXL-A5A0430LA222 | X0106 (inc) | EC3S-I1724-xx (inc) | X0148 | EC3P-N1718-xx |
| 50W, Low Inertia, 23-bit Abs Encoder, With brake | | | M0759 | MXL-A5A0430LA242 | X0107 (abs) | EC3S-A1724-xx (abs) | X0149 | EC3P-B1718-xx |
| 100W, Low Inertia, 23-bit Abs Encoder, No brake | D0107* | DX4-101AJA | M0756 | MXL-01A0430LA222 | X0106 (inc) | EC3S-I1724-xx (inc) | X0148 | EC3P-N1718-xx |
| 100W, Low Inertia, 23-bit Abs Encoder, With brake | | | M0757 | MXL-01A0430LA242 | X0107 (abs) | EC3S-A1724-xx (abs) | X0149 | EC3P-B1718-xx |
| 200W, Low Inertia, 20-bit Inc Encoder, No brake | D0106 | DX4-102AJA | M0652 | MXL-02A0630FA222 | X0106 | EC3S-I1724-xx | X0148 | EC3P-N1718-xx |
| 200W, Low Inertia, 20-bit Inc Encoder, With brake | | | M0653 | MXL-02A0630FA242 | | | X0149 | EC3P-B1718-xx |
| 200W, Low Inertia, 23-bit Abs Encoder, No brake | | | M0654 | MXL-02A0630LA222 | X0107 | EC3S-A1724-xx | X0148 | EC3P-N1718-xx |
| 200W, Low Inertia, 23-bit Abs Encoder, With brake | | | M0655 | MXL-02A0630LA242 | | | X0149 | EC3P-B1718-xx |
| 400W, Low Inertia, 20-bit Inc Encoder, No brake | D0105 | DX4-104AJA | M0644 | MXL-04A0630FA222 | X0106 | EC3S-I1724-xx | X0148 | EC3P-N1718-xx |
| 400W, Low Inertia, 20-bit Inc Encoder, With brake | | | M0645 | MXL-04A0630FA242 | | | X0149 | EC3P-B1718-xx |
| 400W, Low Inertia, 23-bit Abs Encoder, No brake | | | M0646 | MXL-04A0630LA222 | X0107 | EC3S-A1724-xx | X0148 | EC3P-N1718-xx |
| 400W, Low Inertia, 23-bit Abs Encoder, With brake | | | M0647 | MXL-04A0630LA242 | | | X0149 | EC3P-B1718-xx |
| 750W, Low Inertia, 20-bit Inc Encoder, No brake | D0104 | DX4-108AJA | M0636 | MXL-08A0830FA222 | X0106 | EC3S-I1724-xx | X0148 | EC3P-N1718-xx |
| 750W, Low Inertia, 20-bit Inc Encoder, With brake | | | M0637 | MXL-08A0830FA242 | | | X0149 | EC3P-B1718-xx |
| 750W, Low Inertia, 23-bit Abs Encoder, No brake | | | M0638 | MXL-08A0830LA222 | X0107 | EC3S-A1724-xx | X0148 | EC3P-N1718-xx |
| 750W, Low Inertia, 23-bit Abs Encoder, With brake | | | M0639 | MXL-08A0830LA242 | | | X0149 | EC3P-B1718-xx |
| 1kW, Low Inertia, 20-bit Inc Encoder, No brake | D0103 | DX4-110AJA | M0628 | MXL-10A0830FA222 | X0106 | EC3S-I1724-xx | X0148 | EC3P-N1718-xx |
| 1kW, Low Inertia, 20-bit Inc Encoder, With brake | | | M0629 | MXL-10A0830FA242 | | | X0149 | EC3P-B1718-xx |
| 1kW, Low Inertia, 23-bit Abs Encoder, No brake | | | M0630 | MXL-10A0830LA222 | X0107 | EC3S-A1724-xx | X0148 | EC3P-N1718-xx |
| 1kW, Low Inertia, 23-bit Abs Encoder, With brake | | | M0631 | MXL-10A0830LA242 | | | X0149 | EC3P-B1718-xx |

| Description | Drive | | Motor | | Encoder Cable | | Power Cable | |
|--|----------|------------|----------|------------------|---------------|---------------|-------------|---------------|
| | Part No. | Model | Part No. | Model | Part No. | Model | Part No. | Model |
| 1kW, Med Inertia, 20-bit Inc Encoder, No brake | D0103 | DX4-110AJA | M0620 | MXM-10A1320FD223 | X0102 | EC3S-I1324-xx | X0144 | EC3P-N1314-xx |
| 1kW, Med Inertia, 20-bit Inc Encoder, With brake | | | M0621 | MXM-10A1320FD243 | | | X0145 | EC3P-B1314-xx |
| 1kW, Med Inertia, 23-bit Abs Encoder, No brake | | | M0622 | MXM-10A1320LB223 | X0103 | EC3S-A1324-xx | X0144 | EC3P-N1314-xx |
| 1kW, Med Inertia, 23-bit Abs Encoder, With brake | | | M0623 | MXM-10A1320LB243 | | | X0145 | EC3P-B1314-xx |
| 1.5kW, Med Inertia, 20-bit Inc Encoder, No brake | D0102 | DX4-115AJA | M0612 | MXM-15A1320FD223 | X0102 | EC3S-I1324-xx | X0144 | EC3P-N1314-xx |
| 1.5kW, Med Inertia, 20-bit Inc Encoder, With brake | | | M0613 | MXM-15A1320FD243 | | | X0145 | EC3P-B1314-xx |
| 1.5kW, Med Inertia, 23-bit Abs Encoder, No brake | | | M0614 | MXM-15A1320LB223 | X0103 | EC3S-A1324-xx | X0144 | EC3P-N1314-xx |
| 1.5kW, Med Inertia, 23-bit Abs Encoder, With brake | | | M0615 | MXM-15A1320LB243 | | | X0145 | EC3P-B1314-xx |
| 2kW, Med Inertia, 20-bit Inc Encoder, No brake | D0101 | DX4-120AJA | M0604 | MXM-20A1320FD223 | X0102 | EC3S-I1324-xx | X0142 | EC3P-N2314-xx |
| 2kW, Med Inertia, 20-bit Inc Encoder, With brake | | | M0605 | MXM-20A1320FD243 | | | X0143 | EC3P-B2314-xx |
| 2kW, Med Inertia, 23-bit Abs Encoder, No brake | | | M0606 | MXM-20A1320LB223 | X0103 | EC3S-A1324-xx | X0142 | EC3P-N2314-xx |
| 2kW, Med Inertia, 23-bit Abs Encoder, With brake | | | M0607 | MXM-20A1320LB243 | | | X0143 | EC3P-B2314-xx |
| 3kW, Med Inertia, 20-bit Inc Encoder, No brake | D0100 | DX4-130AJA | M0600 | MXM-30A1820FD223 | X0100 | EC3S-I1424-xx | X0141 | EC3P-N2413-xx |
| 3kW, Med Inertia, 20-bit Inc Encoder, With brake | | | M0601 | MXM-30A1820FD243 | | | X0141 | EC3P-N2413-xx |
| 3kW, Med Inertia, 23-bit Abs Encoder, No brake | | | M0602 | MXM-30A1820LA223 | X0101 | EC3S-A1424-xx | X0141 | EC3P-N2413-xx |
| 3kW, Med Inertia, 23-bit Abs Encoder, With brake | | | M0603 | MXM-30A1820LA243 | | | X0141 | EC3P-N2413-xx |

* Note: D0108 and D0107 can be configured to use the encoder as either incremental or absolute.



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