ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

**Artisan Technology Group**
(217) 352-9330 | sales@artisantg.com | artisantg.com

**Full-service, independent repair center**
with experienced engineers and technicians on staff.

**We buy your excess, underutilized, and idle equipment**
along with credit for buybacks and trade-ins.

**Custom engineering**
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

**Expert team | Trust guarantee | 100% satisfaction**

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Lenze MCS-06F41LC40P1-B11N-ST5S00N-R2SU* at our website: *Click HERE*

# MCS synchronous servo motors

**0.5 ... 190 Nm**



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# MCS synchronous servo motors

Contents




| | | |
|---|---|---|
| **General information** | List of abbreviations | 5.1 - 4 |
| | Product key | 5.1 - 6 |
| | Product information | 5.1 - 8 |
| | Functions and features | 5.1 - 9 |
| | Dimensioning | 5.1 - 10 |
| **Technical data** | Standards and operating conditions | 5.1 - 17 |
| | Permissible radial and axial forces | 5.1 - 18 |
| | Rated data, non-ventilated | 5.1 - 19 |
| | Rated data, forced ventilated | 5.1 - 24 |
| | Selection tables, Servo Drives 9400 HighLine | 5.1 - 26 |
| | Selection tables, Inverter Drives 8400 TopLine | 5.1 - 36 |
| | Selection tables, Servo Drives ECS | 5.1 - 47 |
| | Selection tables, Servo Inverter 9300 | 5.1 - 56 |
| | Torque characteristics | 5.1 - 63 |
| | Dimensions, self-ventilated | 5.1 - 100 |
| | Dimensions, forced ventilated | 5.1 - 106 |
| **Accessories** | Permanent magnet holding brake | 5.1 - 109 |
| | Resolver | 5.1 - 111 |
| | Incremental encoder and SinCos absolute value encoder | 5.1 - 112 |
| | Blower | 5.1 - 114 |
| | Temperature monitoring | 5.1 - 115 |
| | Terminal box | 5.1 - 116 |
| | ICN connector | 5.1 - 118 |




Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## List of abbreviations

| | | |
|---|---|---|
| $\eta_{100\,\%}$ | [%] | Efficiency |
| cos ϕ | | Power factor |
| du/dt | [kV/µs] | Insulation resistance |
| $F_{ax,-}$ | [N] | Min. axial force |
| $F_{ax,+}$ | [N] | Max. axial force |
| $f_{in,max}$ | [Hz] | Max. input frequency |
| $f_{max}$ | [kHz] | Limit frequency |
| $f_{max}$ | [kHz] | Max. switching frequency |
| $f_N$ | [Hz] | Rated frequency |
| $F_{rad}$ | [N] | Max. radial force |
| $H_{max}$ | [m] | Site altitude |
| $I_0$ | [A] | Standstill current |
| $I_{max}$ | [A] | Max. short-time DC-bus current |
| $I_{max}$ | [A] | Max. current |
| $I_{max}$ | [A] | Max. current consumption |
| $I_{max}$ | [A] | Max. current |
| $I_{max}$ | [A] | Max. DC-bus current |
| $I_N$ | [A] | Rated current |
| J | [kgcm²] | Moment of inertia |
| $J_{MB}$ | [kgcm²] | Moment of inertia |
| $KE_{LL\,150\,°C}$ | [V /(1000 r/min)] | Voltage constant |
| $Kt_{0\,150\,°C}$ | [Nm/A] | Torque constant |
| L | [mH] | Mutual inductance |
| $L_{1\sigma}$ | [mH] | Stator leakage inductance |
| $L_{2\sigma}$ | [mH] | Rotor leakage inductance |
| $L_N$ | [mH] | Rated inductance |
| m | [kg] | Mass |
| $M_0$ | [Nm] | Stall torque |
| $M_{0,\,max}$ | [Nm] | Max. standstill torque |
| $M_{av}$ | [Nm] | Average dynamic torque |
| $M_{max}$ | [Nm] | Max. torque |
| $M_N$ | [Nm] | Rated torque |
| $n_{eto}$ | [r/min] | Transition speed |
| $n_k$ | [r/min] | Speed |
| $n_{max}$ | [r/min] | Max. speed |

| | | |
|---|---|---|
| $n_N$ | [r/min] | Rated speed |
| $P_N$ | [kW] | Rated power |
| $Q_E$ | [J] | Maximum switching energy |
| R | [Ω] | Insulation resistance |
| R | [Ω] | Min. insulation resistance |
| $R_1$ | [Ω] | Stator impedance |
| $R_2$ | [Ω] | Charging resistor |
| $R_2$ | [Ω] | Rotor impedance |
| $R_{UV\,150\,°C}$ | [Ω] | Stator impedance |
| $R_{UV\,20\,°C}$ | [Ω] | Stator impedance |
| $S_{hü}$ | [1/h] | Transition operating frequency |
| T | [°C] | Operating temperature |
| T | [°C] | Rated temperature |
| T | [°C] | Max. ambient temperature of bearing |
| T | [°C] | Max. surface temperature |
| T | [°C] | Max. ambient temperature for transport |
| T | [°C] | Min. ambient storage temperature |
| T | [°C] | Min. ambient temperature for transport |
| T | [°C] | Ambient temperature |
| $t_1$ | [ms] | Engagement time |
| $t_2$ | [ms] | Disengagement time |
| $T_{opr,max}$ | [°C] | Max. ambient operating temperature |
| $T_{opr,min}$ | [°C] | Min. ambient operating temperature |
| $U_{in,max}$ | [V] | Max. input voltage |
| $U_{in,min}$ | [V] | Min. input voltage |
| $U_{max}$ | [V] | Max. mains voltage |
| $U_{max}$ | [V] | Min. input voltage |
| $U_{min}$ | [V] | Min. mains voltage |
| $U_{N,\,AC}$ | [V] | Rated voltage |
| $U_{N,\,DC}$ | [V] | Rated voltage |
| $Z_{ro}$ | [Ω] | Rotor impedance |
| $Z_{rs}$ | [Ω] | Impedance |
| $Z_{so}$ | [Ω] | Stator impedance |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## List of abbreviations

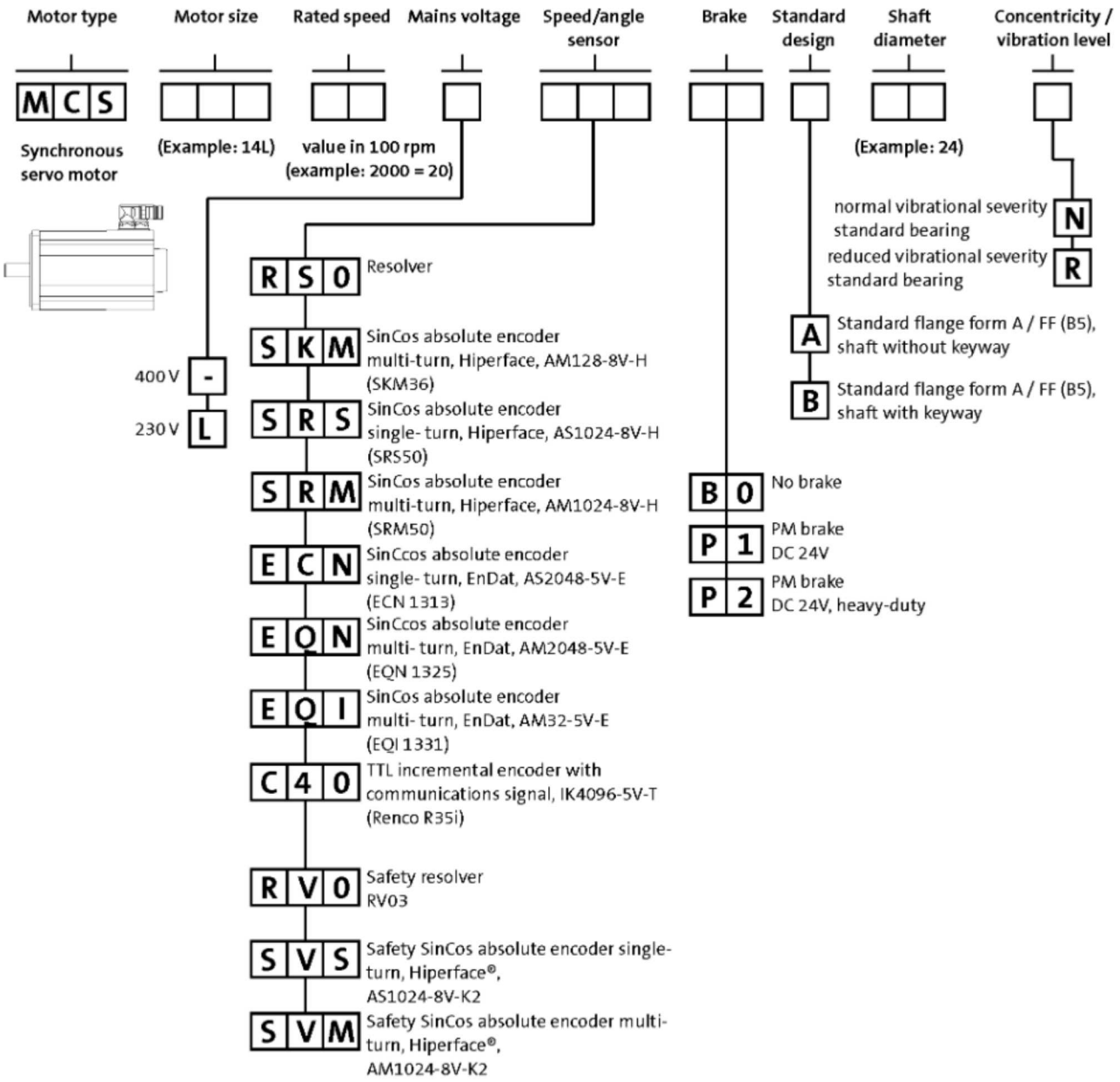
| | |
|---|---|
| CE | Communauté Européenne |
| CSA | Canadian Standards Association |
| DIN | Deutsches Institut für Normung e.V. |
| EMC | Electromagnetic compatibility |
| EN | European standard |
| EAC | Customs union Russia / Belarus / Kazakhstan certificate |
| IEC | International Electrotechnical Commission |
| IM | International Mounting Code |
| IP | International Protection Code |
| NEMA | National Electrical Manufacturers Association |
| UkrSEPRO | Certificate for Ukraine |
| UL | Underwriters Laboratory Listed Product |
| UR | Underwriters Laboratory Recognized Product |
| VDE | Verband deutscher Elektrotechniker (Association of German Electrical Engineers) |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Product key

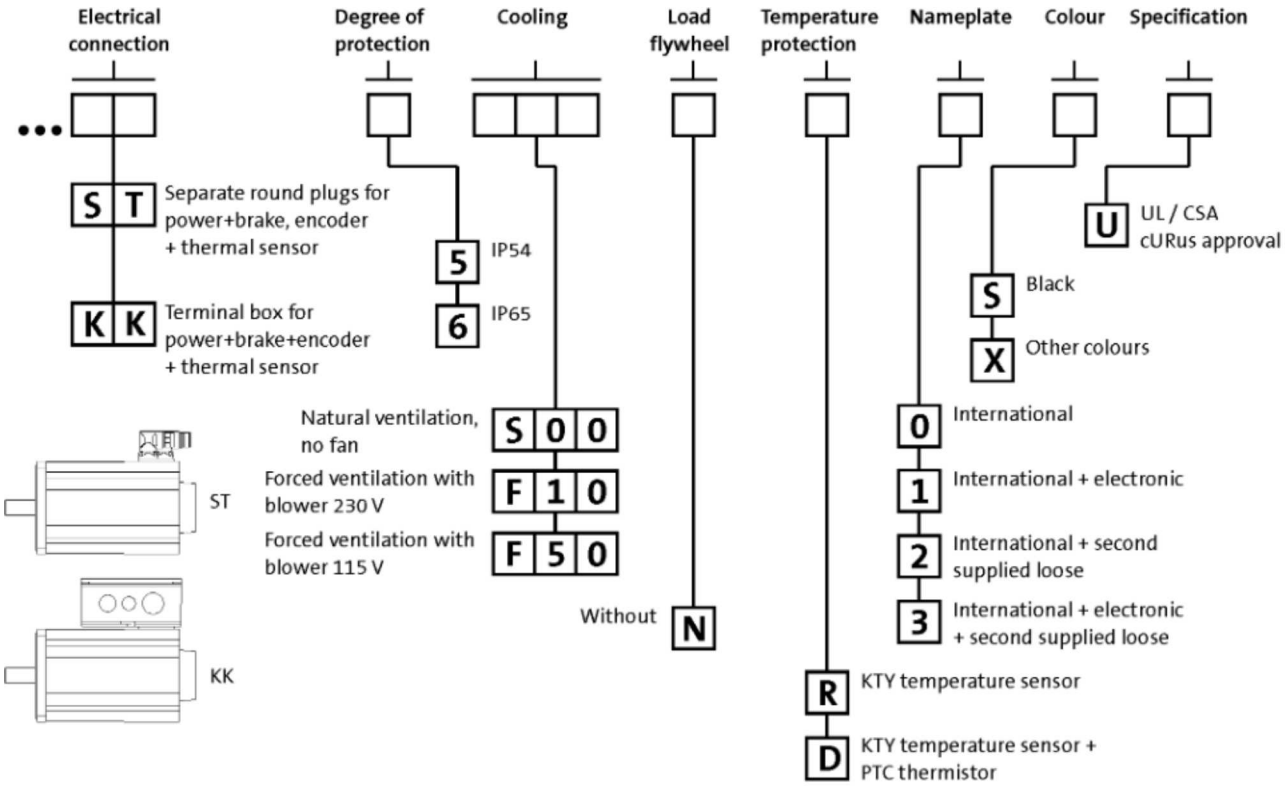





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Product key






Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# MCS synchronous servo motors

General information



## Product information

When space is limited, but strict requirements in terms of dynamics and precision still have to be met, the MCS synchronous servo motors are the right choice.

With a power range from 0.25 kW to 15.8 kW and a rated torque range from 0.5 Nm to 72 Nm and peak torques of up to 190 Nm, these motors leave nothing to be desired in installations requiring compact and dynamic drive technology.
The stator winding of the MCS motors employs innovative Single Element Pole Technology – SEPT – and is made up of individual coils. High-quality magnetic materials and specially developed pole shapes set the conditions for their excellent drive characteristics. This results in a significant increase in power density, while at the same time reducing moments of inertia. The minimum detent torques offer exceptional smooth running characteristics and thereby secure excellent control behaviour.

The robust mechanical structure with reinforced bearings, the high degree of protection and the full stator encapsulation increase operational reliability, even in harsh ambient conditions.

**Advantages**
- High dynamic performance thanks to low moments of inertia
- Compact size with high power density
- Cooling with or without axial external fan
- Robust regenerative resolver system as standard
- Alternatively sin/cos encoder for the highest precision
- Easy to install and service friendly thanks to use of SpeedTec connectors
- Optional terminal box
- Protection: IP54, IP65 optional
- cURus-approved, GOST-certified, CE, RoHS compliant
- Smooth surface
- Single Element Pole Technology
- Optimum rotation characteristics
- Virtually free of detent torque
- Electronic nameplate



**MCS09 synchronous servo motor**



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# MCS synchronous servo motors

General information



## Functions and features

| | MCS06 | MCS09 | MCS12 | MCS14 | MCS19 |
|---|---|---|---|---|---|
| **Design** | | | | | |
| | B5-FF75 | B5-FF100 | B5-FF130 | B5-FF165 | B5-FF215 |
| **Shaft end (with and without keyway)** | | | | | |
| | 11 x 23 | 14 x 30 | 19 x 40 | 24 x 50 | 28 x 60 |
| **A end shield** | | | | | |
| | Not oil-tight | | | | |
| **Brake** | | | | | |
| Permanent magnetic brake | DC 24 V | DC 24 V<br>24 V DC, reinforced | | | |
| **Speed and angle encoder** | | | | | |
| | Resolver<br>SinCos single-turn/multi-turn | | | | |
| **Cooling** | | | | | |
| Without blower | Naturally ventilated | | | | |
| Axial blower, 1 phase | | | 230 V; 50 Hz<br>115 V; 60 Hz | | |
| **Temperature sensor** | | | | | |
| Thermal detector | KTY | | | | |
| PTC thermistor | | 2x PTC additional (3-phase monitoring) | | | |
| **Motor connection: plug connector** | | | | | |
| | Power + brake<br>Encoder + thermal sensor | | Power + brake<br>Encoder + thermal sensor<br>Blower | | |
| **Motor connection: terminal box** | | | | | |
| | | Power + brake + encoder + thermal sensor | | | |
| **Shaft bearings** | | | | | |
| Bearing type | Deep-groove ball bearing with high-temperature resistant grease, sealing disc or cover plate | | | | |
| Position of the locating bearing | Non-drive end | | | | |
| **Colour** | | | | | |
| | RAL9005M | | | | |

► Terminal boxes not possible if blower is fitted.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensioning

### Speed-dependent safety functions

### Single encoder concepts with resolvers

Servo motors can perform speed-dependent safety functions for safe speed and / or safe relative position monitoring in a drive system with the Servo Drives 9400. The SM301 safety module, which can be integrated in the Servo Drives 9400, is used to implement these functions. When planning systems/installations of this kind, the following must always be observed:

When using just one single feedback system in the environment of these safety applications, the applicable safety engineering standard IEC 61800-5-2 [Adjustable speed electrical power drive systems - Part: 5-2: Safety requirements - Functional] stipulates special requirements for the connection between feedback system and motor shaft. This is due to the fact that two-channel safety systems at this point in the mechanical system are actually designed as single-channel systems. If this mechanical connection is designed with considerable overdimensioning, the standard permits exclusion of the fault "encoder-shaft breakage" or "encoder-shaft slip".
As such, acceleration limit values must not be exceeded for the individual drive solutions. You can find the limit values in the corresponding feedback data of the individual motor ranges.

### Speed-dependent safety functions in connection with the SM301 safety module

For the following speed-dependent safety functions, the motor-feedback system combinations listed in the following table are available:
- Safe stop 1 (SS1)
- Safe operational stop (SOS)
- Safely Limited Speed (SLS)
- Safe Maximum Speed (SMS)
- Safe direction (SDI)
- Operation mode selector (OMS) with confirmation (ES)
- Safe speed monitor (SSM)
- Safely limited increment (SLI).



| Encoder type | Encoder type | Product key | Feedback | Safe speed monitoring |
|---|---|---|---|---|
| | | | Design | |
| SinCos absolute value | Single-turn | AS1024-8V-K2 | | PL d/SIL 2 |
| | Multi-turn | AM1024-8V-K2 | | |
| Resolver | | RV03 | | PL e/SIL 3 |
| | | | 2-encoder concept | up to PL e / SIL 3 |

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensioning

### Cooling effect of mounting flange

Mounting on a thermally conducting / insulating plate or machine chassis has an influence on heating up the motor, particularly when using naturally ventilated motors.

The motor rating data specified in the catalogue applies when mounting on a steel plate with free convection with the following dimensions:

- MCS06: 270 x 270 mm
- MCS09: 330 x 330 mm
- MCS12 / 14 / 19: 450 x 450 mm

### Vibrational severity

| | | MCS06 | MCS09 | MCS12 | MCS14 | MCS19 |
|---|---|---|---|---|---|---|
| **Vibrational severity** | | | | | | |
| IEC/EN 60034-14 | | | | A | | |
| Maximum r.m.s. value of the vibration velocity [1)] | [mm/s] | | | 1.60 | | |

[1)] Free suspension

► at n = 600 to 3,600 rpm

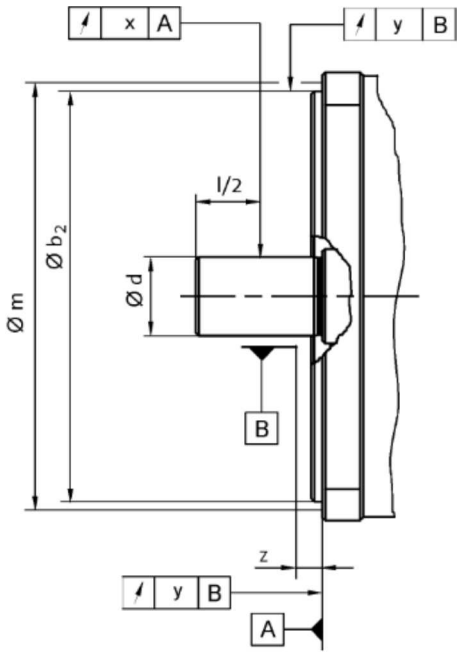


Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensioning

### Concentricity and axial run-out of the mounting flanges and smooth running of the shaft ends




5.1

| | | | | MCS06 | MCS09 | MCS12 | MCS14 | MCS19 |
|---|---|---|---|---|---|---|---|---|
| **Flange size** | | | | | | | | |
| | | | | FF75 | FF100 | FF130 | FF165 | FF215 |
| **Dimensions** | | | | | | | | |
| | $b_2$ | j6 | [mm] | 60 | 80 | 110 | 130 | 180 |
| | d | k6 | [mm] | 11 | 14 | 19 | 24 | 28 |
| **Distance** | | | | | | | | |
| Measuring diameter | m | | [mm] | 65.0 | 85.0 | 115 | 135 | 185 |
| Dial gauge holder for flange check | z | +/- 1 | [mm] | 10.0 | | | | |
| **Concentricity** | | | | | | | | |
| IEC 60072 | | | | Normal class | | | | |
| Value | y | | [mm] | 0.080 | | 0.10 | | |
| **Axial run-out** | | | | | | | | |
| IEC 60072 | | | | Normal class | | | | |
| Value | y | | [mm] | 0.080 | | 0.10 | | |
| **Smooth running** | | | | | | | | |
| IEC 60072 | | | | Normal class | | | | |
| Value | x | | [mm] | 0.035 | | 0.040 | | |

► Limit values for checking the smooth running of the shaft ends as well as the concentricity and axial run-out of the mounting flange to IEC 60072

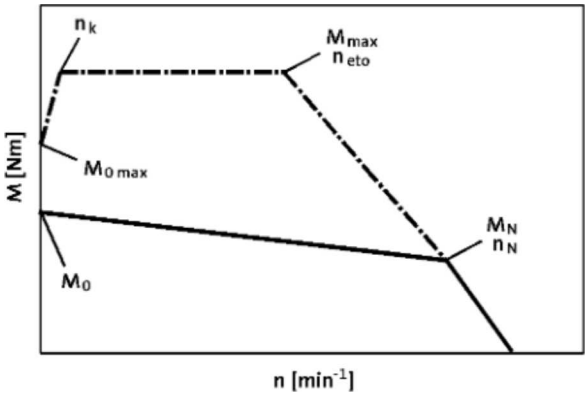
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensioning

### Notes on the selection tables

**Graphical display of the operating points**




| | $n_k$ |
|---|---|
| | [r/min] |
| MCS | 75.0 |
| MDSKS | 100 |
| MDFKS | |

Further selection tables with different switching frequencies are available with the following codes:
- DS_ZT_MCS_0001
- DS_ZT_MCA_0001
- DS_ZT_MDSKS_0001
- DS_ZT_MDFKS_0001

Simply enter this code (e.g. DS_ZT_MCS_0001) as a search string at **www.lenze.de/dsc** and you will be given the information immediately in the form of a PDF format.

**Please note:**
- In case of an active load (e.g. vertical drive axes, hoists, test benches, unwinders), $M_{0\,max}$ has to be considered
- In case of a passive load (e.g. horizontal drive axes), $M_{max}$ can be usually used
- In case of a speed < $n_k$ and inverter-specifically, the achievable torque $M_{0\,max}$ is smaller than $M_{max}$
- In case of a speed n = 0, the standstill torque $M_0$ and the standstill current $I_0$ have to be reduced by 30% after 2 seconds. In case of applications which require a longer holding of $M_0$, we recommend the drive to be held via the holding brake and reduce the current, e.g. by controller inhibit.
- In case of servo inverters, the switching frequency dependent overload capacity is considered in the default setting. For more information, see the servo inverter catalogue.



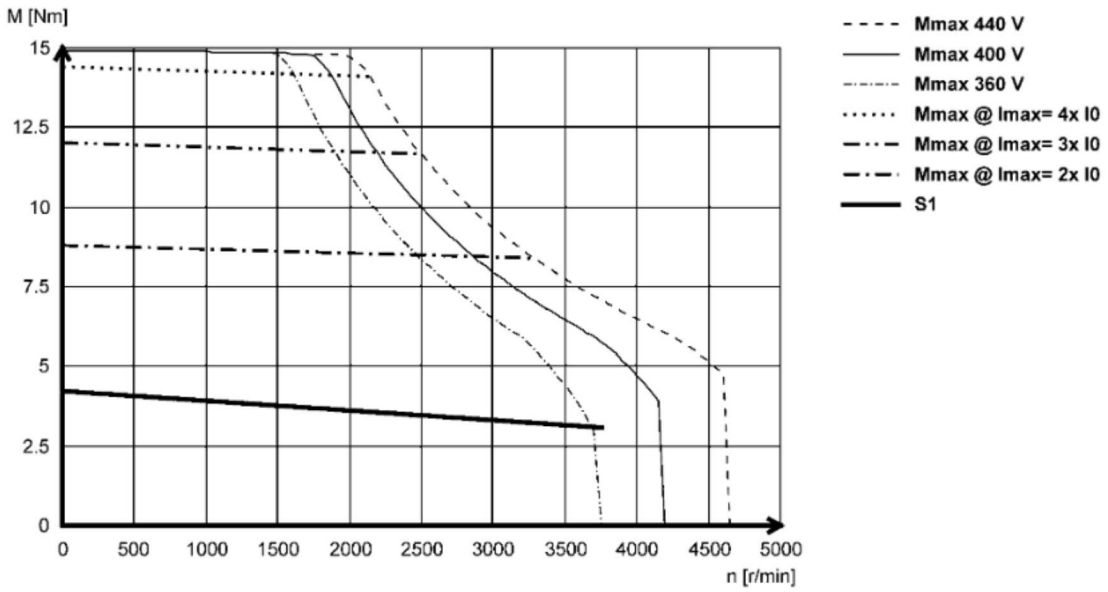
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensioning

### Notes on the torque characteristics

**Graph of the torque characteristics**




5.1

With synchronous servo motors, the limit torque characteristics that result from the selection of servo inverters with maximum currents are also shown alongside the characteristics for continuous operation (S1). These correspond to a multiple of the motor standstill current (2x I0 to 4x I0).

### Characteristics in the Internet

Torque characteristics for selectable motor/inverter combinations can be determined in the EASY Product Finder in the Internet. The S1 continuous characteristic and the max. limit characteristic are generated. The result can be saved or printed in a PDF protocol. In the EASY Explorer, available torque characteristics are provided automatically.

Further information on the terms switching frequency and default setting can be found in the respective operating instructions of the servo inverter.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



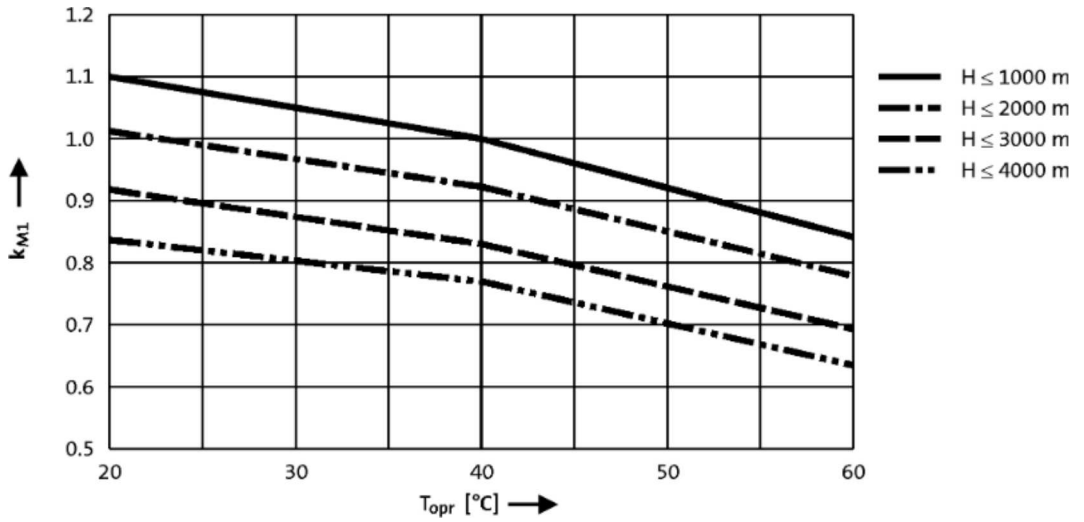
## Dimensioning

### Influence of ambient temperature and site altitude

The information relating to the servo motors in the tables and graphs is valid for a maximum ambient temperature ($T_{opr}$) of 40 °C and a site altitude (H) up to 1000 m above sea level. The torque correction factor ($k_{M1}$) shall be applied to the S1 torque characteristic ($M_0$...$M_N$) in the event of differing installation conditions.

- The maximum permissible ambient temperature ($T_{opr}$) for servo motors with blowers is 40 °C

**Torque correction factor $k_{m1}$**






Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Standards and operating conditions

| | | | MCS | |
|---|---|---|---|---|
| **Cooling type** | | | | |
| | | | Naturally ventilated | Blower |
| **Degree of protection** | | | | |
| EN 60529 | | | IP54<br>IP65 | IP54 |
| **Temperature class** | | | | |
| IEC/EN 60034-1; utilisation | | | F | |
| IEC/EN 60034-1; insulation system (enamel-insulated wire) | | | H | |
| **Conformity** | | | | |
| CE | | | Low-Voltage Directive | |
| | | | 2006/95/EC | |
| EAC | | | TP TC 004/2011 (TR CU 004/2011) | |
| **Approval** | | | | |
| | | | UkrSEPRO | |
| CSA | | | CSA 22.2 No. 100 | |
| cURus | | | UL 1004-1<br>UL 1004-6<br>Power Conversion Equipment (File-No. E210321) | |
| **Max. voltage load** | | | | |
| IEC/TS 60034-25 | | | Pulse voltage limiting curve A | |
| **Smooth running** | | | | |
| IEC 60072 | | | Normal class | |
| **Axial run-out** | | | | |
| IEC 60072 | | | Normal class | |
| **Concentricity** | | | | |
| IEC 60072 | | | Normal class | |
| **Mechanical ambient conditions (vibration)** | | | | |
| IEC/EN 60721-3-3 | | | 3M6 | |
| **Min. ambient operating temperature** | | | | |
| Without brake | $T_{opr,min}$ | [°C] | -20 | -15 |
| With brake | $T_{opr,min}$ | [°C] | -10 | |
| **Max. ambient operating temperature** | | | | |
| | $T_{opr,max}$ | [°C] | 40 | |
| **Max. surface temperature** | | | | |
| | T | [°C] | 140 | 110 |
| **Mechanical tolerance** | | | | |
| Flange centring diameter | | | $b_2 \leq 230$ mm = j6<br>$b_2 > 230$ mm = h6 | |
| Shaft diameter | | | d ≤ 50 mm = k6<br>d > 50 mm = m6 | |
| **Site altitude** | | | | |
| Amsl | $H_{max}$ | [m] | 4000 | |

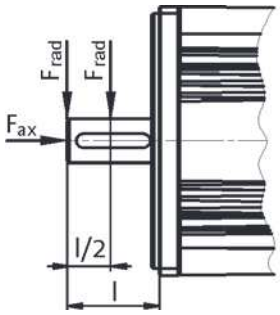


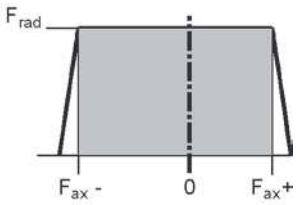
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Permissible radial and axial forces

**Application of forces**




**Application of force at l/2**

| Bearing service life $L_{10}$ | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5000 h | | | 10000 h | | | 20000 h | | | 30000 h | | | 50000 h | | |
| | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ |
| | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] |
| MCS06 | 740 | -260 | 140 | 590 | -210 | 80 | 470 | -170 | 40 | 410 | -150 | 30 | 340 | -140 | 10 |
| MCS09 | 1040 | -700 | 470 | 830 | -550 | 310 | 660 | -440 | 200 | 580 | -380 | 150 | 490 | -330 | 90 |
| MCS12 | 1030 | -880 | 560 | 820 | -690 | 370 | 650 | -550 | 230 | 570 | -490 | 160 | 480 | -420 | 100 |
| MCS14 | 1830 | -1150 | 720 | 1450 | -900 | 470 | 1150 | -720 | 290 | 1010 | -640 | 200 | 850 | -550 | 120 |
| MCS19 | 3840 | -1550 | 950 | 3050 | -1210 | 620 | 2430 | -960 | 360 | 2120 | -840 | 250 | 1790 | -730 | 130 |



**Application of force at l**

| Bearing service life $L_{10}$ | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 5000 h | | | 10000 h | | | 20000 h | | | 30000 h | | | 50000 h | | |
| | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ | $F_{rad}$ | $F_{ax,-}$ | $F_{ax,+}$ |
| | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] | [N] |
| MCS06 | 630 | -210 | 90 | 500 | -170 | 50 | 400 | -140 | 20 | 350 | -130 | 0 | 290 | -120 | -10 |
| MCS09 | 900 | -630 | 400 | 710 | -500 | 260 | 570 | -400 | 160 | 500 | -350 | 120 | 420 | -300 | 70 |
| MCS12 | 890 | -820 | 490 | | -640 | 320 | 560 | -520 | 190 | 490 | -460 | 130 | | -400 | |
| MCS14 | 1590 | -1040 | 610 | 1260 | -820 | 390 | 1000 | -660 | 230 | 880 | -580 | 150 | 740 | -510 | |
| MCS19 | 3330 | -1320 | 730 | 2650 | -1040 | 450 | 2100 | -830 | 240 | 1840 | -740 | 140 | 1550 | -640 | 40 |

► The values for the bearing service life $L_{10}$ refer to an average speed of 4000 r/min. Depending on the ambient temperatures, the service life of the bearings is also reduced by the grease lifetime.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Rated data, non-ventilated

► The data applies to a mains connection voltage of 3 x 400 V.

| | $n_N$ | $M_0$ | $M_N$ | $M_{max}$ | $P_N$ | $I_0$ | $I_N$ | $I_{max}$ | $U_{N, AC}$ | $f_N$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | [r/min] | [Nm] | [Nm] | [Nm] | [kW] | [A] | [A] | [A] | [V] | [Hz] |
| MCS06C41- | 4050 | 0.80 | 0.60 | 2.40 | 0.25 | 1.30 | 1.30 | 5.40 | 225 | 270 |
| MCS06C60- | 6000 | 0.80 | 0.50 | 2.40 | 0.31 | 2.50 | 2.40 | 10.8 | 135 | 400 |
| MCS06F41- | 4050 | 1.50 | 1.20 | 4.40 | 0.51 | 1.50 | 1.50 | 5.30 | 320 | 270 |
| MCS06F60- | 6000 | 1.50 | 0.90 | 4.40 | 0.57 | 2.90 | 2.50 | 10.5 | 180 | 400 |
| MCS06I41- | 4050 | 2.00 | 1.50 | 6.20 | 0.64 | 1.70 | 1.60 | 5.90 | 325 | 270 |
| MCS06I60- | 6000 | 2.00 | 1.20 | 6.20 | 0.75 | 3.40 | 2.90 | 11.8 | 190 | 400 |
| MCS09D41- | 4050 | 3.30 | 2.30 | 9.50 | 1.00 | 2.60 | 2.30 | 10.0 | 320 | 270 |
| MCS09D60- | 6000 | 3.30 | 1.80 | 9.50 | 1.10 | 5.30 | 3.80 | 20.0 | 210 | 400 |
| MCS09F38- | 3750 | 4.20 | 3.10 | 15.0 | 1.20 | 3.00 | 2.50 | 15.0 | 330 | 250 |
| MCS09F60- | 6000 | 4.20 | 2.40 | 15.0 | 1.50 | 6.00 | 4.50 | 30.0 | 230 | 400 |
| MCS09H41- | 4050 | 5.50 | 3.80 | 20.0 | 1.60 | 4.30 | 3.40 | 20.0 | 300 | 270 |
| MCS09H60- | 6000 | 5.50 | 3.00 | 20.0 | 1.90 | 8.50 | 6.00 | 40.0 | 190 | 400 |
| MCS09L41- | 4050 | 7.50 | 4.50 | 32.0 | 1.90 | 6.20 | 4.20 | 32.0 | 295 | 270 |
| MCS09L51- | 5100 | 7.50 | 3.60 | 32.0 | 1.90 | 12.4 | 6.90 | 64.0 | 180 | 340 |

| | $\eta_{100\ \%}$ | J [1] | $KE_{LL\ 150\ °C}$ | $R_{UV\ 20\ °C}$ | $R_{UV\ 150\ °C}$ | $L_N$ | $Kt_{0\ 150\ °C}$ | $n_{max}$ [2] | m [1] |
|---|---|---|---|---|---|---|---|---|---|
| | [%] | [kgcm²] | [V /(1000 r/min)] | [Ω] | [Ω] | [mH] | [Nm/A] | [r/min] | [kg] |
| MCS06C41- | 65.0 | 0.14 | 36.6 | 27.1 | 36.5 | 51.0 | 0.66 | 8000 | 1.80 |
| MCS06C60- | 70.0 | 0.14 | 18.3 | 6.80 | 9.10 | 12.8 | 0.33 | 8000 | 1.80 |
| MCS06F41- | 77.0 | 0.22 | 60.1 | 21.9 | 29.5 | 63.5 | 1.05 | 8000 | 2.20 |
| MCS06F60- | 81.0 | 0.22 | 30.0 | 5.50 | 7.40 | 15.9 | 0.53 | 8000 | 2.20 |
| MCS06I41- | 81.0 | 0.30 | 73.4 | 18.8 | 25.4 | 60.2 | 1.21 | 8000 | 2.90 |
| MCS06I60- | 84.0 | 0.30 | 36.7 | 4.70 | 6.30 | 15.1 | 0.60 | 8000 | 2.90 |
| MCS09D41- | 87.0 | 1.10 | 71.2 | 7.00 | 9.40 | 25.1 | 1.25 | 7000 | 4.30 |
| MCS09D60- | 87.0 | 1.10 | 35.6 | 1.80 | 2.40 | 6.30 | 0.62 | 7000 | 4.30 |
| MCS09F38- | 91.0 | 1.50 | 79.8 | 5.20 | 7.00 | 24.6 | 1.40 | 7000 | 5.20 |
| MCS09F60- | 91.0 | 1.50 | 39.9 | 1.30 | 1.80 | 6.20 | 0.70 | 7000 | 5.20 |
| MCS09H41- | 91.0 | 1.90 | 75.7 | 3.20 | 4.30 | 16.1 | 1.29 | 7000 | 6.10 |
| MCS09H60- | 91.0 | 1.90 | 37.8 | 0.80 | 1.10 | 4.00 | 0.65 | 7000 | 6.10 |
| MCS09L41- | 91.0 | 2.80 | 71.7 | 1.80 | 2.40 | 9.90 | 1.21 | 7000 | 7.90 |
| MCS09L51- | 91.0 | 2.80 | 35.9 | 0.44 | 0.59 | 2.50 | 0.60 | 7000 | 7.90 |

[1] Without brake.
[2] Mechanically permissible maximum speed.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# MCS synchronous servo motors

Technical data



## Rated data, non-ventilated

► The data applies to a mains connection voltage of 3 x 400 V.

| | $n_N$ | $M_0$ | $M_N$ | $M_{max}$ | $P_N$ | $I_0$ | $I_N$ | $I_{max}$ | $U_{N, AC}$ | $f_N$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | [r/min] | [Nm] | [Nm] | [Nm] | [kW] | [A] | [A] | [A] | [V] | [Hz] |
| MCS12D20- | 1950 | 6.40 | 5.50 | 18.0 | 1.10 | 2.70 | 2.60 | 10.0 | 345 | 130 |
| MCS12D41- | 4050 | 6.40 | 4.30 | 18.0 | 1.80 | 5.50 | 4.50 | 20.0 | 310 | 270 |
| MCS12H15- | 1500 | 11.4 | 10.0 | 29.0 | 1.60 | 4.10 | 3.80 | 12.0 | 300 | 100 |
| MCS12H35- | 3525 | 11.4 | 7.50 | 29.0 | 2.80 | 8.20 | 5.70 | 24.0 | 325 | 235 |
| MCS12L20- | 1950 | 15.0 | 13.5 | 56.0 | 2.80 | 6.20 | 5.90 | 28.0 | 330 | 130 |
| MCS12L41- | 4050 | 15.0 | 11.0 | 56.0 | 4.70 | 12.4 | 10.2 | 57.0 | 300 | 270 |
| MCS14D15- | 1500 | 11.0 | 9.20 | 29.0 | 1.45 | 5.00 | 4.50 | 17.0 | 305 | 100 |
| MCS14D36- | 3600 | 11.0 | 7.50 | 29.0 | 2.80 | 10.0 | 7.50 | 33.0 | 295 | 240 |
| MCS14H15- | 1500 | 21.0 | 16.0 | 55.0 | 2.50 | 8.50 | 6.60 | 26.0 | 325 | 100 |
| MCS14H32- | 3225 | 21.0 | 14.0 | 55.0 | 4.70 | 16.9 | 11.9 | 52.0 | 295 | 215 |
| MCS14L15- | 1500 | 28.0 | 23.0 | 77.0 | 3.60 | 12.0 | 9.70 | 37.0 | 315 | 100 |
| MCS14L32- | 3225 | 28.0 | 17.2 | 77.0 | 5.80 | 24.0 | 15.0 | 75.0 | 275 | 215 |
| MCS14P14- | 1350 | 37.0 | 30.0 | 105 | 4.20 | 12.2 | 10.8 | 46.0 | 340 | 90 |
| MCS14P32- | 3225 | 37.0 | 21.0 | 105 | 7.10 | 24.3 | 15.6 | 92.0 | 315 | 215 |

| | $\eta_{100\ \%}$ | $J$ [1] | $KE_{LL\ 150\ °C}$ | $R_{UV\ 20\ °C}$ | $R_{UV\ 150\ °C}$ | $L_N$ | $Kt_{0\ 150\ °C}$ | $n_{max}$ [2] | $m$ [1] |
|---|---|---|---|---|---|---|---|---|---|
| | [%] | [kgcm²] | [V /(1000 r/min)] | [Ω] | [Ω] | [mH] | [Nm/A] | [r/min] | [kg] |
| MCS12D20- | 79.0 | 4.00 | 137 | 8.70 | 11.8 | 52.2 | 2.34 | 6000 | 6.40 |
| MCS12D41- | 84.0 | 4.00 | 68.6 | 2.20 | 2.90 | 13.0 | 1.17 | 6000 | 6.40 |
| MCS12H15- | 88.0 | 7.30 | 173 | 5.70 | 7.70 | 42.1 | 2.79 | 6000 | 9.50 |
| MCS12H35- | 91.0 | 7.30 | 86.5 | 1.40 | 1.90 | 10.5 | 1.40 | 6000 | 9.50 |
| MCS12L20- | 90.0 | 10.6 | 149 | 2.20 | 3.00 | 21.8 | 2.42 | 6000 | 12.6 |
| MCS12L41- | 91.0 | 10.6 | 74.6 | 0.55 | 0.75 | 5.50 | 1.21 | 6000 | 12.6 |
| MCS14D15- | 88.0 | 8.10 | 129 | 4.00 | 5.40 | 49.8 | 2.19 | 6000 | 10.7 |
| MCS14D36- | 92.0 | 8.10 | 64.2 | 1.00 | 1.35 | 12.5 | 1.09 | 6000 | 10.7 |
| MCS14H15- | 92.0 | 14.2 | 153 | 2.08 | 2.81 | 34.1 | 2.48 | 6000 | 15.5 |
| MCS14H32- | 93.0 | 14.2 | 76.3 | 0.52 | 0.70 | 8.50 | 1.24 | 6000 | 15.5 |
| MCS14L15- | 90.0 | 23.4 | 152 | 1.21 | 1.64 | 22.0 | 2.33 | 6000 | 20.1 |
| MCS14L32- | 93.0 | 23.4 | 76.2 | 0.30 | 0.41 | 5.50 | 1.16 | 6000 | 20.1 |
| MCS14P14- | 90.0 | 34.7 | 179 | 1.10 | 1.49 | 23.9 | 3.04 | 6000 | 24.9 |
| MCS14P32- | 93.0 | 34.7 | 89.4 | 0.28 | 0.37 | 6.00 | 1.52 | 6000 | 24.9 |

[1] Without brake.
[2] Mechanically permissible maximum speed.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# MCS synchronous servo motors

Technical data



## Rated data, non-ventilated

► The data applies to a mains connection voltage of 3 x 400 V.

| | $n_N$ | $M_0$ | $M_N$ | $M_{max}$ | $P_N$ | $I_0$ | $I_N$ | $I_{max}$ | $U_{N, AC}$ | $f_N$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | [r/min] | [Nm] | [Nm] | [Nm] | [kW] | [A] | [A] | [A] | [V] | [Hz] |
| MCS19F14- | 1425 | 32.0 | 27.0 | 86.0 | 4.00 | 9.90 | 8.60 | 31.0 | 335 | 95 |
| MCS19F30- | 3000 | 32.0 | 21.0 | 86.0 | 6.60 | 19.8 | 14.0 | 63.0 | 300 | 200 |
| MCS19J14- | 1425 | 51.0 | 40.0 | 129 | 6.00 | 15.2 | 12.3 | 45.0 | 330 | 95 |
| MCS19J30- | 3000 | 51.0 | 29.0 | 129 | 9.10 | 30.5 | 18.5 | 90.0 | 300 | 200 |
| MCS19P14- | 1350 | 64.0 | 51.0 | 190 | 7.20 | 17.5 | 14.3 | 60.0 | 330 | 90 |
| MCS19P30- | 3000 | 64.0 | 32.0 | 190 | 10.0 | 34.9 | 19.0 | 120 | 320 | 200 |

| | $\eta_{100\ \%}$ | J [1] | $KE_{LL\ 150\ °C}$ | $R_{UV\ 20\ °C}$ | $R_{UV\ 150\ °C}$ | $L_N$ | $Kt_{0\ 150\ °C}$ | $n_{max}$ [2] | m [1] |
|---|---|---|---|---|---|---|---|---|---|
| | [%] | [kgcm²] | [V /(1000 r/min)] | [Ω] | [Ω] | [mH] | [Nm/A] | [r/min] | [kg] |
| MCS19F14- | 92.0 | 65.0 | 195 | 1.30 | 1.75 | 20.8 | 3.23 | 4000 | 23.0 |
| MCS19F30- | 93.0 | 65.0 | 97.2 | 0.32 | 0.44 | 5.20 | 1.62 | 4000 | 23.0 |
| MCS19J14- | 92.0 | 105 | 199 | 0.65 | 0.88 | 12.8 | 3.31 | 4000 | 30.0 |
| MCS19J30- | 93.0 | 105 | 99.5 | 0.16 | 0.22 | 3.20 | 1.65 | 4000 | 30.0 |
| MCS19P14- | 92.0 | 160 | 216 | 0.54 | 0.73 | 9.60 | 3.66 | 4000 | 40.0 |
| MCS19P30- | 93.0 | 160 | 108 | 0.14 | 0.18 | 2.40 | 1.83 | 4000 | 40.0 |

[1] Without brake.
[2] Mechanically permissible maximum speed.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# MCS synchronous servo motors

Technical data



## Rated data, non-ventilated

► The data applies to a mains connection voltage of 3 x 230 V.

| | $n_N$ | $M_0$ | $M_N$ | $M_{max}$ | $P_N$ | $I_0$ | $I_N$ | $I_{max}$ | $U_{N, AC}$ | $f_N$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | [r/min] | [Nm] | [Nm] | [Nm] | [kW] | [A] | [A] | [A] | [V] | [Hz] |
| MCS06C41L | 4050 | 0.80 | 0.60 | 2.40 | 0.25 | 2.50 | 2.50 | 10.8 | 125 | 270 |
| MCS06C60L | 6000 | 0.80 | 0.50 | 2.40 | 0.31 | 4.30 | 4.00 | 18.5 | 85 | 400 |
| MCS06F41L | 4050 | 1.50 | 1.20 | 4.40 | 0.51 | 2.90 | 2.90 | 10.5 | 165 | 270 |
| MCS06F60L | 6000 | 1.50 | 0.90 | 4.40 | 0.57 | 3.80 | 3.40 | 16.5 | 125 | 400 |
| MCS06I41L | 4050 | 2.00 | 1.50 | 6.20 | 0.64 | 3.10 | 2.90 | 11.8 | 175 | 270 |
| MCS06I60L | 6000 | 2.00 | 1.20 | 6.20 | 0.75 | 4.20 | 3.60 | 16.0 | 150 | 400 |
| MCS09D41L | 4050 | 3.30 | 2.30 | 9.50 | 1.00 | 5.30 | 4.60 | 20.0 | 165 | 270 |
| MCS09D60L | 6000 | 3.30 | 1.80 | 9.50 | 1.10 | 10.3 | 7.00 | 39.0 | 110 | 400 |
| MCS09F38L | 3750 | 4.20 | 3.10 | 15.0 | 1.20 | 6.00 | 5.00 | 30.0 | 160 | 250 |
| MCS09F60L | 6000 | 4.20 | 2.40 | 15.0 | 1.50 | 10.5 | 7.90 | 53.0 | 125 | 400 |
| MCS09H41L | 4050 | 5.50 | 3.80 | 20.0 | 1.60 | 8.50 | 6.80 | 40.0 | 160 | 270 |
| MCS09H60L | 6000 | 5.50 | 3.00 | 20.0 | 1.90 | 12.0 | 8.00 | 57.0 | 145 | 400 |
| MCS09L41L | 4050 | 7.50 | 4.50 | 32.0 | 1.90 | 12.4 | 8.40 | 64.0 | 145 | 270 |

| | $\eta_{100\,\%}$ | J [1] | $KE_{LL\,150\,°C}$ | $R_{UV\,20\,°C}$ | $R_{UV\,150\,°C}$ | $L_N$ | $Kt_{0\,150\,°C}$ | $n_{max}$ [2] | m [1] |
|---|---|---|---|---|---|---|---|---|---|
| | [%] | [kgcm²] | [V /(1000 r/min)] | [Ω] | [Ω] | [mH] | [Nm/A] | [r/min] | [kg] |
| MCS06C41L | 65.0 | 0.14 | 21.5 | 6.00 | 8.00 | 12.8 | 0.33 | 8000 | 1.80 |
| MCS06C60L | 70.0 | 0.14 | 12.5 | 2.20 | 2.90 | 4.30 | 0.19 | 8000 | 1.80 |
| MCS06F41L | 81.0 | 0.22 | 34.5 | 5.50 | 7.40 | 15.9 | 0.62 | 8000 | 2.20 |
| MCS06F60L | 82.0 | 0.22 | 22.2 | 2.30 | 3.00 | 6.90 | 0.40 | 8000 | 2.20 |
| MCS06I41L | 81.0 | 0.30 | 38.0 | 4.70 | 6.20 | 15.1 | 0.64 | 8000 | 2.90 |
| MCS06I60L | 84.0 | 0.30 | 28.5 | 2.50 | 3.40 | 9.30 | 0.48 | 8000 | 2.90 |
| MCS09D41L | 87.0 | 1.10 | 35.6 | 1.80 | 2.40 | 6.30 | 0.62 | 7000 | 4.30 |
| MCS09D60L | 87.0 | 1.10 | 18.3 | 0.45 | 0.61 | 1.70 | 0.32 | 7000 | 4.30 |
| MCS09F38L | 90.0 | 1.50 | 39.9 | 1.30 | 1.80 | 6.20 | 0.70 | 7000 | 5.20 |
| MCS09F60L | 91.0 | 1.50 | 22.8 | 0.42 | 0.56 | 2.00 | 0.40 | 7000 | 5.20 |
| MCS09H41L | 91.0 | 1.90 | 37.8 | 0.80 | 1.10 | 4.00 | 0.65 | 7000 | 6.10 |
| MCS09H60L | 91.0 | 1.90 | 26.6 | 0.36 | 0.48 | 2.00 | 0.46 | 7000 | 6.10 |
| MCS09L41L | 91.0 | 2.80 | 35.9 | 0.44 | 0.59 | 2.50 | 0.60 | 7000 | 7.90 |

[1] Without brake.
[2] Mechanically permissible maximum speed.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Rated data, non-ventilated

► The data applies to a mains connection voltage of 3 x 230 V.

| | $n_N$ | $M_0$ | $M_N$ | $M_{max}$ | $P_N$ | $I_0$ | $I_N$ | $I_{max}$ | $U_{N, AC}$ | $f_N$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | [r/min] | [Nm] | [Nm] | [Nm] | [kW] | [A] | [A] | [A] | [V] | [Hz] |
| MCS12D20L | 1950 | 6.40 | 5.50 | 18.0 | 1.10 | 5.50 | 5.20 | 20.0 | 175 | 130 |
| MCS12D41L | 4050 | 6.40 | 4.30 | 18.0 | 1.80 | 10.7 | 8.80 | 40.0 | 155 | 270 |
| MCS12H15L | 1500 | 11.4 | 10.0 | 29.0 | 1.60 | 8.20 | 7.80 | 24.0 | 158 | 100 |
| MCS12H30L | 3000 | 11.4 | 8.00 | 29.0 | 2.50 | 13.5 | 10.5 | 39.0 | 165 | 200 |
| MCS12L20L | 1950 | 15.0 | 13.5 | 56.0 | 2.80 | 12.4 | 11.8 | 57.0 | 165 | 130 |

| | $\eta_{100\,\%}$ | J [1] | $KE_{LL\,150\,°C}$ | $R_{UV\,20\,°C}$ | $R_{UV\,150\,°C}$ | $L_N$ | $Kt_{0\,150\,°C}$ | $n_{max}$ [2] | m [1] |
|---|---|---|---|---|---|---|---|---|---|
| | [%] | [kgcm²] | [V /(1000 r/min)] | [Ω] | [Ω] | [mH] | [Nm/A] | [r/min] | [kg] |
| MCS12D20L | 79.0 | 4.00 | 68.6 | 2.20 | 2.90 | 13.0 | 1.17 | 6000 | 6.40 |
| MCS12D41L | 84.0 | 4.00 | 35.0 | 0.55 | 0.75 | 3.40 | 0.60 | 6000 | 6.40 |
| MCS12H15L | 82.0 | 7.30 | 86.5 | 1.41 | 1.90 | 10.5 | 1.40 | 6000 | 9.50 |
| MCS12H30L | 87.0 | 7.30 | 53.0 | 0.50 | 0.67 | 4.00 | 0.86 | 6000 | 9.50 |
| MCS12L20L | 90.0 | 10.6 | 76.9 | 0.55 | 0.75 | 5.50 | 1.21 | 6000 | 12.6 |

[1] Without brake.
[2] Mechanically permissible maximum speed.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# MCS synchronous servo motors

Technical data



## Rated data, forced ventilated

► The data applies to a mains connection voltage of 3 x 400 V.

| | $n_N$ | $M_0$ | $M_N$ | $M_{max}$ | $P_N$ | $I_0$ | $I_N$ | $I_{max}$ | $U_{N, AC}$ | $f_N$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | [r/min] | [Nm] | [Nm] | [Nm] | [kW] | [A] | [A] | [A] | [V] | [Hz] |
| MCS12D17- | 1650 | 7.50 | 7.00 | 17.7 | 1.20 | 3.20 | 3.00 | 10.0 | 330 | 110 |
| MCS12D35- | 3525 | 7.50 | 6.00 | 17.7 | 2.20 | 6.40 | 5.60 | 20.0 | 300 | 235 |
| MCS12H14- | 1350 | 12.8 | 12.0 | 29.0 | 1.70 | 4.30 | 4.10 | 12.0 | 310 | 90 |
| MCS12H34- | 3375 | 12.8 | 10.5 | 29.0 | 3.70 | 8.50 | 7.50 | 24.0 | 320 | 225 |
| MCS12L17- | 1650 | 19.0 | 17.0 | 56.4 | 2.90 | 7.20 | 6.70 | 28.0 | 300 | 110 |
| MCS12L39- | 3900 | 19.0 | 14.0 | 56.4 | 5.70 | 14.4 | 11.7 | 57.0 | 295 | 260 |
| MCS14D14- | 1350 | 12.5 | 12.0 | 29.0 | 1.70 | 5.70 | 5.40 | 17.0 | 345 | 90 |
| MCS14D30- | 3000 | 12.5 | 10.5 | 29.0 | 3.30 | 11.4 | 9.70 | 33.0 | 325 | 200 |
| MCS14H12- | 1200 | 25.5 | 23.5 | 54.8 | 3.00 | 9.30 | 8.30 | 26.0 | 335 | 80 |
| MCS14H28- | 2775 | 25.5 | 20.5 | 54.8 | 6.00 | 18.4 | 15.0 | 52.0 | 325 | 185 |
| MCS14L14- | 1350 | 34.5 | 30.5 | 77.1 | 4.30 | 13.4 | 11.8 | 37.0 | 335 | 90 |
| MCS14L30- | 3000 | 34.5 | 25.5 | 77.1 | 8.00 | 26.7 | 20.8 | 75.0 | 310 | 200 |
| MCS14P11- | 1050 | 43.5 | 42.0 | 105 | 4.60 | 14.1 | 13.4 | 46.0 | 330 | 70 |
| MCS14P26- | 2625 | 43.5 | 33.0 | 105 | 9.10 | 28.3 | 21.9 | 92.0 | 325 | 175 |

| | $\eta_{100\ \%}$ | J [1] | $KE_{LL\ 150\ °C}$ | $R_{UV\ 20\ °C}$ | $R_{UV\ 150\ °C}$ | $L_N$ | $Kt_{0\ 150\ °C}$ | $n_{max}$ [2] | m [1] |
|---|---|---|---|---|---|---|---|---|---|
| | [%] | [kgcm²] | [V /(1000 r/min)] | [Ω] | [Ω] | [mH] | [Nm/A] | [r/min] | [kg] |
| MCS12D17- | 75.0 | 4.00 | 137 | 8.72 | 11.8 | 52.2 | 2.34 | 6000 | 8.50 |
| MCS12D35- | 82.0 | 4.00 | 68.6 | 2.18 | 2.94 | 13.0 | 1.17 | 6000 | 8.50 |
| MCS12H14- | 80.0 | 7.30 | 173 | 5.72 | 7.72 | 42.1 | 2.98 | 6000 | 11.6 |
| MCS12H34- | 86.0 | 7.30 | 86.5 | 1.39 | 1.88 | 10.5 | 1.51 | 6000 | 11.6 |
| MCS12L17- | 90.0 | 10.6 | 149 | 2.22 | 2.99 | 21.8 | 2.64 | 6000 | 14.7 |
| MCS12L39- | 94.0 | 10.6 | 74.6 | 0.55 | 0.75 | 5.50 | 1.32 | 6000 | 14.7 |
| MCS14D14- | 84.0 | 8.10 | 129 | 4.00 | 5.40 | 49.8 | 2.19 | 6000 | 14.5 |
| MCS14D30- | 92.0 | 8.10 | 64.2 | 1.00 | 1.35 | 12.5 | 1.09 | 6000 | 14.5 |
| MCS14H12- | 87.0 | 14.2 | 153 | 2.08 | 2.81 | 34.1 | 2.75 | 6000 | 19.5 |
| MCS14H28- | 93.0 | 14.2 | 76.3 | 0.52 | 0.70 | 8.50 | 1.39 | 6000 | 19.5 |
| MCS14L14- | 88.0 | 23.4 | 152 | 1.21 | 1.64 | 22.0 | 2.57 | 6000 | 24.0 |
| MCS14L30- | 92.0 | 23.4 | 76.2 | 0.30 | 0.41 | 5.50 | 1.29 | 6000 | 24.0 |
| MCS14P11- | 86.0 | 34.7 | 179 | 1.10 | 1.49 | 23.9 | 3.08 | 6000 | 29.0 |
| MCS14P26- | 92.0 | 34.7 | 89.4 | 0.28 | 0.37 | 6.00 | 1.54 | 6000 | 29.0 |

[1] Without brake.
[2] Mechanically permissible maximum speed.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# MCS synchronous servo motors

Technical data



## Rated data, forced ventilated

► The data applies to a mains connection voltage of 3 x 400 V.

| | $n_N$ | $M_0$ | $M_N$ | $M_{max}$ | $P_N$ | $I_0$ | $I_N$ | $I_{max}$ | $U_{N, AC}$ | $f_N$ |
|---|---|---|---|---|---|---|---|---|---|---|
| | [r/min] | [Nm] | [Nm] | [Nm] | [kW] | [A] | [A] | [A] | [V] | [Hz] |
| MCS19F12- | 1200 | 41.5 | 38.0 | 86.0 | 4.80 | 12.2 | 11.3 | 31.0 | 320 | 80 |
| MCS19F29- | 2850 | 41.5 | 32.5 | 86.0 | 9.70 | 24.5 | 20.1 | 63.0 | 320 | 190 |
| MCS19J12- | 1200 | 70.5 | 62.5 | 129 | 7.90 | 20.3 | 18.3 | 45.0 | 320 | 80 |
| MCS19J29- | 2850 | 70.5 | 50.5 | 129 | 15.1 | 40.6 | 31.0 | 90.0 | 315 | 190 |
| MCS19P12- | 1200 | 86.0 | 72.0 | 190 | 9.00 | 22.4 | 21.3 | 60.0 | 310 | 80 |
| MCS19P29- | 2850 | 86.0 | 53.0 | 190 | 15.8 | 44.7 | 29.5 | 120 | 315 | 190 |

| | $\eta_{100\ \%}$ | J [1] | $KE_{LL\ 150\ °C}$ | $R_{UV\ 20\ °C}$ | $R_{UV\ 150\ °C}$ | $L_N$ | $Kt_{0\ 150\ °C}$ | $n_{max}$ [2] | m [1] |
|---|---|---|---|---|---|---|---|---|---|
| | [%] | [kgcm²] | [V /(1000 r/min)] | [Ω] | [Ω] | [mH] | [Nm/A] | [r/min] | [kg] |
| MCS19F12- | 90.4 | 65.0 | 195 | 1.30 | 1.75 | 20.8 | 3.40 | 4000 | 29.0 |
| MCS19F29- | 94.7 | 65.0 | 97.2 | 0.32 | 0.44 | 5.20 | 1.69 | 4000 | 29.0 |
| MCS19J12- | 89.3 | 105 | 199 | 0.65 | 0.88 | 12.8 | 3.47 | 4000 | 36.0 |
| MCS19J29- | 92.8 | 105 | 99.5 | 0.16 | 0.22 | 3.20 | 1.74 | 4000 | 36.0 |
| MCS19P12- | 90.3 | 160 | 216 | 0.54 | 0.73 | 9.60 | 3.84 | 4000 | 46.0 |
| MCS19P29- | 93.4 | 160 | 108 | 0.14 | 0.18 | 2.40 | 1.92 | 4000 | 46.0 |

[1] Without brake.
[2] Mechanically permissible maximum speed.



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives 9400 HighLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | E94A□□ | E0024 | E0034 | E0044 | E0074 | E0094 | E0134 | E0174 | E0244 | E0324 | E0474 | E0594 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.9 | 3.1 | 5.0 | 8.8 | 11.7 | 16.3 | 20.6 | 29.4 | 38.4 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| 06C41- | 0.6 | 4050 | 1.3 | 0.25 | $M_0$ | 0.8 | | | | | | | | | | |
| | | | | | $M_N$ | 0.6 | | | | | | | | | | |
| | | | | | $M_{0,max}$ | 2.4 | | | | | | | | | | |
| | | | | | $M_{max}$ | 2.4 | | | | | | | | | | |
| | | | | | $n_{eto}$ | - | | | | | | | | | | |
| 06C60- | 0.5 | 6000 | 2.4 | 0.31 | $M_0$ | 0.6 | 0.8 | | | | | | | | | |
| | | | | | $M_N$ | 0.4 | 0.5 | | | | | | | | | |
| | | | | | $M_{0,max}$ | 1.5 | 2.3 | | | | | | | | | |
| | | | | | $M_{max}$ | 1.5 | 2.3 | | | | | | | | | |
| | | | | | $n_{eto}$ | - | - | | | | | | | | | |
| 06F41- | 1.2 | 4050 | 1.5 | 0.51 | $M_0$ | 1.5 | | | | | | | | | | |
| | | | | | $M_N$ | 1.2 | | | | | | | | | | |
| | | | | | $M_{0,max}$ | 4.4 | | | | | | | | | | |
| | | | | | $M_{max}$ | 4.4 | | | | | | | | | | |
| | | | | | $n_{eto}$ | - | | | | | | | | | | |
| 06F60- | 0.9 | 6000 | 2.5 | 0.57 | $M_0$ | 1.0 | 1.5 | | | | | | | | | |
| | | | | | $M_N$ | 0.7 | 0.9 | | | | | | | | | |
| | | | | | $M_{0,max}$ | 3.0 | 4.3 | | | | | | | | | |
| | | | | | $M_{max}$ | 3.0 | 4.3 | | | | | | | | | |
| | | | | | $n_{eto}$ | - | - | | | | | | | | | |
| 06I41- | 1.5 | 4050 | 1.6 | 0.64 | $M_0$ | 2.0 | | | | | | | | | | |
| | | | | | $M_N$ | 1.5 | | | | | | | | | | |
| | | | | | $M_{0,max}$ | 6.2 | | | | | | | | | | |
| | | | | | $M_{max}$ | 6.2 | | | | | | | | | | |
| | | | | | $n_{eto}$ | - | | | | | | | | | | |
| 06I60- | 1.2 | 6000 | 2.9 | 0.75 | $M_0$ | 1.1 | 1.8 | 2.0 | | | | | | | | |
| | | | | | $M_N$ | 0.8 | 1.2 | 1.2 | | | | | | | | |
| | | | | | $M_{0,max}$ | 3.3 | 5.5 | 6.2 | | | | | | | | |
| | | | | | $M_{max}$ | 3.3 | 5.5 | 6.2 | | | | | | | | |
| | | | | | $n_{eto}$ | - | - | - | | | | | | | | |
| 09D41- | 2.3 | 4050 | 2.3 | 1.00 | $M_0$ | 2.4 | 3.3 | | | | | | | | | |
| | | | | | $M_N$ | 1.9 | 2.3 | | | | | | | | | |
| | | | | | $M_{0,max}$ | 6.3 | 9.5 | | | | | | | | | |
| | | | | | $M_{max}$ | 6.3 | 9.5 | | | | | | | | | |
| | | | | | $n_{eto}$ | - | - | | | | | | | | | |
| 09D60- | 1.8 | 6000 | 3.8 | 1.10 | $M_0$ | | | 3.1 | 3.3 | | | | | | | |
| | | | | | $M_N$ | | | 1.8 | 1.8 | | | | | | | |
| | | | | | $M_{0,max}$ | | | 8.0 | 9.5 | | | | | | | |
| | | | | | $M_{max}$ | | | 8.0 | 9.5 | | | | | | | |
| | | | | | $n_{eto}$ | | | - | - | | | | | | | |
| 09F38- | 3.1 | 3750 | 2.5 | 1.20 | $M_0$ | | 4.2 | 4.2 | | | | | | | | |
| | | | | | $M_N$ | | 3.1 | 3.1 | | | | | | | | |
| | | | | | $M_{0,max}$ | | 11.6 | 14.9 | | | | | | | | |
| | | | | | $M_{max}$ | | 11.6 | 14.9 | | | | | | | | |
| | | | | | $n_{eto}$ | | - | - | | | | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives 9400 HighLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | E94A□□ | E0024 | E0034 | E0044 | E0074 | E0094 | E0134 | E0174 | E0244 | E0324 | E0474 | E0594 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.9 | 3.1 | 5.0 | 8.8 | 11.7 | 16.3 | 20.6 | 29.4 | 38.4 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| 09F60- | 2.4 | 6000 | 4.5 | 1.50 | $M_0$ | | | 3.5 | 4.2 | 4.2 | 4.2 | | | | | |
| | | | | | $M_N$ | | | 2.4 | 2.4 | 2.4 | 2.4 | | | | | |
| | | | | | $M_{0,max}$ | | | 9.8 | 12.0 | 14.4 | 14.9 | | | | | |
| | | | | | $M_{max}$ | | | 9.8 | 12.0 | 14.4 | 14.9 | | | | | |
| | | | | | $n_{eto}$ | | | - | - | - | - | | | | | |
| 09H41- | 3.8 | 4050 | 3.4 | 1.60 | $M_0$ | | 4.0 | 5.5 | 5.5 | | | | | | | |
| | | | | | $M_N$ | | 3.5 | 3.8 | 3.8 | | | | | | | |
| | | | | | $M_{0,max}$ | | 12.0 | 17.5 | 20.4 | | | | | | | |
| | | | | | $M_{max}$ | | 12.0 | 17.5 | 20.4 | | | | | | | |
| | | | | | $n_{eto}$ | | - | - | - | | | | | | | |
| 09H60- | 3.0 | 6000 | 6.0 | 1.90 | $M_0$ | | | | 5.5 | 5.5 | 5.5 | 5.5 | | | | |
| | | | | | $M_N$ | | | | 3.0 | 3.0 | 3.0 | 3.0 | | | | |
| | | | | | $M_{0,max}$ | | | | 12.5 | 15.8 | 20.1 | 20.4 | | | | |
| | | | | | $M_{max}$ | | | | 12.5 | 15.8 | 20.1 | 20.4 | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | | | | |
| 09L41- | 4.5 | 4050 | 4.2 | 1.90 | $M_0$ | | | 6.0 | 7.5 | 7.5 | | | | | | |
| | | | | | $M_N$ | | | 4.5 | 4.5 | 4.5 | | | | | | |
| | | | | | $M_{0,max}$ | | | 17.4 | 22.2 | 28.5 | | | | | | |
| | | | | | $M_{max}$ | | | 17.4 | 22.2 | 28.5 | | | | | | |
| | | | | | $n_{eto}$ | | | - | - | - | | | | | | |
| 09L51- | 3.6 | 5100 | 6.9 | 1.90 | $M_0$ | | | | 5.3 | 7.0 | 7.5 | 7.5 | 7.5 | | | |
| | | | | | $M_N$ | | | | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | | | |
| | | | | | $M_{0,max}$ | | | | 11.9 | 15.5 | 20.9 | 25.8 | 29.7 | | | |
| | | | | | $M_{max}$ | | | | 11.9 | 15.5 | 20.9 | 25.8 | 29.7 | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | - | | | |
| 12D20- | 5.5 | 1950 | 2.6 | 1.10 | $M_0$ | 4.4 | 6.4 | | | | | | | | | |
| | | | | | $M_N$ | 4.0 | 5.5 | | | | | | | | | |
| | | | | | $M_{0,max}$ | 11.8 | 17.7 | | | | | | | | | |
| | | | | | $M_{max}$ | 11.8 | 17.7 | | | | | | | | | |
| | | | | | $n_{eto}$ | - | - | | | | | | | | | |
| 12D41- | 4.3 | 4050 | 4.5 | 1.80 | $M_0$ | | | 5.9 | 6.4 | | | | | | | |
| | | | | | $M_N$ | | | 4.3 | 4.3 | | | | | | | |
| | | | | | $M_{0,max}$ | | | 14.7 | 17.7 | | | | | | | |
| | | | | | $M_{max}$ | | | 14.7 | 17.7 | | | | | | | |
| | | | | | $n_{eto}$ | | | - | - | | | | | | | |
| 12H15- | 10.0 | 1500 | 3.8 | 1.60 | $M_0$ | | 8.7 | 11.4 | | | | | | | | |
| | | | | | $M_N$ | | 8.2 | 10.0 | | | | | | | | |
| | | | | | $M_{0,max}$ | | 24.6 | 29.0 | | | | | | | | |
| | | | | | $M_{max}$ | | 24.6 | 29.0 | | | | | | | | |
| | | | | | $n_{eto}$ | | - | - | | | | | | | | |
| 12H35- | 7.5 | 3525 | 5.7 | 2.80 | $M_0$ | | | 7.0 | 11.4 | 11.4 | 11.4 | | | | | |
| | | | | | $M_N$ | | | 6.6 | 7.5 | 7.5 | 7.5 | | | | | |
| | | | | | $M_{0,max}$ | | | 20.1 | 25.8 | 29.0 | 29.0 | | | | | |
| | | | | | $M_{max}$ | | | 20.1 | 25.8 | 29.0 | 29.0 | | | | | |
| | | | | | $n_{eto}$ | | | - | - | - | - | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives 9400 HighLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | E94A□□ | E0024 | E0034 | E0044 | E0074 | E0094 | E0134 | E0174 | E0244 | E0324 | E0474 | E0594 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.9 | 3.1 | 5.0 | 8.8 | 11.7 | 16.3 | 20.6 | 29.4 | 38.4 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| 12L20- | 13.5 | 1950 | 5.9 | 2.80 | $M_0$ | | | 12.1 | 15.0 | 15.0 | 15.0 | | | | | |
| | | | | | $M_N$ | | | 11.4 | 13.5 | 13.5 | 13.5 | | | | | |
| | | | | | $M_{0,max}$ | | | 35.5 | 44.6 | 55.7 | 56.4 | | | | | |
| | | | | | $M_{max}$ | | | 35.5 | 44.6 | 55.7 | 56.4 | | | | | |
| | | | | | $n_{eto}$ | | | - | - | - | - | | | | | |
| 12L41- | 11.0 | 4050 | 10.2 | 4.70 | $M_0$ | | | | 10.6 | 14.0 | 15.0 | 15.0 | 15.0 | | | |
| | | | | | $M_N$ | | | | 9.5 | 11.0 | 11.0 | 11.0 | 11.0 | | | |
| | | | | | $M_{0,max}$ | | | | 24.4 | 31.6 | 41.9 | 50.8 | 56.4 | | | |
| | | | | | $M_{max}$ | | | | 24.4 | 31.6 | 41.9 | 50.8 | 56.4 | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | - | | | |
| 14D15- | 9.2 | 1500 | 4.5 | 1.45 | $M_0$ | | | 11.0 | 11.0 | | | | | | | |
| | | | | | $M_N$ | | | 9.2 | 9.2 | | | | | | | |
| | | | | | $M_{0,max}$ | | | 28.3 | 29.0 | | | | | | | |
| | | | | | $M_{max}$ | | | 28.3 | 29.0 | | | | | | | |
| | | | | | $n_{eto}$ | | | - | - | | | | | | | |
| 14D36- | 7.5 | 3600 | 7.5 | 2.80 | $M_0$ | | | | 9.6 | 11.0 | 11.0 | | | | | |
| | | | | | $M_N$ | | | | 7.5 | 7.5 | 7.5 | | | | | |
| | | | | | $M_{0,max}$ | | | | 20.2 | 25.6 | 29.0 | | | | | |
| | | | | | $M_{max}$ | | | | 20.2 | 25.6 | 29.0 | | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | | | |
| 14H15- | 16.0 | 1500 | 6.6 | 2.50 | $M_0$ | | | 12.4 | 21.0 | 21.0 | 21.0 | | | | | |
| | | | | | $M_N$ | | | 12.1 | 16.0 | 16.0 | 16.0 | | | | | |
| | | | | | $M_{0,max}$ | | | 37.1 | 46.6 | 54.8 | 54.8 | | | | | |
| | | | | | $M_{max}$ | | | 37.1 | 46.6 | 54.8 | 54.8 | | | | | |
| | | | | | $n_{eto}$ | | | - | - | - | - | | | | | |
| 14H32- | 14.0 | 3225 | 11.9 | 4.70 | $M_0$ | | | | | 14.4 | 20.3 | 21.0 | 21.0 | | | |
| | | | | | $M_N$ | | | | | 13.6 | 14.0 | 14.0 | 14.0 | | | |
| | | | | | $M_{0,max}$ | | | | | 33.0 | 43.9 | 53.2 | 54.8 | | | |
| | | | | | $M_{max}$ | | | | | 33.0 | 43.9 | 53.2 | 54.8 | | | |
| | | | | | $n_{eto}$ | | | | | - | - | - | - | | | |
| 14L15- | 23.0 | 1500 | 9.7 | 3.60 | $M_0$ | | | | 20.5 | 27.1 | 28.0 | | | | | |
| | | | | | $M_N$ | | | | 20.9 | 23.0 | 23.0 | | | | | |
| | | | | | $M_{0,max}$ | | | | 48.0 | 61.4 | 77.1 | | | | | |
| | | | | | $M_{max}$ | | | | 48.0 | 61.4 | 77.1 | | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | | | |
| 14L32- | 17.2 | 3225 | 15.0 | 5.80 | $M_0$ | | | | | | 19.0 | 24.0 | 28.0 | 28.0 | 28.0 | |
| | | | | | $M_N$ | | | | | | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | |
| | | | | | $M_{0,max}$ | | | | | | 45.0 | 55.3 | 63.9 | 77.1 | 77.1 | |
| | | | | | $M_{max}$ | | | | | | 45.0 | 55.3 | 63.9 | 77.1 | 77.1 | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | - | |
| 14P14- | 30.0 | 1350 | 10.8 | 4.20 | $M_0$ | | | | 26.7 | 35.2 | 37.0 | 37.0 | | | | |
| | | | | | $M_N$ | | | | 24.4 | 30.0 | 30.0 | 30.0 | | | | |
| | | | | | $M_{0,max}$ | | | | 56.1 | 71.7 | 93.3 | 105.1 | | | | |
| | | | | | $M_{max}$ | | | | 56.1 | 71.7 | 93.3 | 105.1 | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives 9400 HighLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | E94A□□ | E0024 | E0034 | E0044 | E0074 | E0094 | E0134 | E0174 | E0244 | E0324 | E0474 | E0594 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.9 | 3.1 | 5.0 | 8.8 | 11.7 | 16.3 | 20.6 | 29.4 | 38.4 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| **MCS** | **$M_N$** | **$n_N$** | **$I_N$** | **$P_N$** | $I_{max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| 14P32- | 21.0 | 3225 | 15.6 | 7.10 | $M_0$ | | | | | | 24.8 | 31.4 | 37.0 | 37.0 | 37.0 | |
| | | | | | $M_N$ | | | | | | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | |
| | | | | | $M_{0,max}$ | | | | | | 52.5 | 64.6 | 74.7 | 92.2 | 105.1 | |
| | | | | | $M_{max}$ | | | | | | 52.5 | 64.6 | 74.7 | 92.2 | 105.1 | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | - | |
| 19F14- | 27.0 | 1425 | 8.6 | 4.00 | $M_0$ | | | | 28.4 | 32.0 | 32.0 | | | | | |
| | | | | | $M_N$ | | | | 27.0 | 27.0 | 27.0 | | | | | |
| | | | | | $M_{0,max}$ | | | | 62.1 | 78.9 | 86.0 | | | | | |
| | | | | | $M_{max}$ | | | | 62.1 | 78.9 | 86.0 | | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | | | |
| 19F30- | 21.0 | 3000 | 14.0 | 6.60 | $M_0$ | | | | | | 26.3 | 32.0 | 32.0 | 32.0 | | |
| | | | | | $M_N$ | | | | | | 21.0 | 21.0 | 21.0 | 21.0 | | |
| | | | | | $M_{0,max}$ | | | | | | 56.6 | 70.2 | 81.6 | 86.0 | | |
| | | | | | $M_{max}$ | | | | | | 56.6 | 70.2 | 81.6 | 86.0 | | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | | |
| 19J14- | 40.0 | 1425 | 12.3 | 6.00 | $M_0$ | | | | | 38.9 | 51.0 | 51.0 | | | | |
| | | | | | $M_N$ | | | | | 37.7 | 40.0 | 40.0 | | | | |
| | | | | | $M_{0,max}$ | | | | | 85.0 | 114.4 | 129.0 | | | | |
| | | | | | $M_{max}$ | | | | | 85.0 | 114.4 | 129.0 | | | | |
| | | | | | $n_{eto}$ | | | | | - | - | - | | | | |
| 19J30- | 29.0 | 3000 | 18.5 | 9.10 | $M_0$ | | | | | | 27.3 | 34.4 | 49.2 | 51.0 | 51.0 | |
| | | | | | $M_N$ | | | | | | 25.6 | 29.0 | 29.0 | 29.0 | 29.0 | |
| | | | | | $M_{0,max}$ | | | | | | 60.8 | 75.9 | 88.9 | 112.9 | 129.0 | |
| | | | | | $M_{max}$ | | | | | | 60.8 | 75.9 | 88.9 | 112.9 | 129.0 | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | - | |
| 19P14- | 51.0 | 1350 | 14.3 | 7.20 | $M_0$ | | | | | | 59.6 | 64.0 | 64.0 | 64.0 | | |
| | | | | | $M_N$ | | | | | | 51.0 | 51.0 | 51.0 | 51.0 | | |
| | | | | | $M_{0,max}$ | | | | | | 128.4 | 159.9 | 186.6 | 190.0 | | |
| | | | | | $M_{max}$ | | | | | | 128.4 | 159.9 | 186.6 | 190.0 | | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | | |
| 19P30- | 32.0 | 3000 | 19.0 | 10.00 | $M_0$ | | | | | | 29.9 | 37.8 | 53.9 | 64.0 | 64.0 | 64.0 |
| | | | | | $M_N$ | | | | | | 27.5 | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 |
| | | | | | $M_{0,max}$ | | | | | | 65.7 | 83.6 | 98.5 | 126.6 | 152.5 | 187.2 |
| | | | | | $M_{max}$ | | | | | | 65.7 | 83.6 | 98.5 | 126.6 | 152.5 | 187.2 |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | - | - |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives 9400 HighLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3x230V and an inverter switching frequency of 4 kHz.

| | | | | | E94A□□ | E0024 | E0034 | E0044 | E0074 | E0094 | E0134 | E0174 | E0244 | E0324 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.9 | 3.1 | 5.0 | 8.8 | 11.7 | 16.3 | 20.6 | 29.4 | 38.4 |
| | | | | | $I_{0,max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 |
| 06C41L | 0.6 | 4050 | 2.6 | 0.25 | $M_0$ | 0.6 | 0.8 | | | | | | | |
| | | | | | $M_N$ | 0.5 | 0.6 | | | | | | | |
| | | | | | $M_{0,max}$ | 1.5 | 2.3 | | | | | | | |
| | | | | | $M_{max}$ | 1.5 | 2.3 | | | | | | | |
| | | | | | $n_{eto}$ | - | - | | | | | | | |
| 06C60L | 0.5 | 6000 | 4.0 | 0.31 | $M_0$ | | 0.6 | 0.8 | 0.8 | | | | | |
| | | | | | $M_N$ | | 0.4 | 0.5 | 0.5 | | | | | |
| | | | | | $M_{0,max}$ | | 1.5 | 2.2 | 2.4 | | | | | |
| | | | | | $M_{max}$ | | 1.5 | 2.2 | 2.4 | | | | | |
| | | | | | $n_{eto}$ | | - | - | - | | | | | |
| 06F41L | 1.2 | 4050 | 2.9 | 0.51 | $M_0$ | 1.0 | 1.5 | 1.5 | | | | | | |
| | | | | | $M_N$ | 0.8 | 1.2 | 1.2 | | | | | | |
| | | | | | $M_{0,max}$ | 2.7 | 4.2 | 4.4 | | | | | | |
| | | | | | $M_{max}$ | 2.7 | 4.2 | 4.4 | | | | | | |
| | | | | | $n_{eto}$ | - | - | - | | | | | | |
| 06F60L | 0.9 | 6000 | 3.8 | 0.57 | $M_0$ | | 1.2 | 1.5 | 1.5 | | | | | |
| | | | | | $M_N$ | | 0.8 | 0.9 | 0.9 | | | | | |
| | | | | | $M_{0,max}$ | | 3.1 | 4.3 | 4.4 | | | | | |
| | | | | | $M_{max}$ | | 3.1 | 4.3 | 4.4 | | | | | |
| | | | | | $n_{eto}$ | | - | - | - | | | | | |
| 06I41L | 1.5 | 4050 | 3.2 | 0.64 | $M_0$ | | 2.0 | 2.0 | | | | | | |
| | | | | | $M_N$ | | 1.5 | 1.5 | | | | | | |
| | | | | | $M_{0,max}$ | | 5.4 | 6.2 | | | | | | |
| | | | | | $M_{max}$ | | 5.4 | 6.2 | | | | | | |
| | | | | | $n_{eto}$ | | - | - | | | | | | |
| 06I60L | 1.2 | 6000 | 3.8 | 0.75 | $M_0$ | | 1.5 | 2.0 | | | | | | |
| | | | | | $M_N$ | | 1.0 | 1.2 | | | | | | |
| | | | | | $M_{0,max}$ | | 4.4 | 6.2 | | | | | | |
| | | | | | $M_{max}$ | | 4.4 | 6.2 | | | | | | |
| | | | | | $n_{eto}$ | | - | - | | | | | | |
| 09D41L | 2.3 | 4050 | 4.6 | 1.00 | $M_0$ | | | 3.1 | 3.3 | | | | | |
| | | | | | $M_N$ | | | 2.3 | 2.3 | | | | | |
| | | | | | $M_{0,max}$ | | | 8.0 | 9.5 | | | | | |
| | | | | | $M_{max}$ | | | 8.0 | 9.5 | | | | | |
| | | | | | $n_{eto}$ | | | - | - | | | | | |
| 09D60L | 1.8 | 6000 | 7.0 | 1.10 | $M_0$ | | | | 2.8 | 3.3 | 3.3 | | | |
| | | | | | $M_N$ | | | | 1.8 | 1.8 | 1.8 | | | |
| | | | | | $M_{0,max}$ | | | | 5.7 | 7.3 | 9.5 | | | |
| | | | | | $M_{max}$ | | | | 5.7 | 7.3 | 9.5 | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | |
| 09F38L | 3.1 | 3750 | 5.0 | 1.20 | $M_0$ | | | 3.5 | 4.2 | 4.2 | 4.2 | | | |
| | | | | | $M_N$ | | | 3.1 | 3.1 | 3.1 | 3.1 | | | |
| | | | | | $M_{0,max}$ | | | 9.8 | 12.0 | 13.8 | 15.0 | | | |
| | | | | | $M_{max}$ | | | 9.8 | 12.0 | 13.8 | 15.0 | | | |
| | | | | | $n_{eto}$ | | | - | - | - | - | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives 9400 HighLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3x230V and an inverter switching frequency of 4 kHz.

| | | | | | E94A□□ | E0024 | E0034 | E0044 | E0074 | E0094 | E0134 | E0174 | E0244 | E0324 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.9 | 3.1 | 5.0 | 8.8 | 11.7 | 16.3 | 20.6 | 29.4 | 38.4 |
| | | | | | $I_{0,max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 |
| 09F60L | 2.4 | 6000 | 7.9 | 1.50 | $M_0$ | | | | 3.5 | 4.2 | 4.2 | 4.2 | 4.2 | |
| | | | | | $M_N$ | | | | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | |
| | | | | | $M_{0,max}$ | | | | 7.8 | 9.8 | 12.6 | 14.5 | 15.0 | |
| | | | | | $M_{max}$ | | | | 7.8 | 9.8 | 12.6 | 14.5 | 15.0 | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | - | |
| 09H41L | 3.8 | 4050 | 6.8 | 1.60 | $M_0$ | | | | 5.5 | 5.3 | 5.5 | 5.5 | | |
| | | | | | $M_N$ | | | | 3.8 | 3.0 | 3.8 | 3.8 | | |
| | | | | | $M_{0,max}$ | | | | 12.4 | 11.8 | 19.7 | 20.0 | | |
| | | | | | $M_{max}$ | | | | 12.4 | 11.8 | 19.7 | 20.0 | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | | |
| 09H60L | 3.0 | 6000 | 8.0 | 1.90 | $M_0$ | | | | 4.0 | 5.5 | 5.5 | 5.5 | 5.5 | |
| | | | | | $M_N$ | | | | 3.0 | 3.8 | 3.0 | 3.0 | 3.0 | |
| | | | | | $M_{0,max}$ | | | | 9.2 | 15.6 | 15.4 | 18.3 | 20.0 | |
| | | | | | $M_{max}$ | | | | 9.2 | 15.6 | 15.4 | 18.3 | 20.0 | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | - | |
| 09L41L | 4.5 | 4050 | 8.4 | 1.90 | $M_0$ | | | | 5.3 | 7.0 | 7.5 | 7.5 | 7.5 | 7.5 |
| | | | | | $M_N$ | | | | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| | | | | | $M_{0,max}$ | | | | 11.9 | 15.5 | 20.9 | 25.8 | 29.7 | 31.9 |
| | | | | | $M_{max}$ | | | | 11.9 | 15.5 | 20.9 | 25.8 | 29.7 | 31.9 |
| | | | | | $n_{eto}$ | | | | - | - | - | - | - | - |
| 12D20L | 5.5 | 1950 | 5.2 | 1.10 | $M_0$ | | | 5.9 | 6.4 | | | | | |
| | | | | | $M_N$ | | | 5.3 | 5.5 | | | | | |
| | | | | | $M_{0,max}$ | | | 14.9 | 17.7 | | | | | |
| | | | | | $M_{max}$ | | | 14.9 | 17.7 | | | | | |
| | | | | | $n_{eto}$ | | | - | - | | | | | |
| 12D41L | 4.3 | 4050 | 8.8 | 1.80 | $M_0$ | | | | 5.3 | 6.4 | 6.4 | 6.4 | | |
| | | | | | $M_N$ | | | | 4.3 | 4.3 | 4.3 | 4.3 | | |
| | | | | | $M_{0,max}$ | | | | 10.6 | 13.6 | 17.7 | 17.9 | | |
| | | | | | $M_{max}$ | | | | 10.6 | 13.6 | 17.7 | 17.9 | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | | |
| 12H15L | 10.0 | 1500 | 7.6 | 1.60 | $M_0$ | | | | 11.4 | 11.4 | 10.0 | | | |
| | | | | | $M_N$ | | | | 10.0 | 10.0 | 11.4 | | | |
| | | | | | $M_{0,max}$ | | | | 25.8 | 29.0 | 29.0 | | | |
| | | | | | $M_{max}$ | | | | 25.8 | 29.0 | 29.0 | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | |
| 12H30L | 8.0 | 3000 | 10.5 | 2.50 | $M_0$ | | | | 7.4 | 9.8 | 11.4 | | | |
| | | | | | $M_N$ | | | | 6.7 | 8.0 | 8.0 | | | |
| | | | | | $M_{0,max}$ | | | | 16.4 | 21.5 | 29.0 | | | |
| | | | | | $M_{max}$ | | | | 16.4 | 21.5 | 29.0 | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | |
| 12L20L | 13.5 | 1950 | 11.8 | 2.80 | $M_0$ | | | | 10.6 | 14.0 | 15.0 | 15.0 | 15.0 | |
| | | | | | $M_N$ | | | | 10.1 | 13.3 | 13.5 | 13.5 | 13.5 | |
| | | | | | $M_{0,max}$ | | | | 24.4 | 31.5 | 41.8 | 50.5 | 56.0 | |
| | | | | | $M_{max}$ | | | | 24.4 | 31.5 | 41.8 | 50.5 | 56.0 | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | - | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives 9400 HighLine

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | E94A□□ | E0024 | E0034 | E0044 | E0074 | E0094 | E0134 | E0174 | E0244 | E0324 | E0474 | E0594 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.9 | 3.1 | 5.0 | 8.8 | 11.7 | 16.3 | 20.6 | 29.4 | 38.4 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| 12D17- | 7.0 | 1650 | 3.0 | 1.20 | $M_0$ | 4.4 | 7.3 | | | | | | | | | |
| | | | | | $M_N$ | 4.0 | 7.0 | | | | | | | | | |
| | | | | | $M_{0,max}$ | 11.8 | 17.7 | | | | | | | | | |
| | | | | | $M_{max}$ | 11.8 | 17.7 | | | | | | | | | |
| | | | | | $n_{eto}$ | - | - | | | | | | | | | |
| 12D35- | 6.0 | 3525 | 5.6 | 2.20 | $M_0$ | | | 5.9 | 7.5 | | | | | | | |
| | | | | | $M_N$ | | | 5.4 | 6.0 | | | | | | | |
| | | | | | $M_{0,max}$ | | | 14.7 | 17.7 | | | | | | | |
| | | | | | $M_{max}$ | | | 14.7 | 17.7 | | | | | | | |
| | | | | | $n_{eto}$ | | | - | - | | | | | | | |
| 12H14- | 12.0 | 1350 | 4.1 | 1.70 | $M_0$ | | 8.7 | 12.8 | | | | | | | | |
| | | | | | $M_N$ | | 8.2 | 12.0 | | | | | | | | |
| | | | | | $M_{0,max}$ | | 24.6 | 29.0 | | | | | | | | |
| | | | | | $M_{max}$ | | 24.6 | 29.0 | | | | | | | | |
| | | | | | $n_{eto}$ | | - | - | | | | | | | | |
| 12H34- | 10.5 | 3375 | 7.5 | 3.70 | $M_0$ | | | 7.0 | 12.8 | 12.8 | 12.8 | | | | | |
| | | | | | $M_N$ | | | 6.6 | 10.5 | 10.5 | 10.5 | | | | | |
| | | | | | $M_{0,max}$ | | | 20.1 | 25.8 | 29.0 | 29.0 | | | | | |
| | | | | | $M_{max}$ | | | 20.1 | 25.8 | 29.0 | 29.0 | | | | | |
| | | | | | $n_{eto}$ | | | - | - | - | - | | | | | |
| 12L17- | 17.0 | 1650 | 6.7 | 2.90 | $M_0$ | | | 12.1 | 19.0 | 19.0 | 19.0 | | | | | |
| | | | | | $M_N$ | | | 11.4 | 17.0 | 17.0 | 17.0 | | | | | |
| | | | | | $M_{0,max}$ | | | 35.5 | 44.6 | 55.7 | 56.4 | | | | | |
| | | | | | $M_{max}$ | | | 35.5 | 44.6 | 55.7 | 56.4 | | | | | |
| | | | | | $n_{eto}$ | | | - | - | - | - | | | | | |
| 12L39- | 14.0 | 3900 | 11.7 | 5.70 | $M_0$ | | | | 10.6 | 15.3 | 19.0 | 19.0 | 19.0 | | | |
| | | | | | $M_N$ | | | | 9.5 | 13.9 | 14.0 | 14.0 | 14.0 | | | |
| | | | | | $M_{0,max}$ | | | | 24.4 | 31.6 | 41.9 | 50.8 | 56.4 | | | |
| | | | | | $M_{max}$ | | | | 24.4 | 31.6 | 41.9 | 50.8 | 56.4 | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | - | | | |
| 14D14- | 12.0 | 1350 | 5.4 | 1.70 | $M_0$ | | | 11.0 | 12.5 | | | | | | | |
| | | | | | $M_N$ | | | 11.0 | 12.0 | | | | | | | |
| | | | | | $M_{0,max}$ | | | 28.3 | 29.0 | | | | | | | |
| | | | | | $M_{max}$ | | | 28.3 | 29.0 | | | | | | | |
| | | | | | $n_{eto}$ | | | - | - | | | | | | | |
| 14D30- | 10.5 | 3000 | 9.7 | 3.30 | $M_0$ | | | | 9.6 | 12.5 | 12.5 | | | | | |
| | | | | | $M_N$ | | | | 9.5 | 10.5 | 10.5 | | | | | |
| | | | | | $M_{0,max}$ | | | | 20.2 | 25.6 | 29.0 | | | | | |
| | | | | | $M_{max}$ | | | | 20.2 | 25.6 | 29.0 | | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | | | |
| 14H12- | 23.5 | 1200 | 8.3 | 3.00 | $M_0$ | | | 12.4 | 24.1 | 25.5 | 25.5 | | | | | |
| | | | | | $M_N$ | | | 12.1 | 23.5 | 23.5 | 23.5 | | | | | |
| | | | | | $M_{0,max}$ | | | 37.1 | 46.6 | 54.8 | 54.8 | | | | | |
| | | | | | $M_{max}$ | | | 37.1 | 46.6 | 54.8 | 54.8 | | | | | |
| | | | | | $n_{eto}$ | | | - | - | - | - | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives 9400 HighLine

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | E94A□□ | E0024 | E0034 | E0044 | E0074 | E0094 | E0134 | E0174 | E0244 | E0324 | E0474 | E0594 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.9 | 3.1 | 5.0 | 8.8 | 11.7 | 16.3 | 20.6 | 29.4 | 38.4 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| 14H28- | 20.5 | 2775 | 15.0 | 6.00 | $M_0$ | | | | | 16.1 | 20.5 | 25.5 | 25.5 | | | |
| | | | | | $M_N$ | | | | | 15.9 | 20.5 | 20.5 | 20.5 | | | |
| | | | | | $M_{0,max}$ | | | | | 33.0 | 43.9 | 53.2 | 54.8 | | | |
| | | | | | $M_{max}$ | | | | | 33.0 | 43.9 | 53.2 | 54.8 | | | |
| | | | | | $n_{eto}$ | | | | | - | - | - | - | | | |
| 14L14- | 30.5 | 1350 | 11.8 | 4.30 | $M_0$ | | | | 20.5 | 30.0 | 34.5 | | | | | |
| | | | | | $M_N$ | | | | 20.5 | 30.0 | 30.5 | | | | | |
| | | | | | $M_{0,max}$ | | | | 48.0 | 61.4 | 77.1 | | | | | |
| | | | | | $M_{max}$ | | | | 48.0 | 61.4 | 77.1 | | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | | | |
| 14L30- | 25.5 | 3000 | 20.8 | 8.00 | $M_0$ | | | | | | 21.0 | 26.6 | 34.5 | 34.5 | 34.5 | |
| | | | | | $M_N$ | | | | | | 20.0 | 25.3 | 25.5 | 25.5 | 25.5 | |
| | | | | | $M_{0,max}$ | | | | | | 45.0 | 55.3 | 63.9 | 77.1 | 77.1 | |
| | | | | | $M_{max}$ | | | | | | 45.0 | 55.3 | 63.9 | 77.1 | 77.1 | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | - | |
| 14P11- | 42.0 | 1050 | 13.4 | 4.60 | $M_0$ | | | | 26.7 | 36.4 | 43.5 | 43.5 | | | | |
| | | | | | $M_N$ | | | | 24.4 | 36.4 | 42.0 | 42.0 | | | | |
| | | | | | $M_{0,max}$ | | | | 56.1 | 71.7 | 93.3 | 105.1 | | | | |
| | | | | | $M_{max}$ | | | | 56.1 | 71.7 | 93.3 | 105.1 | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | | | | |
| 14P26- | 33.0 | 2625 | 21.9 | 9.10 | $M_0$ | | | | | | 24.8 | 31.4 | 43.5 | 43.5 | 43.5 | |
| | | | | | $M_N$ | | | | | | 24.6 | 31.0 | 33.0 | 33.0 | 33.0 | |
| | | | | | $M_{0,max}$ | | | | | | 52.5 | 64.6 | 74.7 | 92.2 | 105.1 | |
| | | | | | $M_{max}$ | | | | | | 52.5 | 64.6 | 74.7 | 92.2 | 105.1 | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | - | |
| 19F12- | 38.0 | 1200 | 11.3 | 4.80 | $M_0$ | | | | 29.9 | 39.5 | 41.5 | | | | | |
| | | | | | $M_N$ | | | | 29.3 | 38.0 | 38.0 | | | | | |
| | | | | | $M_{0,max}$ | | | | 62.1 | 78.9 | 86.0 | | | | | |
| | | | | | $M_{max}$ | | | | 62.1 | 78.9 | 86.0 | | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | | | |
| 19F29- | 32.5 | 2850 | 20.1 | 9.70 | $M_0$ | | | | | | 26.3 | 34.9 | 41.5 | 41.5 | | |
| | | | | | $M_N$ | | | | | | 26.0 | 32.5 | 32.5 | 32.5 | | |
| | | | | | $M_{0,max}$ | | | | | | 56.6 | 70.2 | 81.6 | 86.0 | | |
| | | | | | $M_{max}$ | | | | | | 56.6 | 70.2 | 81.6 | 86.0 | | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | | |
| 19J12- | 62.5 | 1200 | 18.3 | 7.90 | $M_0$ | | | | | | 56.6 | 70.5 | | | | |
| | | | | | $M_N$ | | | | | | 55.7 | 62.5 | | | | |
| | | | | | $M_{0,max}$ | | | | | | 114.4 | 129.0 | | | | |
| | | | | | $M_{max}$ | | | | | | 114.4 | 129.0 | | | | |
| | | | | | $n_{eto}$ | | | | | | - | - | | | | |
| 19J29- | 50.5 | 2850 | 31.0 | 15.10 | $M_0$ | | | | | | | | 49.2 | 66.7 | 70.5 | |
| | | | | | $M_N$ | | | | | | | | 47.9 | 50.5 | 50.5 | |
| | | | | | $M_{0,max}$ | | | | | | | | 88.9 | 112.9 | 129.0 | |
| | | | | | $M_{max}$ | | | | | | | | 88.9 | 112.9 | 129.0 | |
| | | | | | $n_{eto}$ | | | | | | | | - | - | - | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives 9400 HighLine

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | E94A□□ | E0024 | E0034 | E0044 | E0074 | E0094 | E0134 | E0174 | E0244 | E0324 | E0474 | E0594 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.9 | 3.1 | 5.0 | 8.8 | 11.7 | 16.3 | 20.6 | 29.4 | 38.4 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| **MCS** | **$M_N$** | **$n_N$** | **$I_N$** | **$P_N$** | $I_{max}$ | 6.0 | 10.0 | 16.0 | 21.0 | 28.0 | 39.0 | 49.5 | 58.8 | 76.8 | 94.0 | 118.0 |
| 19P12- | 72.0 | 1200 | 21.3 | 9.00 | $M_0$ | | | | | | | 79.1 | 86.0 | 86.0 | | |
| | | | | | $M_N$ | | | | | | | 69.6 | 72.0 | 72.0 | | |
| | | | | | $M_{0,max}$ | | | | | | | 159.9 | 186.6 | 190.0 | | |
| | | | | | $M_{max}$ | | | | | | | 159.9 | 186.6 | 190.0 | | |
| | | | | | $n_{eto}$ | | | | | | | - | - | - | | |
| 19P29- | 53.0 | 2850 | 29.5 | 15.80 | $M_0$ | | | | | | | | 56.5 | 73.9 | 86.0 | 86.0 |
| | | | | | $M_N$ | | | | | | | | 52.8 | 53.0 | 53.0 | 53.0 |
| | | | | | $M_{0,max}$ | | | | | | | | 98.5 | 126.6 | 152.5 | 187.2 |
| | | | | | $M_{max}$ | | | | | | | | 98.5 | 126.6 | 152.5 | 187.2 |
| | | | | | $n_{eto}$ | | | | | | | | - | - | - | - |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | E84AVTC | □3714 | □5514 | □7514 | □1124 | □1524 | □2224 | □3024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.3 | 1.8 | 2.4 | 3.2 | 3.9 | 5.9 | 7.3 |
| | | | | | $I_{0,max}$ | 2.0 | 2.7 | 3.6 | 4.8 | 5.9 | 8.4 | 11.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 2.6 | 3.6 | 4.8 | 6.4 | 7.8 | 11.2 | 14.6 |
| 06C41- | 0.6 | 4050 | 1.3 | 0.25 | $M_0$ | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | | |
| | | | | | $M_N$ | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | | |
| | | | | | $M_{0,max}$ | 1.4 | 1.7 | 2.3 | 2.4 | 2.4 | | |
| | | | | | $M_{max}$ | 1.4 | 1.7 | 2.3 | 2.4 | 2.4 | | |
| | | | | | $n_{eto}$ | - | - | - | - | - | | |
| 06C60- | 0.5 | 6000 | 2.4 | 0.31 | $M_0$ | | | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| | | | | | $M_N$ | | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | | | | $M_{0,max}$ | | | 1.3 | 1.6 | 2.0 | 2.4 | 2.4 |
| | | | | | $M_{max}$ | | | 1.3 | 1.6 | 2.0 | 2.4 | 2.4 |
| | | | | | $n_{eto}$ | | | - | - | - | - | - |
| 06F41- | 1.2 | 4050 | 1.5 | 0.51 | $M_0$ | 1.3 | 1.5 | 1.5 | 1.5 | 1.5 | | |
| | | | | | $M_N$ | 1.0 | 1.2 | 1.2 | 1.2 | 1.2 | | |
| | | | | | $M_{0,max}$ | 2.3 | 3.2 | 4.3 | 4.4 | 4.4 | | |
| | | | | | $M_{max}$ | 2.3 | 3.2 | 4.3 | 4.4 | 4.4 | | |
| | | | | | $n_{eto}$ | - | - | - | - | - | | |
| 06F60- | 0.9 | 6000 | 2.5 | 0.57 | $M_0$ | | | 1.2 | 1.5 | 1.5 | 1.5 | 1.5 |
| | | | | | $M_N$ | | | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| | | | | | $M_{0,max}$ | | | 2.1 | 3.3 | 4.0 | 4.4 | 4.4 |
| | | | | | $M_{max}$ | | | 2.1 | 3.3 | 4.0 | 4.4 | 4.4 |
| | | | | | $n_{eto}$ | | | - | - | - | - | - |
| 06I41- | 1.5 | 4050 | 1.6 | 0.64 | $M_0$ | 1.6 | 2.0 | 2.0 | 2.0 | 2.0 | | |
| | | | | | $M_N$ | 1.2 | 1.5 | 1.5 | 1.5 | 1.5 | | |
| | | | | | $M_{0,max}$ | 2.9 | 4.0 | 5.3 | 6.2 | 6.2 | | |
| | | | | | $M_{max}$ | 2.9 | 4.0 | 5.3 | 6.2 | 6.2 | | |
| | | | | | $n_{eto}$ | - | - | - | - | - | | |
| 06I60- | 1.2 | 6000 | 2.9 | 0.75 | $M_0$ | | | | 2.0 | 2.0 | 2.0 | 2.0 |
| | | | | | $M_N$ | | | | 1.2 | 1.2 | 1.2 | 1.2 |
| | | | | | $M_{0,max}$ | | | | 3.6 | 4.4 | 5.7 | 5.7 |
| | | | | | $M_{max}$ | | | | 3.6 | 4.4 | 5.7 | 5.7 |
| | | | | | $n_{eto}$ | | | | - | - | - | - |
| 09D41- | 2.3 | 4050 | 2.3 | 1.00 | $M_0$ | | 2.2 | 3.1 | 3.3 | 3.3 | 3.3 | 3.3 |
| | | | | | $M_N$ | | 1.7 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 |
| | | | | | $M_{0,max}$ | | 4.0 | 5.3 | 6.7 | 8.2 | 9.4 | 9.4 |
| | | | | | $M_{max}$ | | 4.0 | 5.3 | 6.7 | 8.2 | 9.4 | 9.4 |
| | | | | | $n_{eto}$ | | - | - | - | - | - | - |
| 09D60- | 1.8 | 6000 | 3.8 | 1.10 | $M_0$ | | | | 2.0 | 2.4 | 3.3 | 3.3 |
| | | | | | $M_N$ | | | | 1.5 | 1.8 | 1.8 | 1.8 |
| | | | | | $M_{0,max}$ | | | | 3.5 | 4.2 | 6.3 | 7.8 |
| | | | | | $M_{max}$ | | | | 3.5 | 4.2 | 6.3 | 7.8 |
| | | | | | $n_{eto}$ | | | | - | - | - | - |
| 09F38- | 3.1 | 3750 | 2.5 | 1.20 | $M_0$ | | | 3.4 | 4.2 | 4.2 | 4.2 | 4.2 |
| | | | | | $M_N$ | | | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 |
| | | | | | $M_{0,max}$ | | | 6.6 | 8.4 | 10.2 | 12.0 | 12.0 |
| | | | | | $M_{max}$ | | | 6.6 | 8.4 | 10.2 | 12.0 | 12.0 |
| | | | | | $n_{eto}$ | | | - | - | - | - | - |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| □4024 | □5524 | □7524 | □1134 | □1534 | □1834 | □2234 | □3034 | E84AVTC | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.5 | 13.0 | 16.5 | 23.5 | 32.0 | 39.0 | 47.0 | 61.0 | $I_N$ | | | | | |
| 14.3 | 19.5 | 26.4 | 32.9 | 43.2 | 60.0 | 70.5 | 91.5 | $I_{0,max}$ | | | | | |
| 19.0 | 26.0 | 33.0 | 47.0 | 64.0 | 78.0 | 94.0 | 122.0 | $I_{max}$ | $P_N$ | $I_N$ | $n_N$ | $M_N$ | MCS |
| | | | | | | | | $M_0$ | 0.25 | 1.3 | 4050 | 0.6 | 06C41- |
| | | | | | | | | $M_N$ | | | | | |
| | | | | | | | | $M_{0,max}$ | | | | | |
| | | | | | | | | $M_{max}$ | | | | | |
| | | | | | | | | $n_{eto}$ | | | | | |
| | | | | | | | | $M_0$ | 0.31 | 2.4 | 6000 | 0.5 | 06C60- |
| | | | | | | | | $M_N$ | | | | | |
| | | | | | | | | $M_{0,max}$ | | | | | |
| | | | | | | | | $M_{max}$ | | | | | |
| | | | | | | | | $n_{eto}$ | | | | | |
| | | | | | | | | $M_0$ | 0.51 | 1.5 | 4050 | 1.2 | 06F41- |
| | | | | | | | | $M_N$ | | | | | |
| | | | | | | | | $M_{0,max}$ | | | | | |
| | | | | | | | | $M_{max}$ | | | | | |
| | | | | | | | | $n_{eto}$ | | | | | |
| | | | | | | | | $M_0$ | 0.57 | 2.5 | 6000 | 0.9 | 06F60- |
| | | | | | | | | $M_N$ | | | | | |
| | | | | | | | | $M_{0,max}$ | | | | | |
| | | | | | | | | $M_{max}$ | | | | | |
| | | | | | | | | $n_{eto}$ | | | | | |
| | | | | | | | | $M_0$ | 0.64 | 1.6 | 4050 | 1.5 | 06I41- |
| | | | | | | | | $M_N$ | | | | | |
| | | | | | | | | $M_{0,max}$ | | | | | |
| | | | | | | | | $M_{max}$ | | | | | |
| | | | | | | | | $n_{eto}$ | | | | | |
| | | | | | | | | $M_0$ | 0.75 | 2.9 | 6000 | 1.2 | 06I60- |
| | | | | | | | | $M_N$ | | | | | |
| | | | | | | | | $M_{0,max}$ | | | | | |
| | | | | | | | | $M_{max}$ | | | | | |
| | | | | | | | | $n_{eto}$ | | | | | |
| | | | | | | | | $M_0$ | 1.00 | 2.3 | 4050 | 2.3 | 09D41- |
| | | | | | | | | $M_N$ | | | | | |
| | | | | | | | | $M_{0,max}$ | | | | | |
| | | | | | | | | $M_{max}$ | | | | | |
| | | | | | | | | $n_{eto}$ | | | | | |
| 3.3 | 3.3 | | | | | | | $M_0$ | 1.10 | 3.8 | 6000 | 1.8 | 09D60- |
| 1.8 | 1.8 | | | | | | | $M_N$ | | | | | |
| 9.1 | 9.3 | | | | | | | $M_{0,max}$ | | | | | |
| 9.1 | 9.3 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| | | | | | | | | $M_0$ | 1.20 | 2.5 | 3750 | 3.1 | 09F38- |
| | | | | | | | | $M_N$ | | | | | |
| | | | | | | | | $M_{0,max}$ | | | | | |
| | | | | | | | | $M_{max}$ | | | | | |
| | | | | | | | | $n_{eto}$ | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | E84AVTC | □3714 | □5514 | □7514 | □1124 | □1524 | □2224 | □3024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.3 | 1.8 | 2.4 | 3.2 | 3.9 | 5.9 | 7.3 |
| | | | | | $I_{0,max}$ | 2.0 | 2.7 | 3.6 | 4.8 | 5.9 | 8.4 | 11.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 2.6 | 3.6 | 4.8 | 6.4 | 7.8 | 11.2 | 14.6 |
| 09F60- | 2.4 | 6000 | 4.5 | 1.50 | $M_0$ | | | | | | 4.2 | 4.2 |
| | | | | | $M_N$ | | | | | | 2.4 | 2.4 |
| | | | | | $M_{0,max}$ | | | | | | 7.8 | 9.6 |
| | | | | | $M_{max}$ | | | | | | 7.8 | 9.6 |
| | | | | | $n_{eto}$ | | | | | | - | - |
| 09H41- | 3.8 | 4050 | 3.4 | 1.60 | $M_0$ | | | | 4.7 | 5.0 | 5.5 | 5.5 |
| | | | | | $M_N$ | | | | 3.6 | 3.8 | 3.8 | 3.8 |
| | | | | | $M_{0,max}$ | | | | 8.1 | 9.9 | 14.0 | 17.4 |
| | | | | | $M_{max}$ | | | | 8.1 | 9.9 | 14.0 | 17.4 |
| | | | | | $n_{eto}$ | | | | - | - | - | - |
| 09H60- | 3.0 | 6000 | 6.0 | 1.90 | $M_0$ | | | | | | 4.4 | 4.5 |
| | | | | | $M_N$ | | | | | | 3.0 | 3.0 |
| | | | | | $M_{0,max}$ | | | | | | 7.5 | 9.3 |
| | | | | | $M_{max}$ | | | | | | 7.5 | 9.3 |
| | | | | | $n_{eto}$ | | | | | | - | - |
| 09L41- | 4.5 | 4050 | 4.2 | 1.90 | $M_0$ | | | | 3.9 | 4.7 | 7.5 | 7.5 |
| | | | | | $M_N$ | | | | 3.4 | 4.2 | 4.5 | 4.5 |
| | | | | | $M_{0,max}$ | | | | 7.3 | 8.9 | 13.1 | 16.3 |
| | | | | | $M_{max}$ | | | | 7.3 | 8.9 | 13.1 | 16.3 |
| | | | | | $n_{eto}$ | | | | - | - | - | - |
| 09L51- | 3.6 | 5100 | 6.9 | 1.90 | $M_0$ | | | | | | | 4.2 |
| | | | | | $M_N$ | | | | | | | 3.6 |
| | | | | | $M_{0,max}$ | | | | | | | 8.3 |
| | | | | | $M_{max}$ | | | | | | | 8.3 |
| | | | | | $n_{eto}$ | | | | | | | - |
| 12D20- | 5.5 | 1950 | 2.6 | 1.10 | $M_0$ | | | 5.7 | 6.4 | 6.4 | 6.4 | 6.4 |
| | | | | | $M_N$ | | | 5.1 | 5.5 | 5.5 | 5.5 | 5.5 |
| | | | | | $M_{0,max}$ | | | 9.6 | 12.6 | 15.3 | 17.7 | 17.7 |
| | | | | | $M_{max}$ | | | 9.6 | 12.6 | 15.3 | 17.7 | 17.7 |
| | | | | | $n_{eto}$ | | | - | - | - | - | - |
| 12D41- | 4.3 | 4050 | 4.5 | 1.80 | $M_0$ | | | | 3.8 | 4.6 | 6.4 | 6.4 |
| | | | | | $M_N$ | | | | 3.0 | 3.7 | 4.3 | 4.3 |
| | | | | | $M_{0,max}$ | | | | 6.4 | 7.8 | 11.4 | 14.0 |
| | | | | | $M_{max}$ | | | | 6.4 | 7.8 | 11.4 | 14.0 |
| | | | | | $n_{eto}$ | | | | - | - | - | - |
| 12H15- | 10.0 | 1500 | 3.8 | 1.60 | $M_0$ | | | | 9.2 | 10.9 | 11.4 | 11.4 |
| | | | | | $M_N$ | | | | 8.4 | 10.0 | 10.0 | 10.0 |
| | | | | | $M_{0,max}$ | | | | 16.4 | 20.0 | 29.0 | 29.0 |
| | | | | | $M_{max}$ | | | | 16.4 | 20.0 | 29.0 | 29.0 |
| | | | | | $n_{eto}$ | | | | - | - | - | - |
| 12H35- | 7.5 | 3525 | 5.7 | 2.80 | $M_0$ | | | | | | 9.8 | 9.8 |
| | | | | | $M_N$ | | | | | | 7.5 | 7.5 |
| | | | | | $M_{0,max}$ | | | | | | 15.2 | 18.8 |
| | | | | | $M_{max}$ | | | | | | 15.2 | 18.8 |
| | | | | | $n_{eto}$ | | | | | | - | - |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| □4024 | □5524 | □7524 | □1134 | □1534 | □1834 | □2234 | □3034 | E84AVTC | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.5 | 13.0 | 16.5 | 23.5 | 32.0 | 39.0 | 47.0 | 61.0 | $I_N$ | | | | | |
| 14.3 | 19.5 | 26.4 | 32.9 | 43.2 | 60.0 | 70.5 | 91.5 | $I_{0,max}$ | | | | | |
| 19.0 | 26.0 | 33.0 | 47.0 | 64.0 | 78.0 | 94.0 | 122.0 | $I_{max}$ | $P_N$ | $I_N$ | $n_N$ | $M_N$ | MCS |
| 4.2 | 4.2 | | | | | | | $M_0$ | | | | | |
| 2.4 | 2.4 | | | | | | | $M_N$ | | | | | |
| 11.1 | 11.4 | | | | | | | $M_{0,max}$ | 1.50 | 4.5 | 6000 | 2.4 | 09F60- |
| 11.1 | 11.4 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| 5.5 | 5.5 | | | | | | | $M_0$ | | | | | |
| 3.8 | 3.8 | | | | | | | $M_N$ | | | | | |
| 19.6 | 20.1 | | | | | | | $M_{0,max}$ | 1.60 | 3.4 | 4050 | 3.8 | 09H41- |
| 19.6 | 20.1 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| 5.5 | 5.5 | | | | | | | $M_0$ | | | | | |
| 3.0 | 3.0 | | | | | | | $M_N$ | | | | | |
| 11.4 | 11.7 | | | | | | | $M_{0,max}$ | 1.90 | 6.0 | 6000 | 3.0 | 09H60- |
| 11.4 | 11.7 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| 7.5 | 7.5 | | | | | | | $M_0$ | | | | | |
| 4.5 | 4.5 | | | | | | | $M_N$ | | | | | |
| 20.3 | 20.8 | | | | | | | $M_{0,max}$ | 1.90 | 4.2 | 4050 | 4.5 | 09L41- |
| 20.3 | 20.8 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| 7.5 | 7.5 | 7.5 | 7.5 | | | | | $M_0$ | | | | | |
| 3.6 | 3.6 | 3.6 | 3.6 | | | | | $M_N$ | | | | | |
| 10.8 | 19.1 | 19.1 | 19.1 | | | | | $M_{0,max}$ | 1.90 | 6.9 | 5100 | 3.6 | 09L51- |
| 10.8 | 19.1 | 19.1 | 19.1 | | | | | $M_{max}$ | | | | | |
| - | - | - | - | | | | | $n_{eto}$ | | | | | |
| | | | | | | | | $M_0$ | | | | | |
| | | | | | | | | $M_N$ | | | | | |
| | | | | | | | | $M_{0,max}$ | 1.10 | 2.6 | 1950 | 5.5 | 12D20- |
| | | | | | | | | $M_{max}$ | | | | | |
| | | | | | | | | $n_{eto}$ | | | | | |
| 6.4 | 6.4 | | | | | | | $M_0$ | | | | | |
| 4.3 | 4.3 | | | | | | | $M_N$ | | | | | |
| 16.9 | 17.3 | | | | | | | $M_{0,max}$ | 1.80 | 4.5 | 4050 | 4.3 | 12D41- |
| 16.9 | 17.3 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| 11.4 | 11.4 | | | | | | | $M_0$ | | | | | |
| 10.0 | 10.0 | | | | | | | $M_N$ | | | | | |
| 28.3 | 29.0 | | | | | | | $M_{0,max}$ | 1.60 | 3.8 | 1500 | 10.0 | 12H15- |
| 28.3 | 29.0 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| 11.4 | 11.4 | | | | | | | $M_0$ | | | | | |
| 7.5 | 7.5 | | | | | | | $M_N$ | | | | | |
| 23.5 | 24.1 | | | | | | | $M_{0,max}$ | 2.80 | 5.7 | 3525 | 7.5 | 12H35- |
| 23.5 | 24.1 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | E84AVTC | □3714 | □5514 | □7514 | □1124 | □1524 | □2224 | □3024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.3 | 1.8 | 2.4 | 3.2 | 3.9 | 5.9 | 7.3 |
| | | | | | $I_{0,max}$ | 2.0 | 2.7 | 3.6 | 4.8 | 5.9 | 8.4 | 11.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 2.6 | 3.6 | 4.8 | 6.4 | 7.8 | 11.2 | 14.6 |
| 12L20- | 13.5 | 1950 | 5.9 | 2.80 | $M_0$ | | | | | | 15.0 | 15.0 |
| | | | | | $M_N$ | | | | | | 13.5 | 13.5 |
| | | | | | $M_{0,max}$ | | | | | | 27.4 | 33.9 |
| | | | | | $M_{max}$ | | | | | | 27.4 | 33.9 |
| | | | | | $n_{eto}$ | | | | | | - | - |
| 12L41- | 11.0 | 4050 | 10.2 | 4.70 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |
| 14D15- | 9.2 | 1500 | 4.5 | 1.45 | $M_0$ | | | | 7.0 | 8.5 | 11.0 | 11.0 |
| | | | | | $M_N$ | | | | 6.6 | 8.0 | 9.2 | 9.2 |
| | | | | | $M_{0,max}$ | | | | 13.1 | 16.0 | 22.7 | 28.1 |
| | | | | | $M_{max}$ | | | | 13.1 | 16.0 | 22.7 | 28.1 |
| | | | | | $n_{eto}$ | | | | - | - | - | - |
| 14D36- | 7.5 | 3600 | 7.5 | 2.80 | $M_0$ | | | | | | | 8.0 |
| | | | | | $M_N$ | | | | | | | 7.3 |
| | | | | | $M_{0,max}$ | | | | | | | 15.2 |
| | | | | | $M_{max}$ | | | | | | | 15.2 |
| | | | | | $n_{eto}$ | | | | | | | - |
| 14H15- | 16.0 | 1500 | 6.6 | 2.50 | $M_0$ | | | | | | | 17.3 |
| | | | | | $M_N$ | | | | | | | 16.0 |
| | | | | | $M_{0,max}$ | | | | | | | 35.3 |
| | | | | | $M_{max}$ | | | | | | | 35.3 |
| | | | | | $n_{eto}$ | | | | | | | - |
| 14H32- | 14.0 | 3225 | 11.9 | 4.70 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |
| 14L15- | 23.0 | 1500 | 9.7 | 3.60 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |
| 14L32- | 17.2 | 3225 | 15.0 | 5.80 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |
| 14P14- | 30.0 | 1350 | 10.8 | 4.20 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| □4024 | □5524 | □7524 | □1134 | □1534 | □1834 | □2234 | □3034 | E84AVTC | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.5 | 13.0 | 16.5 | 23.5 | 32.0 | 39.0 | 47.0 | 61.0 | $I_N$ | | | | | |
| 14.3 | 19.5 | 26.4 | 32.9 | 43.2 | 60.0 | 70.5 | 91.5 | $I_{0,max}$ | | | | | |
| 19.0 | 26.0 | 33.0 | 47.0 | 64.0 | 78.0 | 94.0 | 122.0 | $I_{max}$ | $P_N$ | $I_N$ | $n_N$ | $M_N$ | MCS |
| 15.0 | 15.0 | | | | | | | $M_0$ | | | | | |
| 13.5 | 13.5 | | | | | | | $M_N$ | | | | | |
| 40.8 | 41.9 | | | | | | | $M_{0,max}$ | 2.80 | 5.9 | 1950 | 13.5 | 12L20- |
| 40.8 | 41.9 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| 14.0 | 15.0 | 15.0 | 15.0 | 15.0 | | | | $M_0$ | | | | | |
| 10.2 | 11.0 | 11.0 | 11.0 | 11.0 | | | | $M_N$ | | | | | |
| 22.2 | 30.4 | 35.5 | 35.5 | 35.5 | | | | $M_{0,max}$ | 4.70 | 10.2 | 4050 | 11.0 | 12L41- |
| 22.2 | 30.4 | 49.6 | 49.6 | 49.6 | | | | $M_{max}$ | | | | | |
| - | - | - | - | - | | | | $n_{eto}$ | | | | | |
| 11.0 | 11.0 | | | | | | | $M_0$ | | | | | |
| 9.2 | 9.2 | | | | | | | $M_N$ | | | | | |
| 28.3 | 29.0 | | | | | | | $M_{0,max}$ | 1.45 | 4.5 | 1500 | 9.2 | 14D15- |
| 28.3 | 29.0 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| 11.0 | 11.0 | 11.0 | 11.0 | | | | | $M_0$ | | | | | |
| 7.5 | 7.5 | 7.5 | 7.5 | | | | | $M_N$ | | | | | |
| 18.5 | 25.3 | 29.0 | 29.0 | | | | | $M_{0,max}$ | 2.80 | 7.5 | 3600 | 7.5 | 14D36- |
| 18.5 | 22.2 | 22.2 | 22.2 | | | | | $M_{max}$ | | | | | |
| - | - | - | - | | | | | $n_{eto}$ | | | | | |
| 21.0 | 21.0 | | | | | | | $M_0$ | | | | | |
| 16.0 | 16.0 | | | | | | | $M_N$ | | | | | |
| 42.8 | 43.9 | | | | | | | $M_{0,max}$ | 2.50 | 6.6 | 1500 | 16.0 | 14H15- |
| 42.8 | 43.9 | | | | | | | $M_{max}$ | | | | | |
| - | - | | | | | | | $n_{eto}$ | | | | | |
| 12.9 | 16.2 | 21.0 | 21.0 | 21.0 | | | | $M_0$ | | | | | |
| 11.2 | 14.0 | 14.0 | 14.0 | 14.0 | | | | $M_N$ | | | | | |
| 23.2 | 31.7 | 37.1 | 37.1 | 37.1 | | | | $M_{0,max}$ | 4.70 | 11.9 | 3225 | 14.0 | 14H32- |
| 23.2 | 31.7 | 51.9 | 51.9 | 51.9 | | | | $M_{max}$ | | | | | |
| - | - | - | - | - | | | | $n_{eto}$ | | | | | |
| 27.4 | 28.0 | 28.0 | 28.0 | | | | | $M_0$ | | | | | |
| 22.5 | 23.0 | 23.0 | 23.0 | | | | | $M_N$ | | | | | |
| 43.8 | 52.9 | 52.9 | 52.9 | | | | | $M_{0,max}$ | 3.60 | 9.7 | 1500 | 23.0 | 14L15- |
| 43.8 | 60.0 | 73.8 | 73.8 | | | | | $M_{max}$ | | | | | |
| - | - | - | - | | | | | $n_{eto}$ | | | | | |
| | 15.2 | 27.4 | 27.4 | 28.0 | 28.0 | 28.0 | | $M_0$ | | | | | |
| | 14.9 | 17.2 | 17.2 | 17.2 | 17.2 | 17.2 | | $M_N$ | | | | | |
| | 31.3 | 39.7 | 52.9 | 52.9 | 52.9 | 52.9 | | $M_{0,max}$ | 5.80 | 15.0 | 3225 | 17.2 | 14L32- |
| | 31.3 | 57.6 | 73.9 | 73.9 | 73.9 | 73.9 | | $M_{max}$ | | | | | |
| | - | - | - | - | - | - | | $n_{eto}$ | | | | | |
| 32.5 | 37.0 | 37.0 | 37.0 | 37.0 | | | | $M_0$ | | | | | |
| 26.4 | 30.0 | 30.0 | 30.0 | 30.0 | | | | $M_N$ | | | | | |
| 51.2 | 70.0 | 80.0 | 80.0 | 80.0 | | | | $M_{0,max}$ | 4.20 | 10.8 | 1350 | 30.0 | 14P14- |
| 51.2 | 70.0 | 105.1 | 105.1 | 105.1 | | | | $M_{max}$ | | | | | |
| - | - | - | - | - | | | | $n_{eto}$ | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | E84AVTC | □3714 | □5514 | □7514 | □1124 | □1524 | □2224 | □3024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.3 | 1.8 | 2.4 | 3.2 | 3.9 | 5.9 | 7.3 |
| | | | | | $I_{0,max}$ | 2.0 | 2.7 | 3.6 | 4.8 | 5.9 | 8.4 | 11.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 2.6 | 3.6 | 4.8 | 6.4 | 7.8 | 11.2 | 14.6 |
| 14P32- | 21.0 | 3225 | 15.6 | 7.10 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |
| 19F14- | 27.0 | 1425 | 8.6 | 4.00 | $M_0$ | | | | | | | 23.6 |
| | | | | | $M_N$ | | | | | | | 22.9 |
| | | | | | $M_{0,max}$ | | | | | | | 45.9 |
| | | | | | $M_{max}$ | | | | | | | 45.9 |
| | | | | | $n_{eto}$ | | | | | | | - |
| 19F30- | 21.0 | 3000 | 14.0 | 6.60 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |
| 19J14- | 40.0 | 1425 | 12.3 | 6.00 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |
| 19J30- | 29.0 | 3000 | 18.5 | 9.10 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |
| 19P14- | 51.0 | 1350 | 14.3 | 7.20 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |
| 19P30- | 32.0 | 3000 | 19.0 | 10.00 | $M_0$ | | | | | | | |
| | | | | | $M_N$ | | | | | | | |
| | | | | | $M_{0,max}$ | | | | | | | |
| | | | | | $M_{max}$ | | | | | | | |
| | | | | | $n_{eto}$ | | | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| □4024 | □5524 | □7524 | □1134 | □1534 | □1834 | □2234 | □3034 | E84AVTC | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.5 | 13.0 | 16.5 | 23.5 | 32.0 | 39.0 | 47.0 | 61.0 | $I_N$ | | | | | |
| 14.3 | 19.5 | 26.4 | 32.9 | 43.2 | 60.0 | 70.5 | 91.5 | $I_{0,max}$ | | | | | |
| 19.0 | 26.0 | 33.0 | 47.0 | 64.0 | 78.0 | 94.0 | 122.0 | $I_{max}$ | $P_N$ | $I_N$ | $n_N$ | $M_N$ | MCS |
| | 19.8 | 35.8 | 35.8 | 37.0 | 37.0 | 37.0 | | $M_0$ | | | | | |
| | 17.5 | 21.0 | 21.0 | 21.0 | 21.0 | 21.0 | | $M_N$ | | | | | |
| | 36.5 | 46.3 | 61.8 | 61.8 | 61.8 | 61.8 | | $M_{0,max}$ | 7.10 | 15.6 | 3225 | 21.0 | 14P32- |
| | 36.5 | 67.3 | 86.4 | 86.4 | 86.4 | 86.4 | | $M_{max}$ | | | | | |
| | - | - | - | - | - | - | | $n_{eto}$ | | | | | |
| 32.0 | 32.0 | 32.0 | 32.0 | | | | | $M_0$ | | | | | |
| 27.0 | 27.0 | 27.0 | 27.0 | | | | | $M_N$ | | | | | |
| 56.7 | 68.3 | 68.3 | 68.3 | | | | | $M_{0,max}$ | 4.00 | 8.6 | 1425 | 27.0 | 19F14- |
| 56.7 | 77.6 | 86.0 | 86.0 | | | | | $M_{max}$ | | | | | |
| - | - | - | - | | | | | $n_{eto}$ | | | | | |
| | 21.0 | 32.0 | 32.0 | 32.0 | | | | $M_0$ | | | | | |
| | 19.5 | 21.0 | 21.0 | 21.0 | | | | $M_N$ | | | | | |
| | 47.2 | 47.2 | 47.2 | 47.2 | | | | $M_{0,max}$ | 6.60 | 14.0 | 3000 | 21.0 | 19F30- |
| | 38.9 | 68.3 | 68.3 | 68.3 | | | | $M_{max}$ | | | | | |
| | - | - | - | - | | | | $n_{eto}$ | | | | | |
| | 43.6 | 51.0 | 51.0 | 51.0 | | | | $M_0$ | | | | | |
| | 40.0 | 40.0 | 40.0 | 40.0 | | | | $M_N$ | | | | | |
| | 81.1 | 96.0 | 96.0 | 96.0 | | | | $M_{0,max}$ | 6.00 | 12.3 | 1425 | 40.0 | 19J14- |
| | 81.1 | 129.0 | 129.0 | 129.0 | | | | $M_{max}$ | | | | | |
| | - | - | - | - | | | | $n_{eto}$ | | | | | |
| | | | 39.3 | 51.0 | 51.0 | 51.0 | 51.0 | $M_0$ | | | | | |
| | | | 29.0 | 29.0 | 29.0 | 29.0 | 29.0 | $M_N$ | | | | | |
| | | | 73.6 | 79.5 | 79.5 | 79.5 | 79.5 | $M_{0,max}$ | 9.10 | 18.5 | 3000 | 29.0 | 19J30- |
| | | | 110.4 | 127.6 | 127.6 | 127.6 | 127.6 | $M_{max}$ | | | | | |
| | | | - | - | - | - | - | $n_{eto}$ | | | | | |
| | 47.5 | 64.0 | 64.0 | 64.0 | | | | $M_0$ | | | | | |
| | 46.4 | 51.0 | 51.0 | 51.0 | | | | $M_N$ | | | | | |
| | 92.7 | 106.7 | 106.7 | 106.7 | | | | $M_{0,max}$ | 7.20 | 14.3 | 1350 | 51.0 | 19P14- |
| | 92.7 | 155.5 | 155.5 | 155.5 | | | | $M_{max}$ | | | | | |
| | - | - | - | - | | | | $n_{eto}$ | | | | | |
| | | | 43.1 | 58.7 | 64.0 | 64.0 | 64.0 | $M_0$ | | | | | |
| | | | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 | $M_N$ | | | | | |
| | | | 79.2 | 87.6 | 87.6 | 87.6 | 87.6 | $M_{0,max}$ | 10.00 | 19.0 | 3000 | 32.0 | 19P30- |
| | | | 118.6 | 144.3 | 144.3 | 144.3 | 144.3 | $M_{max}$ | | | | | |
| | | | - | - | - | - | - | $n_{eto}$ | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | E84AVTC | □1124 | □1524 | □2224 | □3024 | □4024 | □5524 | □7524 | □1134 | □1534 | □1834 | □2234 | □3034 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 3.2 | 3.9 | 5.9 | 7.3 | 9.5 | 13.0 | 16.5 | 23.5 | 32.0 | 39.0 | 47.0 | 61.0 |
| | | | | | $I_{0,max}$ | 4.8 | 5.9 | 8.4 | 11.0 | 14.3 | 19.5 | 26.4 | 32.9 | 43.2 | 60.0 | 70.5 | 91.5 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 6.4 | 7.8 | 11.2 | 14.6 | 19.0 | 26.0 | 33.0 | 47.0 | 64.0 | 78.0 | 94.0 | 122.0 |
| 12D17- | 7.0 | 1650 | 3.0 | 1.20 | $M_0$ | 7.5 | 7.5 | 7.5 | 7.5 | | | | | | | | |
| | | | | | $M_N$ | 7.0 | 7.0 | 7.0 | 7.0 | | | | | | | | |
| | | | | | $M_{0,max}$ | 12.6 | 15.3 | 17.7 | 17.7 | | | | | | | | |
| | | | | | $M_{max}$ | 12.6 | 15.3 | 17.7 | 17.7 | | | | | | | | |
| | | | | | $n_{eto}$ | - | - | - | - | | | | | | | | |
| 12D35- | 6.0 | 3525 | 5.6 | 2.20 | $M_0$ | | 4.6 | 7.5 | 7.5 | 7.5 | 7.5 | | | | | | |
| | | | | | $M_N$ | | 3.7 | 6.0 | 6.0 | 6.0 | 6.0 | | | | | | |
| | | | | | $M_{0,max}$ | | 7.8 | 11.4 | 14.0 | 16.9 | 17.3 | | | | | | |
| | | | | | $M_{max}$ | | 7.8 | 11.4 | 14.0 | 16.9 | 17.3 | | | | | | |
| | | | | | $n_{eto}$ | | - | - | - | - | - | | | | | | |
| 12H14- | 12.0 | 1350 | 4.1 | 1.70 | $M_0$ | 8.9 | 10.9 | 12.8 | 12.8 | 12.8 | 12.8 | | | | | | |
| | | | | | $M_N$ | 8.5 | 10.3 | 12.0 | 12.0 | 12.0 | 12.0 | | | | | | |
| | | | | | $M_{0,max}$ | 16.4 | 20.0 | 29.0 | 29.0 | 28.3 | 29.0 | | | | | | |
| | | | | | $M_{max}$ | 16.4 | 20.0 | 29.0 | 29.0 | 28.3 | 29.0 | | | | | | |
| | | | | | $n_{eto}$ | - | - | - | - | - | - | | | | | | |
| 12H34- | 10.5 | 3375 | 7.5 | 3.70 | $M_0$ | | | | 10.2 | 12.8 | 12.8 | | | | | | |
| | | | | | $M_N$ | | | | 10.0 | 10.5 | 10.5 | | | | | | |
| | | | | | $M_{0,max}$ | | | | 18.8 | 23.5 | 24.1 | | | | | | |
| | | | | | $M_{max}$ | | | | 18.8 | 23.5 | 24.1 | | | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | | | | |
| 12L17- | 17.0 | 1650 | 6.7 | 2.90 | $M_0$ | | | | 18.5 | 19.0 | 19.0 | | | | | | |
| | | | | | $M_N$ | | | | 17.0 | 17.0 | 17.0 | | | | | | |
| | | | | | $M_{0,max}$ | | | | 33.9 | 40.8 | 41.9 | | | | | | |
| | | | | | $M_{max}$ | | | | 33.9 | 40.8 | 41.9 | | | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | | | | |
| 12L39- | 14.0 | 3900 | 11.7 | 5.70 | $M_0$ | | | | | 17.2 | 17.2 | 19.0 | 19.0 | 19.0 | | | |
| | | | | | $M_N$ | | | | | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | | | |
| | | | | | $M_{0,max}$ | | | | | 22.2 | 30.4 | 35.5 | 35.5 | 35.5 | | | |
| | | | | | $M_{max}$ | | | | | 22.2 | 30.4 | 49.6 | 49.6 | 49.6 | | | |
| | | | | | $n_{eto}$ | | | | | - | - | - | - | - | | | |
| 14D14- | 12.0 | 1350 | 5.4 | 1.70 | $M_0$ | | 8.5 | 12.5 | 12.5 | 12.5 | 12.5 | | | | | | |
| | | | | | $M_N$ | | 8.0 | 12.0 | 12.0 | 12.0 | 12.0 | | | | | | |
| | | | | | $M_{0,max}$ | | 16.0 | 22.7 | 28.1 | 28.3 | 29.0 | | | | | | |
| | | | | | $M_{max}$ | | 16.0 | 22.7 | 28.1 | 28.3 | 29.0 | | | | | | |
| | | | | | $n_{eto}$ | | - | - | - | - | - | | | | | | |
| 14D30- | 10.5 | 3000 | 9.7 | 3.30 | $M_0$ | | | | 7.7 | 12.2 | 12.5 | 12.5 | 12.5 | | | | |
| | | | | | $M_N$ | | | | 7.0 | 9.8 | 10.0 | 10.0 | 10.0 | | | | |
| | | | | | $M_{0,max}$ | | | | 15.2 | 18.5 | 25.3 | 29.0 | 29.0 | | | | |
| | | | | | $M_{max}$ | | | | 15.2 | 18.5 | 22.2 | 22.2 | 22.2 | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | - | | | | |
| 14H12- | 23.5 | 1200 | 8.3 | 3.00 | $M_0$ | | | | 18.0 | 25.5 | 25.5 | | | | | | |
| | | | | | $M_N$ | | | | 17.9 | 23.5 | 23.5 | | | | | | |
| | | | | | $M_{0,max}$ | | | | 35.3 | 42.8 | 43.9 | | | | | | |
| | | | | | $M_{max}$ | | | | 35.3 | 42.8 | 43.9 | | | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | E84AVTC | □1124 | □1524 | □2224 | □3024 | □4024 | □5524 | □7524 | □1134 | □1534 | □1834 | □2234 | □3034 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 3.2 | 3.9 | 5.9 | 7.3 | 9.5 | 13.0 | 16.5 | 23.5 | 32.0 | 39.0 | 47.0 | 61.0 |
| | | | | | $I_{0,max}$ | 4.8 | 5.9 | 8.4 | 11.0 | 14.3 | 19.5 | 26.4 | 32.9 | 43.2 | 60.0 | 70.5 | 91.5 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 6.4 | 7.8 | 11.2 | 14.6 | 19.0 | 26.0 | 33.0 | 47.0 | 64.0 | 78.0 | 94.0 | 122.0 |
| 14H28- | 20.5 | 2775 | 15.0 | 6.00 | $M_0$ | | | | | | 16.2 | 25.5 | 25.5 | 25.5 | | | |
| | | | | | $M_N$ | | | | | | 16.1 | 20.5 | 20.5 | 20.5 | | | |
| | | | | | $M_{0,max}$ | | | | | | 31.7 | 37.1 | 37.1 | 37.1 | | | |
| | | | | | $M_{max}$ | | | | | | 31.7 | 51.9 | 51.9 | 51.9 | | | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | | | |
| 14L14- | 30.5 | 1350 | 11.8 | 4.30 | $M_0$ | | | | | 26.9 | 33.4 | 34.5 | 34.5 | | | | |
| | | | | | $M_N$ | | | | | 24.6 | 30.5 | 30.5 | 30.5 | | | | |
| | | | | | $M_{0,max}$ | | | | | 43.8 | 52.9 | 52.9 | 52.9 | | | | |
| | | | | | $M_{max}$ | | | | | 43.8 | 60.0 | 73.8 | 73.8 | | | | |
| | | | | | $n_{eto}$ | | | | | - | - | - | - | | | | |
| 14L30- | 25.5 | 3000 | 20.8 | 8.00 | $M_0$ | | | | | | | | 27.4 | 34.5 | 34.5 | 34.5 | |
| | | | | | $M_N$ | | | | | | | | 25.5 | 25.5 | 25.5 | 25.5 | |
| | | | | | $M_{0,max}$ | | | | | | | | 52.9 | 52.9 | 52.9 | 52.9 | |
| | | | | | $M_{max}$ | | | | | | | | 73.9 | 73.9 | 73.9 | 73.9 | |
| | | | | | $n_{eto}$ | | | | | | | | - | - | - | - | |
| 14P11- | 42.0 | 1050 | 13.4 | 4.60 | $M_0$ | | | | | | 38.9 | 43.5 | 43.5 | 43.5 | | | |
| | | | | | $M_N$ | | | | | | 38.8 | 42.0 | 42.0 | 42.0 | | | |
| | | | | | $M_{0,max}$ | | | | | | 70.0 | 80.0 | 80.0 | 80.0 | | | |
| | | | | | $M_{max}$ | | | | | | 70.0 | 105.1 | 105.1 | 105.1 | | | |
| | | | | | $n_{eto}$ | | | | | | - | - | - | - | | | |
| 14P26- | 33.0 | 2625 | 21.9 | 9.10 | $M_0$ | | | | | | | | 35.8 | 43.5 | 43.5 | 43.5 | |
| | | | | | $M_N$ | | | | | | | | 33.0 | 33.0 | 33.0 | 33.0 | |
| | | | | | $M_{0,max}$ | | | | | | | | 66.0 | 86.4 | 86.4 | 86.4 | |
| | | | | | $M_{max}$ | | | | | | | | 86.4 | 86.4 | 86.4 | 86.4 | |
| | | | | | $n_{eto}$ | | | | | | | | - | - | - | - | |
| 19F12- | 38.0 | 1200 | 11.3 | 4.80 | $M_0$ | | | | 23.6 | 34.9 | 41.5 | 41.5 | 41.5 | | | | |
| | | | | | $M_N$ | | | | 22.9 | 31.9 | 38.0 | 38.0 | 38.0 | | | | |
| | | | | | $M_{0,max}$ | | | | 45.9 | 56.7 | 68.3 | 68.3 | 68.3 | | | | |
| | | | | | $M_{max}$ | | | | 45.9 | 56.7 | 77.6 | 86.0 | 86.0 | | | | |
| | | | | | $n_{eto}$ | | | | - | - | - | - | - | | | | |
| 19F29- | 32.5 | 2850 | 20.1 | 9.70 | $M_0$ | | | | | | | | 39.9 | 41.5 | | | |
| | | | | | $M_N$ | | | | | | | | 32.5 | 32.5 | | | |
| | | | | | $M_{0,max}$ | | | | | | | | 47.2 | 47.2 | | | |
| | | | | | $M_{max}$ | | | | | | | | 68.3 | 68.3 | | | |
| | | | | | $n_{eto}$ | | | | | | | | - | - | | | |
| 19J12- | 62.5 | 1200 | 18.3 | 7.90 | $M_0$ | | | | | | 43.6 | | 70.5 | 70.5 | | | |
| | | | | | $M_N$ | | | | | | 43.4 | | 62.5 | 62.5 | | | |
| | | | | | $M_{0,max}$ | | | | | | 81.1 | | 96.0 | 96.0 | | | |
| | | | | | $M_{max}$ | | | | | | 81.1 | | 129.0 | 129.0 | | | |
| | | | | | $n_{eto}$ | | | | | | - | | - | - | | | |
| 19J29- | 50.5 | 2850 | 31.0 | 15.10 | $M_0$ | | | | | | | | | 55.5 | 70.5 | 70.5 | 70.5 |
| | | | | | $M_N$ | | | | | | | | | 50.5 | 50.5 | 50.5 | 50.5 |
| | | | | | $M_{0,max}$ | | | | | | | | | 87.6 | 87.6 | 87.6 | 87.6 |
| | | | | | $M_{max}$ | | | | | | | | | 127.6 | 127.6 | 127.6 | 127.6 |
| | | | | | $n_{eto}$ | | | | | | | | | - | - | - | - |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Inverter Drives 8400 TopLine

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | E84AVTC | □1124 | □1524 | □2224 | □3024 | □4024 | □5524 | □7524 | □1134 | □1534 | □1834 | □2234 | □3034 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 3.2 | 3.9 | 5.9 | 7.3 | 9.5 | 13.0 | 16.5 | 23.5 | 32.0 | 39.0 | 47.0 | 61.0 |
| | | | | | $I_{0,max}$ | 4.8 | 5.9 | 8.4 | 11.0 | 14.3 | 19.5 | 26.4 | 32.9 | 43.2 | 60.0 | 70.5 | 91.5 |
| **MCS** | **$M_N$** | **$n_N$** | **$I_N$** | **$P_N$** | $I_{max}$ | 6.4 | 7.8 | 11.2 | 14.6 | 19.0 | 26.0 | 33.0 | 47.0 | 64.0 | 78.0 | 94.0 | 122.0 |
| 19P12- | 72.0 | 1200 | 21.3 | 9.00 | $M_0$ | | | | | | 47.5 | | 86.0 | 86.0 | | | |
| | | | | | $M_N$ | | | | | | 46.4 | | 72.0 | 72.0 | | | |
| | | | | | $M_{0,max}$ | | | | | | 92.7 | | 106.7 | 106.7 | | | |
| | | | | | $M_{max}$ | | | | | | 92.7 | | 155.5 | 155.5 | | | |
| | | | | | $n_{eto}$ | | | | | | - | | - | - | | | |
| 19P29- | 53.0 | 2850 | 29.5 | 15.80 | $M_0$ | | | | | | | | | 58.7 | 86.0 | 86.0 | 86.0 |
| | | | | | $M_N$ | | | | | | | | | 53.0 | 53.0 | 53.0 | 53.0 |
| | | | | | $M_{0,max}$ | | | | | | | | | 87.6 | 87.6 | 87.6 | 87.6 |
| | | | | | $M_{max}$ | | | | | | | | | 144.3 | 144.3 | 144.3 | 144.3 |
| | | | | | $n_{eto}$ | | | | | | | | | - | - | - | - |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives ECS

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | ECS□□ | 004C□B | 008C□B | 016C□B | 032C□B | 048C□B | 064C□B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.0 | 4.0 | 8.0 | 12.7 | 17.0 | 20.0 |
| | | | | | $I_{0,max}$ | 2.3 | 4.6 | 9.1 | 18.1 | 27.2 | 36.3 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 4.0 | 8.0 | 16.0 | 32.0 | 48.0 | 64.0 |
| 06C41- | 0.6 | 4050 | 1.3 | 0.25 | $M_0$ | 0.8 | | | | | |
| | | | | | $M_N$ | 0.6 | | | | | |
| | | | | | $M_{0,max}$ | 1.2 | | | | | |
| | | | | | $M_{max}$ | 1.9 | | | | | |
| | | | | | $n_{eto}$ | 2747 | | | | | |
| 06C60- | 0.5 | 6000 | 2.4 | 0.31 | $M_0$ | 0.6 | 0.8 | | | | |
| | | | | | $M_N$ | 0.4 | 0.5 | | | | |
| | | | | | $M_{0,max}$ | 0.6 | 1.2 | | | | |
| | | | | | $M_{max}$ | 1.0 | 1.9 | | | | |
| | | | | | $n_{eto}$ | 7000 | 6814 | | | | |
| 06F41- | 1.2 | 4050 | 1.5 | 0.51 | $M_0$ | 1.5 | | | | | |
| | | | | | $M_N$ | 1.2 | | | | | |
| | | | | | $M_{0,max}$ | 2.0 | | | | | |
| | | | | | $M_{max}$ | 3.6 | | | | | |
| | | | | | $n_{eto}$ | 1902 | | | | | |
| 06F60- | 0.9 | 6000 | 2.5 | 0.57 | $M_0$ | 1.0 | 1.5 | | | | |
| | | | | | $M_N$ | 0.7 | 0.9 | | | | |
| | | | | | $M_{0,max}$ | 1.0 | 2.0 | | | | |
| | | | | | $M_{max}$ | 1.8 | 3.7 | | | | |
| | | | | | $n_{eto}$ | 7000 | 4602 | | | | |
| 06I41- | 1.5 | 4050 | 1.6 | 0.64 | $M_0$ | 2.0 | 2.0 | | | | |
| | | | | | $M_N$ | 1.5 | 1.5 | | | | |
| | | | | | $M_{0,max}$ | 2.6 | 5.0 | | | | |
| | | | | | $M_{max}$ | 4.4 | 6.2 | | | | |
| | | | | | $n_{eto}$ | 1898 | 1384 | | | | |
| 06I60- | 1.2 | 6000 | 2.9 | 0.75 | $M_0$ | 1.2 | 2.0 | 2.0 | | | |
| | | | | | $M_N$ | 0.8 | 1.2 | 1.2 | | | |
| | | | | | $M_{0,max}$ | 1.3 | 2.6 | 5.2 | | | |
| | | | | | $M_{max}$ | 2.2 | 4.7 | 6.2 | | | |
| | | | | | $n_{eto}$ | 6407 | 4200 | 3157 | | | |
| 09D41- | 2.3 | 4050 | 2.3 | 1.00 | $M_0$ | | 3.3 | 3.3 | | | |
| | | | | | $M_N$ | | 2.3 | 2.3 | | | |
| | | | | | $M_{0,max}$ | | 5.0 | 8.8 | | | |
| | | | | | $M_{max}$ | | 8.0 | 9.4 | | | |
| | | | | | $n_{eto}$ | | 2361 | 2008 | | | |
| 09D60- | 1.8 | 6000 | 3.8 | 1.10 | $M_0$ | | 2.5 | 3.3 | | | |
| | | | | | $M_N$ | | 1.8 | 1.8 | | | |
| | | | | | $M_{0,max}$ | | 2.5 | 4.9 | | | |
| | | | | | $M_{max}$ | | 4.4 | 8.0 | | | |
| | | | | | $n_{eto}$ | | 7000 | 5217 | | | |
| 09F38- | 3.1 | 3750 | 2.5 | 1.20 | $M_0$ | | 4.2 | 4.2 | | | |
| | | | | | $M_N$ | | 3.1 | 3.1 | | | |
| | | | | | $M_{0,max}$ | | 6.2 | 10.8 | | | |
| | | | | | $M_{max}$ | | 9.8 | 14.9 | | | |
| | | | | | $n_{eto}$ | | 2589 | 1737 | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives ECS

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | ECS□□ | 004C□B | 008C□B | 016C□B | 032C□B | 048C□B | 064C□B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.0 | 4.0 | 8.0 | 12.7 | 17.0 | 20.0 |
| | | | | | $I_{0,max}$ | 2.3 | 4.6 | 9.1 | 18.1 | 27.2 | 36.3 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 4.0 | 8.0 | 16.0 | 32.0 | 48.0 | 64.0 |
| 09F60- | 2.4 | 6000 | 4.5 | 1.50 | $M_0$ | | 2.8 | 4.2 | 4.2 | | |
| | | | | | $M_N$ | | 2.1 | 2.4 | 2.4 | | |
| | | | | | $M_{0,max}$ | | 3.2 | 6.1 | 10.8 | | |
| | | | | | $M_{max}$ | | 5.4 | 9.8 | 14.9 | | |
| | | | | | $n_{eto}$ | | 7000 | 5906 | 3715 | | |
| 09H41- | 3.8 | 4050 | 3.4 | 1.60 | $M_0$ | | 5.2 | 5.5 | | | |
| | | | | | $M_N$ | | 3.8 | 3.8 | | | |
| | | | | | $M_{0,max}$ | | 5.9 | 11.1 | | | |
| | | | | | $M_{max}$ | | 9.9 | 17.5 | | | |
| | | | | | $n_{eto}$ | | 3675 | 2231 | | | |
| 09H60- | 3.0 | 6000 | 6.0 | 1.90 | $M_0$ | | | 5.2 | 5.5 | 5.5 | |
| | | | | | $M_N$ | | | 3.0 | 3.0 | 3.0 | |
| | | | | | $M_{0,max}$ | | | 5.9 | 11.0 | 15.5 | |
| | | | | | $M_{max}$ | | | 9.9 | 17.5 | 20.4 | |
| | | | | | $n_{eto}$ | | | 7000 | 5061 | 4375 | |
| 09L41- | 4.5 | 4050 | 4.2 | 1.90 | $M_0$ | | 4.8 | 7.5 | 7.5 | | |
| | | | | | $M_N$ | | 4.3 | 4.5 | 4.5 | | |
| | | | | | $M_{0,max}$ | | 5.2 | 10.3 | 19.5 | | |
| | | | | | $M_{max}$ | | 9.1 | 17.4 | 31.9 | | |
| | | | | | $n_{eto}$ | | 4450 | 3188 | 1878 | | |
| 09L51- | 3.6 | 5100 | 6.9 | 1.90 | $M_0$ | | | 4.8 | 7.5 | 7.5 | 7.5 |
| | | | | | $M_N$ | | | 3.6 | 3.6 | 3.6 | 3.6 |
| | | | | | $M_{0,max}$ | | | 5.2 | 10.3 | 15.1 | 19.6 |
| | | | | | $M_{max}$ | | | 9.1 | 17.5 | 25.1 | 31.9 |
| | | | | | $n_{eto}$ | | | 7000 | 7000 | 5647 | 4076 |
| 12D20- | 5.5 | 1950 | 2.6 | 1.10 | $M_0$ | 4.7 | 6.4 | 6.4 | | | |
| | | | | | $M_N$ | 4.2 | 5.5 | 5.5 | | | |
| | | | | | $M_{0,max}$ | 4.6 | 9.1 | 17.0 | | | |
| | | | | | $M_{max}$ | 8.0 | 15.3 | 17.7 | | | |
| | | | | | $n_{eto}$ | 1730 | 1089 | 919 | | | |
| 12D41- | 4.3 | 4050 | 4.5 | 1.80 | $M_0$ | | 4.7 | 6.4 | | | |
| | | | | | $M_N$ | | 3.8 | 4.3 | | | |
| | | | | | $M_{0,max}$ | | 4.6 | 8.8 | | | |
| | | | | | $M_{max}$ | | 7.8 | 14.7 | | | |
| | | | | | $n_{eto}$ | | 3902 | 2433 | | | |
| 12H15- | 10.0 | 1500 | 3.8 | 1.60 | $M_0$ | | 11.2 | 11.4 | | | |
| | | | | | $M_N$ | | 10.0 | 10.0 | | | |
| | | | | | $M_{0,max}$ | | 11.9 | 22.6 | | | |
| | | | | | $M_{max}$ | | 20.1 | 29.0 | | | |
| | | | | | $n_{eto}$ | | 1220 | 918 | | | |
| 12H35- | 7.5 | 3525 | 5.7 | 2.80 | $M_0$ | | 5.6 | 11.2 | 11.4 | | |
| | | | | | $M_N$ | | 5.3 | 7.5 | 7.5 | | |
| | | | | | $M_{0,max}$ | | 6.0 | 11.8 | 22.5 | | |
| | | | | | $M_{max}$ | | 10.4 | 20.1 | 29.0 | | |
| | | | | | $n_{eto}$ | | 3850 | 2838 | 2092 | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives ECS

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | ECS□□ | 004C□B | 008C□B | 016C□B | 032C□B | 048C□B | 064C□B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.0 | 4.0 | 8.0 | 12.7 | 17.0 | 20.0 |
| | | | | | $I_{0,max}$ | 2.3 | 4.6 | 9.1 | 18.1 | 27.2 | 36.3 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 4.0 | 8.0 | 16.0 | 32.0 | 48.0 | 64.0 |
| 12L20- | 13.5 | 1950 | 5.9 | 2.80 | $M_0$ | | | 15.0 | 15.0 | | |
| | | | | | $M_N$ | | | 13.5 | 13.5 | | |
| | | | | | $M_{0,max}$ | | | 21.4 | 39.4 | | |
| | | | | | $M_{max}$ | | | 35.5 | 56.4 | | |
| | | | | | $n_{eto}$ | | | 1324 | 863 | | |
| 12L41- | 11.0 | 4050 | 10.2 | 4.70 | $M_0$ | | | 9.7 | 15.0 | 15.0 | 15.0 |
| | | | | | $M_N$ | | | 8.6 | 11.0 | 11.0 | 11.0 |
| | | | | | $M_{0,max}$ | | | 10.8 | 21.3 | 30.8 | 39.5 |
| | | | | | $M_{max}$ | | | 19.0 | 35.5 | 49.6 | 56.4 |
| | | | | | $n_{eto}$ | | | 4450 | 3013 | 2236 | 1907 |
| 14D15- | 9.2 | 1500 | 4.5 | 1.45 | $M_0$ | | 8.8 | 11.0 | | | |
| | | | | | $M_N$ | | 8.2 | 9.2 | | | |
| | | | | | $M_{0,max}$ | | 9.6 | 17.9 | | | |
| | | | | | $M_{max}$ | | 15.9 | 28.3 | | | |
| | | | | | $n_{eto}$ | | 1141 | 689 | | | |
| 14D36- | 7.5 | 3600 | 7.5 | 2.80 | $M_0$ | | | 8.8 | 11.0 | | |
| | | | | | $M_N$ | | | 7.5 | 7.5 | | |
| | | | | | $M_{0,max}$ | | | 9.5 | 17.8 | | |
| | | | | | $M_{max}$ | | | 15.9 | 28.3 | | |
| | | | | | $n_{eto}$ | | | 2496 | 1614 | | |
| 14H15- | 16.0 | 1500 | 6.6 | 2.50 | $M_0$ | | | 19.8 | 21.0 | | |
| | | | | | $M_N$ | | | 16.0 | 16.0 | | |
| | | | | | $M_{0,max}$ | | | 22.3 | 41.2 | | |
| | | | | | $M_{max}$ | | | 37.1 | 54.8 | | |
| | | | | | $n_{eto}$ | | | 920 | 667 | | |
| 14H32- | 14.0 | 3225 | 11.9 | 4.70 | $M_0$ | | | | 15.8 | 21.0 | 21.0 |
| | | | | | $M_N$ | | | | 14.0 | 14.0 | 14.0 |
| | | | | | $M_{0,max}$ | | | | 22.2 | 32.1 | 41.3 |
| | | | | | $M_{max}$ | | | | 37.1 | 51.9 | 54.8 |
| | | | | | $n_{eto}$ | | | | 1953 | 1471 | 1409 |
| 14L15- | 23.0 | 1500 | 9.7 | 3.60 | $M_0$ | | | 18.7 | 28.0 | 28.0 | |
| | | | | | $M_N$ | | | 19.0 | 23.0 | 23.0 | |
| | | | | | $M_{0,max}$ | | | 21.9 | 42.1 | 59.9 | |
| | | | | | $M_{max}$ | | | 37.6 | 68.5 | 77.1 | |
| | | | | | $n_{eto}$ | | | 1284 | 828 | 767 | |
| 14L32- | 17.2 | 3225 | 15.0 | 5.80 | $M_0$ | | | | 14.8 | 19.8 | 23.3 |
| | | | | | $M_N$ | | | | 14.6 | 17.2 | 17.2 |
| | | | | | $M_{0,max}$ | | | | 21.8 | 32.4 | 42.2 |
| | | | | | $M_{max}$ | | | | 37.6 | 53.9 | 68.5 |
| | | | | | $n_{eto}$ | | | | 2801 | 2096 | 1757 |
| 14P14- | 30.0 | 1350 | 10.8 | 4.20 | $M_0$ | | | | 37.0 | 37.0 | 37.0 |
| | | | | | $M_N$ | | | | 30.0 | 30.0 | 30.0 |
| | | | | | $M_{0,max}$ | | | | 49.1 | 70.0 | 88.4 |
| | | | | | $M_{max}$ | | | | 80.0 | 105.1 | 105.1 |
| | | | | | $n_{eto}$ | | | | 710 | 573 | 573 |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives ECS

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | ECS□□ | 004C□B | 008C□B | 016C□B | 032C□B | 048C□B | 064C□B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.0 | 4.0 | 8.0 | 12.7 | 17.0 | 20.0 |
| | | | | | $I_{0,max}$ | 2.3 | 4.6 | 9.1 | 18.1 | 27.2 | 36.3 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 4.0 | 8.0 | 16.0 | 32.0 | 48.0 | 64.0 |
| 14P32- | 21.0 | 3225 | 15.6 | 7.10 | $M_0$ | | | | 19.3 | 25.9 | 30.5 |
| | | | | | $M_N$ | | | | 17.1 | 21.0 | 21.0 |
| | | | | | $M_{0,max}$ | | | | 25.4 | 37.9 | 49.3 |
| | | | | | $M_{max}$ | | | | 43.9 | 63.0 | 80.0 |
| | | | | | $n_{eto}$ | | | | 2469 | 1829 | 1495 |
| 19F14- | 27.0 | 1425 | 8.6 | 4.00 | $M_0$ | | | 25.9 | 32.0 | | |
| | | | | | $M_N$ | | | 25.1 | 27.0 | | |
| | | | | | $M_{0,max}$ | | | 28.6 | 54.6 | | |
| | | | | | $M_{max}$ | | | 48.9 | 86.0 | | |
| | | | | | $n_{eto}$ | | | 1204 | 746 | | |
| 19F30- | 21.0 | 3000 | 14.0 | 6.60 | $M_0$ | | | | 20.5 | 27.5 | 32.0 |
| | | | | | $M_N$ | | | | 19.0 | 21.0 | 21.0 |
| | | | | | $M_{0,max}$ | | | | 27.2 | 40.5 | 53.0 |
| | | | | | $M_{max}$ | | | | 47.2 | 68.3 | 86.0 |
| | | | | | $n_{eto}$ | | | | 2774 | 2033 | 1653 |
| 19J14- | 40.0 | 1425 | 12.3 | 6.00 | $M_0$ | | | | 42.6 | 51.0 | |
| | | | | | $M_N$ | | | | 40.0 | 40.0 | |
| | | | | | $M_{0,max}$ | | | | 58.9 | 82.8 | |
| | | | | | $M_{max}$ | | | | 96.0 | 129.0 | |
| | | | | | $n_{eto}$ | | | | 1063 | 839 | |
| 19J30- | 29.0 | 3000 | 18.5 | 9.10 | $M_0$ | | | | | 28.4 | 33.4 |
| | | | | | $M_N$ | | | | | 26.6 | 29.0 |
| | | | | | $M_{0,max}$ | | | | | 42.6 | 56.9 |
| | | | | | $M_{max}$ | | | | | 73.8 | 96.0 |
| | | | | | $n_{eto}$ | | | | | 2850 | 2323 |
| 19P14- | 51.0 | 1350 | 14.3 | 7.20 | $M_0$ | | | | 46.4 | 62.2 | 64.0 |
| | | | | | $M_N$ | | | | 45.3 | 51.0 | 51.0 |
| | | | | | $M_{0,max}$ | | | | 64.6 | 91.5 | 120.1 |
| | | | | | $M_{max}$ | | | | 106.7 | 155.5 | 190.0 |
| | | | | | $n_{eto}$ | | | | 1227 | 996 | 870 |
| 19P30- | 32.0 | 3000 | 19.0 | 10.00 | $M_0$ | | | | | 31.2 | 36.7 |
| | | | | | $M_N$ | | | | | 28.6 | 32.0 |
| | | | | | $M_{0,max}$ | | | | | 45.8 | 61.1 |
| | | | | | $M_{max}$ | | | | | 81.2 | 106.7 |
| | | | | | $n_{eto}$ | | | | | 2938 | 2715 |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives ECS

### Non-ventilated motors

► The data applies to a mains connection voltage of 3x230V and an inverter switching frequency of 4 kHz.

| | | | | | ECS□□ | 004C□B | 008C□B | 016C□B | 032C□B | 048C□B | 064C□B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.0 | 4.0 | 8.0 | 12.7 | 17.0 | 20.0 |
| | | | | | $I_{0,max}$ | 2.3 | 4.6 | 9.1 | 18.1 | 27.2 | 36.3 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 4.0 | 8.0 | 16.0 | 32.0 | 48.0 | 64.0 |
| 06C41L | 0.6 | 4050 | 2.6 | 0.25 | $M_0$ | 0.6 | 0.8 | | | | |
| | | | | | $M_N$ | 0.5 | 0.6 | | | | |
| | | | | | $M_{0,max}$ | 0.6 | 1.1 | | | | |
| | | | | | $M_{max}$ | 1.0 | 1.9 | | | | |
| | | | | | $n_{eto}$ | 6298 | 2835 | | | | |
| 06C60L | 0.5 | 6000 | 4.0 | 0.31 | $M_0$ | | 0.7 | 0.8 | | | |
| | | | | | $M_N$ | | 0.5 | 0.5 | | | |
| | | | | | $M_{0,max}$ | | 0.7 | 1.3 | | | |
| | | | | | $M_{max}$ | | 1.2 | 2.2 | | | |
| | | | | | $n_{eto}$ | | 7000 | 1149 | | | |
| 06F41L | 1.2 | 4050 | 2.9 | 0.51 | $M_0$ | 1.0 | 1.5 | 1.5 | | | |
| | | | | | $M_N$ | 0.8 | 1.2 | 1.2 | | | |
| | | | | | $M_{0,max}$ | 1.2 | 2.1 | 3.9 | | | |
| | | | | | $M_{max}$ | 1.9 | 3.5 | 4.4 | | | |
| | | | | | $n_{eto}$ | 3838 | 2118 | 2831 | | | |
| 06F60L | 0.9 | 6000 | 3.8 | 0.57 | $M_0$ | | 1.5 | 1.5 | | | |
| | | | | | $M_N$ | | 0.9 | 0.9 | | | |
| | | | | | $M_{0,max}$ | | 1.5 | 2.9 | | | |
| | | | | | $M_{max}$ | | 2.6 | 4.3 | | | |
| | | | | | $n_{eto}$ | | 6138 | 3182 | | | |
| 06I41L | 1.5 | 4050 | 3.2 | 0.64 | $M_0$ | 1.3 | 2.0 | 2.0 | | | |
| | | | | | $M_N$ | 1.0 | 1.5 | 1.5 | | | |
| | | | | | $M_{0,max}$ | 1.4 | 2.8 | 5.0 | | | |
| | | | | | $M_{max}$ | 2.4 | 4.4 | 6.2 | | | |
| | | | | | $n_{eto}$ | 3549 | 1947 | 2831 | | | |
| 06I60L | 1.2 | 6000 | 3.8 | 0.75 | $M_0$ | | 1.9 | 2.0 | | | |
| | | | | | $M_N$ | | 1.2 | 1.2 | | | |
| | | | | | $M_{0,max}$ | | 2.1 | 4.1 | | | |
| | | | | | $M_{max}$ | | 3.6 | 6.2 | | | |
| | | | | | $n_{eto}$ | | 3417 | 1149 | | | |
| 09D41L | 2.3 | 4050 | 4.6 | 1.00 | $M_0$ | | 2.5 | 3.3 | 3.3 | | |
| | | | | | $M_N$ | | 2.0 | 2.3 | 2.3 | | |
| | | | | | $M_{0,max}$ | | 2.5 | 4.9 | 8.8 | | |
| | | | | | $M_{max}$ | | 4.4 | 8.0 | 9.5 | | |
| | | | | | $n_{eto}$ | | 4091 | 2547 | 2170 | | |
| 09D60L | 1.8 | 6000 | 7.0 | 1.10 | $M_0$ | | | 2.6 | 3.3 | 3.3 | |
| | | | | | $M_N$ | | | 1.8 | 1.8 | 1.8 | |
| | | | | | $M_{0,max}$ | | | 2.6 | 5.0 | 7.1 | |
| | | | | | $M_{max}$ | | | 4.5 | 8.1 | 9.5 | |
| | | | | | $n_{eto}$ | | | 7000 | 5373 | 4626 | |
| 09F38L | 3.1 | 3750 | 5.0 | 1.20 | $M_0$ | | | 4.2 | 4.2 | | |
| | | | | | $M_N$ | | | 3.1 | 3.1 | | |
| | | | | | $M_{0,max}$ | | | 6.1 | 10.8 | | |
| | | | | | $M_{max}$ | | | 9.8 | 15.0 | | |
| | | | | | $n_{eto}$ | | | 1149 | 1951 | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives ECS

### Non-ventilated motors

► The data applies to a mains connection voltage of 3x230V and an inverter switching frequency of 4 kHz.

| | | | | | ECS□□ | 004C□B | 008C□B | 016C□B | 032C□B | 048C□B | 064C□B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.0 | 4.0 | 8.0 | 12.7 | 17.0 | 20.0 |
| | | | | | $I_{0,max}$ | 2.3 | 4.6 | 9.1 | 18.1 | 27.2 | 36.3 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 4.0 | 8.0 | 16.0 | 32.0 | 48.0 | 64.0 |
| 09F60L | 2.4 | 6000 | 7.9 | 1.50 | $M_0$ | | | 3.2 | 4.2 | 4.2 | 4.2 |
| | | | | | $M_N$ | | | 2.4 | 2.4 | 2.4 | 2.4 |
| | | | | | $M_{0,max}$ | | | 3.6 | 6.8 | 9.6 | 11.9 |
| | | | | | $M_{max}$ | | | 6.1 | 10.9 | 14.3 | 15.0 |
| | | | | | $n_{eto}$ | | | 6985 | 3448 | 2612 | 2397 |
| 09H41L | 3.8 | 4050 | 6.8 | 1.60 | $M_0$ | | | 5.2 | 5.5 | 5.5 | |
| | | | | | $M_N$ | | | 3.8 | 3.8 | 3.8 | |
| | | | | | $M_{0,max}$ | | | 5.9 | 11.0 | 15.3 | |
| | | | | | $M_{max}$ | | | 9.9 | 17.2 | 20.0 | |
| | | | | | $n_{eto}$ | | | 1149 | 2138 | 1852 | |
| 09H60L | 3.0 | 6000 | 8.0 | 1.90 | $M_0$ | | | 3.7 | 5.5 | 5.5 | 5.5 |
| | | | | | $M_N$ | | | 3.0 | 3.0 | 3.0 | 3.0 |
| | | | | | $M_{0,max}$ | | | 4.1 | 8.0 | 11.5 | 14.5 |
| | | | | | $M_{max}$ | | | 7.2 | 13.2 | 17.9 | 20.0 |
| | | | | | $n_{eto}$ | | | 1149 | 4081 | 2984 | 2695 |
| 09L41L | 4.5 | 4050 | 8.4 | 1.90 | $M_0$ | | | 4.8 | 7.5 | 7.5 | 7.5 |
| | | | | | $M_N$ | | | 4.3 | 4.5 | 4.5 | 4.5 |
| | | | | | $M_{0,max}$ | | | 5.2 | 10.3 | 15.1 | 19.6 |
| | | | | | $M_{max}$ | | | 9.1 | 17.5 | 25.1 | 31.9 |
| | | | | | $n_{eto}$ | | | 4562 | 3243 | 2497 | 1909 |
| 12D20L | 5.5 | 1950 | 5.2 | 1.10 | $M_0$ | | 4.7 | 6.4 | | | |
| | | | | | $M_N$ | | 4.2 | 5.5 | | | |
| | | | | | $M_{0,max}$ | | 4.6 | 9.0 | | | |
| | | | | | $M_{max}$ | | 8.0 | 14.9 | | | |
| | | | | | $n_{eto}$ | | 1878 | 1181 | | | |
| 12D41L | 4.3 | 4050 | 8.8 | 1.80 | $M_0$ | | | 4.8 | 6.4 | 6.4 | |
| | | | | | $M_N$ | | | 3.9 | 4.3 | 4.3 | |
| | | | | | $M_{0,max}$ | | | 4.6 | 9.2 | 13.3 | |
| | | | | | $M_{max}$ | | | 8.1 | 15.2 | 17.9 | |
| | | | | | $n_{eto}$ | | | 4102 | 2535 | 2187 | |
| 12H15L | 10.0 | 1500 | 7.6 | 1.60 | $M_0$ | | | 11.2 | 11.4 | | |
| | | | | | $M_N$ | | | 10.0 | 10.0 | | |
| | | | | | $M_{0,max}$ | | | 11.8 | 22.5 | | |
| | | | | | $M_{max}$ | | | 20.1 | 29.0 | | |
| | | | | | $n_{eto}$ | | | 1098 | 827 | | |
| 12H30L | 8.0 | 3000 | 10.5 | 2.50 | $M_0$ | | | 6.8 | 10.7 | 11.4 | |
| | | | | | $M_N$ | | | 6.1 | 8.0 | 8.0 | |
| | | | | | $M_{0,max}$ | | | 7.2 | 14.3 | 20.9 | |
| | | | | | $M_{max}$ | | | 12.7 | 24.3 | 29.0 | |
| | | | | | $n_{eto}$ | | | 2831 | 1849 | 1591 | |
| 12L20L | 13.5 | 1950 | 11.8 | 2.80 | $M_0$ | | | | 15.0 | 15.0 | 15.0 |
| | | | | | $M_N$ | | | | 13.5 | 13.5 | 13.5 |
| | | | | | $M_{0,max}$ | | | | 21.3 | 30.7 | 39.4 |
| | | | | | $M_{max}$ | | | | 35.4 | 49.3 | 56.0 |
| | | | | | $n_{eto}$ | | | | 1307 | 1004 | 866 |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives ECS

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | ECS□□ | 004C□B | 008C□B | 016C□B | 032C□B | 048C□B | 064C□B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.0 | 4.0 | 8.0 | 12.7 | 17.0 | 20.0 |
| | | | | | $I_{0,max}$ | 2.3 | 4.6 | 9.1 | 18.1 | 27.2 | 36.3 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 4.0 | 8.0 | 16.0 | 32.0 | 48.0 | 64.0 |
| 12D17- | 7.0 | 1650 | 3.0 | 1.20 | $M_0$ | 4.7 | 7.5 | 7.5 | | | |
| | | | | | $M_N$ | 4.2 | 7.0 | 7.0 | | | |
| | | | | | $M_{0,max}$ | 4.6 | 9.1 | 17.0 | | | |
| | | | | | $M_{max}$ | 8.0 | 15.3 | 17.7 | | | |
| | | | | | $n_{eto}$ | 1730 | 1089 | 919 | | | |
| 12D35- | 6.0 | 3525 | 5.6 | 2.20 | $M_0$ | | 4.7 | 7.5 | | | |
| | | | | | $M_N$ | | 3.8 | 6.0 | | | |
| | | | | | $M_{0,max}$ | | 4.6 | 8.8 | | | |
| | | | | | $M_{max}$ | | 7.8 | 14.7 | | | |
| | | | | | $n_{eto}$ | | 3902 | 2433 | | | |
| 12H14- | 12.0 | 1350 | 4.1 | 1.70 | $M_0$ | | 11.2 | 12.8 | | | |
| | | | | | $M_N$ | | 10.6 | 12.0 | | | |
| | | | | | $M_{0,max}$ | | 11.9 | 22.6 | | | |
| | | | | | $M_{max}$ | | 20.1 | 29.0 | | | |
| | | | | | $n_{eto}$ | | 1220 | 918 | | | |
| 12H34- | 10.5 | 3375 | 7.5 | 3.70 | $M_0$ | | 5.6 | 11.2 | 12.8 | | |
| | | | | | $M_N$ | | 5.3 | 10.0 | 7.5 | | |
| | | | | | $M_{0,max}$ | | 6.0 | 11.8 | 22.5 | | |
| | | | | | $M_{max}$ | | 10.4 | 20.1 | 29.0 | | |
| | | | | | $n_{eto}$ | | 3850 | 2838 | 2092 | | |
| 12L17- | 17.0 | 1650 | 6.7 | 2.90 | $M_0$ | | | 19.0 | 19.0 | | |
| | | | | | $M_N$ | | | 17.0 | 17.0 | | |
| | | | | | $M_{0,max}$ | | | 21.4 | 39.4 | | |
| | | | | | $M_{max}$ | | | 35.5 | 56.4 | | |
| | | | | | $n_{eto}$ | | | 1324 | 863 | | |
| 12L39- | 14.0 | 3900 | 11.7 | 5.70 | $M_0$ | | | 9.7 | 16.7 | 19.0 | 19.0 |
| | | | | | $M_N$ | | | 8.6 | 14.0 | 14.0 | 14.0 |
| | | | | | $M_{0,max}$ | | | 10.8 | 21.3 | 30.8 | 39.5 |
| | | | | | $M_{max}$ | | | 19.0 | 35.5 | 49.6 | 56.4 |
| | | | | | $n_{eto}$ | | | 4450 | 3013 | 2236 | 1907 |
| 14D14- | 12.0 | 1350 | 5.4 | 1.70 | $M_0$ | | 8.8 | 12.5 | | | |
| | | | | | $M_N$ | | 8.2 | 12.0 | | | |
| | | | | | $M_{0,max}$ | | 9.6 | 17.9 | | | |
| | | | | | $M_{max}$ | | 15.9 | 28.3 | | | |
| | | | | | $n_{eto}$ | | 1141 | 689 | | | |
| 14D30- | 10.5 | 3000 | 9.7 | 3.30 | $M_0$ | | | 8.8 | 11.4 | | |
| | | | | | $M_N$ | | | 8.6 | 9.7 | | |
| | | | | | $M_{0,max}$ | | | 9.5 | 17.8 | | |
| | | | | | $M_{max}$ | | | 15.9 | 28.3 | | |
| | | | | | $n_{eto}$ | | | 2496 | 1614 | | |
| 14H12- | 23.5 | 1200 | 8.3 | 3.00 | $M_0$ | | | 19.8 | 25.5 | | |
| | | | | | $M_N$ | | | 19.6 | 23.5 | | |
| | | | | | $M_{0,max}$ | | | 22.3 | 41.2 | | |
| | | | | | $M_{max}$ | | | 37.1 | 54.8 | | |
| | | | | | $n_{eto}$ | | | 920 | 667 | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives ECS

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | ECS□□ | 004C□B | 008C□B | 016C□B | 032C□B | 048C□B | 064C□B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.0 | 4.0 | 8.0 | 12.7 | 17.0 | 20.0 |
| | | | | | $I_{0,max}$ | 2.3 | 4.6 | 9.1 | 18.1 | 27.2 | 36.3 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 4.0 | 8.0 | 16.0 | 32.0 | 48.0 | 64.0 |
| 14H28- | 20.5 | 2775 | 15.0 | 6.00 | $M_0$ | | | | 15.8 | 23.5 | 25.5 |
| | | | | | $M_N$ | | | | 15.6 | 20.5 | 20.5 |
| | | | | | $M_{0,max}$ | | | | 22.2 | 32.1 | 41.3 |
| | | | | | $M_{max}$ | | | | 37.1 | 51.9 | 54.8 |
| | | | | | $n_{eto}$ | | | | 1953 | 1471 | 1409 |
| 14L14- | 30.5 | 1350 | 11.8 | 4.30 | $M_0$ | | | 18.7 | 32.7 | 34.5 | |
| | | | | | $M_N$ | | | 19.0 | 30.5 | 30.5 | |
| | | | | | $M_{0,max}$ | | | 21.9 | 42.1 | 59.9 | |
| | | | | | $M_{max}$ | | | 37.6 | 68.5 | 77.1 | |
| | | | | | $n_{eto}$ | | | 1284 | 828 | 767 | |
| 14L30- | 25.5 | 3000 | 20.8 | 8.00 | $M_0$ | | | | | 19.8 | 23.3 |
| | | | | | $M_N$ | | | | | 19.7 | 23.3 |
| | | | | | $M_{0,max}$ | | | | | 32.4 | 42.2 |
| | | | | | $M_{max}$ | | | | | 53.9 | 68.5 |
| | | | | | $n_{eto}$ | | | | | 2096 | 1757 |
| 14P11- | 42.0 | 1050 | 13.4 | 4.60 | $M_0$ | | | | 39.1 | 43.5 | 43.5 |
| | | | | | $M_N$ | | | | 38.9 | 42.0 | 42.0 |
| | | | | | $M_{0,max}$ | | | | 49.1 | 70.0 | 88.4 |
| | | | | | $M_{max}$ | | | | 80.0 | 105.1 | 105.1 |
| | | | | | $n_{eto}$ | | | | 710 | 573 | 573 |
| 14P26- | 33.0 | 2625 | 21.9 | 9.10 | $M_0$ | | | | | 25.9 | 30.5 |
| | | | | | $M_N$ | | | | | 25.6 | 30.1 |
| | | | | | $M_{0,max}$ | | | | | 37.9 | 49.3 |
| | | | | | $M_{max}$ | | | | | 63.0 | 80.0 |
| | | | | | $n_{eto}$ | | | | | 1829 | 1495 |
| 19F12- | 38.0 | 1200 | 11.3 | 4.80 | $M_0$ | | | 25.9 | 41.5 | | |
| | | | | | $M_N$ | | | 25.1 | 38.0 | | |
| | | | | | $M_{0,max}$ | | | 28.6 | 54.6 | | |
| | | | | | $M_{max}$ | | | 48.9 | 86.0 | | |
| | | | | | $n_{eto}$ | | | 1204 | 746 | | |
| 19F29- | 32.5 | 2850 | 20.1 | 9.70 | $M_0$ | | | | | 27.5 | 33.9 |
| | | | | | $M_N$ | | | | | 27.4 | 32.5 |
| | | | | | $M_{0,max}$ | | | | | 40.5 | 53.0 |
| | | | | | $M_{max}$ | | | | | 68.3 | 86.0 |
| | | | | | $n_{eto}$ | | | | | 2033 | 1653 |
| 19J12- | 62.5 | 1200 | 18.3 | 7.90 | $M_0$ | | | | | 59.0 | 69.4 |
| | | | | | $M_N$ | | | | | 58.1 | 62.5 |
| | | | | | $M_{0,max}$ | | | | | 82.8 | 82.8 |
| | | | | | $M_{max}$ | | | | | 129.0 | 129.0 |
| | | | | | $n_{eto}$ | | | | | 839 | 839 |
| 19J29- | 50.5 | 2850 | 31.0 | 15.10 | $M_0$ | | | | | | 34.3 |
| | | | | | $M_N$ | | | | | | 32.6 |
| | | | | | $M_{0,max}$ | | | | | | 56.9 |
| | | | | | $M_{max}$ | | | | | | 96.0 |
| | | | | | $n_{eto}$ | | | | | | 2323 |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Drives ECS

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 4 kHz.

| | | | | | ECS□□ | 004C□B | 008C□B | 016C□B | 032C□B | 048C□B | 064C□B |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.0 | 4.0 | 8.0 | 12.7 | 17.0 | 20.0 |
| | | | | | $I_{0,max}$ | 2.3 | 4.6 | 9.1 | 18.1 | 27.2 | 36.3 |
| **MCS** | **$M_N$** | **$n_N$** | **$I_N$** | **$P_N$** | $I_{max}$ | 4.0 | 8.0 | 16.0 | 32.0 | 48.0 | 64.0 |
| 19P12- | 72.0 | 1200 | 21.3 | 9.00 | $M_0$ | | | | | 62.2 | 76.8 |
| | | | | | $M_N$ | | | | | 57.5 | 67.6 |
| | | | | | $M_{0,max}$ | | | | | 91.5 | 120.1 |
| | | | | | $M_{max}$ | | | | | 155.5 | 190.0 |
| | | | | | $n_{eto}$ | | | | | 996 | 870 |
| 19P29- | 53.0 | 2850 | 29.5 | 15.80 | $M_0$ | | | | | | 36.7 |
| | | | | | $M_N$ | | | | | | 35.9 |
| | | | | | $M_{0,max}$ | | | | | | 61.1 |
| | | | | | $M_{max}$ | | | | | | 106.7 |
| | | | | | $n_{eto}$ | | | | | | 2715 |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Inverter 9300

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | EVS | 9321-E□ | 9322-E□ | 9323-E□ | 9324-E□ | 9325-E□ | 9326-E□ | 9327-E□ | 9328-E□ | 9329-E□ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.5 | 2.5 | 3.9 | 7.0 | 13.0 | 23.5 | 32.0 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 2.3 | 3.8 | 5.9 | 10.5 | 19.5 | 23.5 | 32.0 | 47.0 | 52.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 2.3 | 3.8 | 5.9 | 10.5 | 19.5 | 35.3 | 48.0 | 70.5 | 88.5 |
| 06C41- | 0.6 | 4050 | 1.3 | 0.25 | $M_0$ | 0.8 | 0.8 | 0.8 | | | | | | |
| | | | | | $M_N$ | 0.6 | 0.6 | 0.6 | | | | | | |
| | | | | | $M_{0,max}$ | 1.2 | 1.8 | 2.4 | | | | | | |
| | | | | | $M_{max}$ | 1.2 | 1.8 | 2.4 | | | | | | |
| | | | | | $n_{eto}$ | 4635 | 2871 | 2019 | | | | | | |
| 06C60- | 0.5 | 6000 | 2.4 | 0.31 | $M_0$ | | 0.8 | 0.8 | 0.8 | | | | | |
| | | | | | $M_N$ | | 0.5 | 0.5 | 0.5 | | | | | |
| | | | | | $M_{0,max}$ | | 1.0 | 1.5 | 2.4 | | | | | |
| | | | | | $M_{max}$ | | 1.0 | 1.5 | 2.4 | | | | | |
| | | | | | $n_{eto}$ | | 7000 | 7000 | 5368 | | | | | |
| 06F41- | 1.2 | 4050 | 1.5 | 0.51 | $M_0$ | 1.5 | 1.5 | 1.5 | | | | | | |
| | | | | | $M_N$ | 1.2 | 1.2 | 1.2 | | | | | | |
| | | | | | $M_{0,max}$ | 2.0 | 3.4 | 4.4 | | | | | | |
| | | | | | $M_{max}$ | 2.0 | 3.4 | 4.4 | | | | | | |
| | | | | | $n_{eto}$ | 2819 | 1973 | 1562 | | | | | | |
| 06F60- | 0.9 | 6000 | 2.5 | 0.57 | $M_0$ | | 1.3 | 1.5 | 1.5 | | | | | |
| | | | | | $M_N$ | | 0.9 | 0.9 | 0.9 | | | | | |
| | | | | | $M_{0,max}$ | | 1.7 | 3.0 | 4.4 | | | | | |
| | | | | | $M_{max}$ | | 1.7 | 3.0 | 4.4 | | | | | |
| | | | | | $n_{eto}$ | | 7000 | 5714 | 3773 | | | | | |
| 06I41- | 1.5 | 4050 | 1.6 | 0.64 | $M_0$ | 1.8 | 2.0 | 2.0 | | | | | | |
| | | | | | $M_N$ | 1.4 | 1.5 | 1.5 | | | | | | |
| | | | | | $M_{0,max}$ | 2.6 | 4.2 | 6.2 | | | | | | |
| | | | | | $M_{max}$ | 2.6 | 4.2 | 6.2 | | | | | | |
| | | | | | $n_{eto}$ | 2994 | 1980 | 1384 | | | | | | |
| 06I60- | 1.2 | 6000 | 2.9 | 0.75 | $M_0$ | | 1.5 | 2.0 | 2.0 | | | | | |
| | | | | | $M_N$ | | 1.0 | 1.2 | 1.2 | | | | | |
| | | | | | $M_{0,max}$ | | 2.1 | 3.3 | 5.7 | | | | | |
| | | | | | $M_{max}$ | | 2.1 | 3.3 | 5.7 | | | | | |
| | | | | | $n_{eto}$ | | 7000 | 5486 | 3414 | | | | | |
| 09D41- | 2.3 | 4050 | 2.3 | 1.00 | $M_0$ | | 3.1 | 3.3 | 3.3 | | | | | |
| | | | | | $M_N$ | | 2.3 | 2.3 | 2.3 | | | | | |
| | | | | | $M_{0,max}$ | | 4.2 | 6.2 | 9.4 | | | | | |
| | | | | | $M_{max}$ | | 4.2 | 6.2 | 9.4 | | | | | |
| | | | | | $n_{eto}$ | | 4895 | 2937 | 2008 | | | | | |
| 09D60- | 1.8 | 6000 | 3.8 | 1.10 | $M_0$ | | | 2.4 | 3.3 | 3.3 | | | | |
| | | | | | $M_N$ | | | 1.8 | 1.8 | 1.8 | | | | |
| | | | | | $M_{0,max}$ | | | 3.2 | 5.6 | 9.3 | | | | |
| | | | | | $M_{max}$ | | | 3.2 | 5.6 | 9.3 | | | | |
| | | | | | $n_{eto}$ | | | 7000 | 7000 | 4492 | | | | |
| 09F38- | 3.1 | 3750 | 2.5 | 1.20 | $M_0$ | | 3.5 | 4.2 | 4.2 | | | | | |
| | | | | | $M_N$ | | 3.1 | 3.1 | 3.1 | | | | | |
| | | | | | $M_{0,max}$ | | 5.2 | 7.7 | 12.0 | | | | | |
| | | | | | $M_{max}$ | | 5.2 | 7.7 | 12.0 | | | | | |
| | | | | | $n_{eto}$ | | 4000 | 3250 | 2173 | | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Inverter 9300

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | EVS | 9321-E□ | 9322-E□ | 9323-E□ | 9324-E□ | 9325-E□ | 9326-E□ | 9327-E□ | 9328-E□ | 9329-E□ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.5 | 2.5 | 3.9 | 7.0 | 13.0 | 23.5 | 32.0 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 2.3 | 3.8 | 5.9 | 10.5 | 19.5 | 23.5 | 32.0 | 47.0 | 52.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 2.3 | 3.8 | 5.9 | 10.5 | 19.5 | 35.3 | 48.0 | 70.5 | 88.5 |
| 09F60- | 2.4 | 6000 | 4.5 | 1.50 | $M_0$ | | | | 4.2 | 4.2 | | | | |
| | | | | | $M_N$ | | | | 2.4 | 2.4 | | | | |
| | | | | | $M_{0,max}$ | | | | 6.9 | 11.4 | | | | |
| | | | | | $M_{max}$ | | | | 6.9 | 11.4 | | | | |
| | | | | | $n_{eto}$ | | | | 7000 | 5035 | | | | |
| 09H41- | 3.8 | 4050 | 3.4 | 1.60 | $M_0$ | | | 5.0 | 5.5 | 5.5 | | | | |
| | | | | | $M_N$ | | | 3.8 | 3.8 | 3.8 | | | | |
| | | | | | $M_{0,max}$ | | | 7.5 | 12.5 | 20.1 | | | | |
| | | | | | $M_{max}$ | | | 7.5 | 12.5 | 20.1 | | | | |
| | | | | | $n_{eto}$ | | | 4250 | 2977 | 1988 | | | | |
| 09H60- | 3.0 | 6000 | 6.0 | 1.90 | $M_0$ | | | | 4.5 | 5.5 | | | | |
| | | | | | $M_N$ | | | | 3.0 | 3.0 | | | | |
| | | | | | $M_{0,max}$ | | | | 6.7 | 11.7 | | | | |
| | | | | | $M_{max}$ | | | | 6.7 | 11.7 | | | | |
| | | | | | $n_{eto}$ | | | | 7000 | 7000 | | | | |
| 09L41- | 4.5 | 4050 | 4.2 | 1.90 | $M_0$ | | | 4.7 | 7.5 | 7.5 | | | | |
| | | | | | $M_N$ | | | 4.2 | 4.5 | 4.5 | | | | |
| | | | | | $M_{0,max}$ | | | 6.7 | 11.7 | 20.8 | | | | |
| | | | | | $M_{max}$ | | | 6.7 | 11.7 | 20.8 | | | | |
| | | | | | $n_{eto}$ | | | 4450 | 4154 | 2796 | | | | |
| 09L51- | 3.6 | 5100 | 6.9 | 1.90 | $M_0$ | | | | 4.2 | 7.5 | 7.5 | | | |
| | | | | | $M_N$ | | | | 3.6 | 3.6 | 3.6 | | | |
| | | | | | $M_{0,max}$ | | | | 6.0 | 11.1 | 13.2 | | | |
| | | | | | $M_{max}$ | | | | 6.0 | 11.1 | 19.1 | | | |
| | | | | | $n_{eto}$ | | | | 7000 | 7000 | 7000 | | | |
| 12D20- | 5.5 | 1950 | 2.6 | 1.10 | $M_0$ | | 5.9 | 6.4 | 6.4 | | | | | |
| | | | | | $M_N$ | | 5.3 | 5.5 | 5.5 | | | | | |
| | | | | | $M_{0,max}$ | | 7.6 | 11.6 | 17.7 | | | | | |
| | | | | | $M_{max}$ | | 7.6 | 11.6 | 17.7 | | | | | |
| | | | | | $n_{eto}$ | | 1790 | 1358 | 919 | | | | | |
| 12D41- | 4.3 | 4050 | 4.5 | 1.80 | $M_0$ | | | 4.6 | 6.4 | 6.4 | | | | |
| | | | | | $M_N$ | | | 3.7 | 4.3 | 4.3 | | | | |
| | | | | | $M_{0,max}$ | | | 5.9 | 10.1 | 17.3 | | | | |
| | | | | | $M_{max}$ | | | 5.9 | 10.1 | 17.3 | | | | |
| | | | | | $n_{eto}$ | | | 4344 | 3275 | 2116 | | | | |
| 12H15- | 10.0 | 1500 | 3.8 | 1.60 | $M_0$ | | | 10.9 | 11.4 | 11.4 | | | | |
| | | | | | $M_N$ | | | 10.0 | 10.0 | 10.0 | | | | |
| | | | | | $M_{0,max}$ | | | 15.1 | 25.8 | 29.0 | | | | |
| | | | | | $M_{max}$ | | | 15.1 | 25.8 | 29.0 | | | | |
| | | | | | $n_{eto}$ | | | 1676 | 1013 | 918 | | | | |
| 12H35- | 7.5 | 3525 | 5.7 | 2.80 | $M_0$ | | | | 9.8 | 11.4 | | | | |
| | | | | | $M_N$ | | | | 7.5 | 7.5 | | | | |
| | | | | | $M_{0,max}$ | | | | 13.5 | 24.1 | | | | |
| | | | | | $M_{max}$ | | | | 13.5 | 24.1 | | | | |
| | | | | | $n_{eto}$ | | | | 3618 | 2447 | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

# MCS synchronous servo motors

Technical data



## Selection tables, Servo Inverter 9300

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | EVS | 9321-E□ | 9322-E□ | 9323-E□ | 9324-E□ | 9325-E□ | 9326-E□ | 9327-E□ | 9328-E□ | 9329-E□ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.5 | 2.5 | 3.9 | 7.0 | 13.0 | 23.5 | 32.0 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 2.3 | 3.8 | 5.9 | 10.5 | 19.5 | 23.5 | 32.0 | 47.0 | 52.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 2.3 | 3.8 | 5.9 | 10.5 | 19.5 | 35.3 | 48.0 | 70.5 | 88.5 |
| 12L20- | 13.5 | 1950 | 5.9 | 2.80 | $M_0$ | | | | 15.0 | 15.0 | | | | |
| | | | | | $M_N$ | | | | 13.5 | 13.5 | | | | |
| | | | | | $M_{0,max}$ | | | | 24.4 | 41.9 | | | | |
| | | | | | $M_{max}$ | | | | 24.4 | 41.9 | | | | |
| | | | | | $n_{eto}$ | | | | 1718 | 1158 | | | | |
| 12L41- | 11.0 | 4050 | 10.2 | 4.70 | $M_0$ | | | | | 15.0 | 15.0 | 15.0 | | |
| | | | | | $M_N$ | | | | | 11.0 | 11.0 | 11.0 | | |
| | | | | | $M_{0,max}$ | | | | | 22.8 | 27.0 | 35.5 | | |
| | | | | | $M_{max}$ | | | | | 22.8 | 38.5 | 49.6 | | |
| | | | | | $n_{eto}$ | | | | | 4287 | 2799 | 2236 | | |
| 14D15- | 9.2 | 1500 | 4.5 | 1.45 | $M_0$ | | | 8.5 | 11.0 | 11.0 | | | | |
| | | | | | $M_N$ | | | 8.0 | 9.2 | 9.2 | | | | |
| | | | | | $M_{0,max}$ | | | 12.1 | 20.2 | 29.0 | | | | |
| | | | | | $M_{max}$ | | | 12.1 | 20.2 | 29.0 | | | | |
| | | | | | $n_{eto}$ | | | 1437 | 928 | 676 | | | | |
| 14D36- | 7.5 | 3600 | 7.5 | 2.80 | $M_0$ | | | | 7.7 | 11.0 | 11.0 | | | |
| | | | | | $M_N$ | | | | 7.0 | 7.5 | 7.5 | | | |
| | | | | | $M_{0,max}$ | | | | 10.9 | 19.0 | 22.2 | | | |
| | | | | | $M_{max}$ | | | | 10.9 | 19.0 | 29.0 | | | |
| | | | | | $n_{eto}$ | | | | 3479 | 2159 | 1593 | | | |
| 14H15- | 16.0 | 1500 | 6.6 | 2.50 | $M_0$ | | | | 17.3 | 21.0 | | | | |
| | | | | | $M_N$ | | | | 16.0 | 16.0 | | | | |
| | | | | | $M_{0,max}$ | | | | 25.4 | 43.9 | | | | |
| | | | | | $M_{max}$ | | | | 25.4 | 43.9 | | | | |
| | | | | | $n_{eto}$ | | | | 1247 | 800 | | | | |
| 14H32- | 14.0 | 3225 | 11.9 | 4.70 | $M_0$ | | | | | 16.2 | 21.0 | 21.0 | | |
| | | | | | $M_N$ | | | | | 14.0 | 14.0 | 14.0 | | |
| | | | | | $M_{0,max}$ | | | | | 23.8 | 28.2 | 37.1 | | |
| | | | | | $M_{max}$ | | | | | 23.8 | 40.2 | 51.9 | | |
| | | | | | $n_{eto}$ | | | | | 2875 | 1817 | 1471 | | |
| 14L15- | 23.0 | 1500 | 9.7 | 3.60 | $M_0$ | | | | | 28.0 | 28.0 | | | |
| | | | | | $M_N$ | | | | | 23.0 | 23.0 | | | |
| | | | | | $M_{0,max}$ | | | | | 45.0 | 52.9 | | | |
| | | | | | $M_{max}$ | | | | | 45.0 | 73.8 | | | |
| | | | | | $n_{eto}$ | | | | | 1126 | 788 | | | |
| 14L32- | 17.2 | 3225 | 15.0 | 5.80 | $M_0$ | | | | | 15.2 | 27.4 | 28.0 | 28.0 | |
| | | | | | $M_N$ | | | | | 14.9 | 17.2 | 17.2 | 17.2 | |
| | | | | | $M_{0,max}$ | | | | | 23.5 | 28.3 | 37.6 | 52.9 | |
| | | | | | $M_{max}$ | | | | | 23.5 | 41.0 | 53.9 | 73.9 | |
| | | | | | $n_{eto}$ | | | | | 3953 | 2608 | 2096 | 1672 | |
| 14P14- | 30.0 | 1350 | 10.8 | 4.20 | $M_0$ | | | | | 37.0 | 37.0 | 37.0 | | |
| | | | | | $M_N$ | | | | | 30.0 | 30.0 | 30.0 | | |
| | | | | | $M_{0,max}$ | | | | | 52.5 | 61.8 | 80.0 | | |
| | | | | | $M_{max}$ | | | | | 52.5 | 86.3 | 105.1 | | |
| | | | | | $n_{eto}$ | | | | | 998 | 668 | 573 | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Inverter 9300

### Non-ventilated motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | EVS | 9321-E□ | 9322-E□ | 9323-E□ | 9324-E□ | 9325-E□ | 9326-E□ | 9327-E□ | 9328-E□ | 9329-E□ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 1.5 | 2.5 | 3.9 | 7.0 | 13.0 | 23.5 | 32.0 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 2.3 | 3.8 | 5.9 | 10.5 | 19.5 | 23.5 | 32.0 | 47.0 | 52.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 2.3 | 3.8 | 5.9 | 10.5 | 19.5 | 35.3 | 48.0 | 70.5 | 88.5 |
| 14P32- | 21.0 | 3225 | 15.6 | 7.10 | $M_0$ | | | | | 19.8 | 35.8 | 37.0 | 37.0 | |
| | | | | | $M_N$ | | | | | 17.5 | 21.0 | 21.0 | 21.0 | |
| | | | | | $M_{0,max}$ | | | | | 27.4 | 33.0 | 43.9 | 61.8 | |
| | | | | | $M_{max}$ | | | | | 27.4 | 47.9 | 63.0 | 86.4 | |
| | | | | | $n_{eto}$ | | | | | 3300 | 2299 | 1829 | 1404 | |
| 19F14- | 27.0 | 1425 | 8.6 | 4.00 | $M_0$ | | | | 22.6 | 32.0 | 32.0 | | | |
| | | | | | $M_N$ | | | | 22.0 | 27.0 | 27.0 | | | |
| | | | | | $M_{0,max}$ | | | | 33.0 | 58.2 | 68.3 | | | |
| | | | | | $M_{max}$ | | | | 33.0 | 58.2 | 86.0 | | | |
| | | | | | $n_{eto}$ | | | | 1459 | 1056 | 746 | | | |
| 19F30- | 21.0 | 3000 | 14.0 | 6.60 | $M_0$ | | | | | 21.0 | 32.0 | 32.0 | | |
| | | | | | $M_N$ | | | | | 19.5 | 21.0 | 21.0 | | |
| | | | | | $M_{0,max}$ | | | | | 29.2 | 35.2 | 47.2 | | |
| | | | | | $M_{max}$ | | | | | 29.2 | 51.5 | 68.3 | | |
| | | | | | $n_{eto}$ | | | | | 3352 | 2573 | 2033 | | |
| 19J14- | 40.0 | 1425 | 12.3 | 6.00 | $M_0$ | | | | | 43.6 | 51.0 | 51.0 | | |
| | | | | | $M_N$ | | | | | 40.0 | 40.0 | 40.0 | | |
| | | | | | $M_{0,max}$ | | | | | 60.8 | 72.4 | 96.0 | | |
| | | | | | $M_{max}$ | | | | | 60.8 | 104.5 | 129.0 | | |
| | | | | | $n_{eto}$ | | | | | 1376 | 996 | 839 | | |
| 19J30- | 29.0 | 3000 | 18.5 | 9.10 | $M_0$ | | | | | | 39.3 | 51.0 | 51.0 | 51.0 |
| | | | | | $M_N$ | | | | | | 29.0 | 29.0 | 29.0 | 29.0 |
| | | | | | $M_{0,max}$ | | | | | | 36.8 | 50.2 | 72.4 | 79.5 |
| | | | | | $M_{max}$ | | | | | | 55.2 | 73.8 | 104.7 | 127.6 |
| | | | | | $n_{eto}$ | | | | | | 3150 | 2850 | 2162 | 1817 |
| 19P14- | 51.0 | 1350 | 14.3 | 7.20 | $M_0$ | | | | | 47.5 | 64.0 | 64.0 | | |
| | | | | | $M_N$ | | | | | 46.4 | 51.0 | 51.0 | | |
| | | | | | $M_{0,max}$ | | | | | 69.5 | 79.6 | 106.7 | | |
| | | | | | $M_{max}$ | | | | | 69.5 | 116.7 | 155.5 | | |
| | | | | | $n_{eto}$ | | | | | 1400 | 1187 | 996 | | |
| 19P30- | 32.0 | 3000 | 19.0 | 10.00 | $M_0$ | | | | | | 43.1 | 58.7 | 64.0 | 64.0 |
| | | | | | $M_N$ | | | | | | 32.0 | 32.0 | 32.0 | 32.0 |
| | | | | | $M_{0,max}$ | | | | | | 39.6 | 53.9 | 79.6 | 87.6 |
| | | | | | $M_{max}$ | | | | | | 59.3 | 81.2 | 116.9 | 144.3 |
| | | | | | $n_{eto}$ | | | | | | 3000 | 2938 | 2638 | 2298 |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Inverter 9300

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | EVS | 9322-E□ | 9323-E□ | 9324-E□ | 9325-E□ | 9326-E□ | 9327-E□ | 9328-E□ | 9329-E□ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.5 | 3.9 | 7.0 | 13.0 | 23.5 | 32.0 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 3.8 | 5.9 | 10.5 | 19.5 | 23.5 | 32.0 | 47.0 | 52.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 3.8 | 5.9 | 10.5 | 19.5 | 35.3 | 48.0 | 70.5 | 88.5 |
| 12D17- | 7.0 | 1650 | 3.0 | 1.20 | $M_0$ | 5.9 | 7.5 | 7.5 | | | | | |
| | | | | | $M_N$ | 5.3 | 7.0 | 7.0 | | | | | |
| | | | | | $M_{0,max}$ | 7.6 | 11.6 | 17.7 | | | | | |
| | | | | | $M_{max}$ | 7.6 | 11.6 | 17.7 | | | | | |
| | | | | | $n_{eto}$ | 1790 | 1358 | 919 | | | | | |
| 12D35- | 6.0 | 3525 | 5.6 | 2.20 | $M_0$ | | 4.6 | 7.5 | 7.5 | | | | |
| | | | | | $M_N$ | | 3.7 | 6.0 | 6.0 | | | | |
| | | | | | $M_{0,max}$ | | 5.9 | 10.1 | 17.3 | | | | |
| | | | | | $M_{max}$ | | 5.9 | 10.1 | 17.3 | | | | |
| | | | | | $n_{eto}$ | | 4344 | 3275 | 2116 | | | | |
| 12H14- | 12.0 | 1350 | 4.1 | 1.70 | $M_0$ | | 10.9 | 12.8 | 12.8 | | | | |
| | | | | | $M_N$ | | 10.3 | 12.0 | 12.0 | | | | |
| | | | | | $M_{0,max}$ | | 15.1 | 25.8 | 29.0 | | | | |
| | | | | | $M_{max}$ | | 15.1 | 25.8 | 29.0 | | | | |
| | | | | | $n_{eto}$ | | 1676 | 1013 | 918 | | | | |
| 12H34- | 10.5 | 3375 | 7.5 | 3.70 | $M_0$ | | | 9.8 | 12.8 | | | | |
| | | | | | $M_N$ | | | 9.6 | 10.5 | | | | |
| | | | | | $M_{0,max}$ | | | 13.5 | 24.1 | | | | |
| | | | | | $M_{max}$ | | | 13.5 | 24.1 | | | | |
| | | | | | $n_{eto}$ | | | 3618 | 2447 | | | | |
| 12L17- | 17.0 | 1650 | 6.7 | 2.90 | $M_0$ | | | 18.5 | 19.0 | | | | |
| | | | | | $M_N$ | | | 17.0 | 17.0 | | | | |
| | | | | | $M_{0,max}$ | | | 24.4 | 41.9 | | | | |
| | | | | | $M_{max}$ | | | 24.4 | 41.9 | | | | |
| | | | | | $n_{eto}$ | | | 1718 | 1158 | | | | |
| 12L39- | 14.0 | 3900 | 11.7 | 5.70 | $M_0$ | | | | 17.2 | 19.0 | 19.0 | | |
| | | | | | $M_N$ | | | | 14.0 | 14.0 | 14.0 | | |
| | | | | | $M_{0,max}$ | | | | 22.8 | 27.0 | 35.5 | | |
| | | | | | $M_{max}$ | | | | 22.8 | 38.5 | 49.6 | | |
| | | | | | $n_{eto}$ | | | | 4287 | 2799 | 2236 | | |
| 14D14- | 12.0 | 1350 | 5.4 | 1.70 | $M_0$ | | 8.5 | 12.5 | 12.5 | | | | |
| | | | | | $M_N$ | | 8.0 | 12.0 | 12.0 | | | | |
| | | | | | $M_{0,max}$ | | 12.1 | 20.2 | 29.0 | | | | |
| | | | | | $M_{max}$ | | 12.1 | 20.2 | 29.0 | | | | |
| | | | | | $n_{eto}$ | | 1437 | 928 | 676 | | | | |
| 14D30- | 10.5 | 3000 | 9.7 | 3.30 | $M_0$ | | | 7.7 | 12.5 | 12.5 | | | |
| | | | | | $M_N$ | | | 7.0 | 10.0 | 10.0 | | | |
| | | | | | $M_{0,max}$ | | | 10.9 | 19.0 | 22.2 | | | |
| | | | | | $M_{max}$ | | | 10.9 | 19.0 | 29.0 | | | |
| | | | | | $n_{eto}$ | | | 3479 | 2159 | 1593 | | | |
| 14H12- | 23.5 | 1200 | 8.3 | 3.00 | $M_0$ | | | 17.3 | 25.5 | | | | |
| | | | | | $M_N$ | | | 17.2 | 23.5 | | | | |
| | | | | | $M_{0,max}$ | | | 25.4 | 43.9 | | | | |
| | | | | | $M_{max}$ | | | 25.4 | 43.9 | | | | |
| | | | | | $n_{eto}$ | | | 1247 | 800 | | | | |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Inverter 9300

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | EVS | 9322-E□ | 9323-E□ | 9324-E□ | 9325-E□ | 9326-E□ | 9327-E□ | 9328-E□ | 9329-E□ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.5 | 3.9 | 7.0 | 13.0 | 23.5 | 32.0 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 3.8 | 5.9 | 10.5 | 19.5 | 23.5 | 32.0 | 47.0 | 52.0 |
| MCS | $M_N$ | $n_N$ | $I_N$ | $P_N$ | $I_{max}$ | 3.8 | 5.9 | 10.5 | 19.5 | 35.3 | 48.0 | 70.5 | 88.5 |
| 14H28- | 20.5 | 2775 | 15.0 | 6.00 | $M_0$ | | | | 16.2 | 25.5 | 25.5 | | |
| | | | | | $M_N$ | | | | 16.1 | 20.5 | 20.5 | | |
| | | | | | $M_{0,max}$ | | | | 23.8 | 28.2 | 37.1 | | |
| | | | | | $M_{max}$ | | | | 23.8 | 40.2 | 51.9 | | |
| | | | | | $n_{eto}$ | | | | 2875 | 1817 | 1471 | | |
| 14L14- | 30.5 | 1350 | 11.8 | 4.30 | $M_0$ | | | | 33.4 | 34.5 | | | |
| | | | | | $M_N$ | | | | 30.5 | 30.5 | | | |
| | | | | | $M_{0,max}$ | | | | 45.0 | 52.9 | | | |
| | | | | | $M_{max}$ | | | | 45.0 | 73.8 | | | |
| | | | | | $n_{eto}$ | | | | 1126 | 788 | | | |
| 14L30- | 25.5 | 3000 | 20.8 | 8.00 | $M_0$ | | | | | 27.4 | 34.5 | 34.5 | |
| | | | | | $M_N$ | | | | | 25.5 | 25.5 | 25.5 | |
| | | | | | $M_{0,max}$ | | | | | 28.3 | 37.6 | 52.9 | |
| | | | | | $M_{max}$ | | | | | 41.0 | 53.9 | 73.9 | |
| | | | | | $n_{eto}$ | | | | | 2608 | 2096 | 1672 | |
| 14P11- | 42.0 | 1050 | 13.4 | 4.60 | $M_0$ | | | | 40.1 | 43.5 | 43.5 | | |
| | | | | | $M_N$ | | | | 40.0 | 42.0 | 42.0 | | |
| | | | | | $M_{0,max}$ | | | | 52.5 | 61.8 | 80.0 | | |
| | | | | | $M_{max}$ | | | | 52.5 | 86.3 | 105.1 | | |
| | | | | | $n_{eto}$ | | | | 998 | 668 | 573 | | |
| 14P26- | 33.0 | 2625 | 21.9 | 9.10 | $M_0$ | | | | | 35.8 | 43.5 | 43.5 | |
| | | | | | $M_N$ | | | | | 33.0 | 33.0 | 33.0 | |
| | | | | | $M_{0,max}$ | | | | | 33.0 | 43.9 | 61.8 | |
| | | | | | $M_{max}$ | | | | | 47.9 | 63.0 | 86.4 | |
| | | | | | $n_{eto}$ | | | | | 2299 | 1829 | 1404 | |
| 19F12- | 38.0 | 1200 | 11.3 | 4.80 | $M_0$ | | | 22.6 | 41.5 | 41.5 | | | |
| | | | | | $M_N$ | | | 22.0 | 38.0 | 38.0 | | | |
| | | | | | $M_{0,max}$ | | | 33.0 | 58.2 | 68.3 | | | |
| | | | | | $M_{max}$ | | | 33.0 | 58.2 | 86.0 | | | |
| | | | | | $n_{eto}$ | | | 1459 | 1056 | 746 | | | |
| 19F29- | 32.5 | 2850 | 20.1 | 9.70 | $M_0$ | | | | | 39.9 | 41.5 | | |
| | | | | | $M_N$ | | | | | 32.5 | 32.5 | | |
| | | | | | $M_{0,max}$ | | | | | 35.2 | 47.2 | | |
| | | | | | $M_{max}$ | | | | | 51.5 | 68.3 | | |
| | | | | | $n_{eto}$ | | | | | 2573 | 2033 | | |
| 19J12- | 62.5 | 1200 | 18.3 | 7.90 | $M_0$ | | | | 43.6 | 70.5 | 70.5 | | |
| | | | | | $M_N$ | | | | 43.4 | 62.5 | 62.5 | | |
| | | | | | $M_{0,max}$ | | | | 60.8 | 72.4 | 96.0 | | |
| | | | | | $M_{max}$ | | | | 60.8 | 104.5 | 129.0 | | |
| | | | | | $n_{eto}$ | | | | 1376 | 996 | 839 | | |
| 19J29- | 50.5 | 2850 | 31.0 | 15.10 | $M_0$ | | | | | | 55.5 | 70.5 | 70.5 |
| | | | | | $M_N$ | | | | | | 50.5 | 50.5 | 50.5 |
| | | | | | $M_{0,max}$ | | | | | | 50.2 | 72.4 | 79.5 |
| | | | | | $M_{max}$ | | | | | | 73.8 | 104.7 | 127.6 |
| | | | | | $n_{eto}$ | | | | | | 2850 | 2162 | 1817 |

► I... [A], M... [Nm], n... [r/min], P... [kW]



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Selection tables, Servo Inverter 9300

### Forced ventilated IP54 motors

► The data applies to a mains connection voltage of 3 x 400 V and an inverter switching frequency of 8 kHz.

| | | | | | EVS | 9322-E□ | 9323-E□ | 9324-E□ | 9325-E□ | 9326-E□ | 9327-E□ | 9328-E□ | 9329-E□ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $I_N$ | 2.5 | 3.9 | 7.0 | 13.0 | 23.5 | 32.0 | 47.0 | 59.0 |
| | | | | | $I_{0,max}$ | 3.8 | 5.9 | 10.5 | 19.5 | 23.5 | 32.0 | 47.0 | 52.0 |
| **MCS** | **$M_N$** | **$n_N$** | **$I_N$** | **$P_N$** | $I_{max}$ | 3.8 | 5.9 | 10.5 | 19.5 | 35.3 | 48.0 | 70.5 | 88.5 |
| 19P12- | 72.0 | 1200 | 21.3 | 9.00 | $M_0$ | | | | 47.5 | 86.0 | 86.0 | | |
| | | | | | $M_N$ | | | | 46.4 | 72.0 | 72.0 | | |
| | | | | | $M_{0,max}$ | | | | 69.5 | 79.6 | 106.7 | | |
| | | | | | $M_{max}$ | | | | 69.5 | 116.7 | 155.5 | | |
| | | | | | $n_{eto}$ | | | | 1400 | 1187 | 996 | | |
| 19P29- | 53.0 | 2850 | 29.5 | 15.80 | $M_0$ | | | | | | 58.7 | 86.0 | 86.0 |
| | | | | | $M_N$ | | | | | | 53.0 | 53.0 | 53.0 |
| | | | | | $M_{0,max}$ | | | | | | 53.9 | 79.6 | 87.6 |
| | | | | | $M_{max}$ | | | | | | 81.2 | 116.9 | 144.3 |
| | | | | | $n_{eto}$ | | | | | | 2938 | 2638 | 2298 |

► I... [A], M... [Nm], n... [r/min], P... [kW]



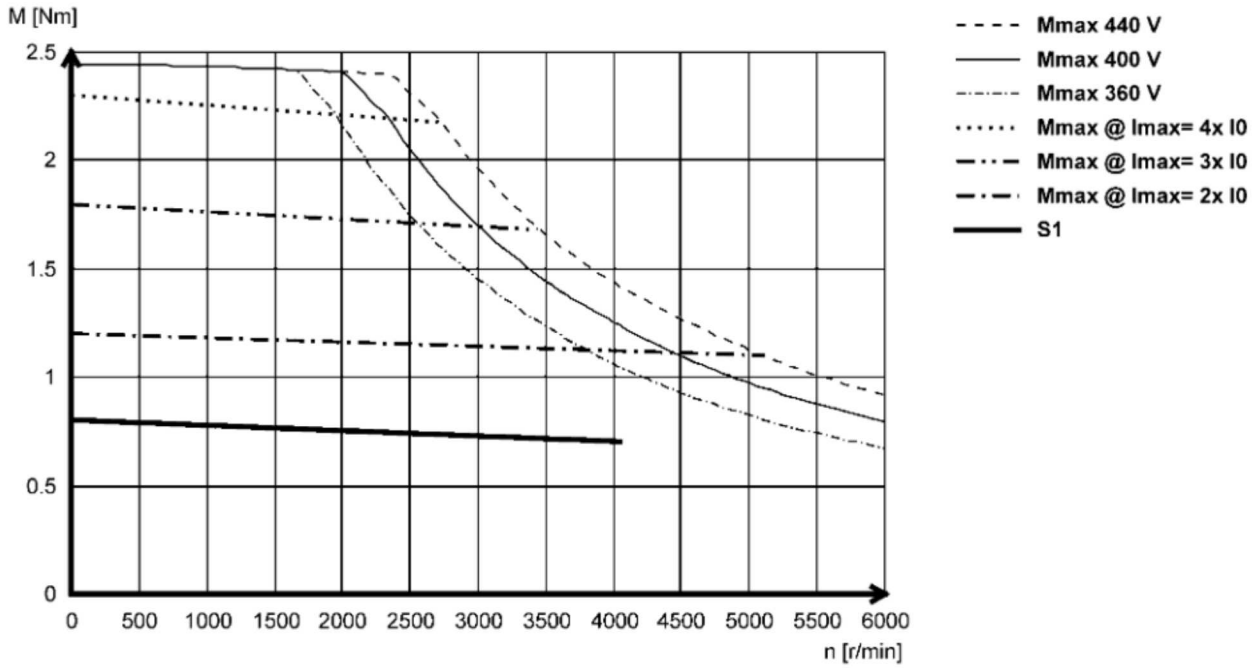
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

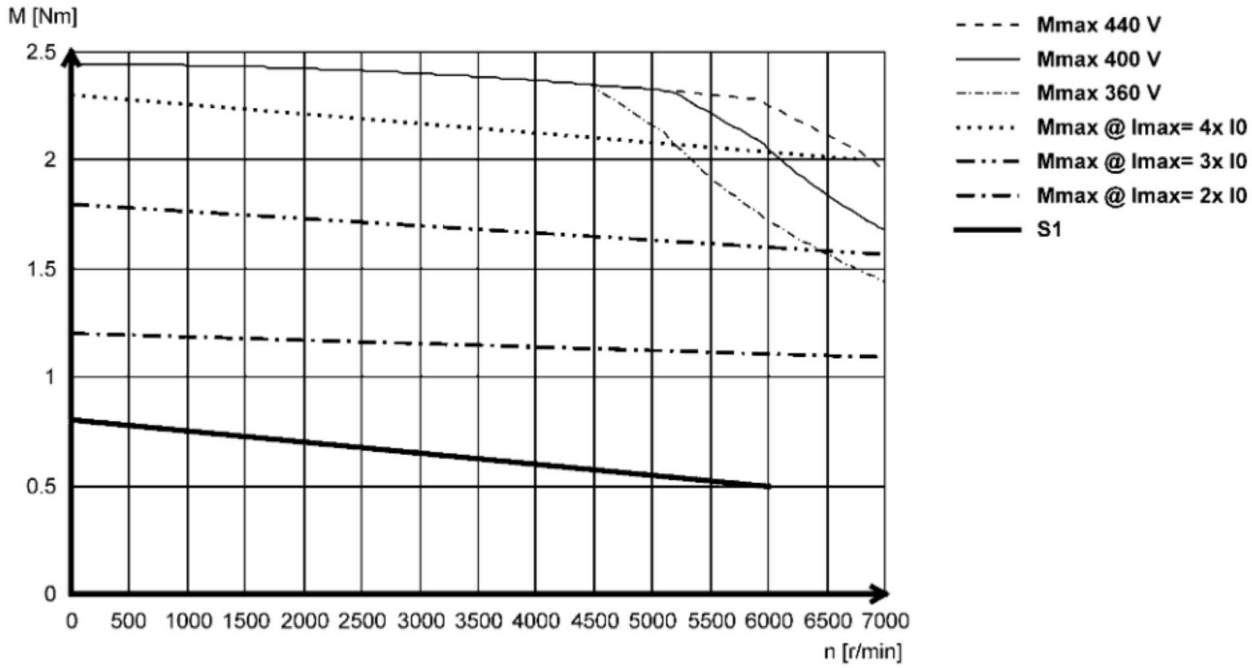
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS06C41- (non-ventilated)**






**MCS06C60- (non-ventilated)**



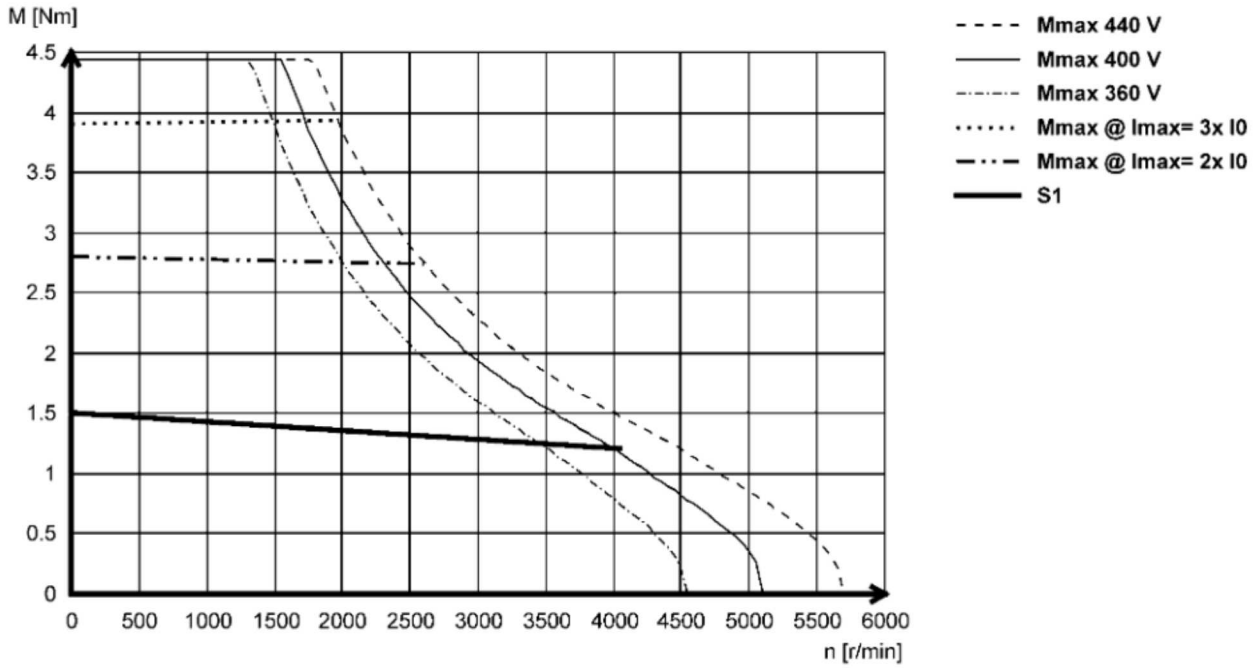

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

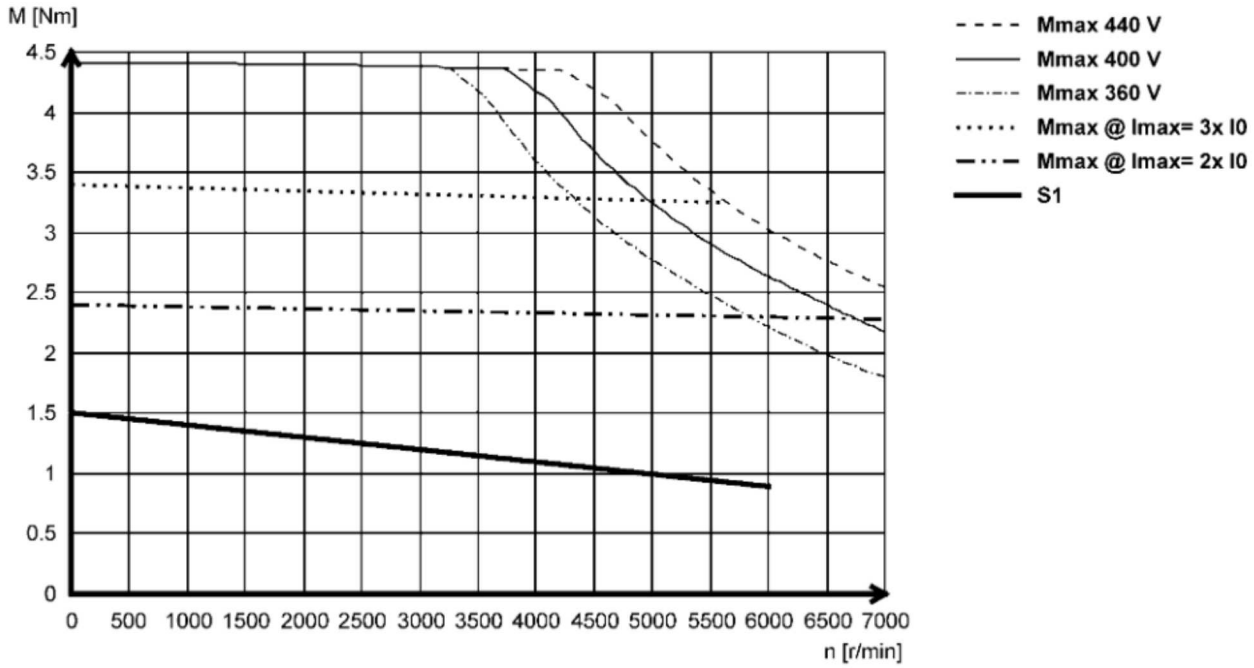
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS06F41- (non-ventilated)**




5.1

**MCS06F60- (non-ventilated)**



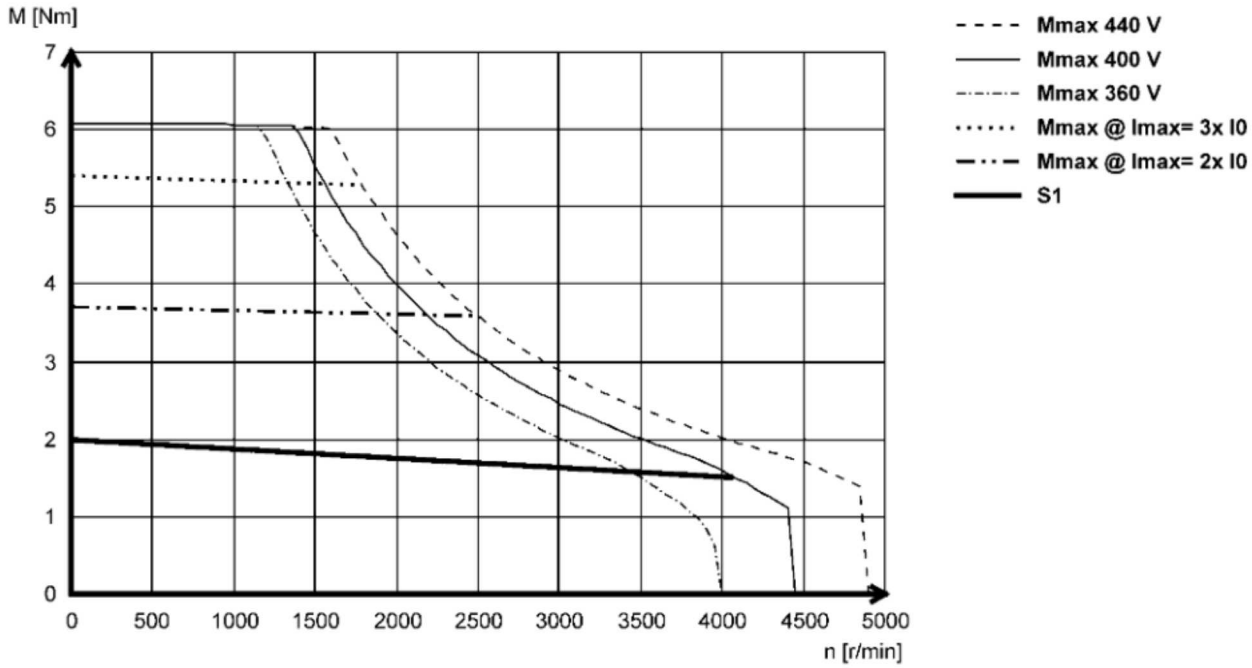

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

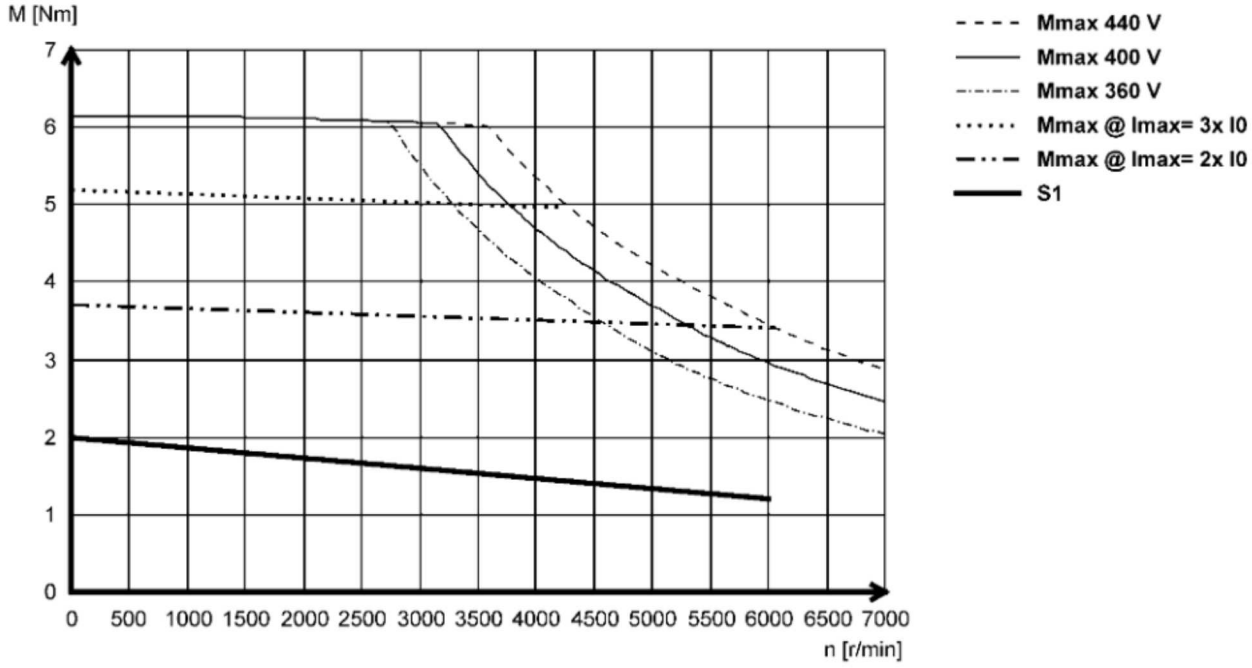
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS06I41- (non-ventilated)**






**MCS06I60- (non-ventilated)**



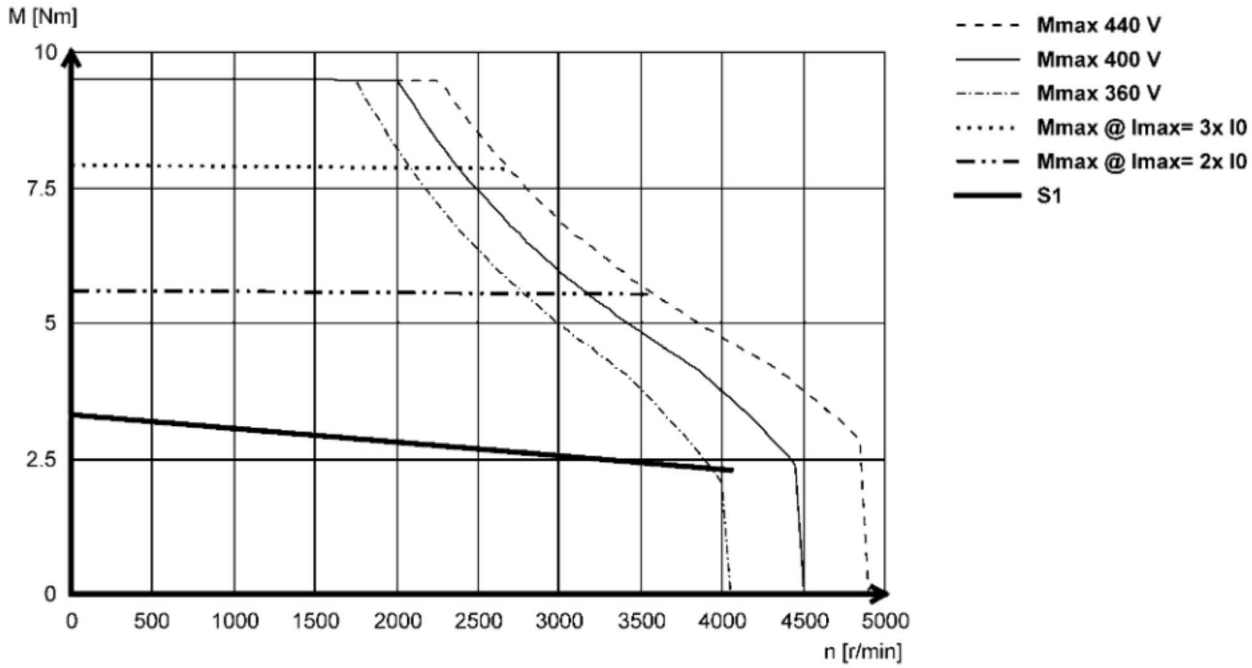

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

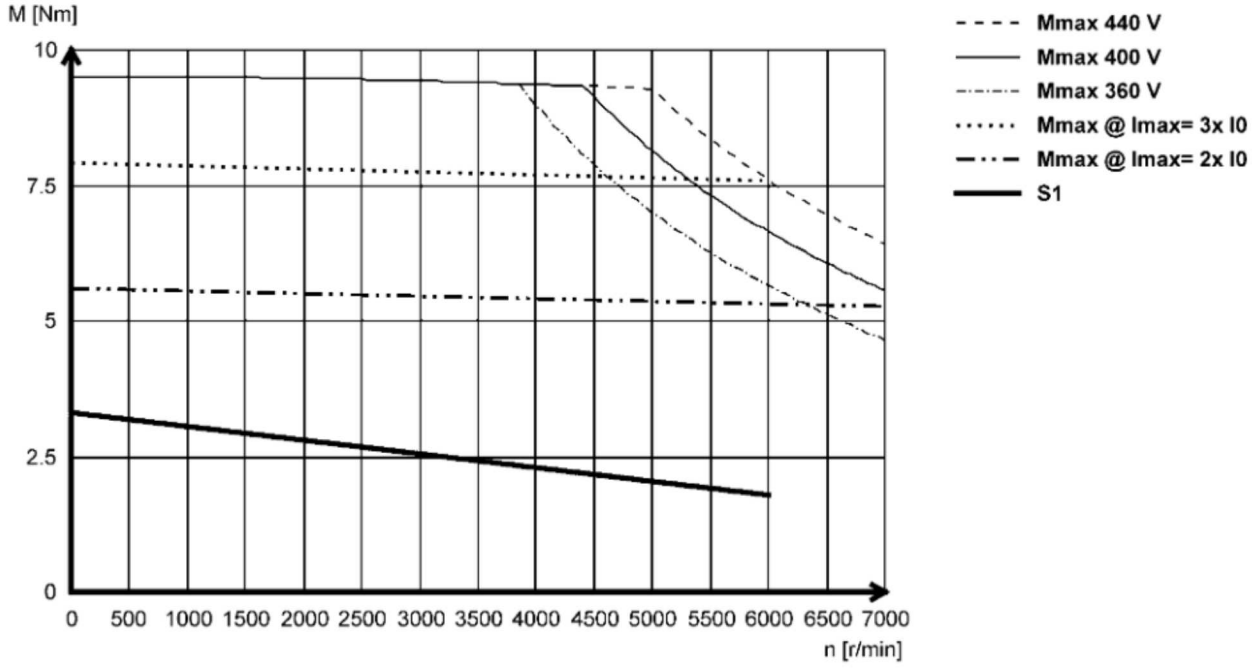
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS09D41- (non-ventilated)**




5.1

**MCS09D60- (non-ventilated)**



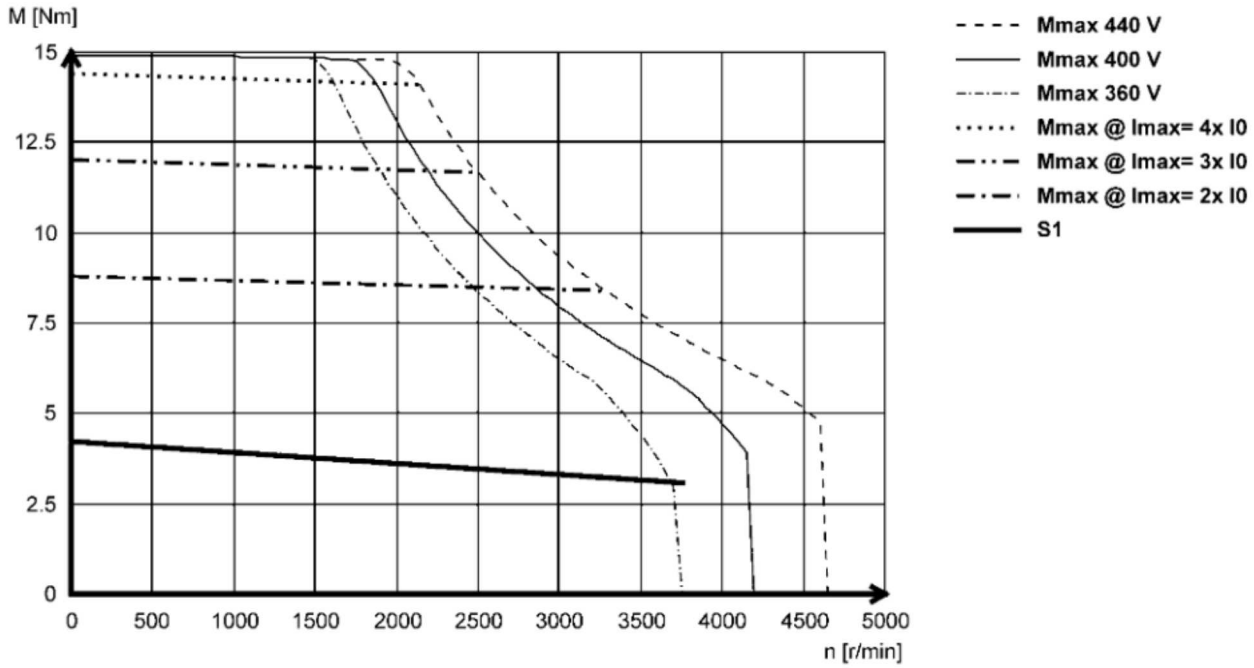

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

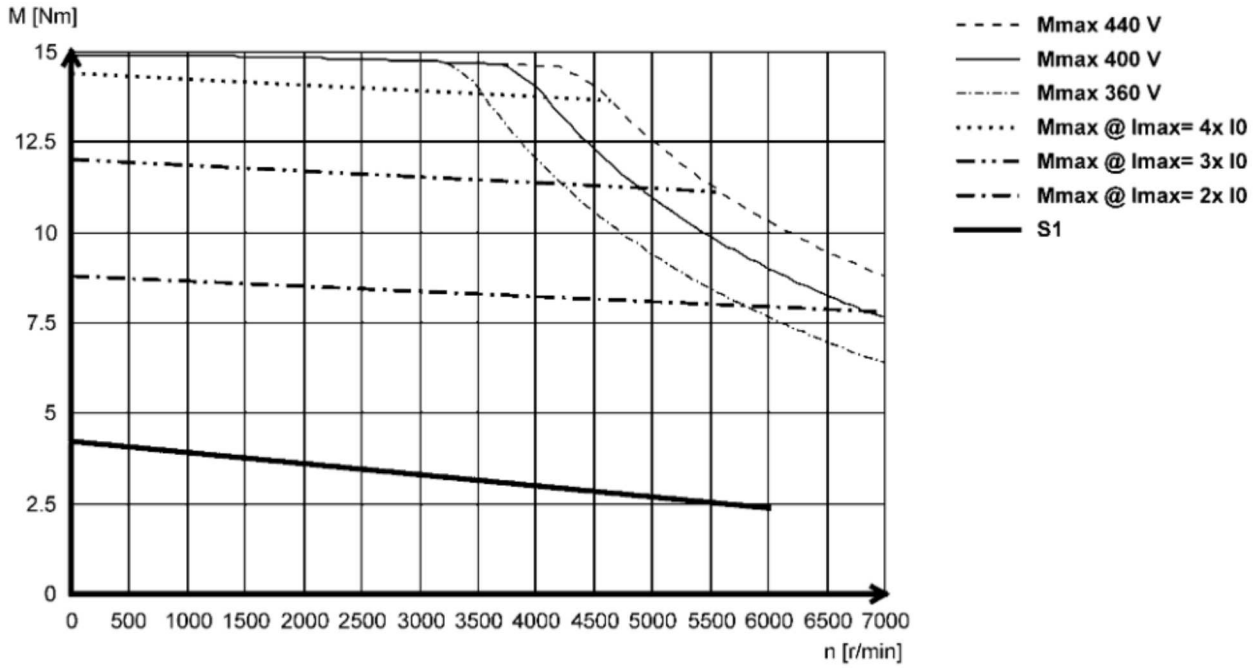
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS09F38- (non-ventilated)**






**MCS09F60- (non-ventilated)**



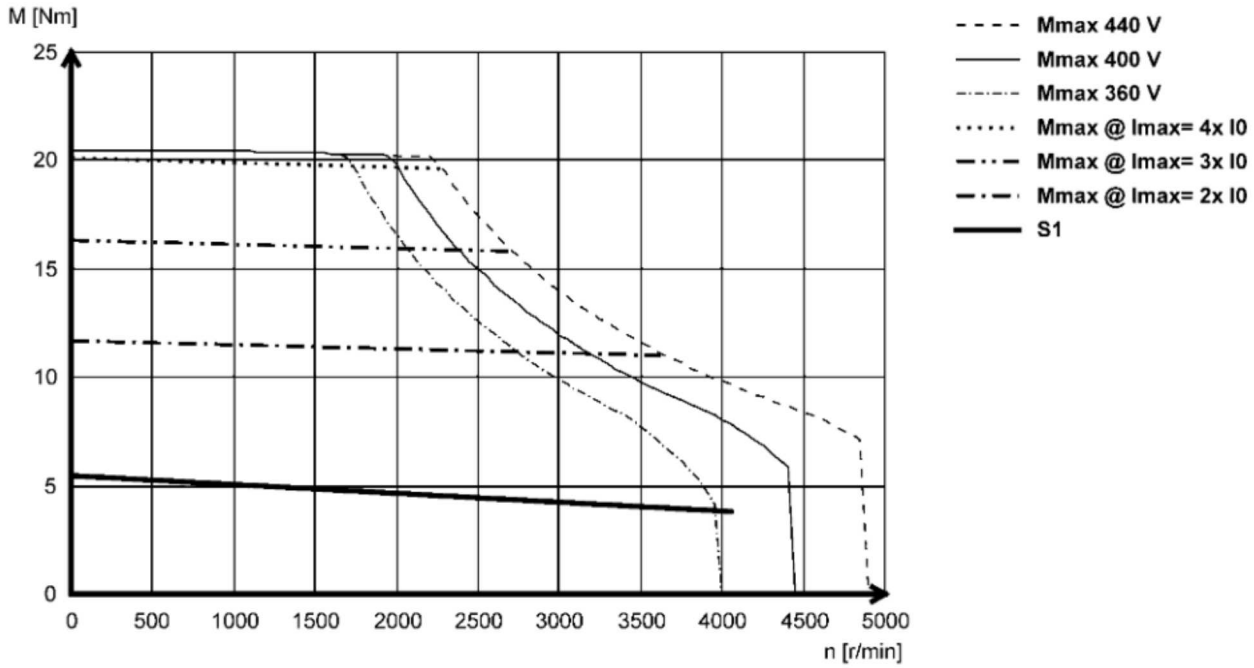

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

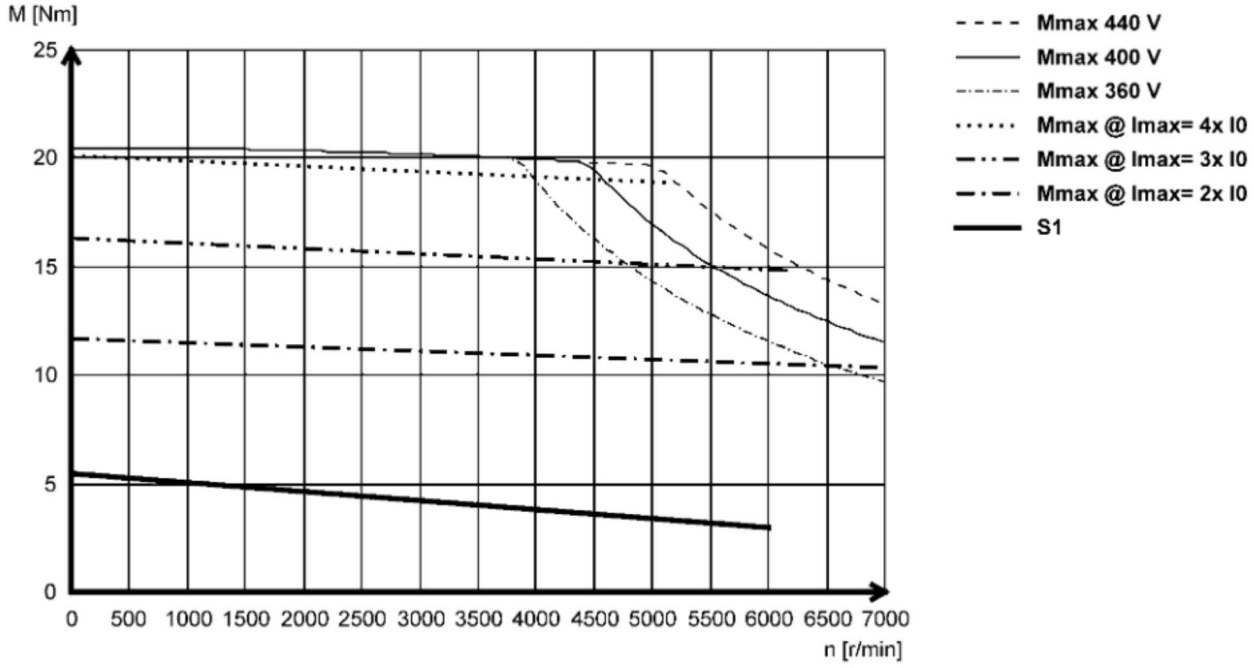
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS09H41- (non-ventilated)**




5.1

**MCS09H60- (non-ventilated)**



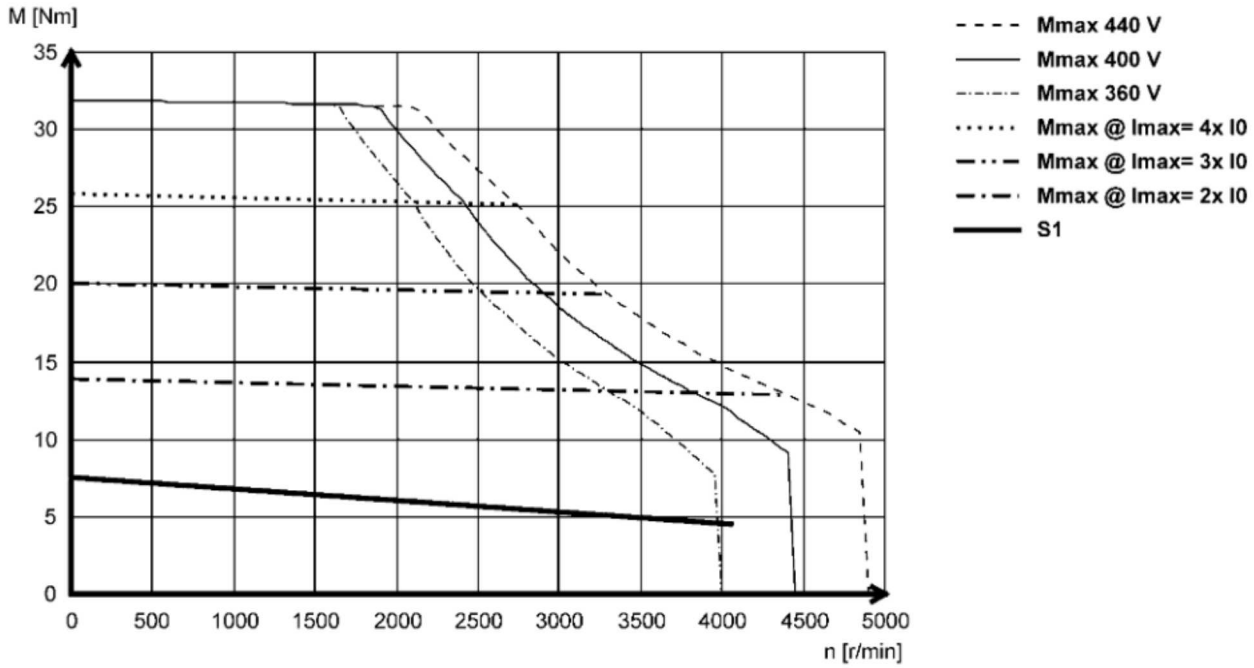

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

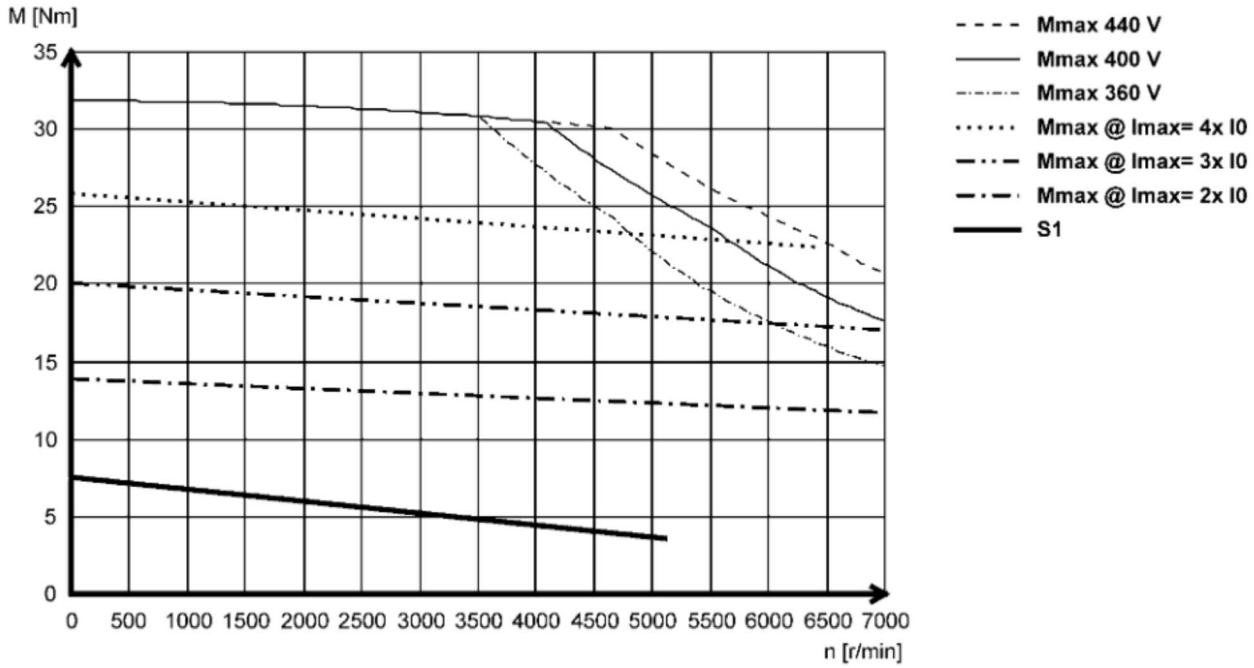
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS09L41- (non-ventilated)**






**MCS09L51- (non-ventilated)**



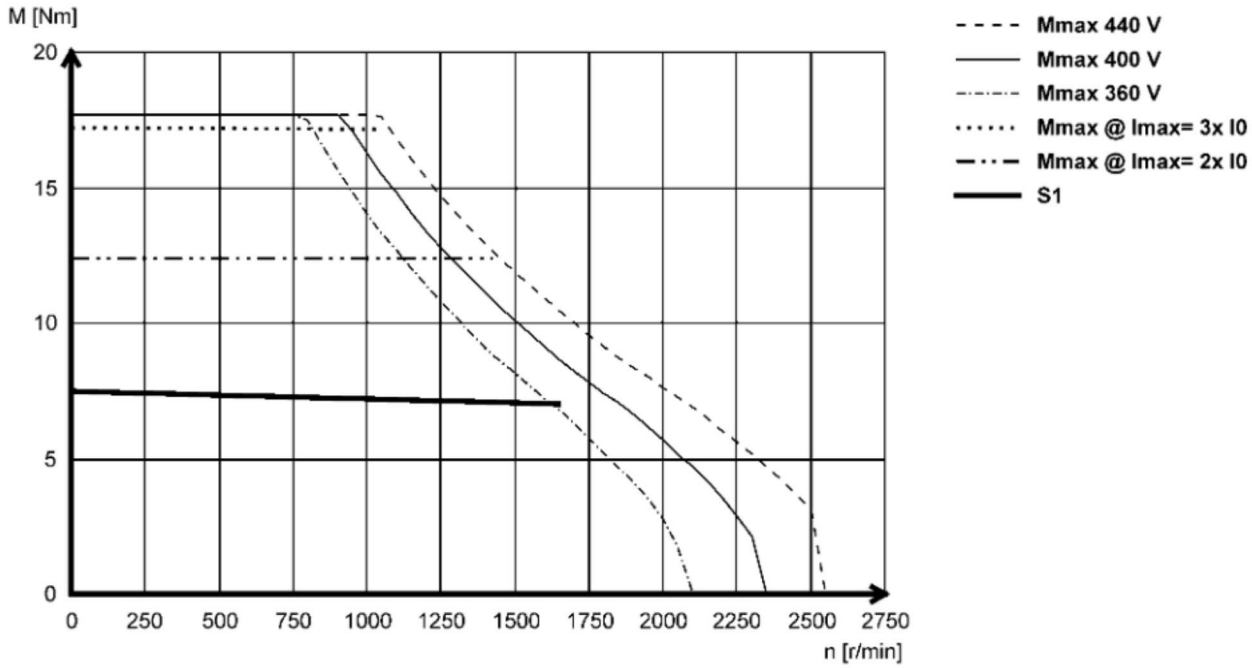

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

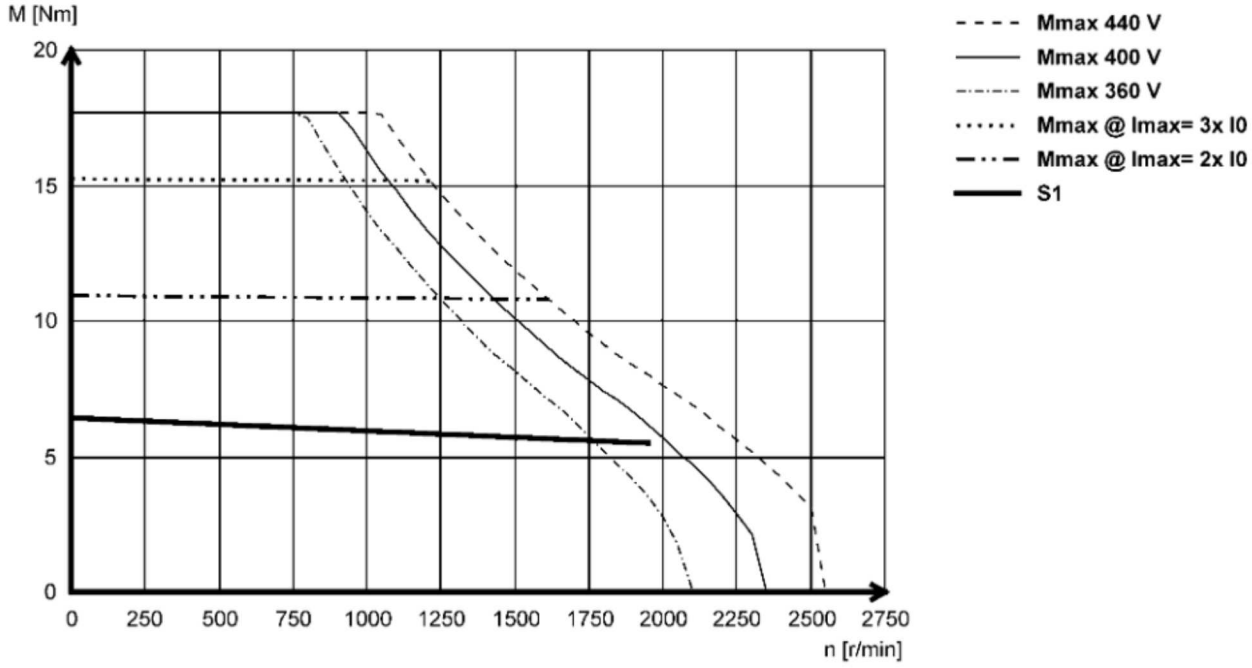
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS12D17 (forced ventilated)**




5.1

**MCS12D20- (non-ventilated)**



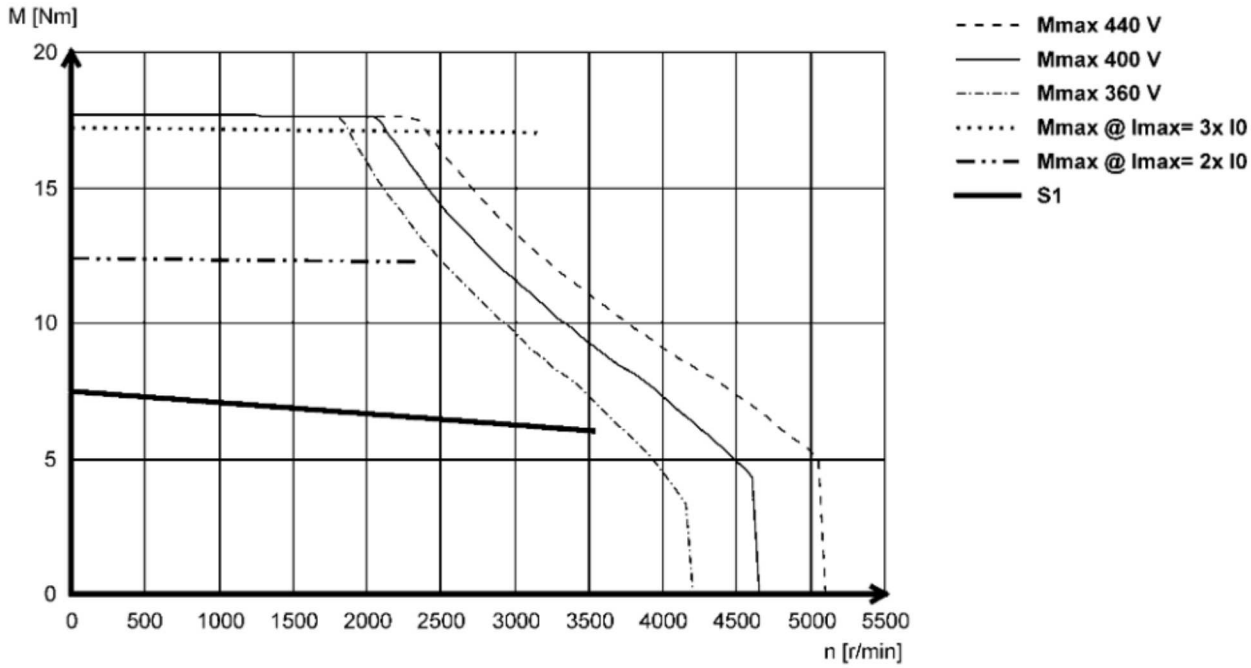

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

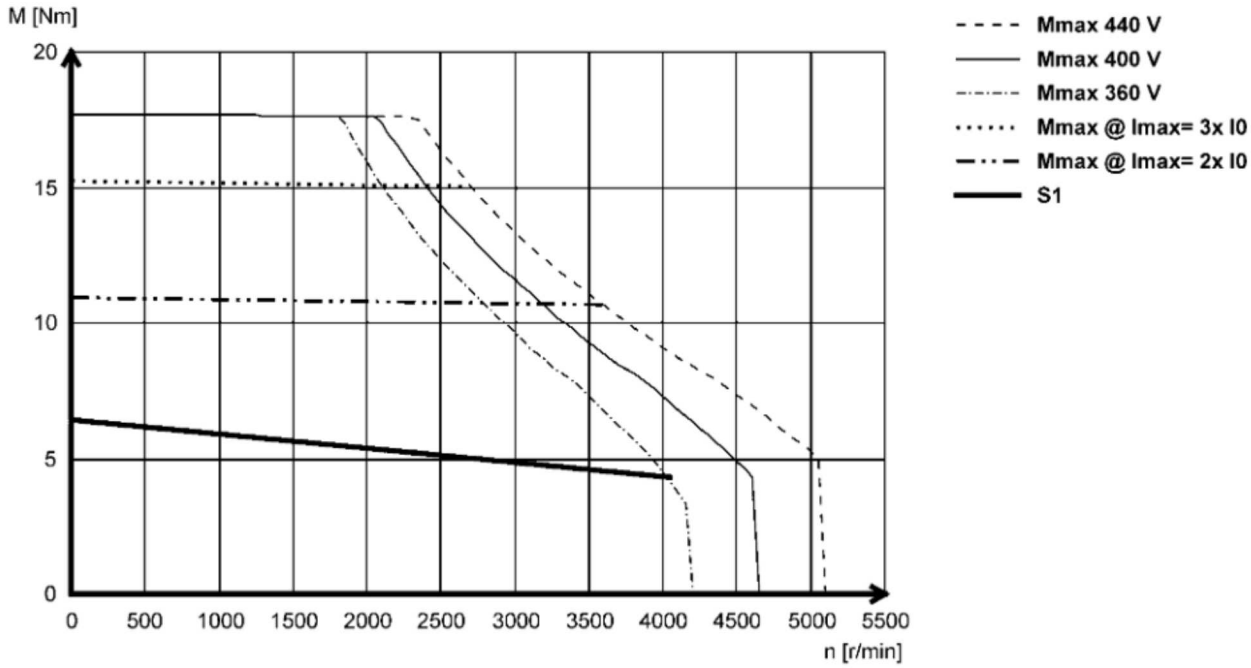
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS12D35- (forced ventilated)**






**MCS12D41- (non-ventilated)**



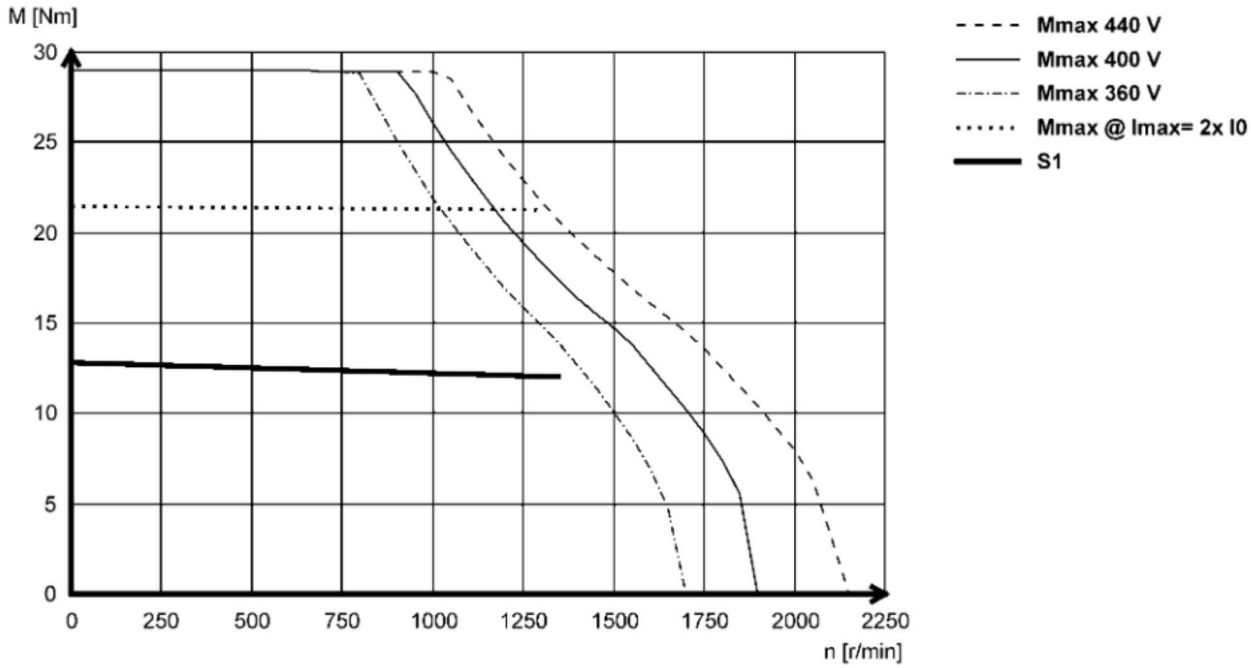

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

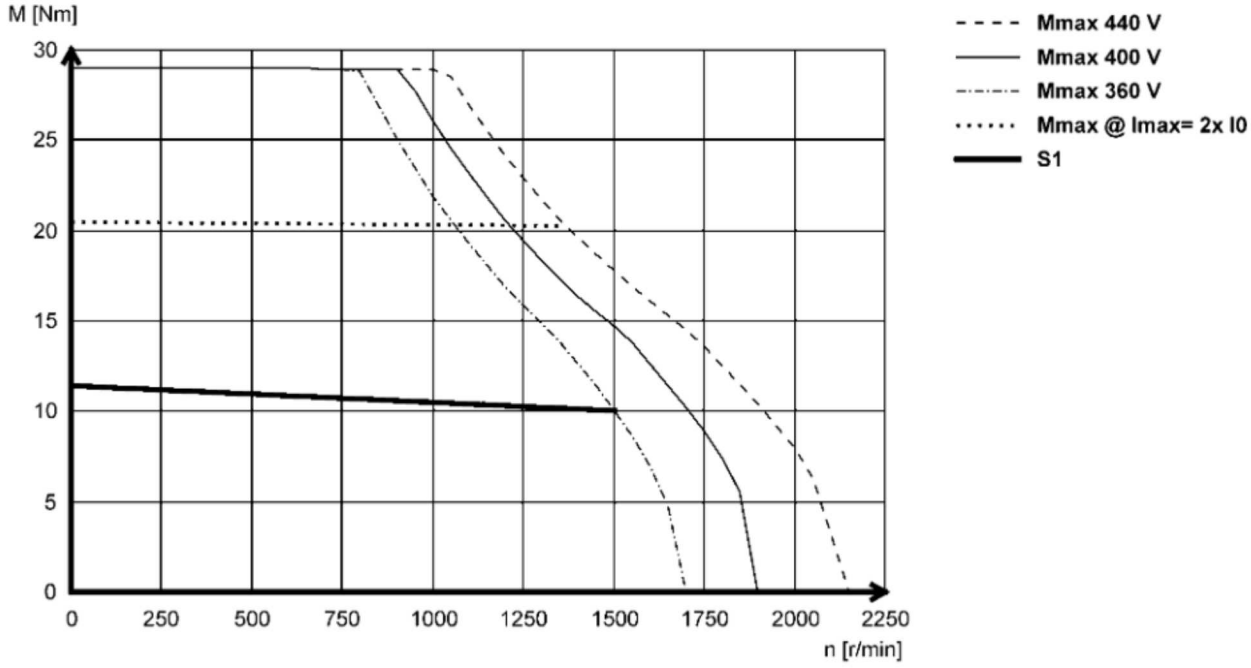
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS12H14- (forced ventilated)**




5.1

**MCS12H15- (non-ventilated)**



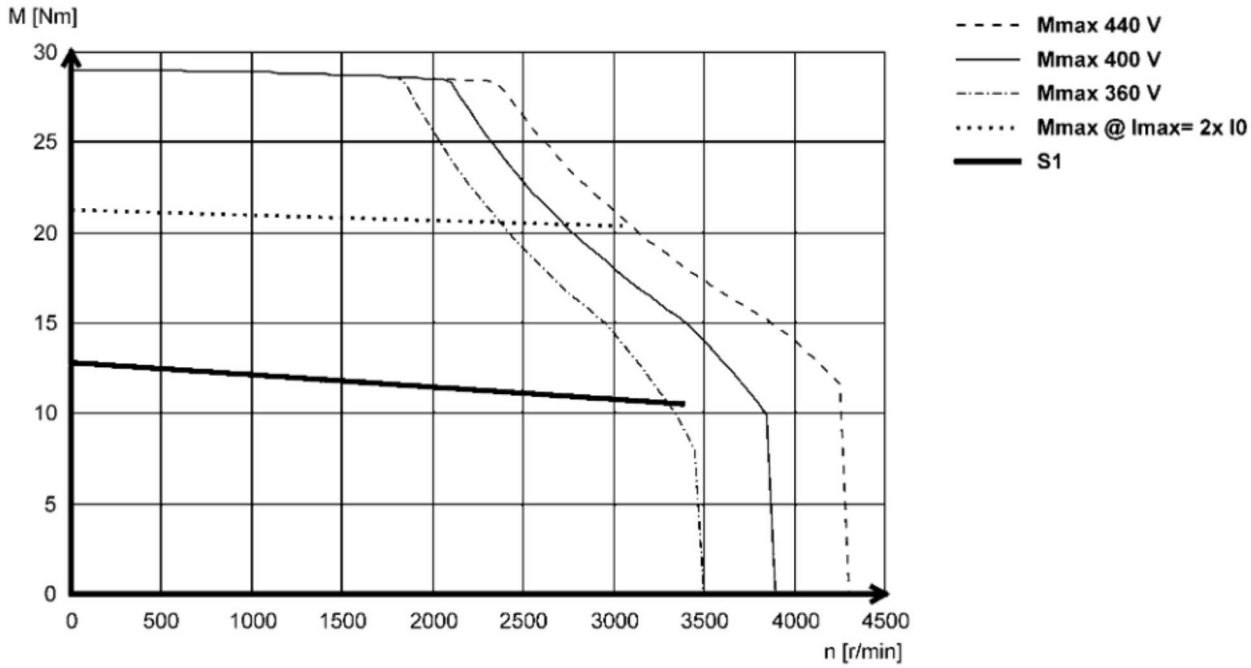

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

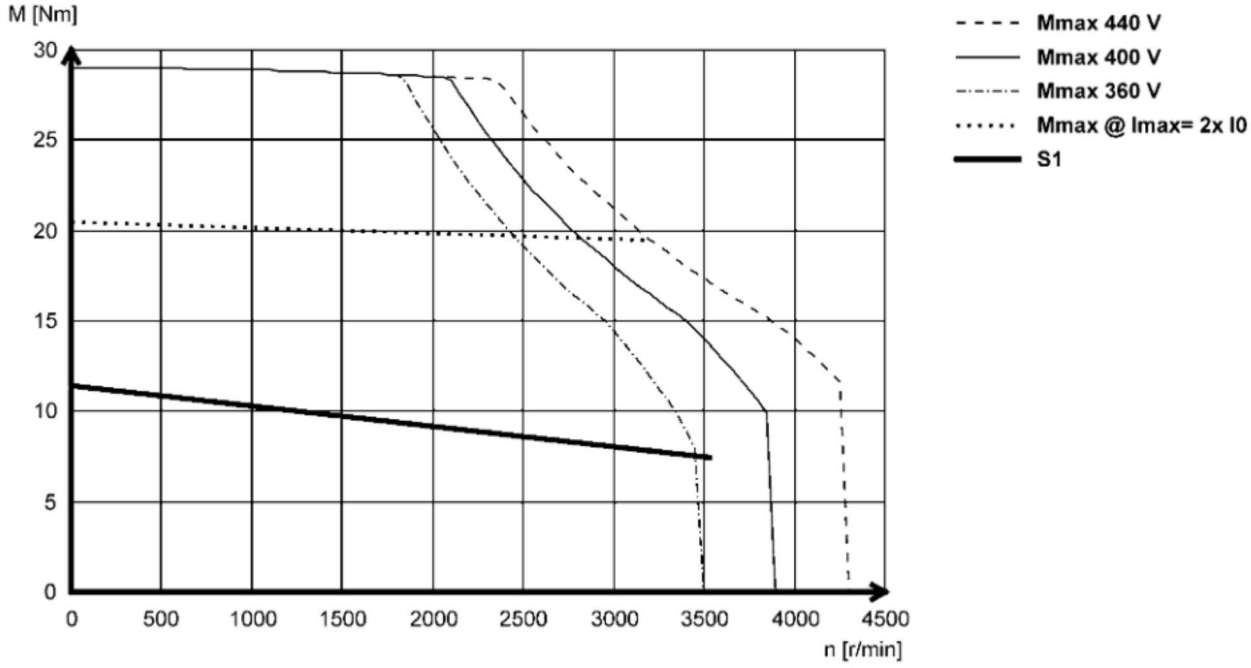
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS12H34- (forced ventilated)**






**MCS12H35- (non-ventilated)**



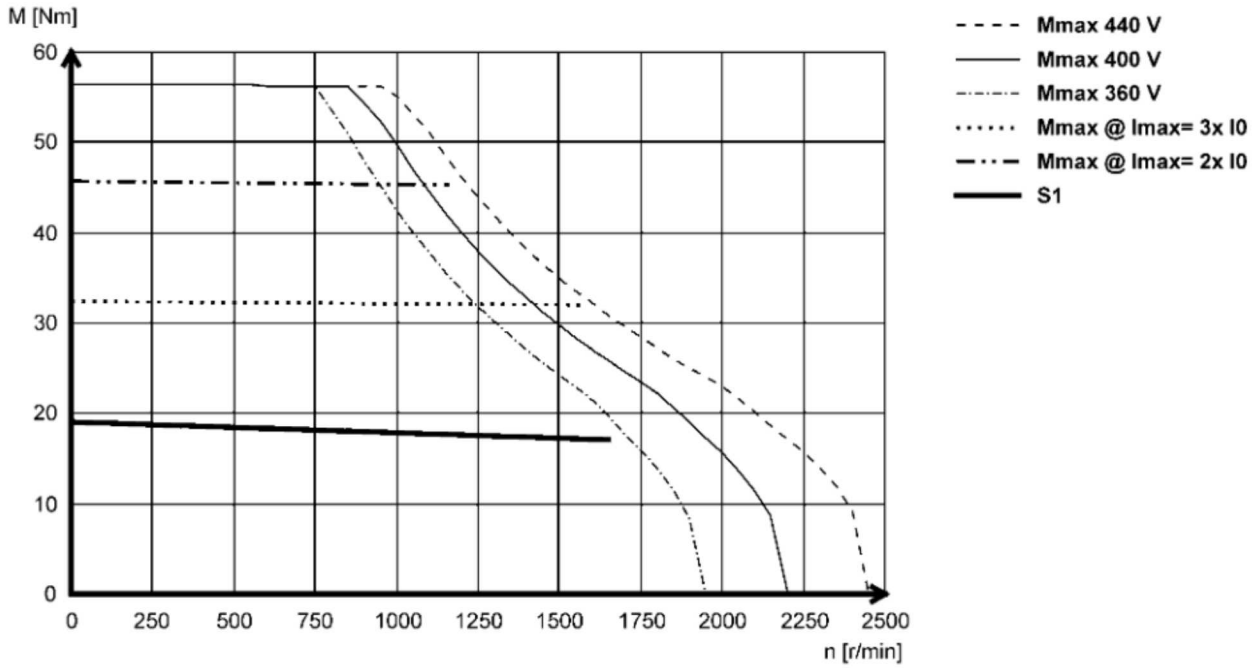

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

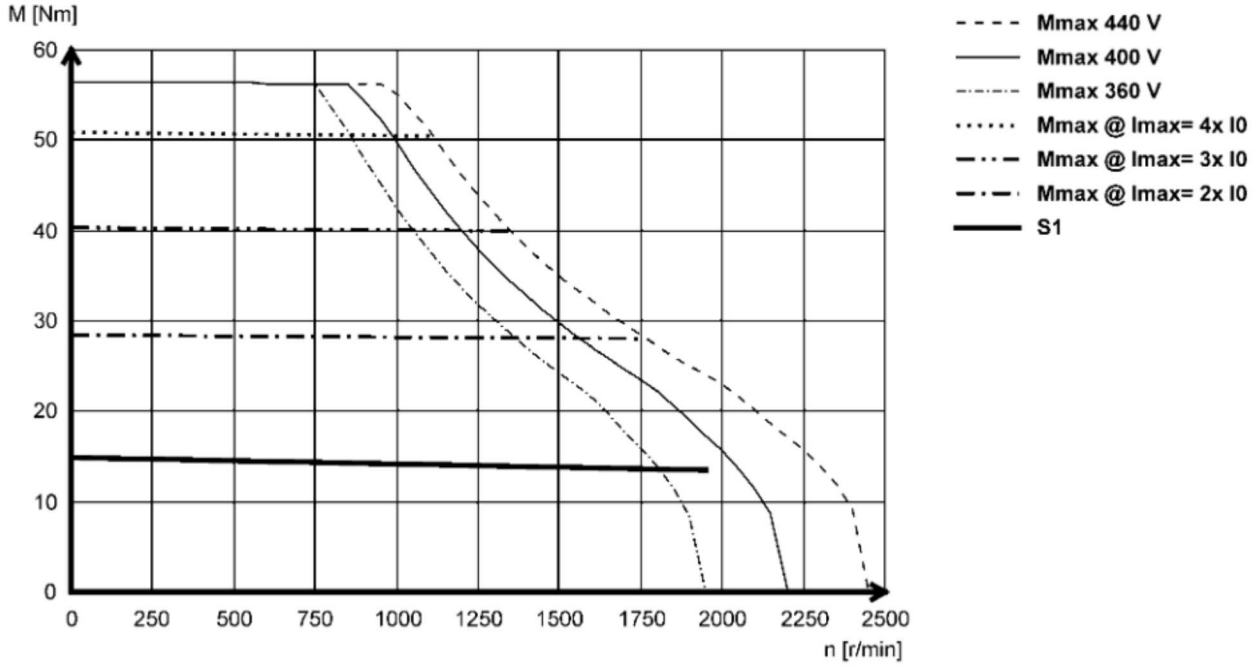
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS12L17- (forced ventilated)**




5.1

**MCS12L20- (non-ventilated)**



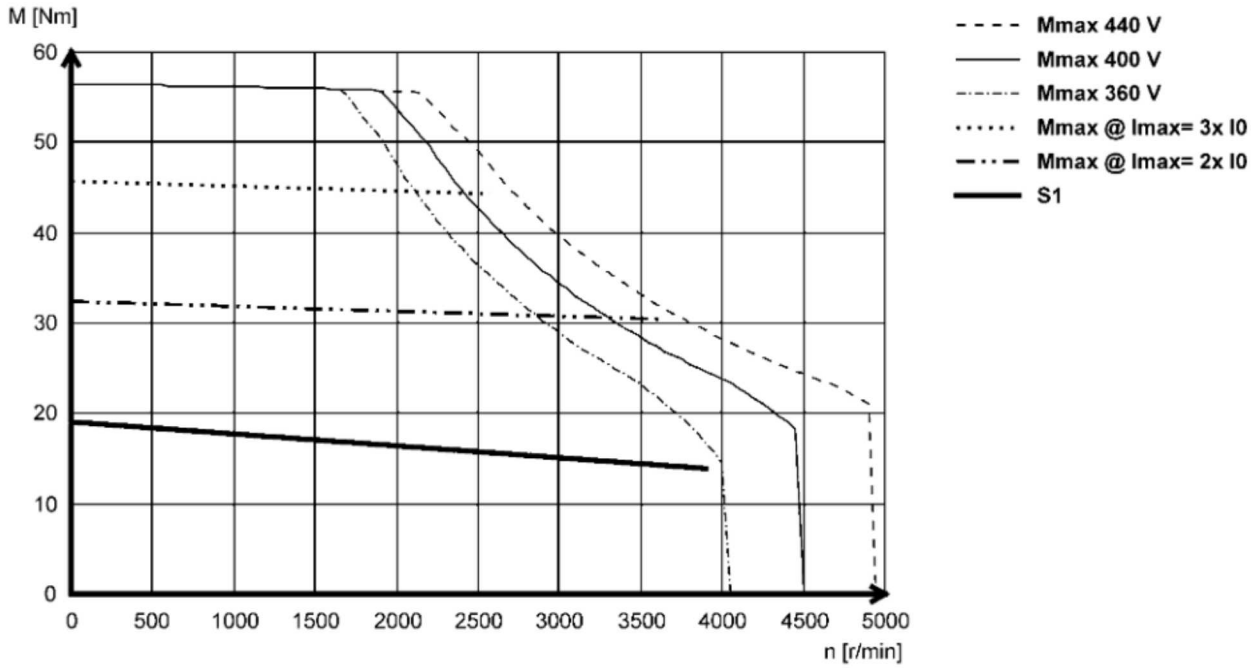

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

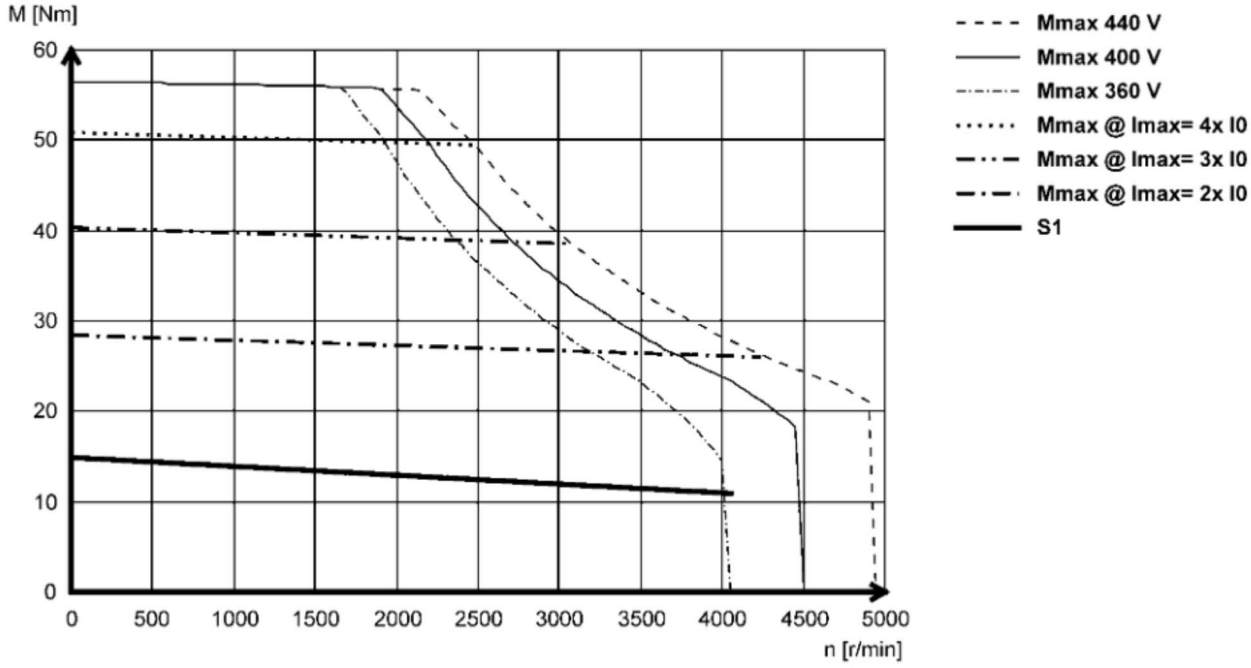
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS12L39- (forced ventilated)**






**MCS12L41- (non-ventilated)**



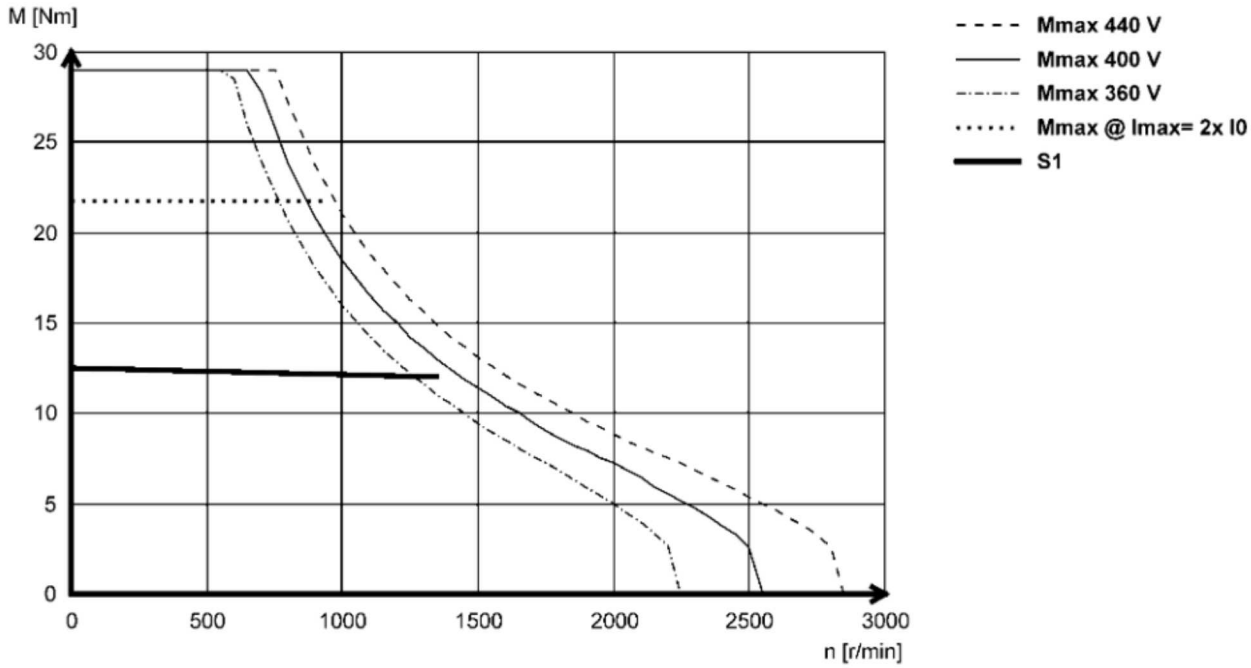

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

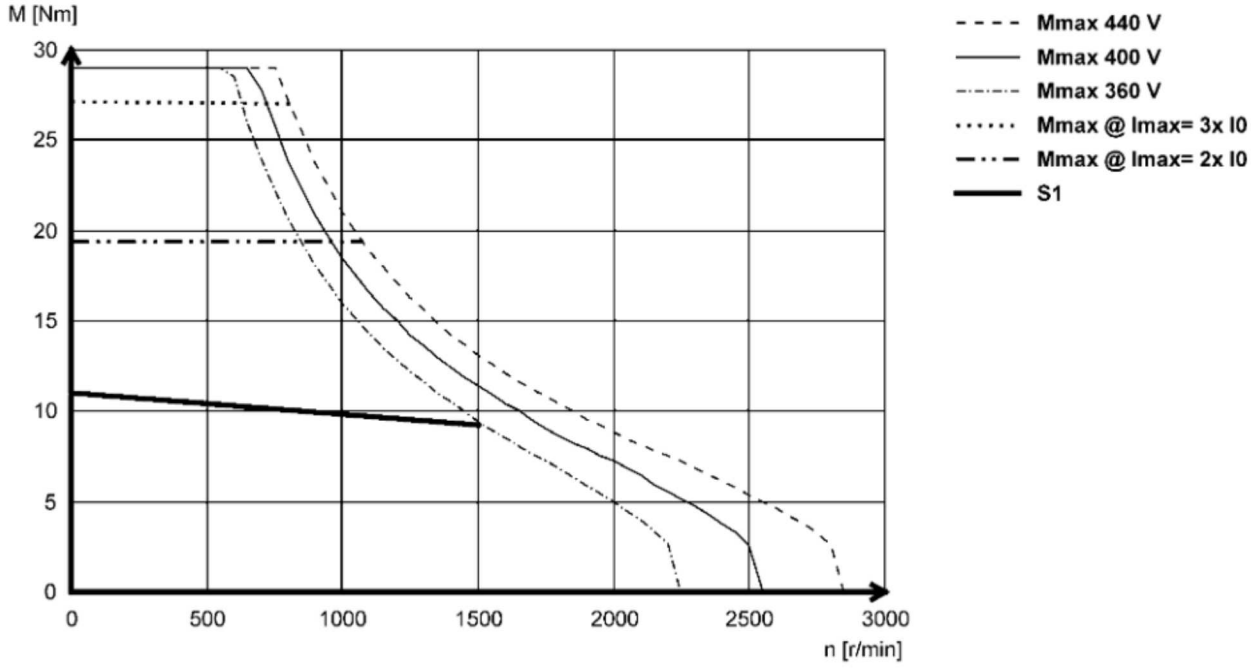
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS14D14- (forced ventilated)**




5.1

**MCS14D15- (non-ventilated)**



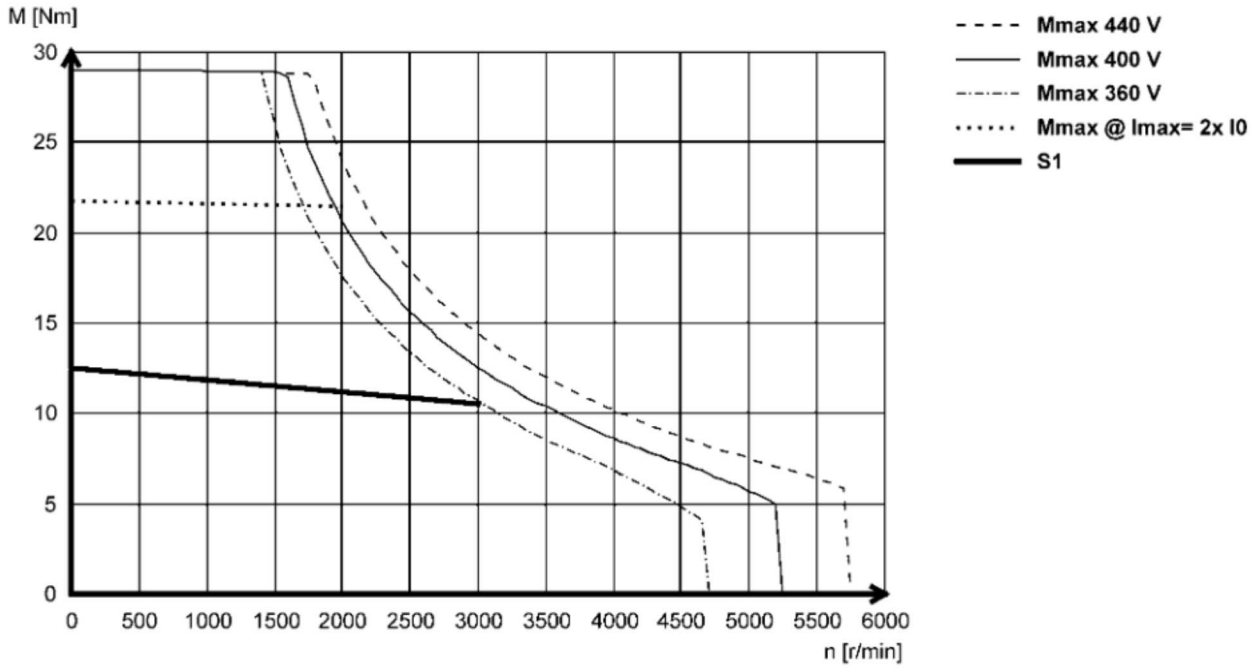

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

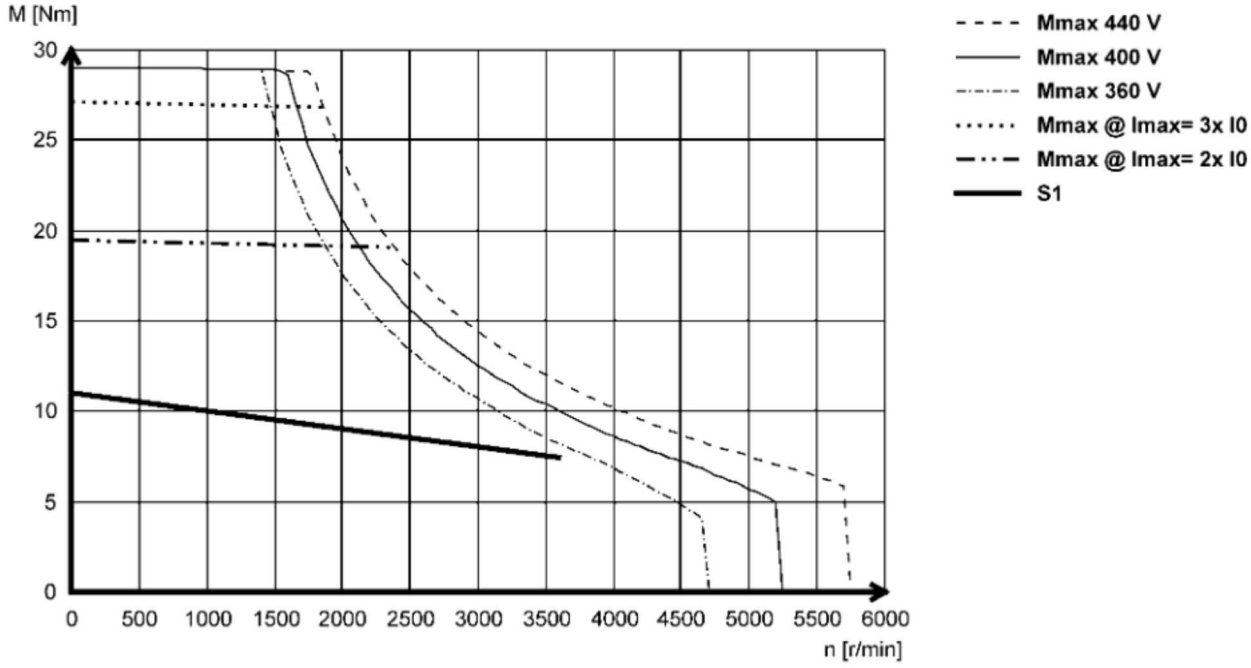
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS14D30 (forced ventilated)**






**MCS14D36- (non-ventilated)**



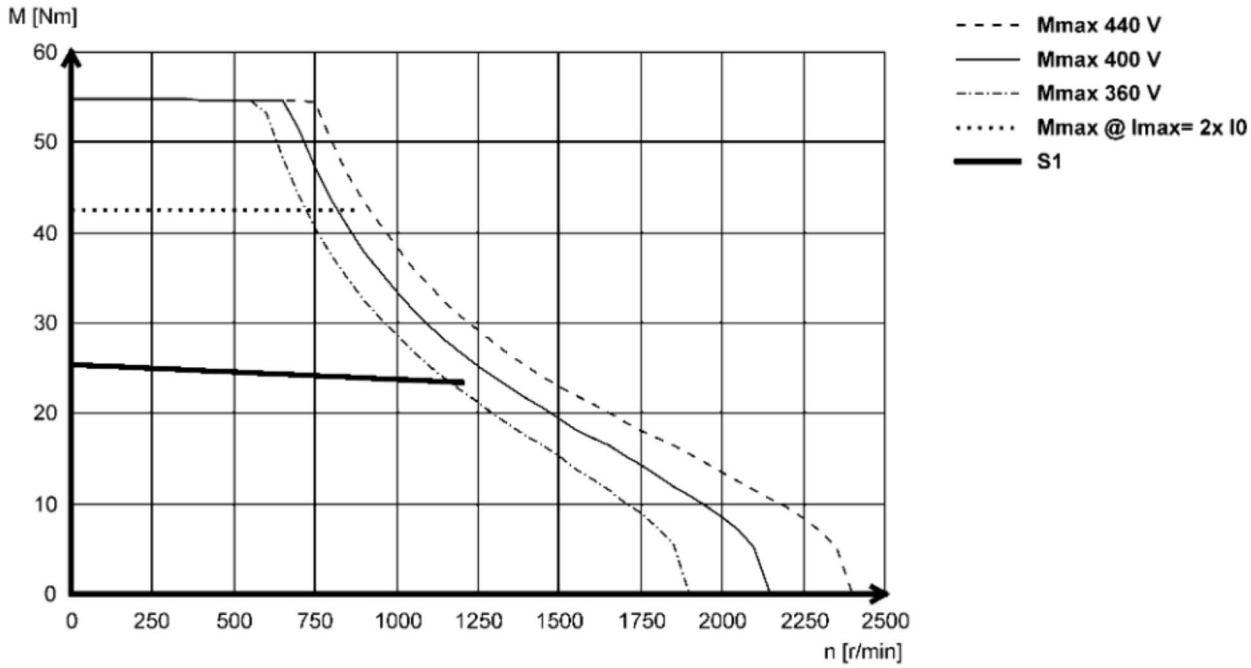

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

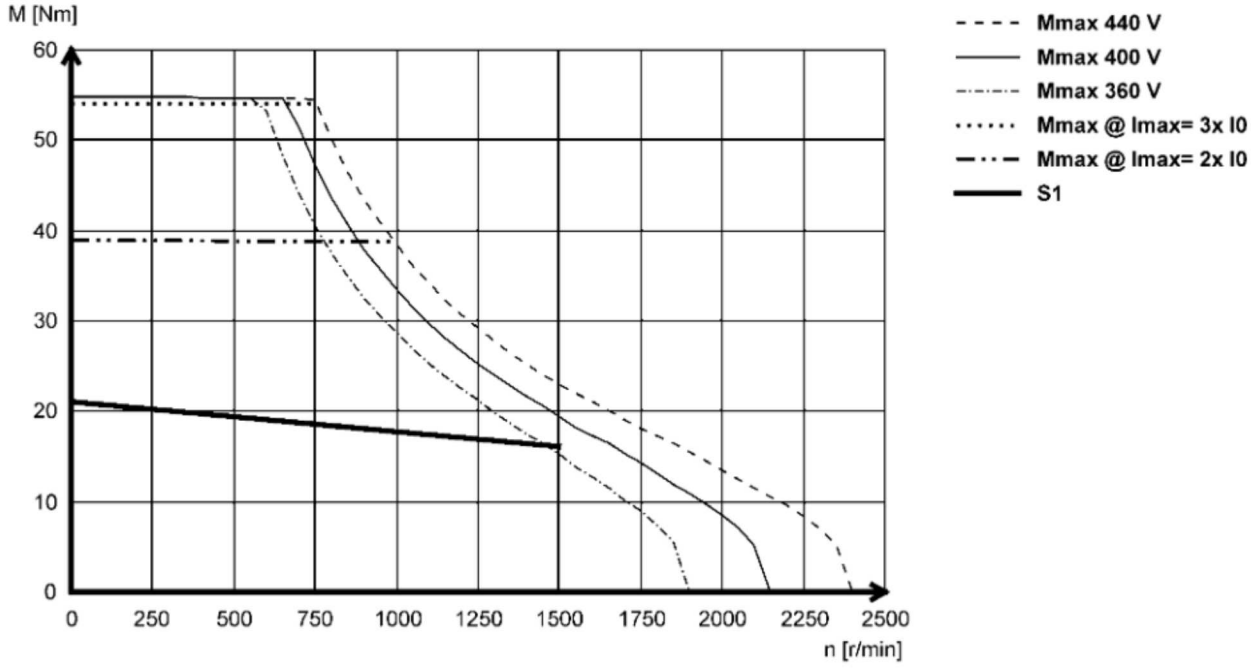
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS14H12- (forced ventilated)**




5.1

**MCS14H15- (non-ventilated)**



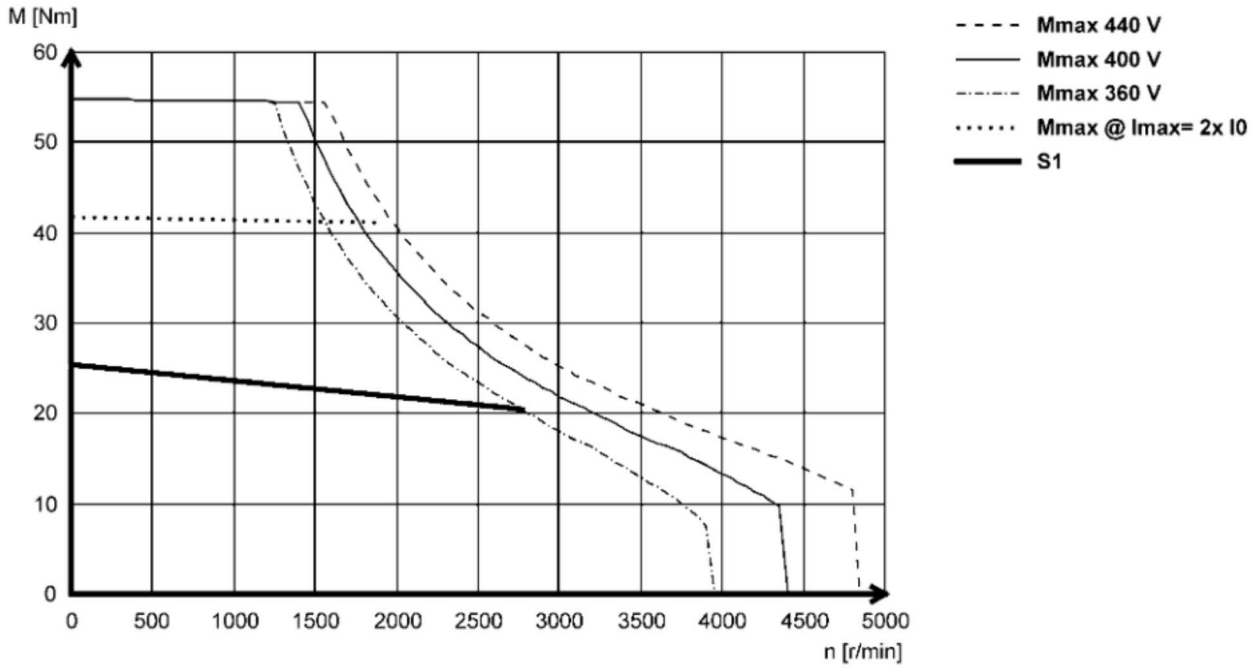

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

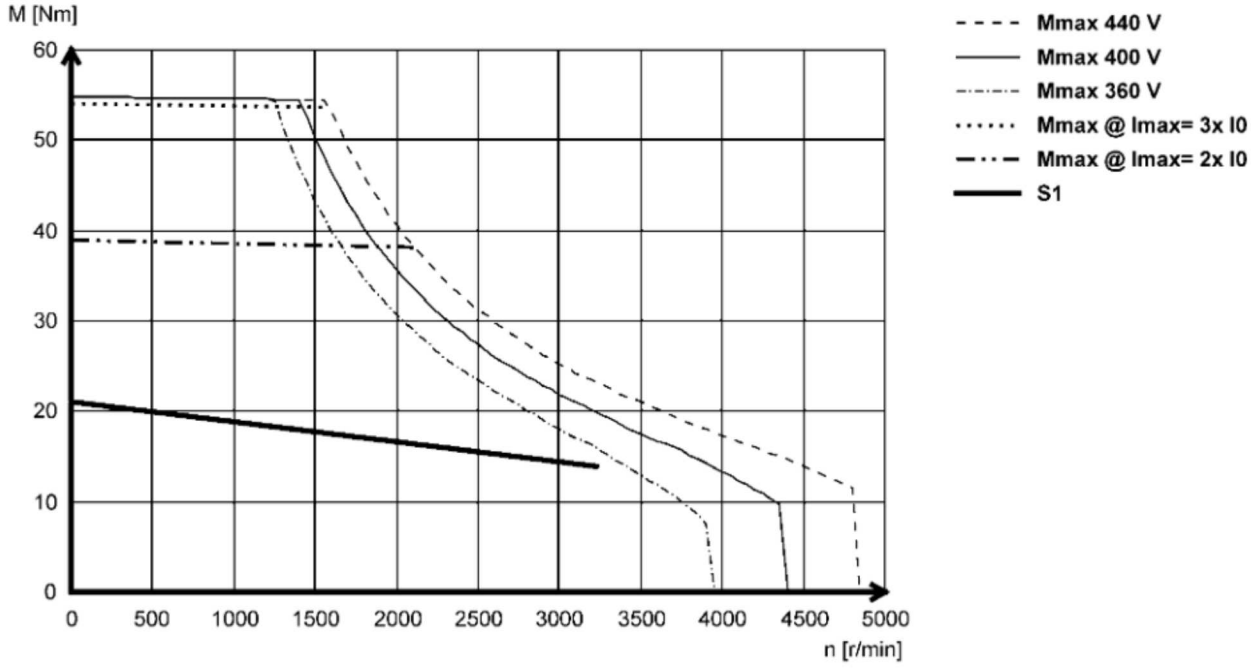
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS14H28- (forced ventilated)**






**MCS14H32- (non-ventilated)**



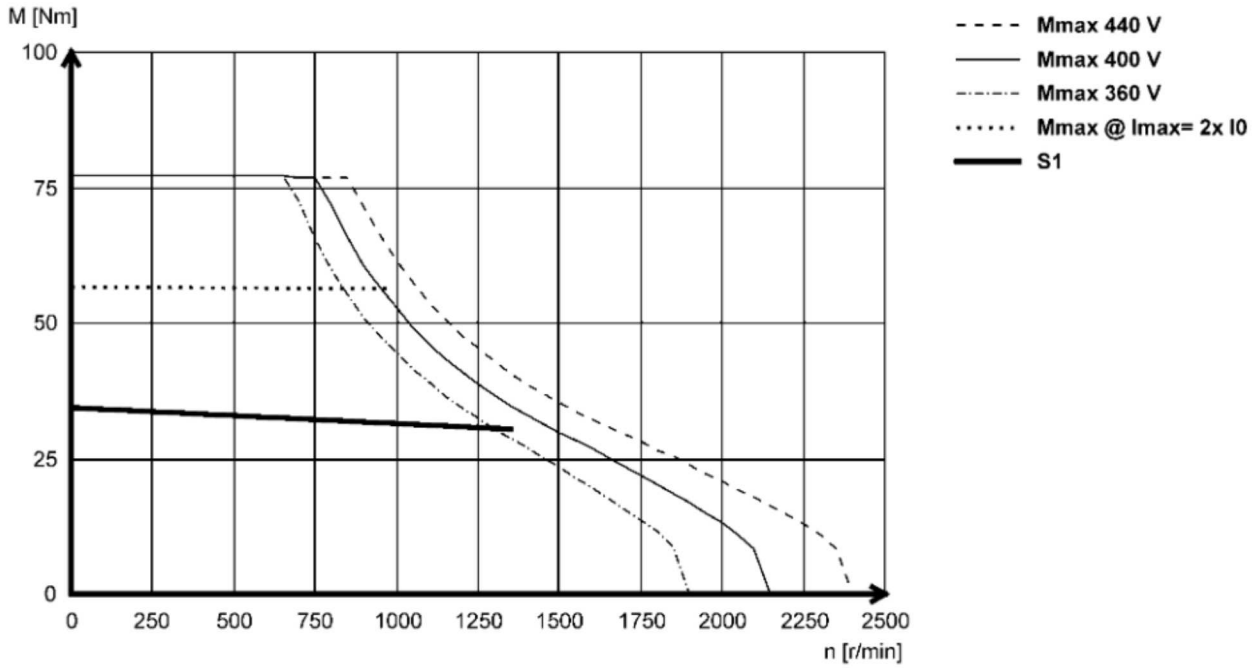

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

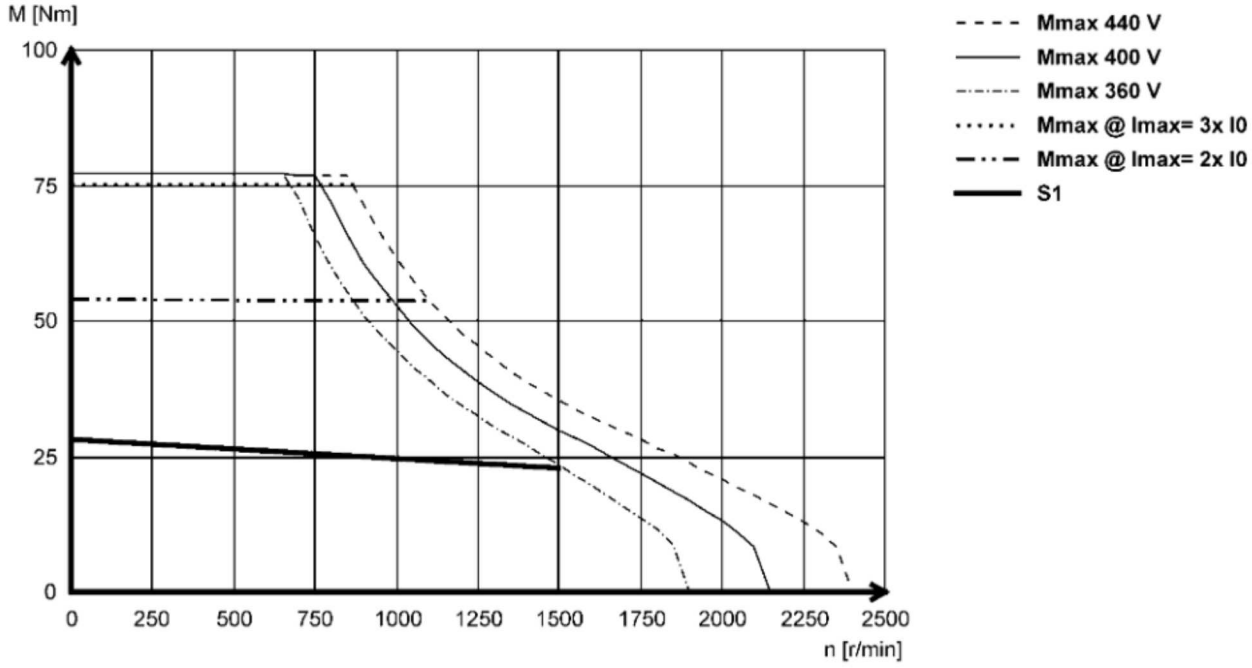
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS14L14- (forced ventilated)**




5.1

**MCS14L15- (non-ventilated)**



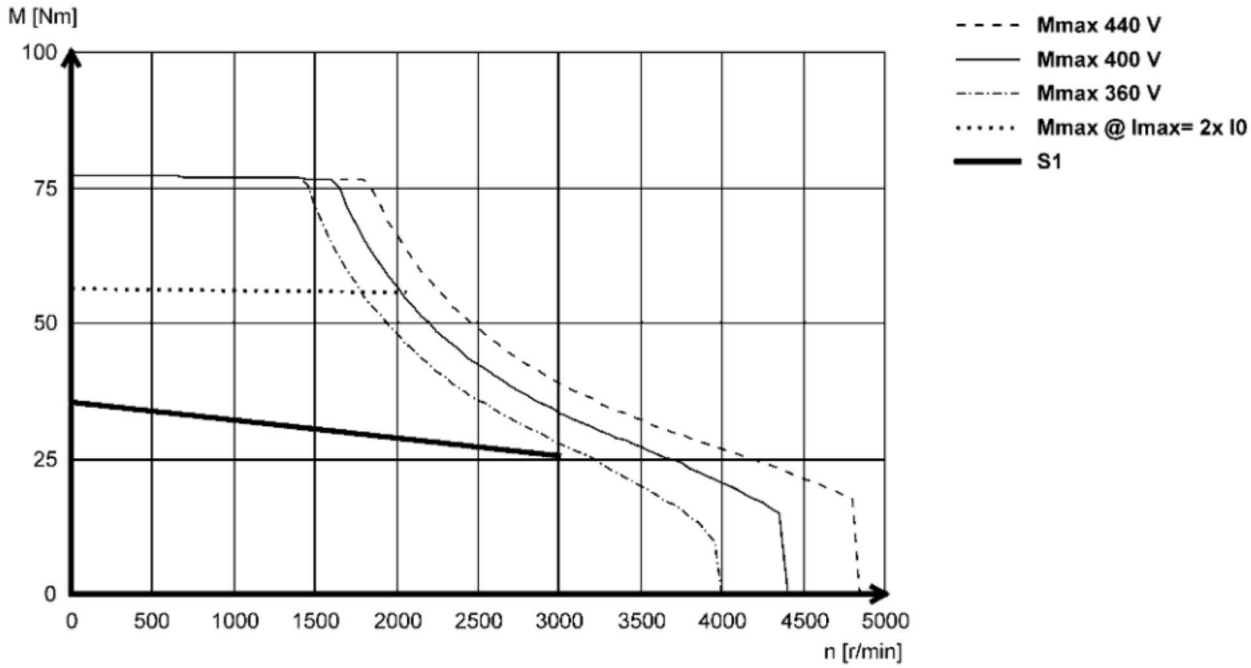

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

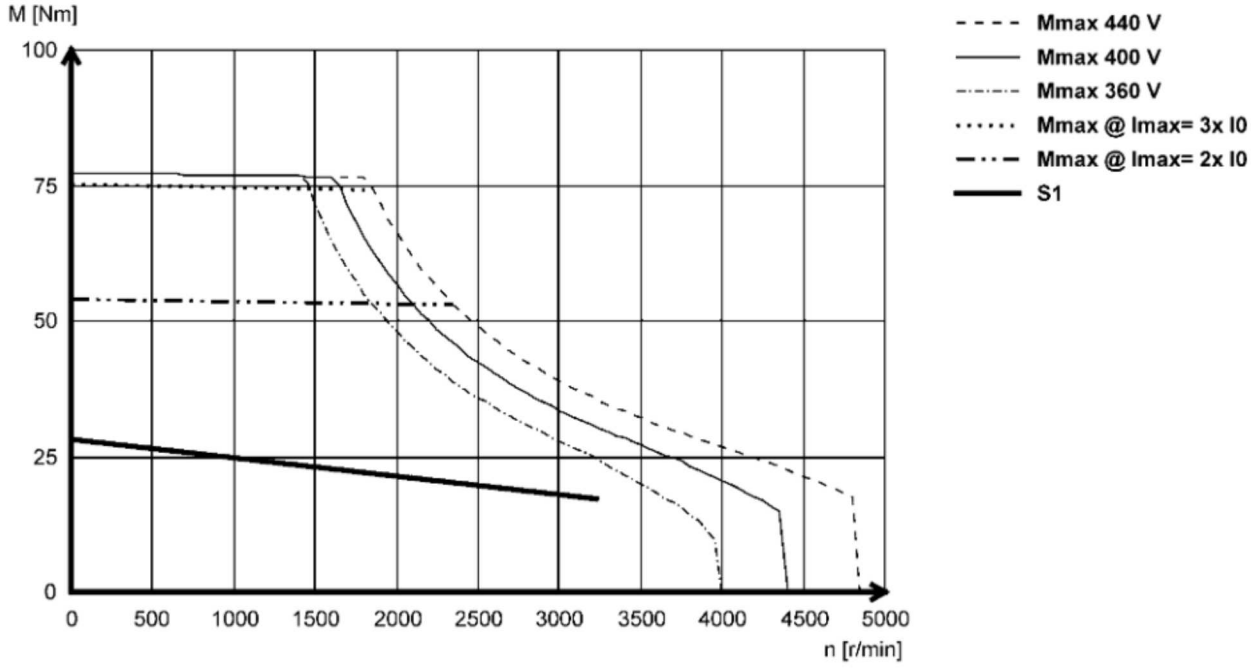
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS14L30- (forced ventilated)**






**MCS14L32- (non-ventilated)**



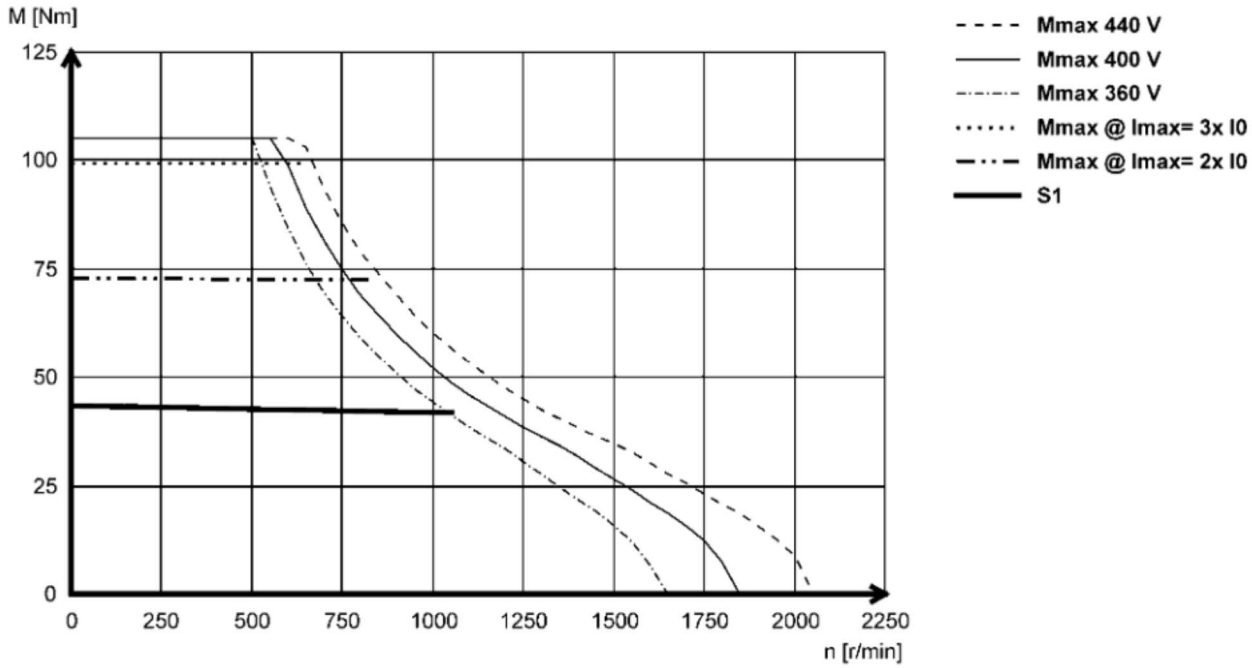

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

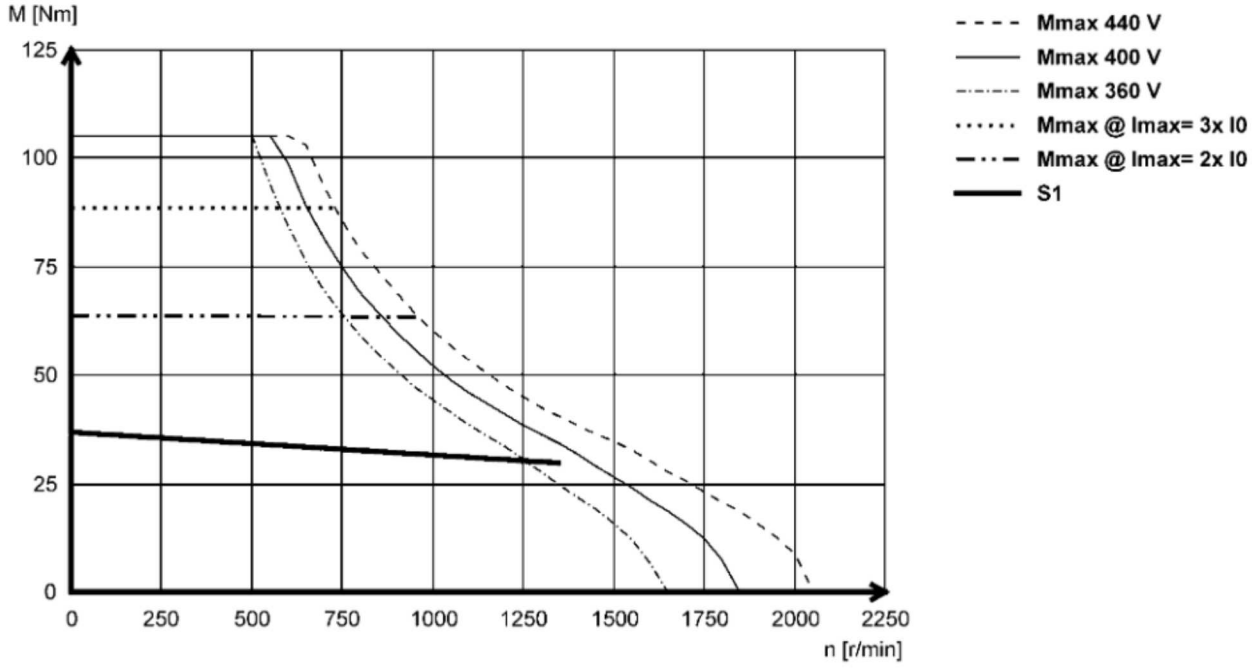
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS14P11- (forced ventilated)**




5.1

**MCS14P14- (non-ventilated)**



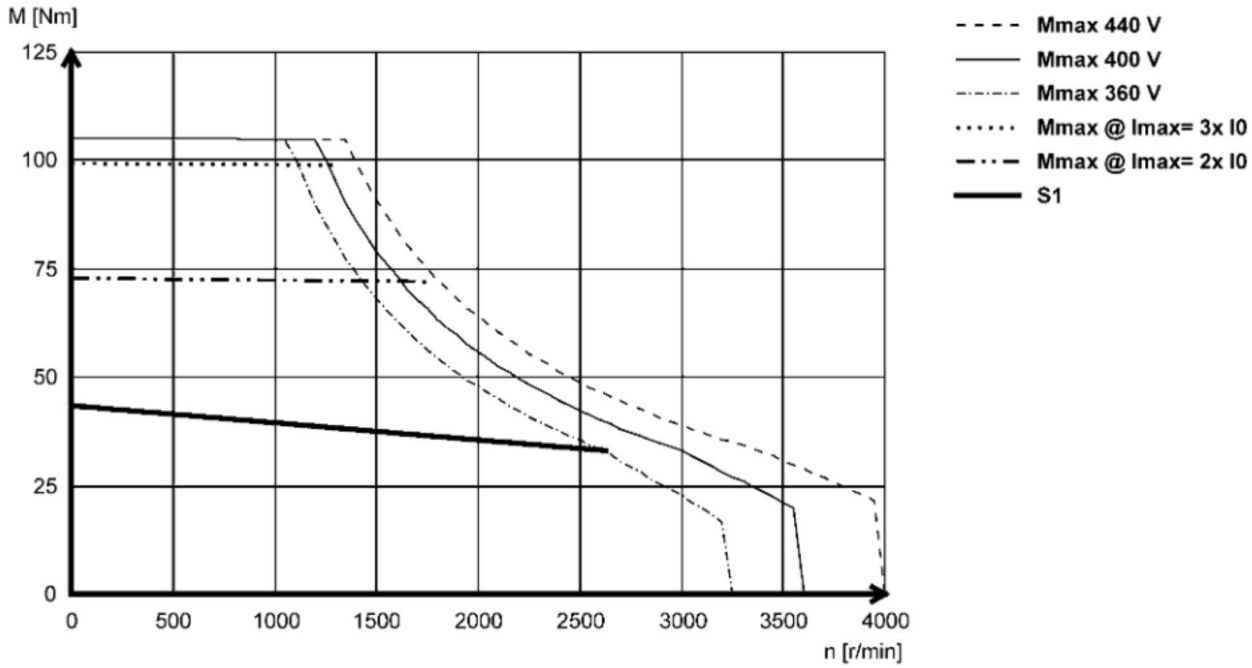

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

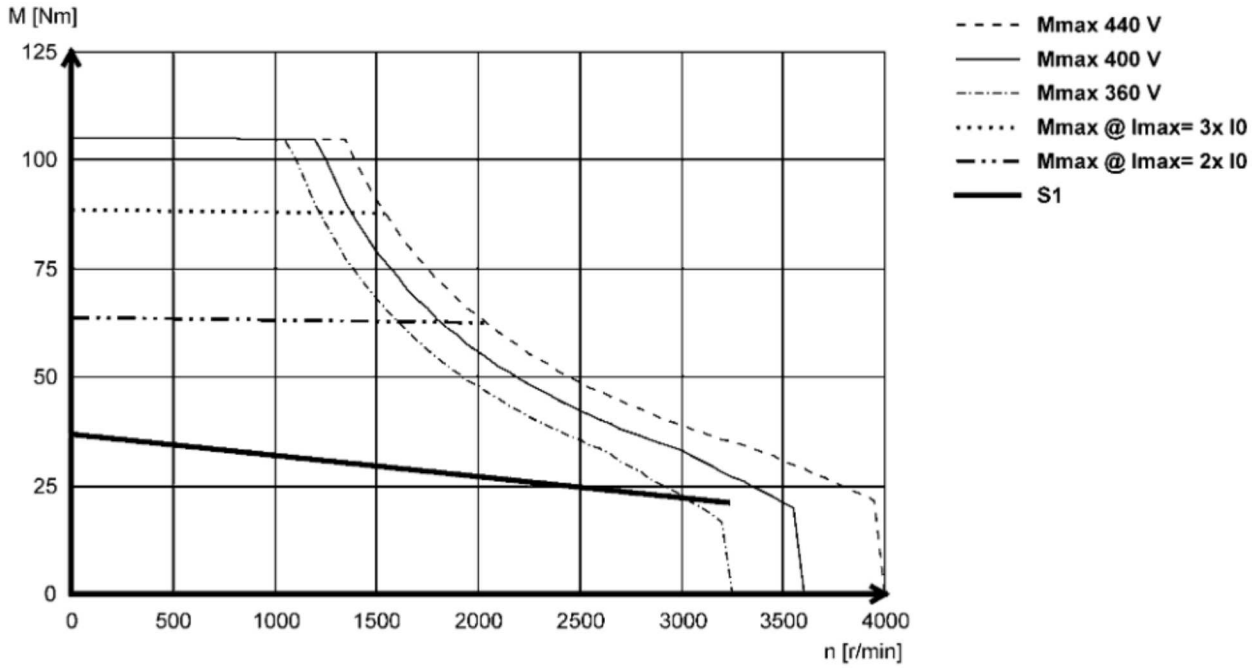
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS14P26- (forced ventilated)**






**MCS14P32- (non-ventilated)**



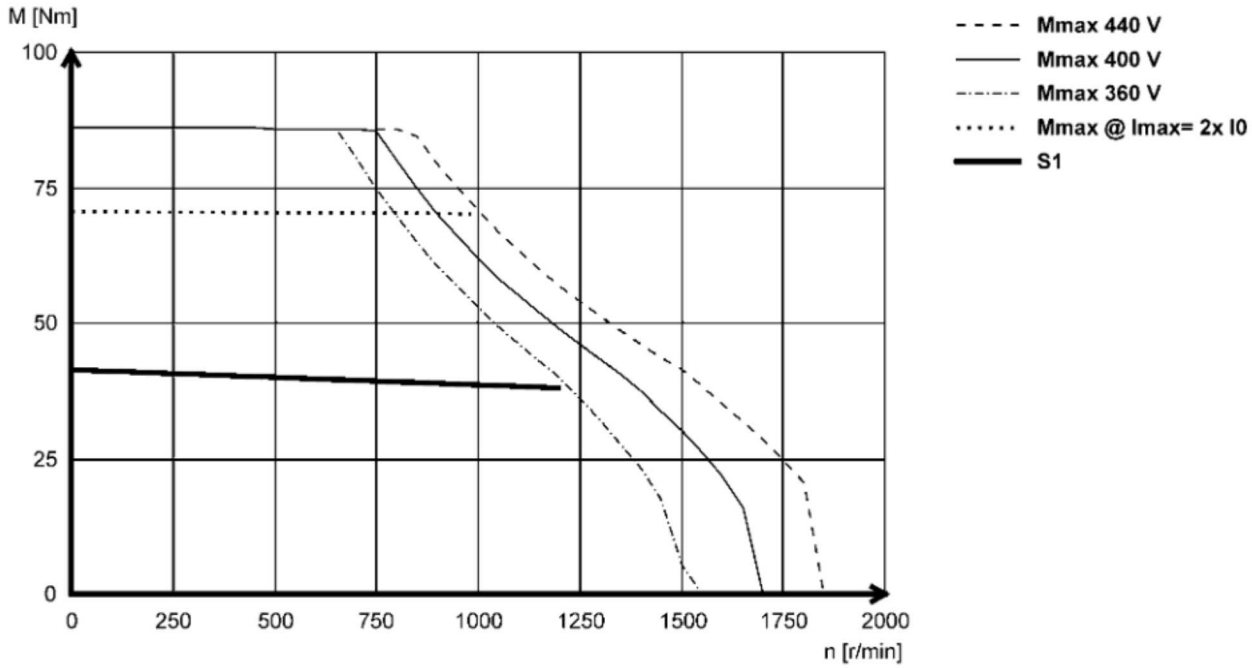

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

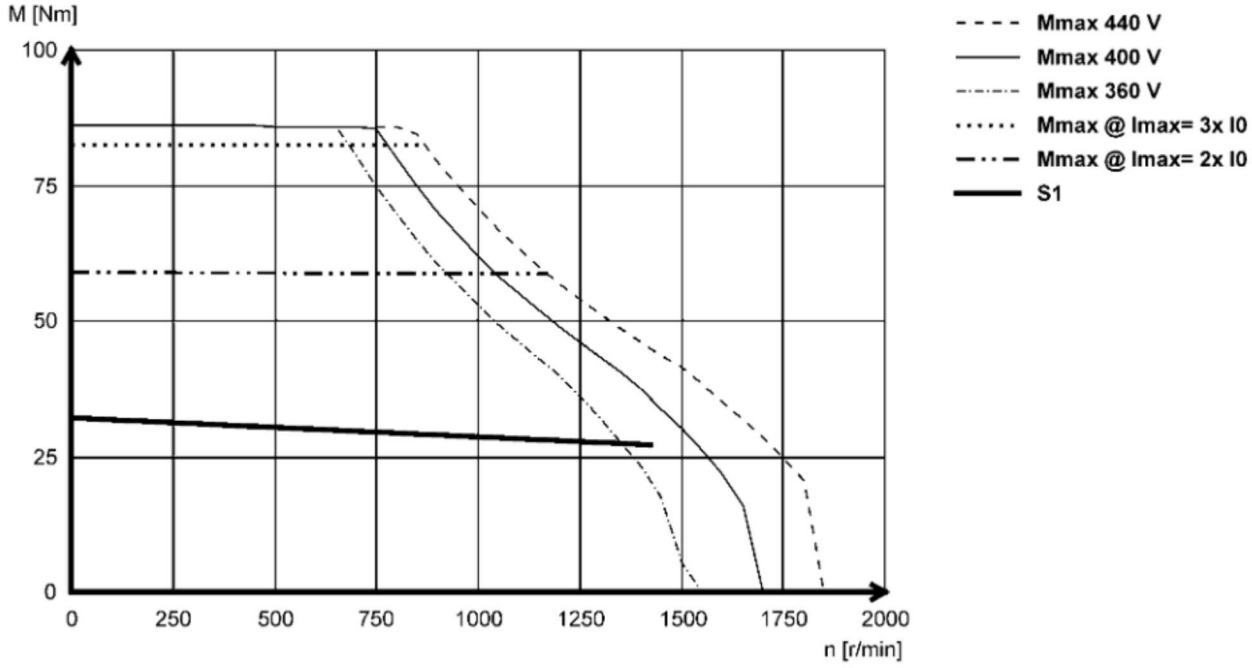
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS19F12- (forced ventilated)**




5.1

**MCS19F14- (non-ventilated)**



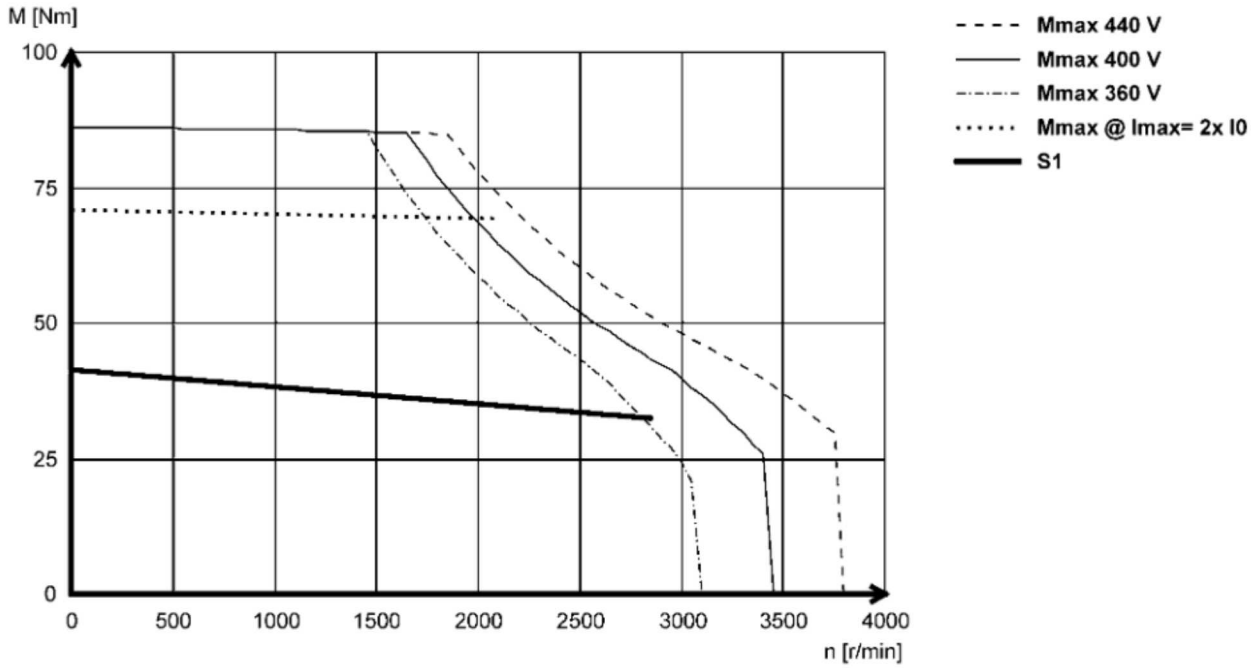

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

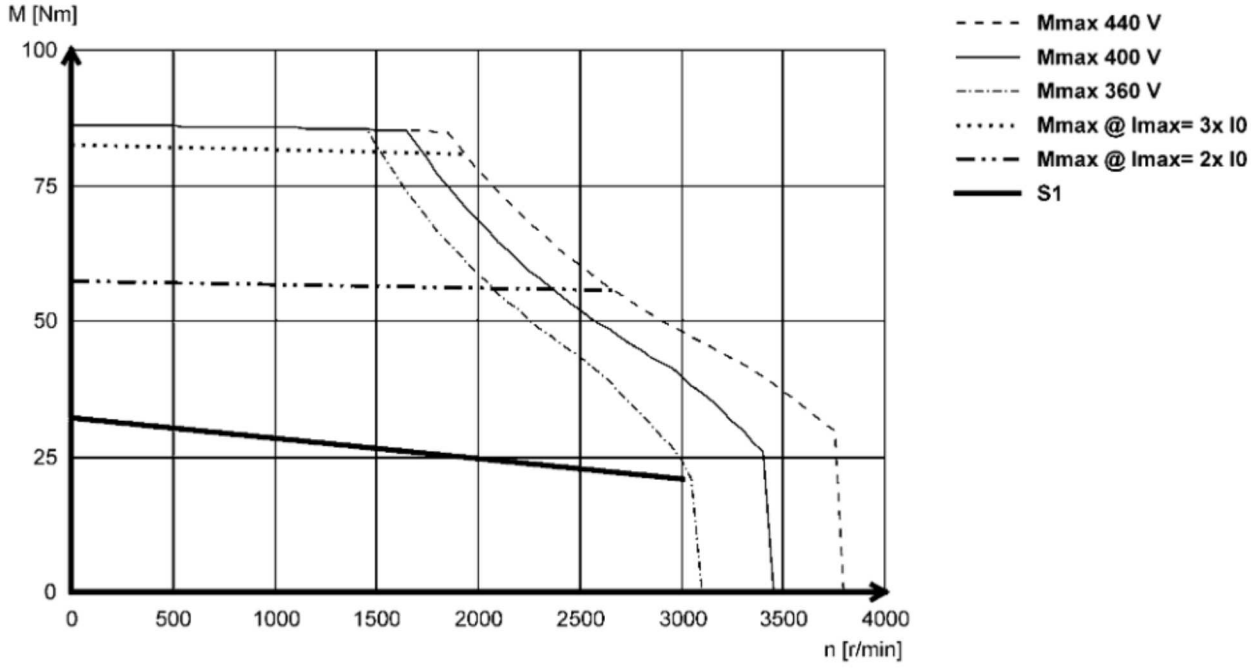
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS19F29- (forced ventilated)**






**MCS19F30- (non-ventilated)**



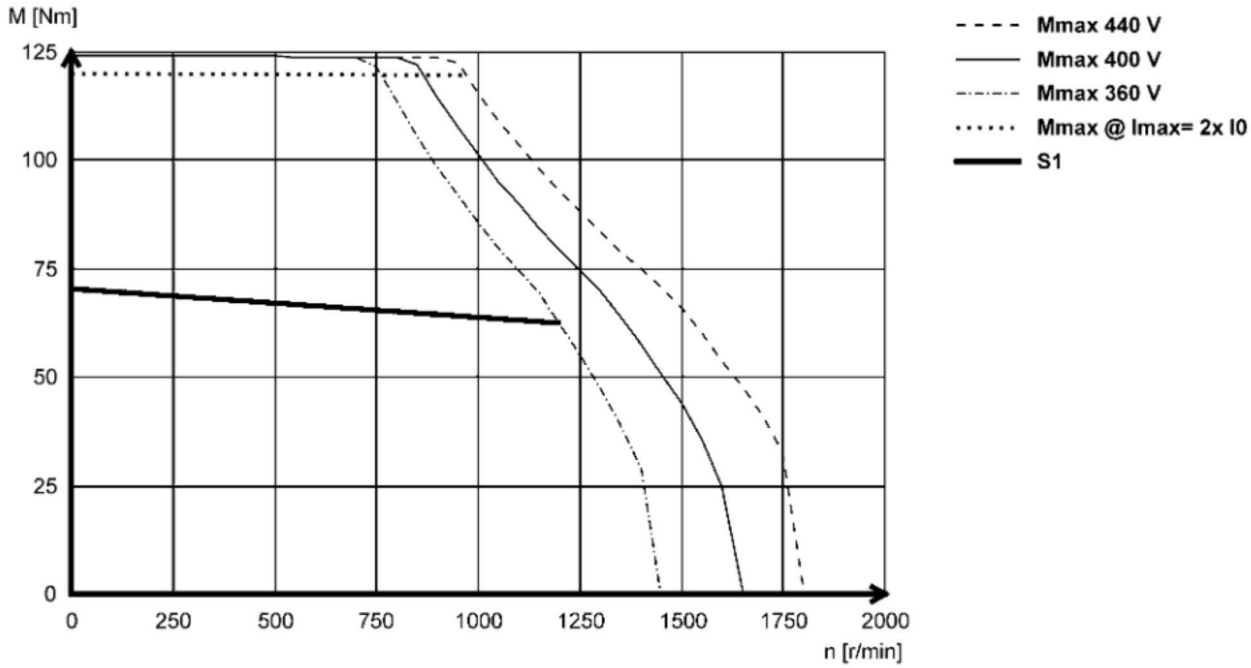

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

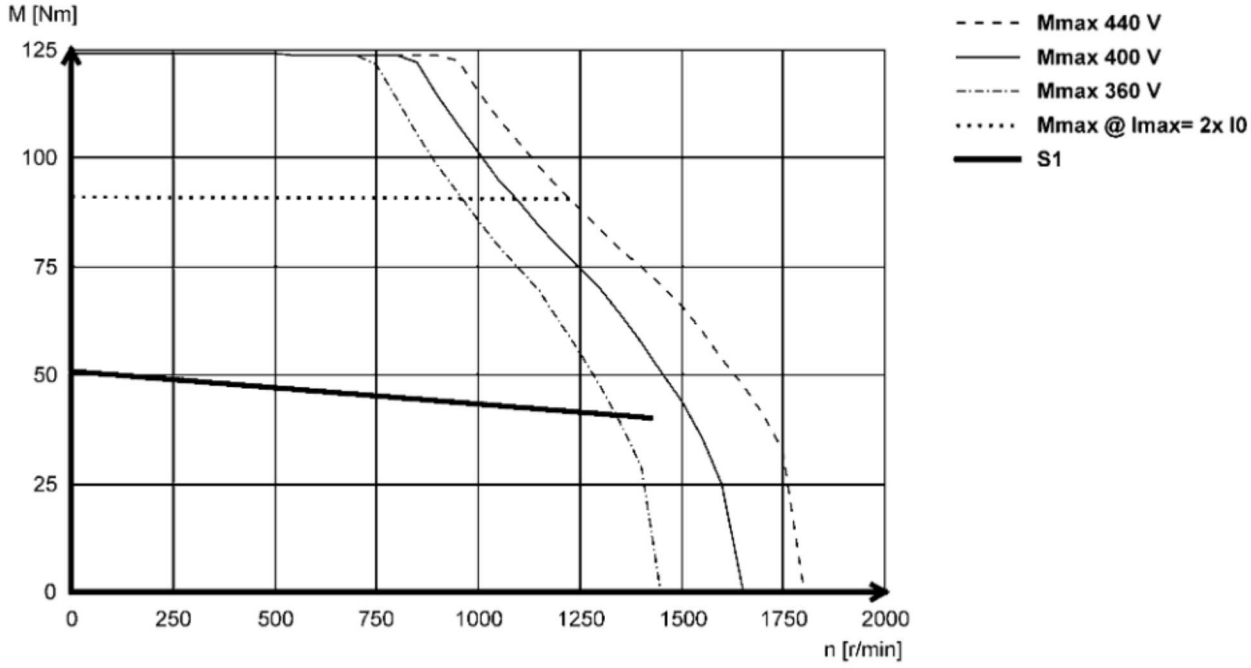
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS19J12- (forced ventilated)**




5.1

**MCS19J14- (non-ventilated)**



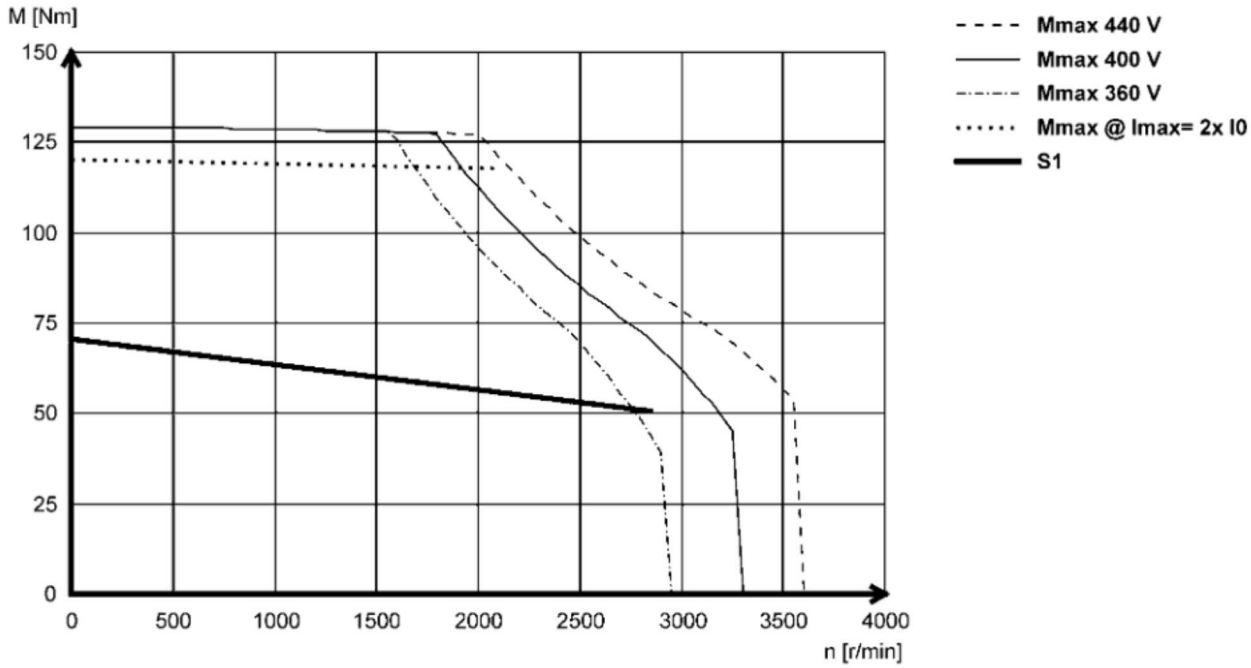

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

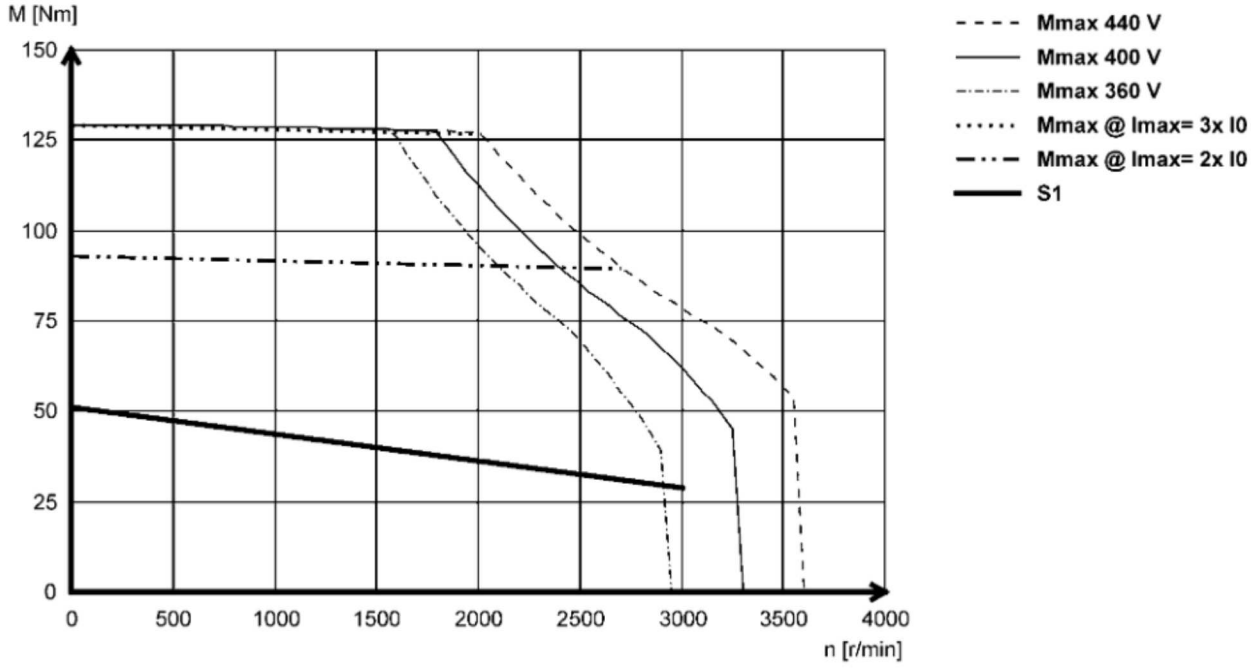
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS19J29- (forced ventilated)**






**MCS19J30- (non-ventilated)**



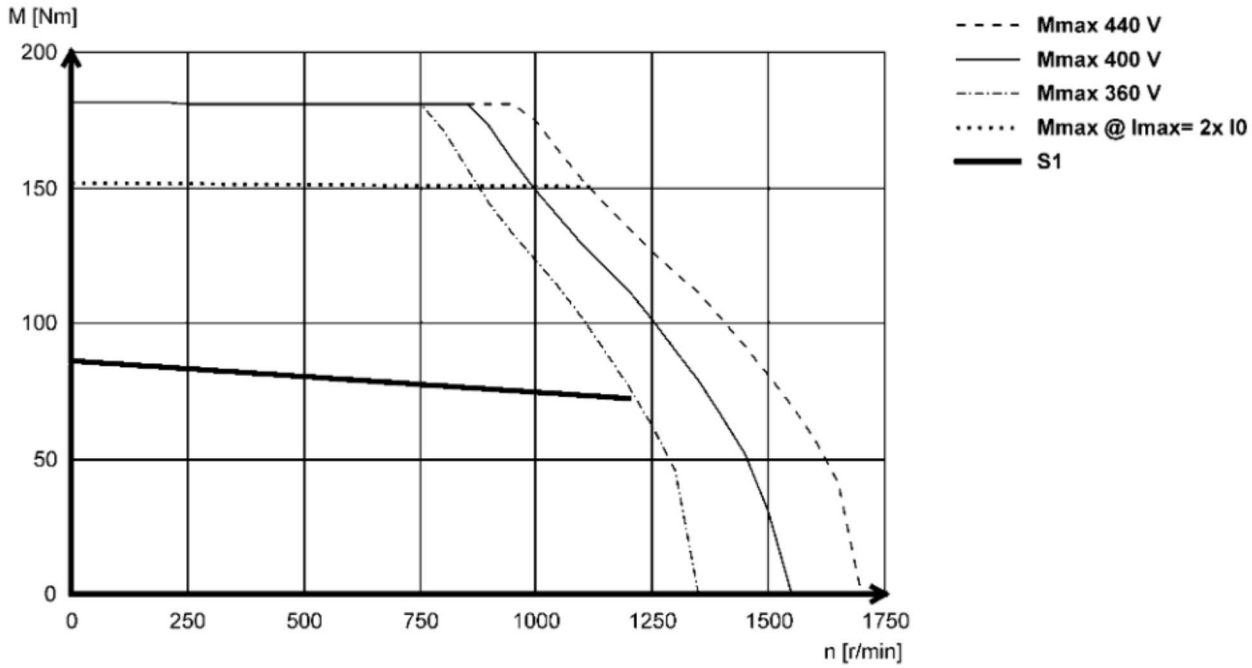

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

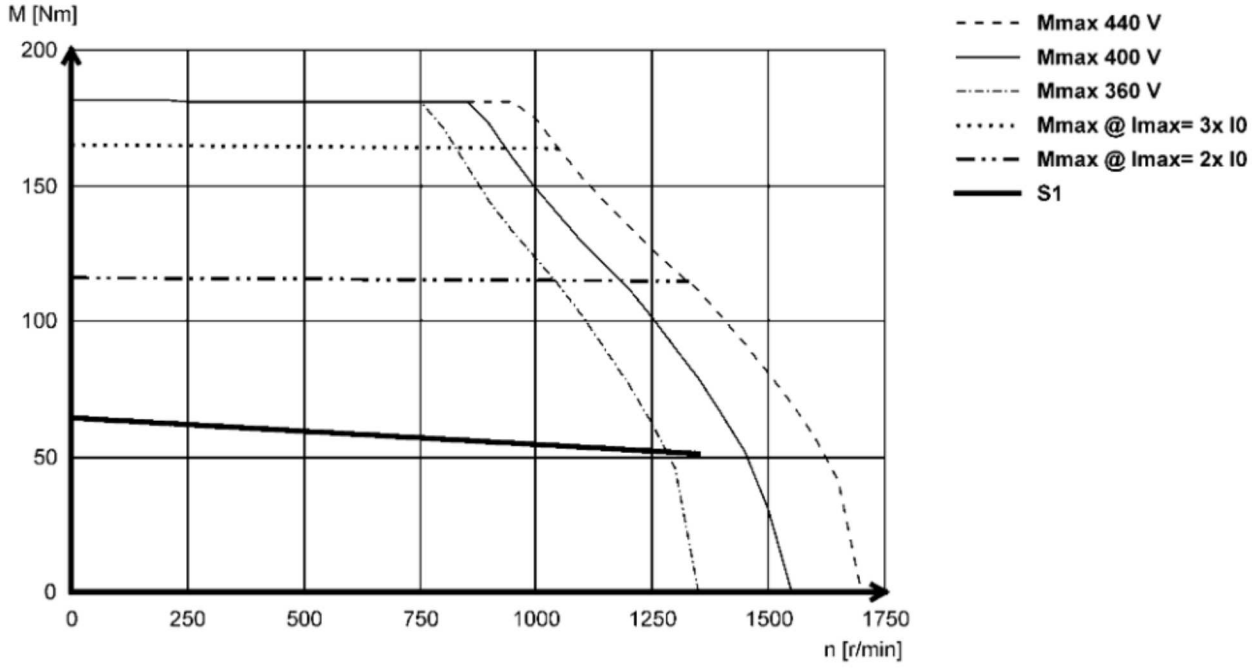
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS19P12 (forced ventilated)**




5.1

**MCS19P14- (non-ventilated)**



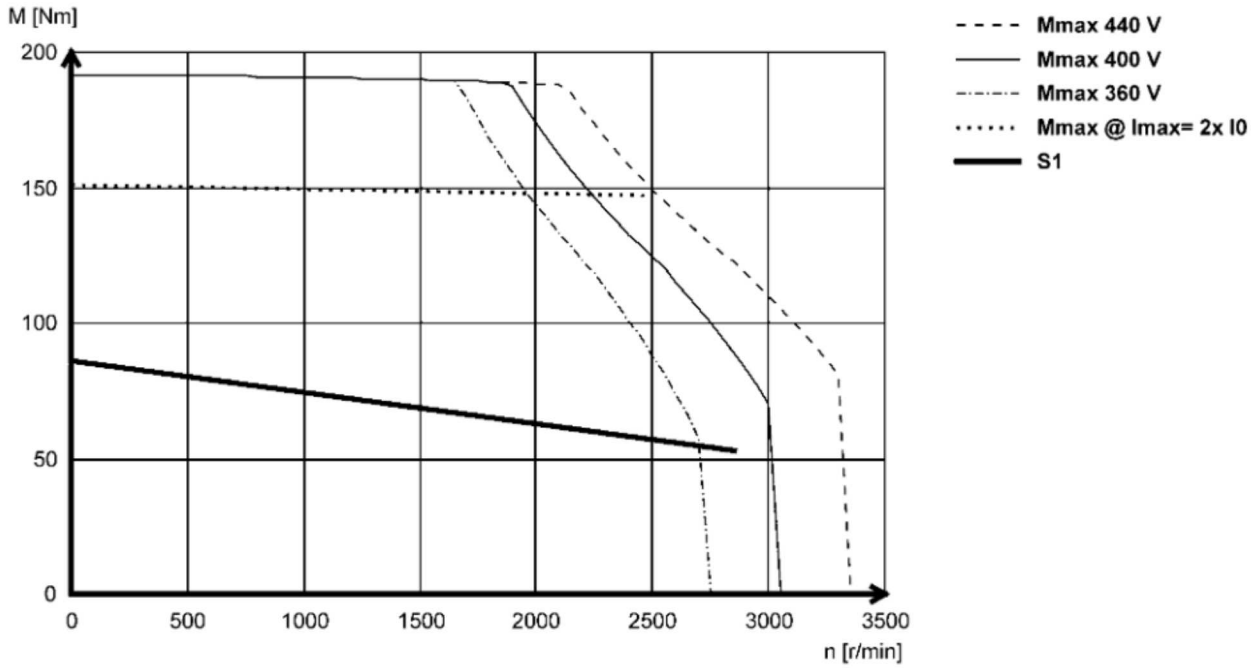

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

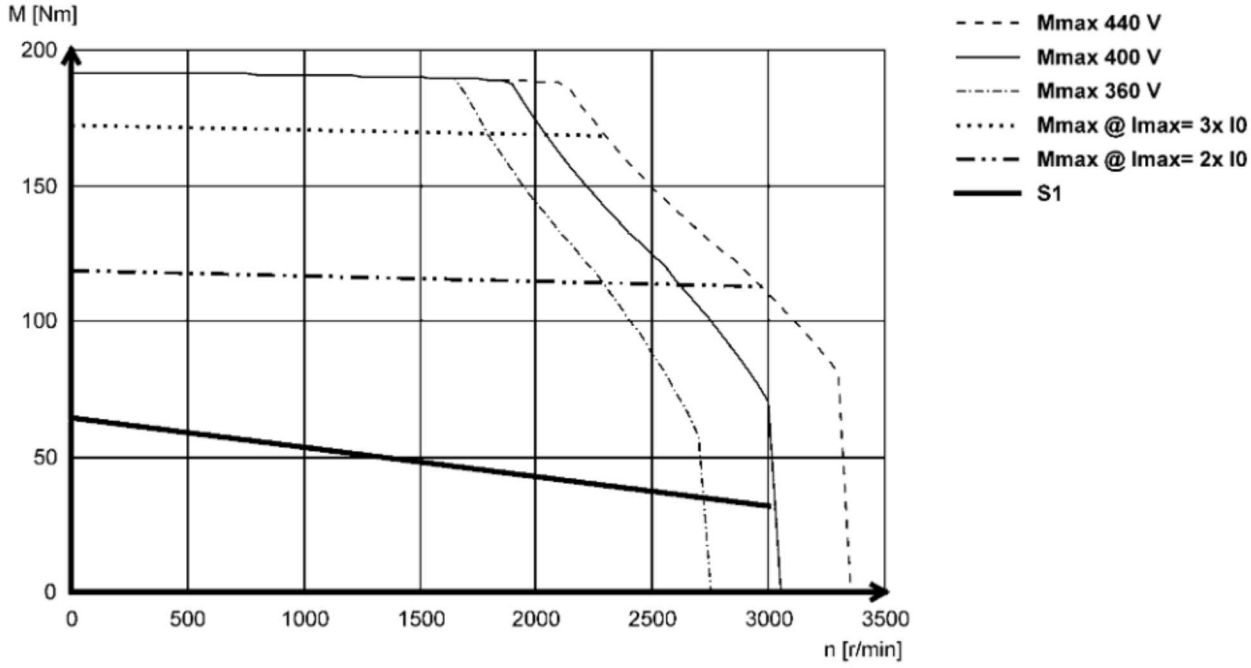
► The data applies to a mains connection voltage of 3 x 400 V.

**MCS19P29- (forced ventilated)**






**MCS19P30- (non-ventilated)**



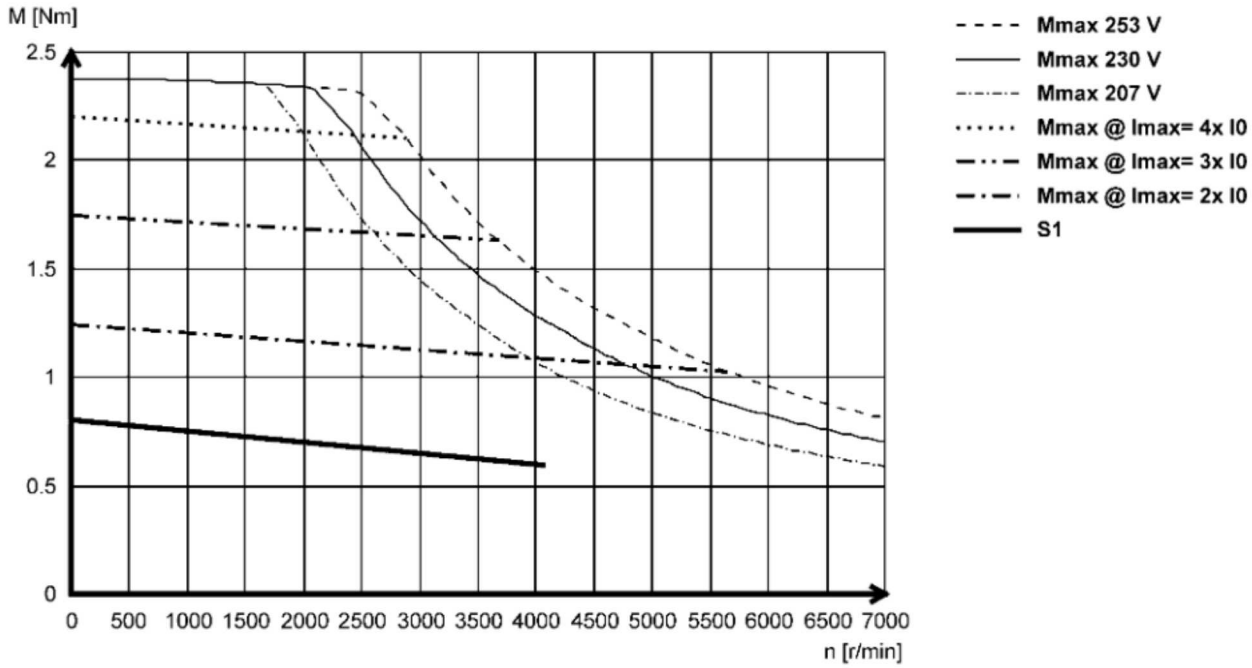

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

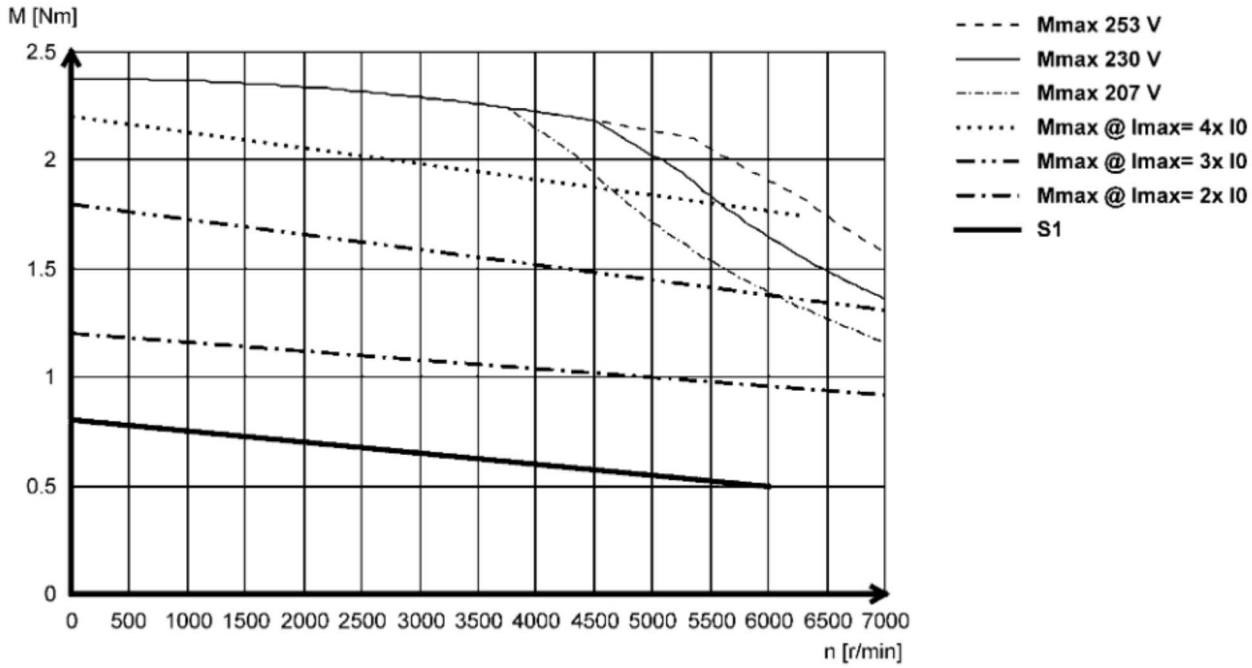
► The data applies to a mains connection voltage of 3 x 230 V.

**MCS06C41L (non-ventilated)**






**MCS06C60L (non-ventilated)**



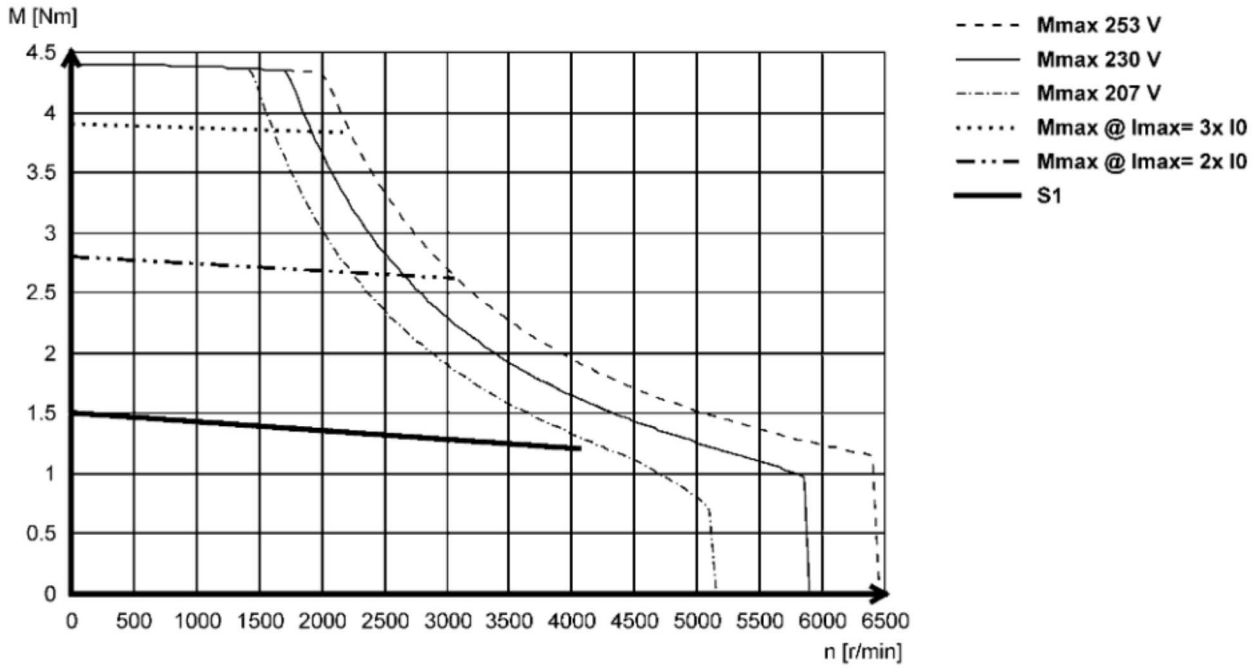

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

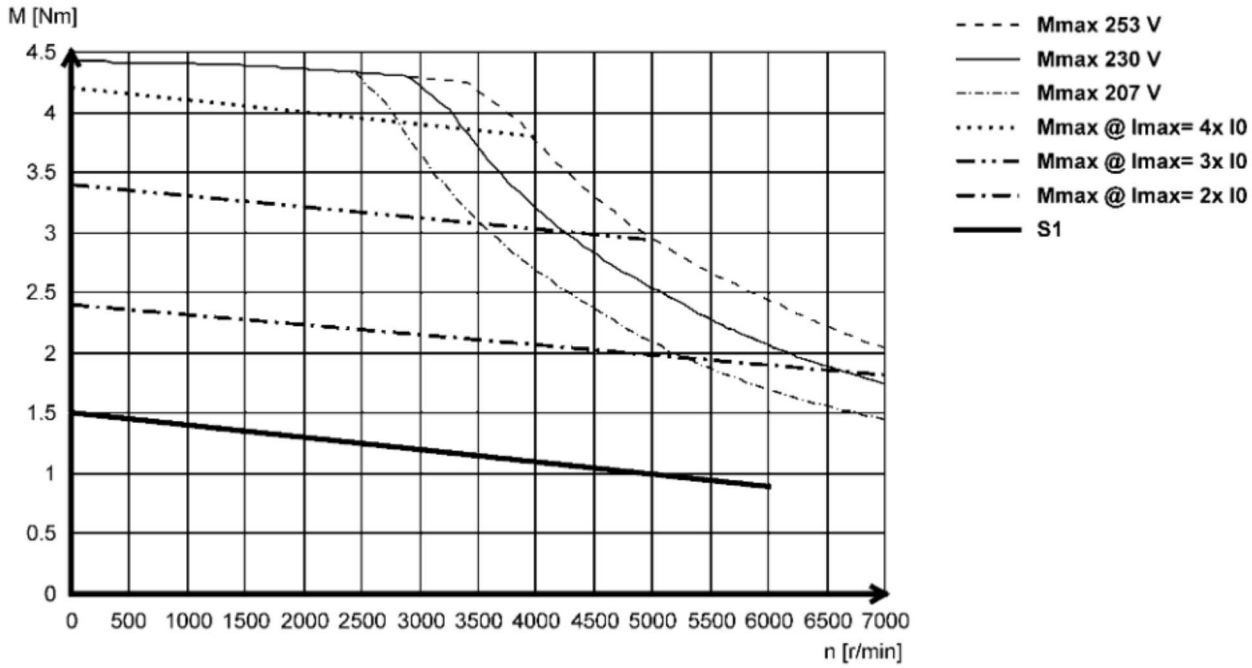
► The data applies to a mains connection voltage of 3 x 230 V.

**MCS06F41L (non-ventilated)**






**MCS06F60L (non-ventilated)**



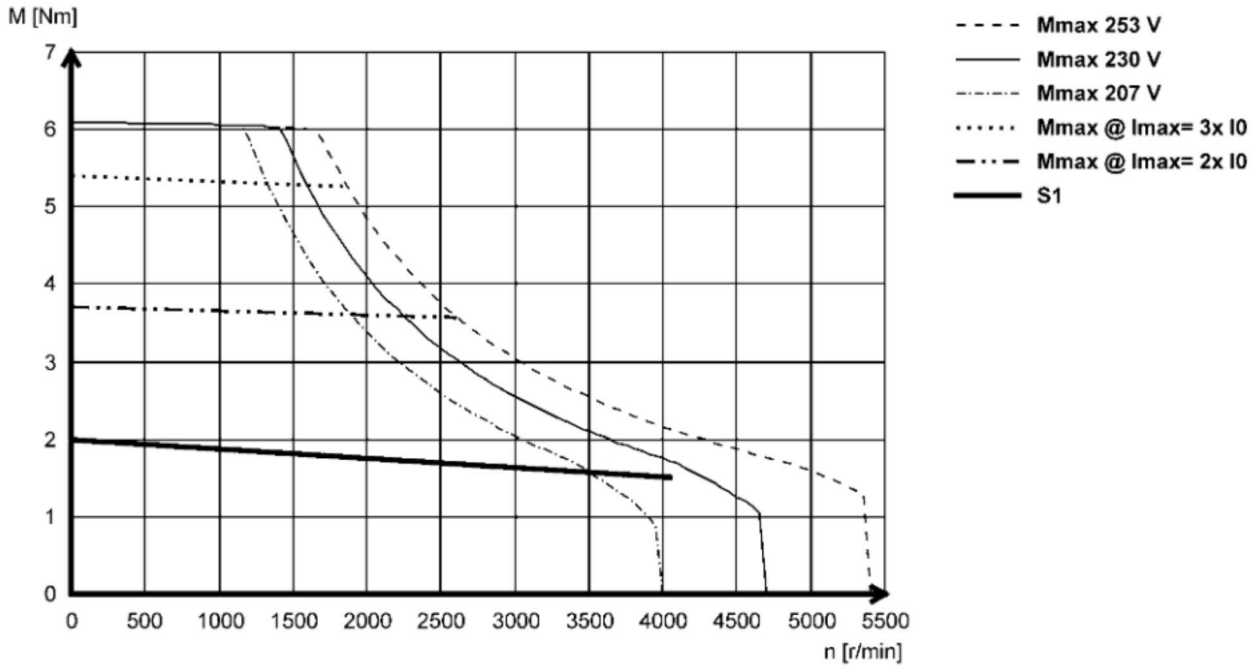

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

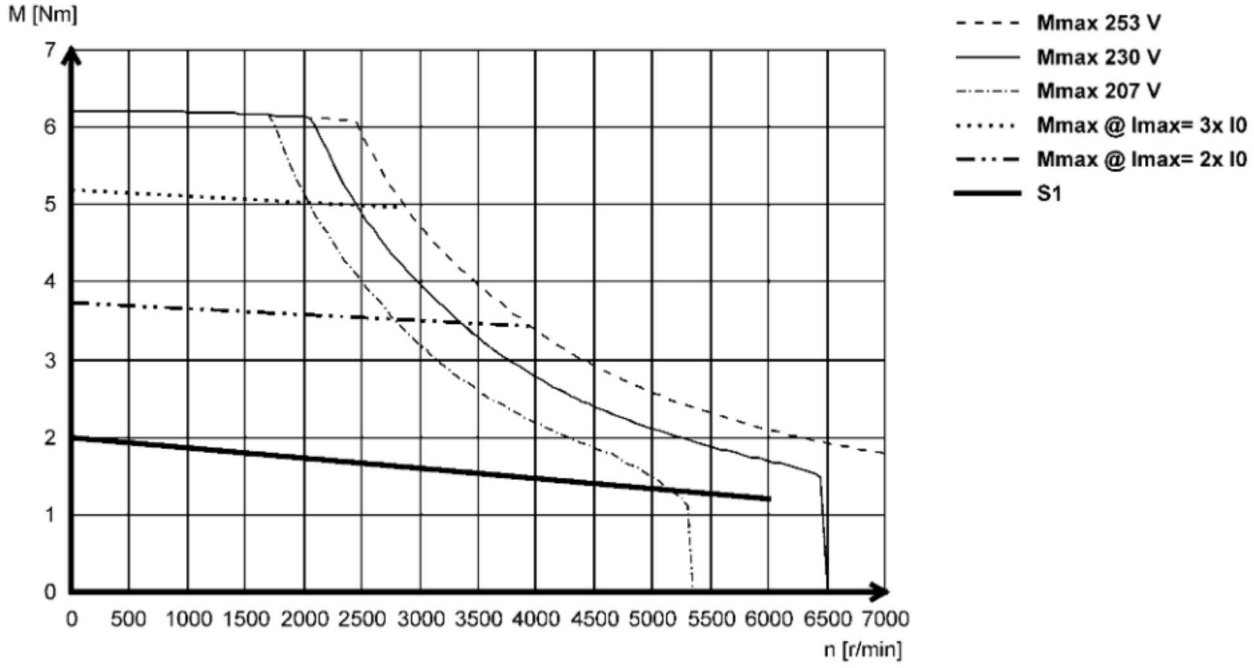
► The data applies to a mains connection voltage of 3 x 230 V.

**MCS06I41L (non-ventilated)**




5.1

**MCS06I60L (non-ventilated)**



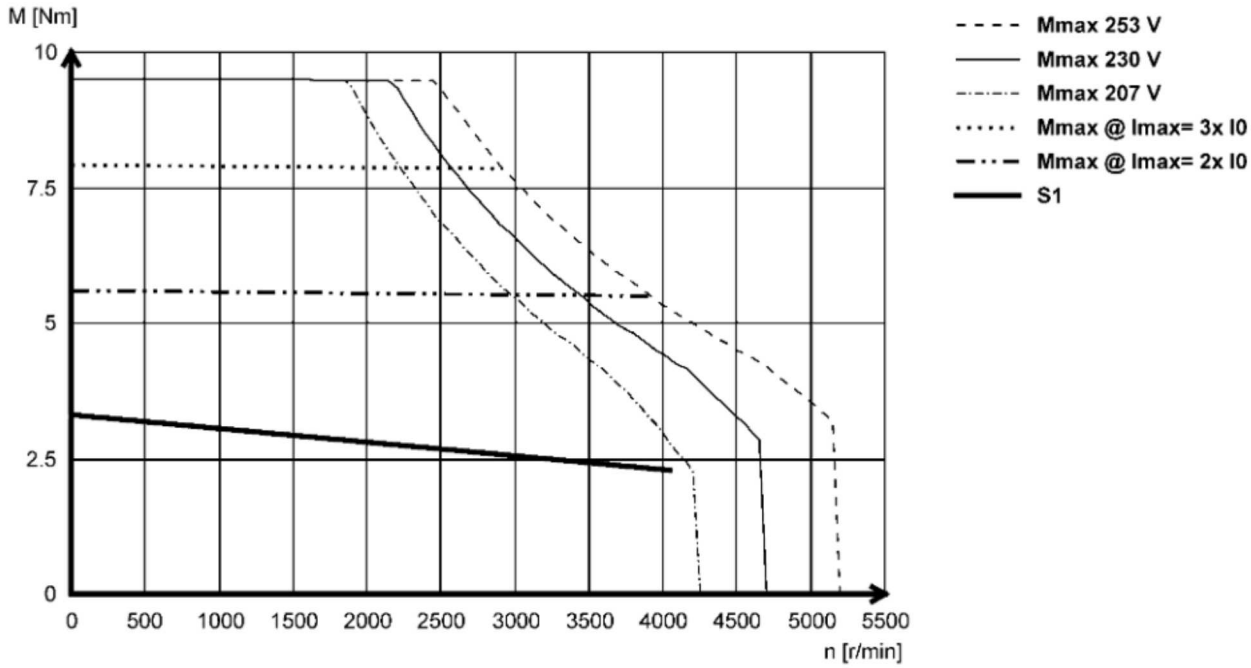

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

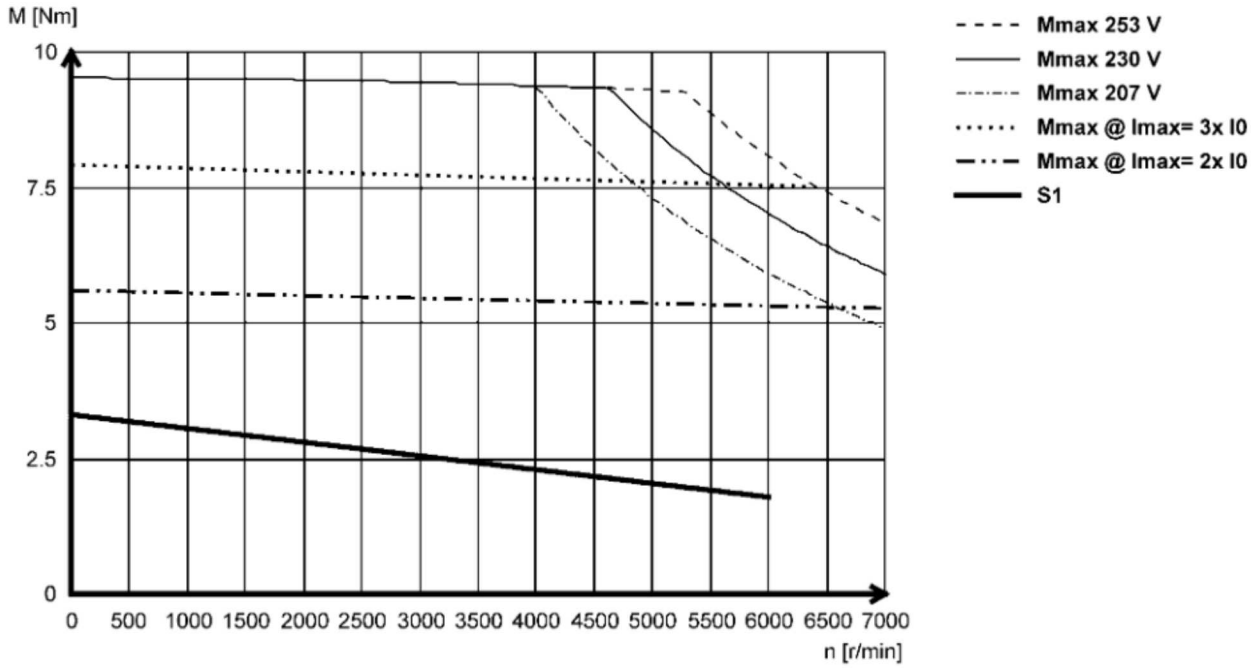
► The data applies to a mains connection voltage of 3 x 230 V.

**MCS09D41L (non-ventilated)**






**MCS09D60L (non-ventilated)**



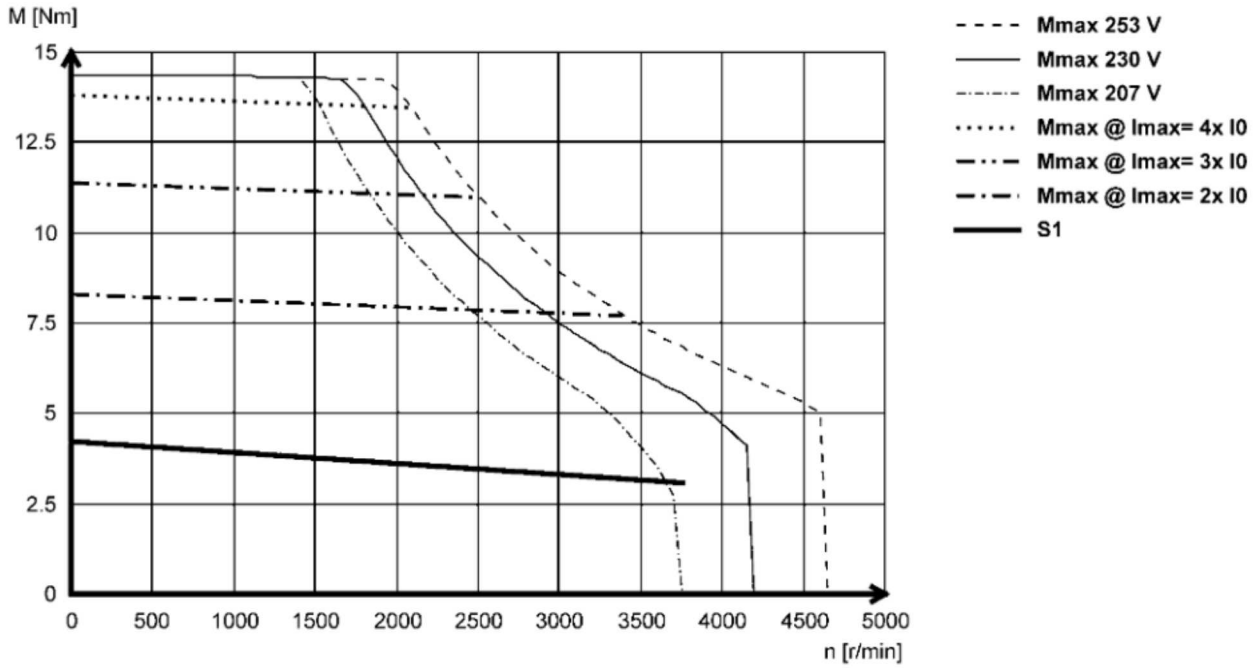

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

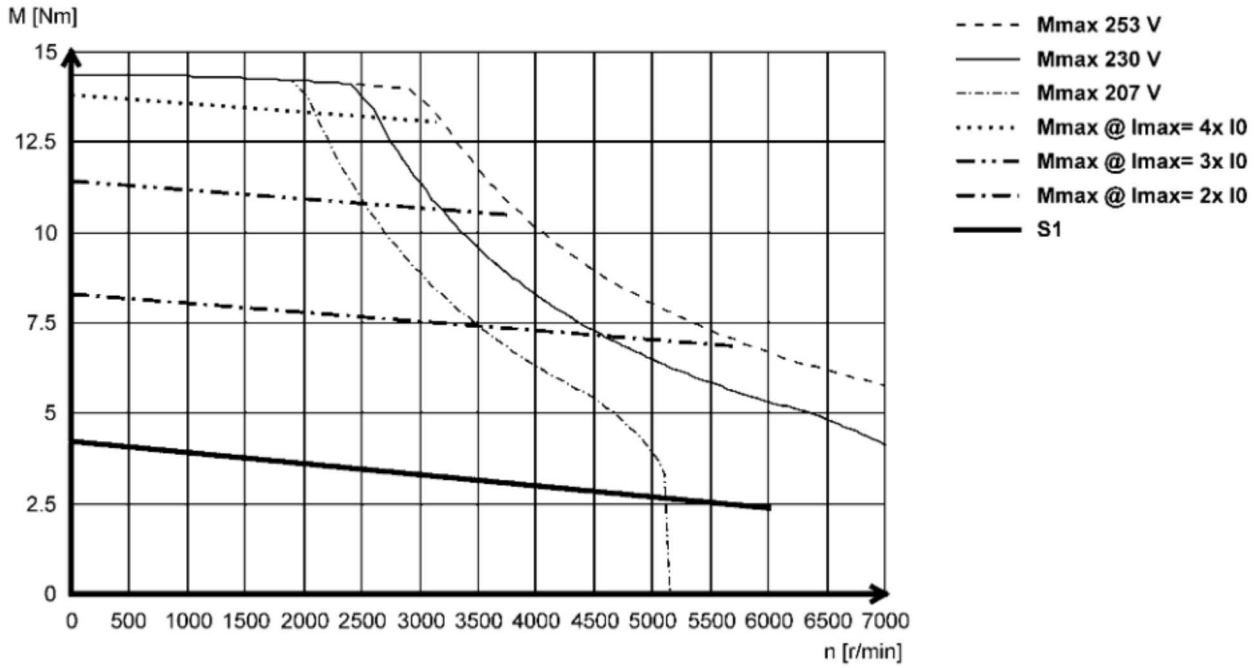
► The data applies to a mains connection voltage of 3 x 230 V.

**MCS09F38L (non-ventilated)**




5.1

**MCS09F60L (non-ventilated)**



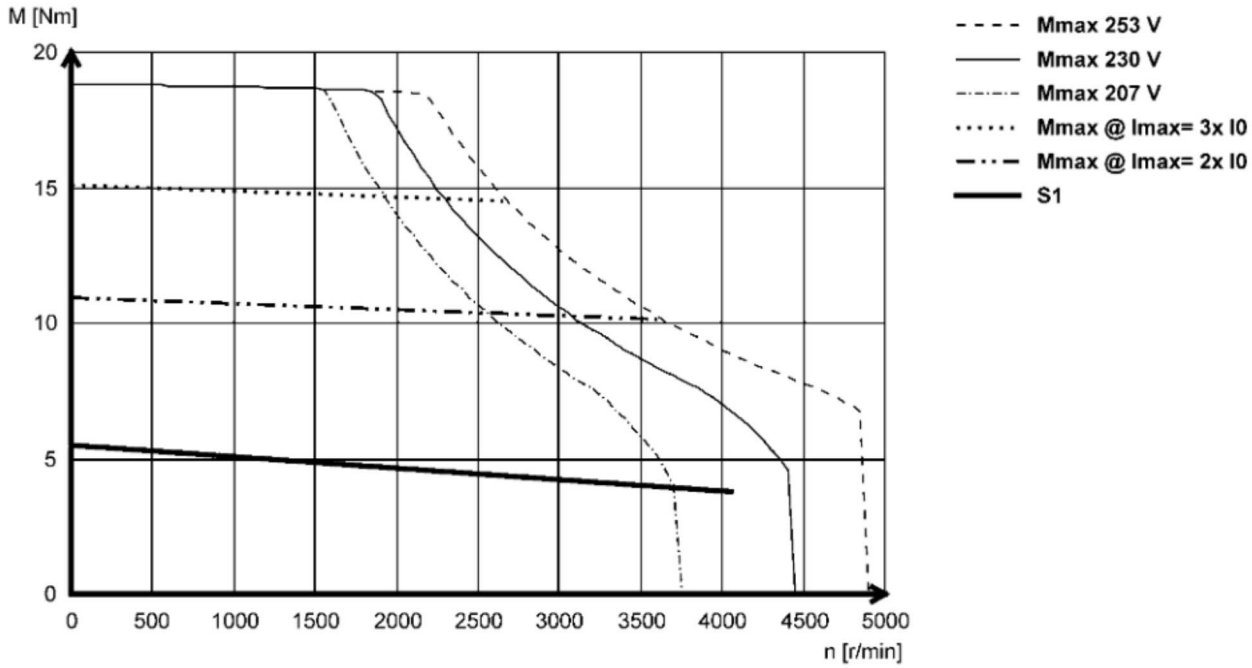

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

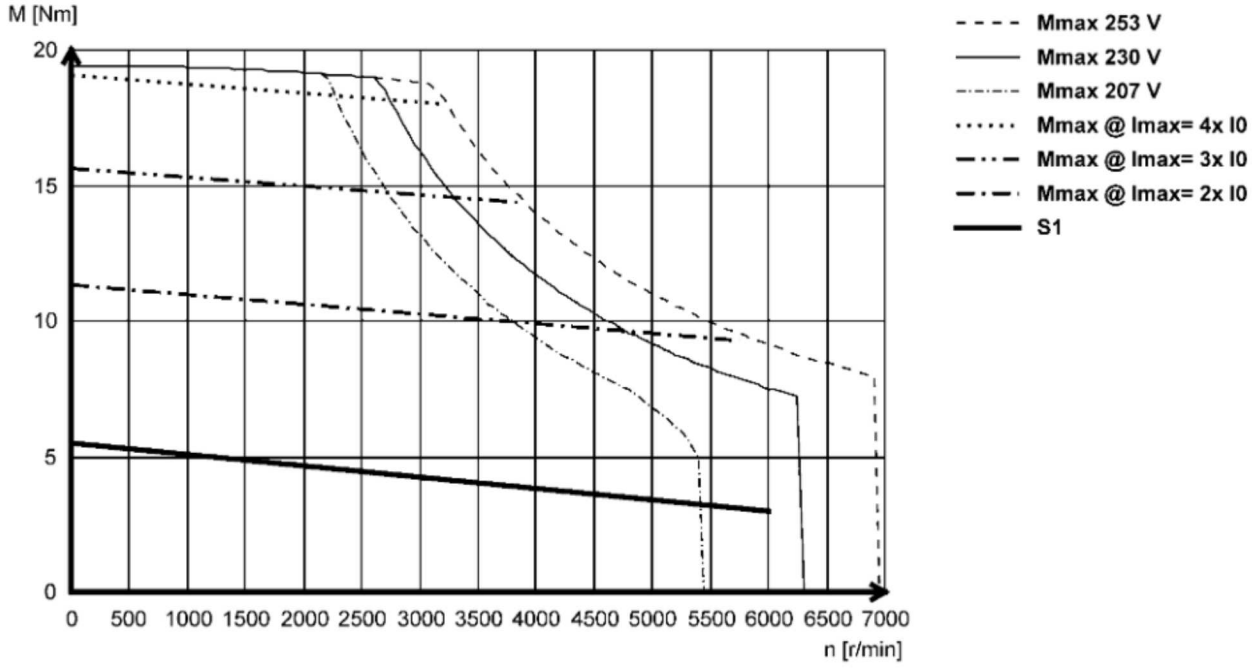
► The data applies to a mains connection voltage of 3 x 230 V.

**MCS09H41L (non-ventilated)**






**MCS09H60L (non-ventilated)**



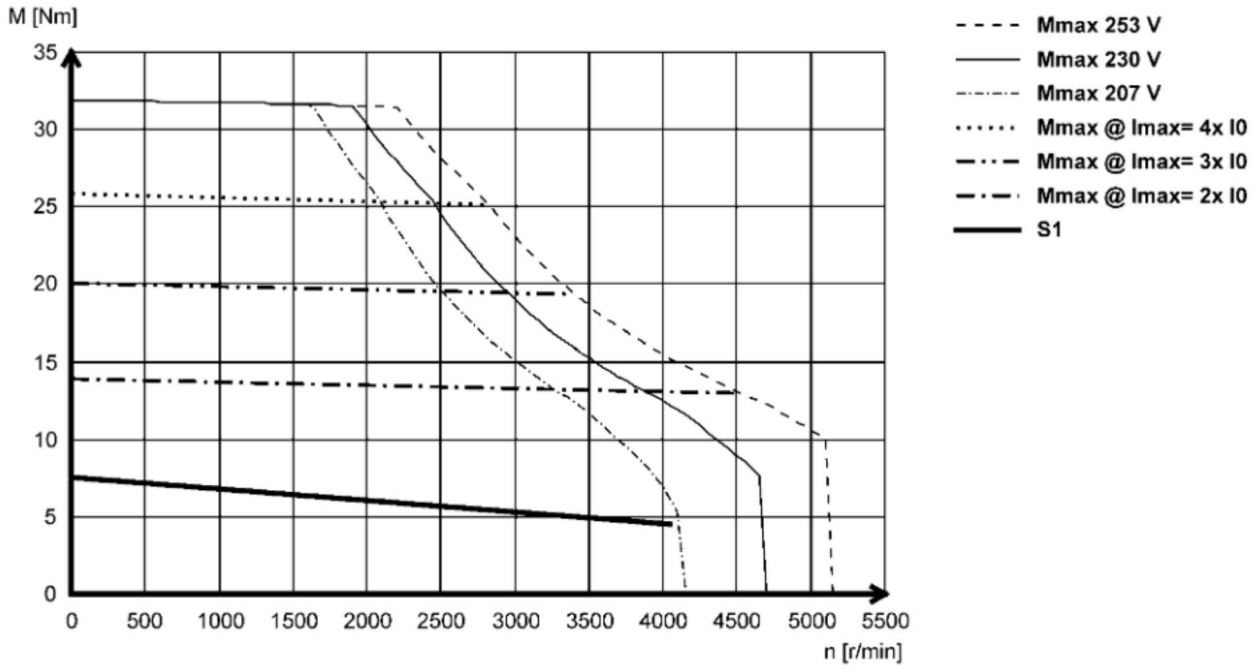

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

► The data applies to a mains connection voltage of 3 x 230 V.

**MCS09L41L (non-ventilated)**





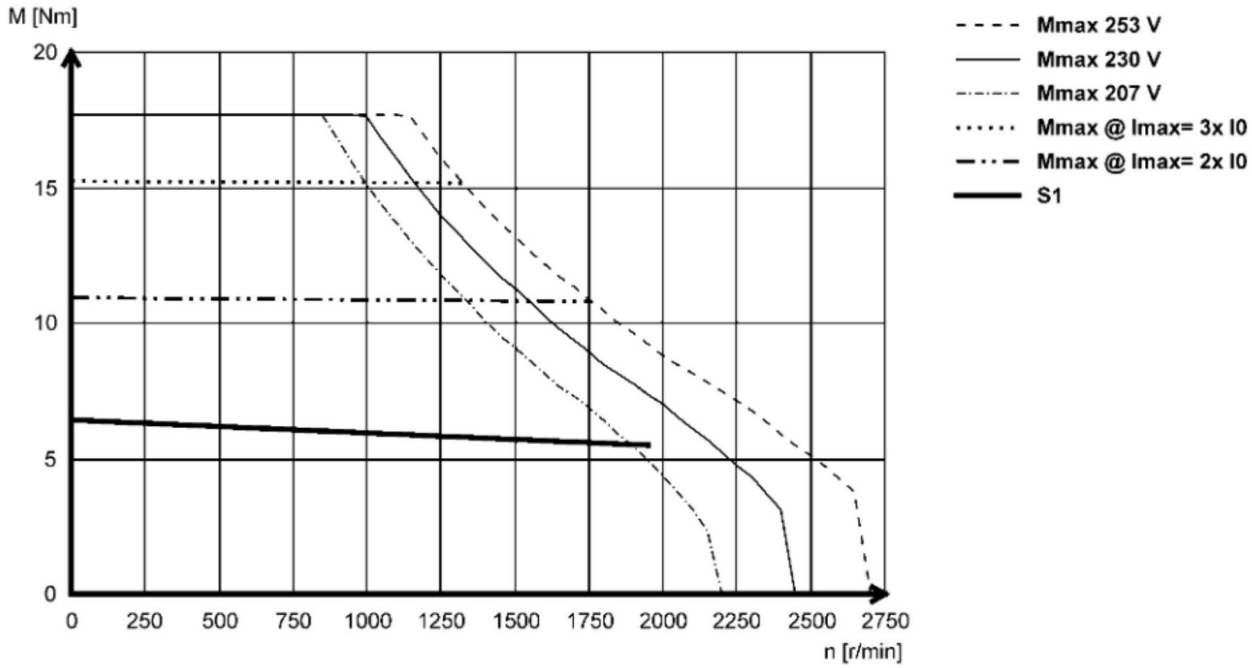

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

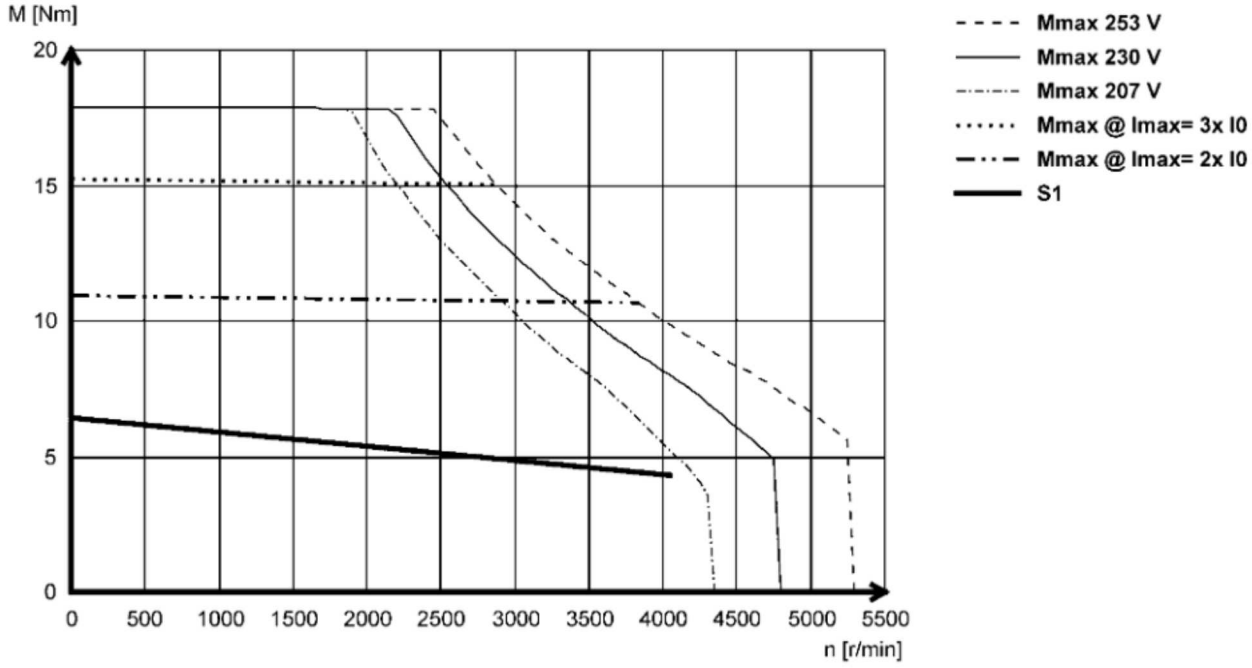
► The data applies to a mains connection voltage of 3 x 230 V.

**MCS12D20L (non-ventilated)**






**MCS12D41L (non-ventilated)**



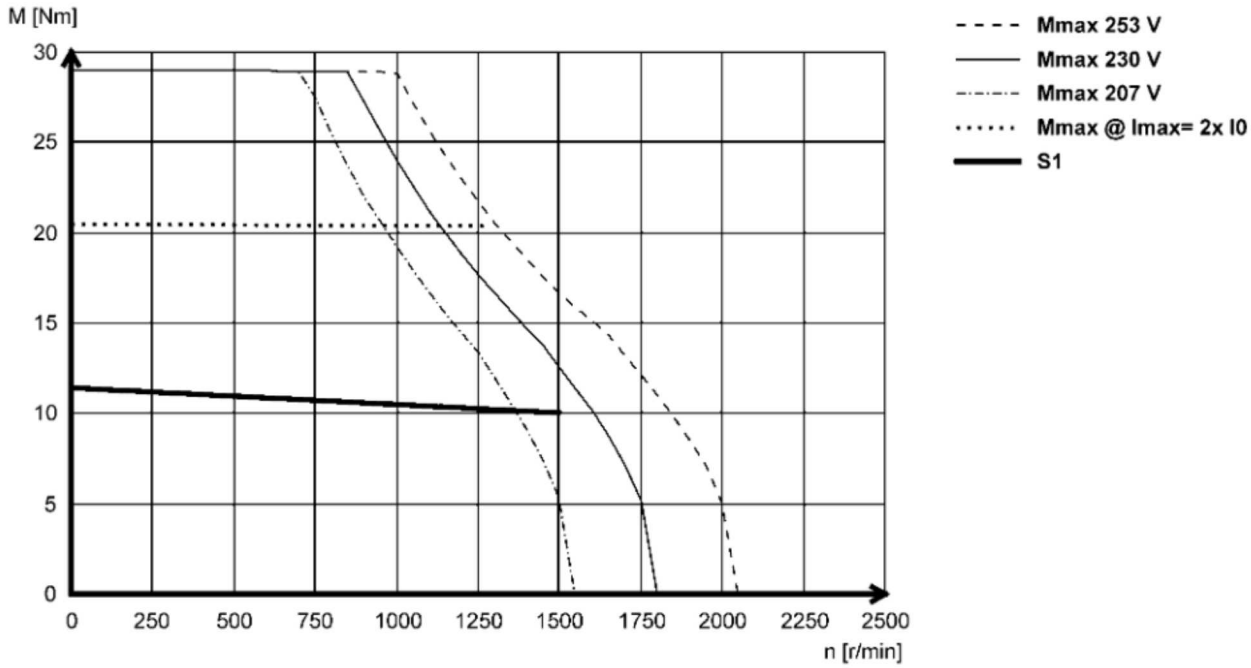

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

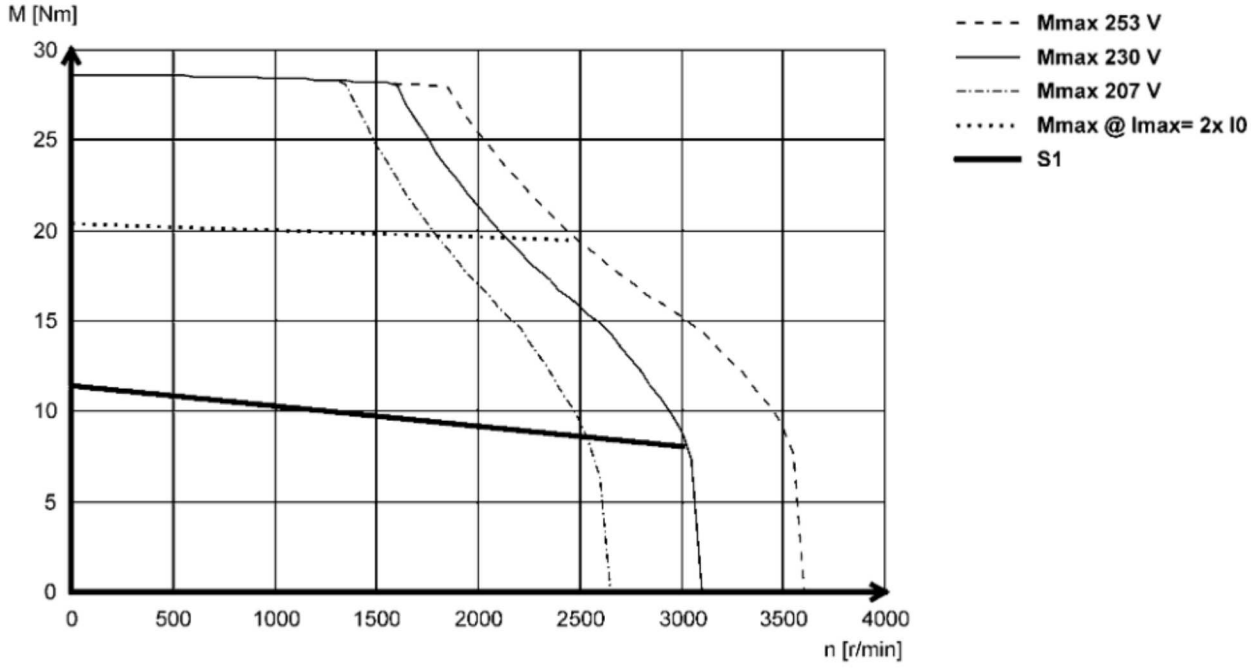
► The data applies to a mains connection voltage of 3 x 230 V.

**MCS12H15L (non-ventilated)**




5.1

**MCS12H30L- (non-ventilated)**



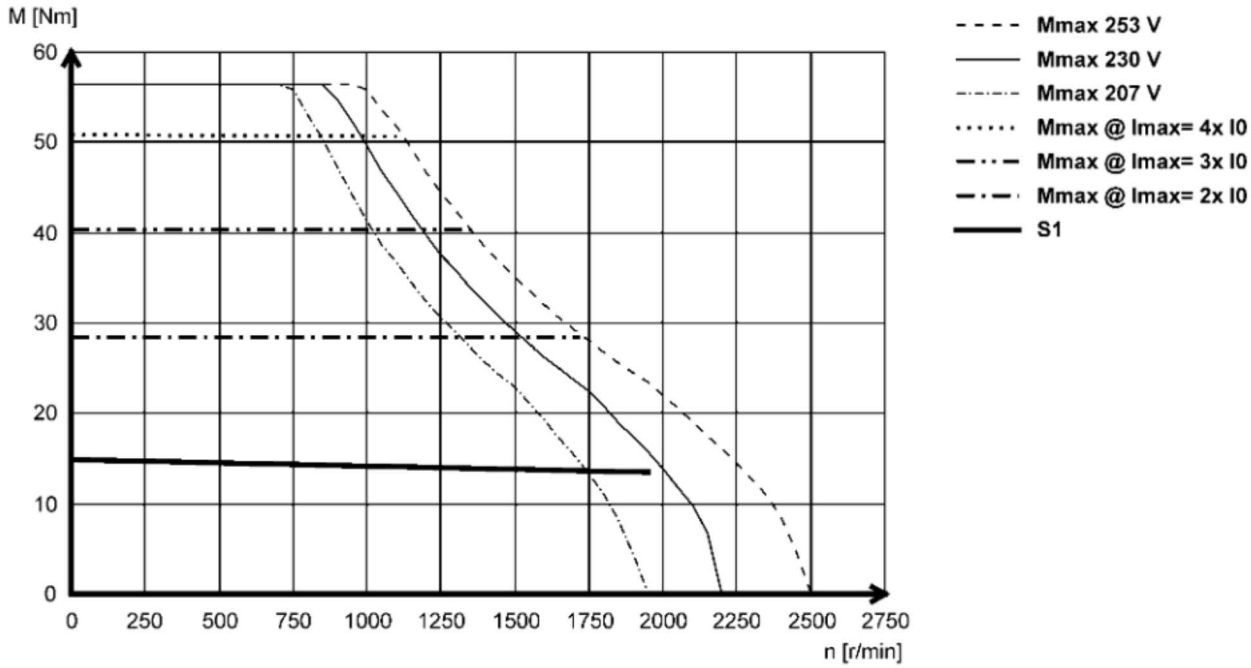

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Torque characteristics

► The data applies to a mains connection voltage of 3 x 230 V.

**MCS12L20L (non-ventilated)**

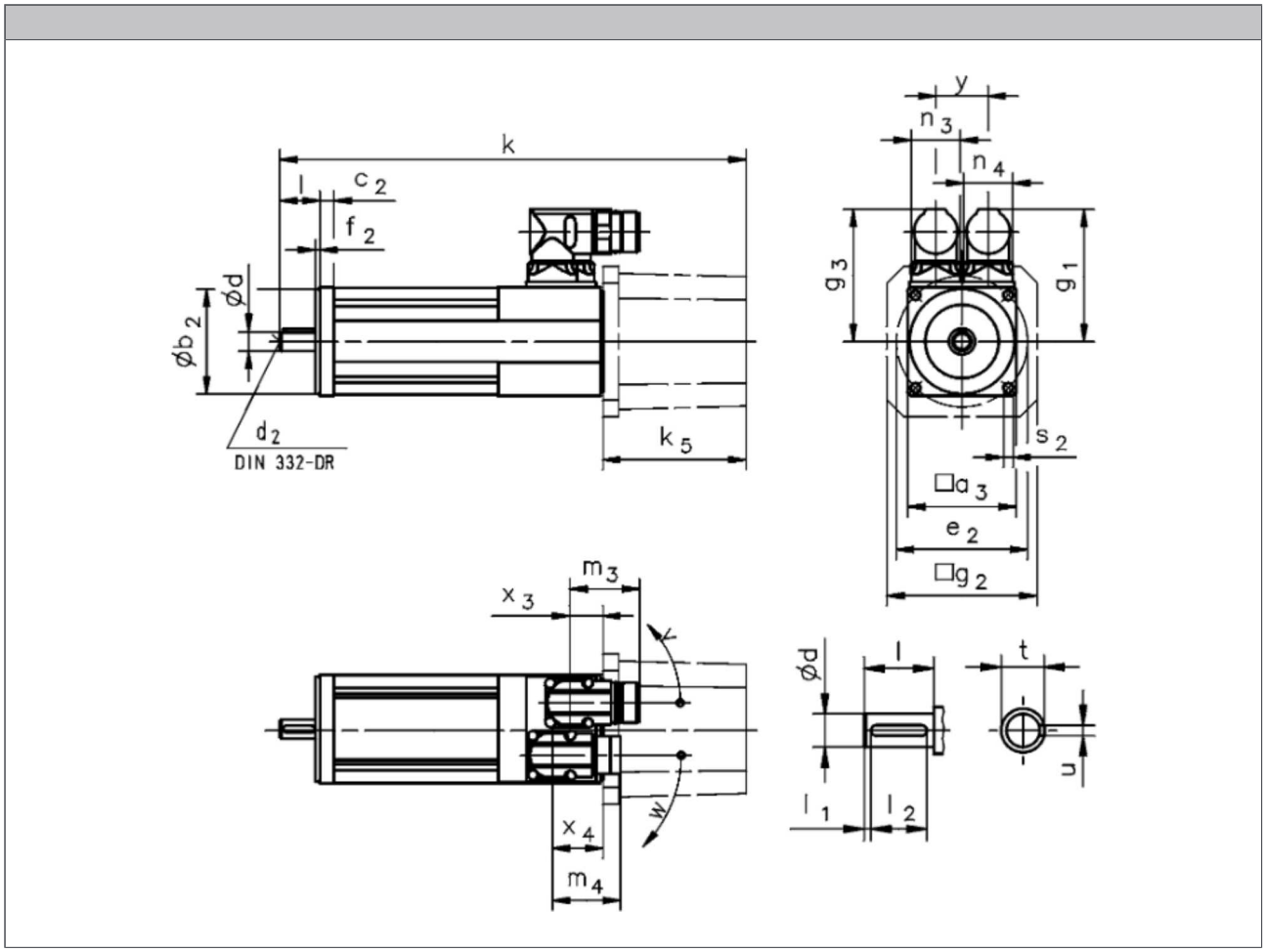





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensions, self-ventilated




| | | | MCS06C | MCS06F | MCS06I |
|---|---|---|---|---|---|
| R□0 / C40 B0 | k | [mm] | 155 | 185 | 215 |
| R□0 / C40 P□ | k | [mm] | 174 | 204 | 233 |
| SR□ / SV□ / E□□ B0 | k | [mm] | 237 | 266 | 297 |
| SR□ / SV□ / E□□ P□ | k | [mm] | 255 | 285 | 315 |
| SR□ / SV□ / E□□ | $k_5$ | [mm] | 82 | | |
| | $g_2$ | [mm] | 86 | | |
| SKM BO | k | [mm] | 190 | 220 | 250 |
| SKM P□ | k | [mm] | 209 | 239 | 268 |
| SKM | $k_5$ | [mm] | 35 | | |
| | $g_2$ | [mm] | 62 | | |

► Speed / angle sensor: R□□ / C□□ / S□□ / E□□
► Brake: B0 / P□



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensions, self-ventilated

| | $g_1$ | $g_3$ | $x_3$ | $x_4$ | $m_3$ | $m_4$ | $n_3$ | $n_4$ | y | v | w |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [°] | [°] |
| MCS06 | 77 | 77 | 19 | 29 | 40 | 40 | 28 | 28 | 30 | 190 | 230 |

| | d | $d_2$ | l | $l_1$ | $l_2$ | u | t |
|---|---|---|---|---|---|---|---|
| | k6 | | -0.7 ... 0.3 | | | | |
| | [mm] | [mm] | | [mm] | [mm] | [mm] | [mm] |
| MCS06 | 11 | M4 | 23 | 2.0 | 18 | 4.0 | 12.5 |

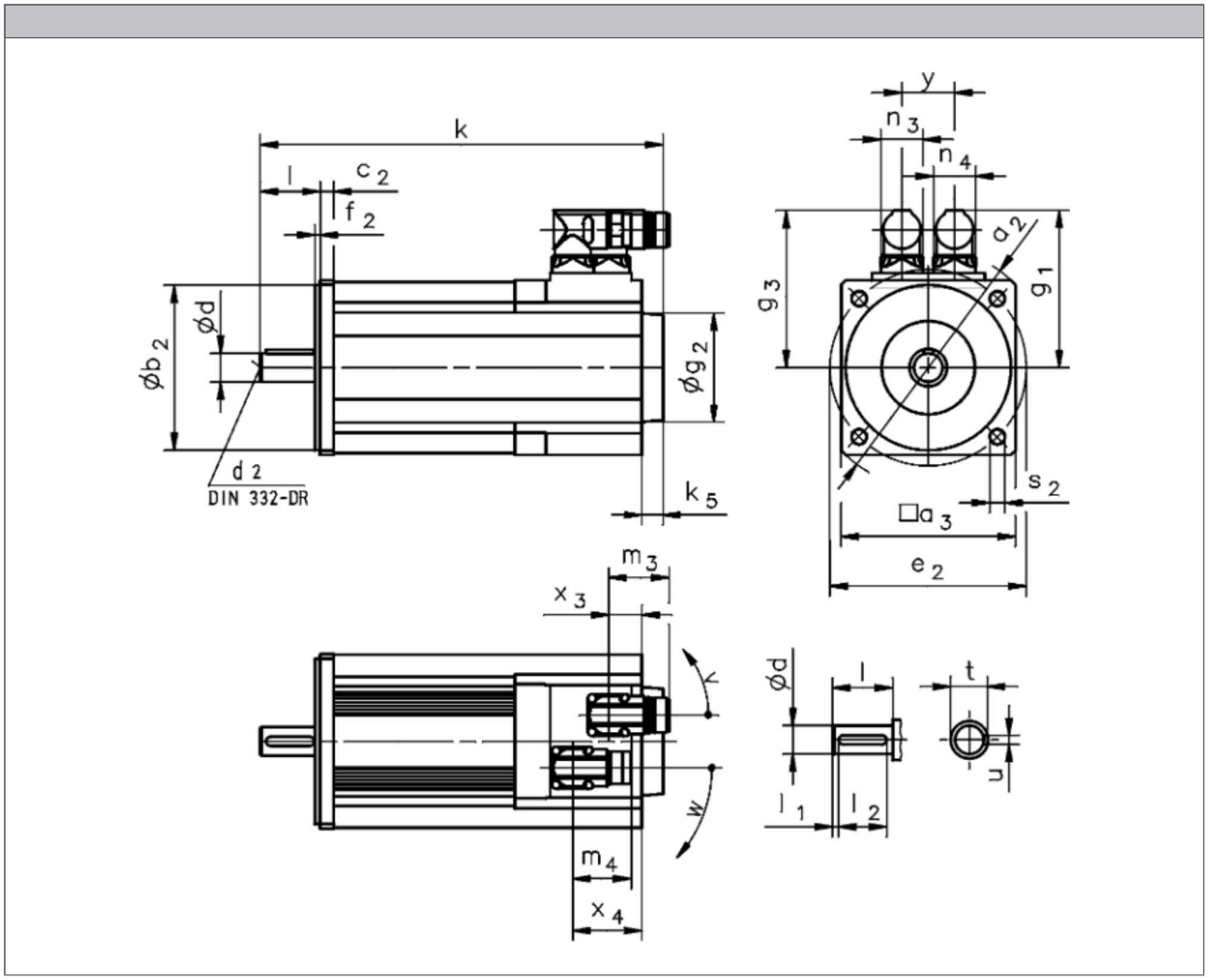
| | $a_3$ | $b_2$ | $c_2$ | $e_2$ | $f_2$ | $s_2$ |
|---|---|---|---|---|---|---|
| | | j6 | | | | |
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] |
| MCS06 | 62 | 60 | 8 | 75 | 2.5 | 5.5 |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensions, self-ventilated






| | | | MCS09D | MCS09F | MCS09H | MCS09L | MCS12D | MCS12H | MCS12L |
|---|---|---|---|---|---|---|---|---|---|
| R□0 / C40 B0 | k | [mm] | 213 | 233 | 253 | 293 | 228 | 268 | 308 |
| R□0 / C40 P□ | k | [mm] | 233 | 253 | 273 | 313 | 248 | 288 | 328 |
| R□0 / C40 | $k_5$ | [mm] | 13 | | | | 14 | | |
| | $g_2$ | [mm] | 67 | | | | 72 | | |
| SR□ / SV□ / E□□ B0 | k | [mm] | 264 | 284 | 304 | 344 | 277 | 317 | 357 |
| SR□ / SV□ / E□□ P□ | k | [mm] | 284 | 304 | 324 | 364 | 297 | 337 | 377 |
| SR□ / SV□ / E□□ | $k_5$ | [mm] | 64 | | | | 63 | | |
| | $g_2$ | [mm] | 81 | | | | 89 | | |
| SKM BO | k | [mm] | 233 | 253 | 273 | 313 | 248 | 288 | 328 |
| SKM P□ | k | [mm] | 253 | 273 | 293 | 333 | 268 | 308 | 248 |
| SKM | $k_5$ | [mm] | 33 | | | | 34 | | |
| | $g_2$ | [mm] | 67 | | | | 72 | | |

► Speed / angle sensor: R□□ / C□□ / S□□ / E□□
► Brake: B0 / P□

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensions, self-ventilated

| | $g_1$ | $g_3$ | $x_3$ | $x_4$ | $m_3$ | $m_4$ | $n_3$ | $n_4$ | y | v | w |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [°] | [°] |
| MCS09 | 90 | 90 | 20 | 44 | 40 | 40 | 28 | 28 | 35 | 195 | 260 |
| MCS12 | 105 | 105 | 22 | 46 | | | | | | | |

| | d | $d_2$ | l | $l_1$ | $l_2$ | u | t |
|---|---|---|---|---|---|---|---|
| | k6 | | -0.7 ... 0.3 | | | | |
| | [mm] | [mm] | | [mm] | [mm] | [mm] | [mm] |
| MCS09 | 14 | M5 | 30 | 2.5 | 25 | 5.0 | 16.0 |
| MCS12 | 19 | M6 | 40 | 4.0 | 32 | 6.0 | 21.5 |

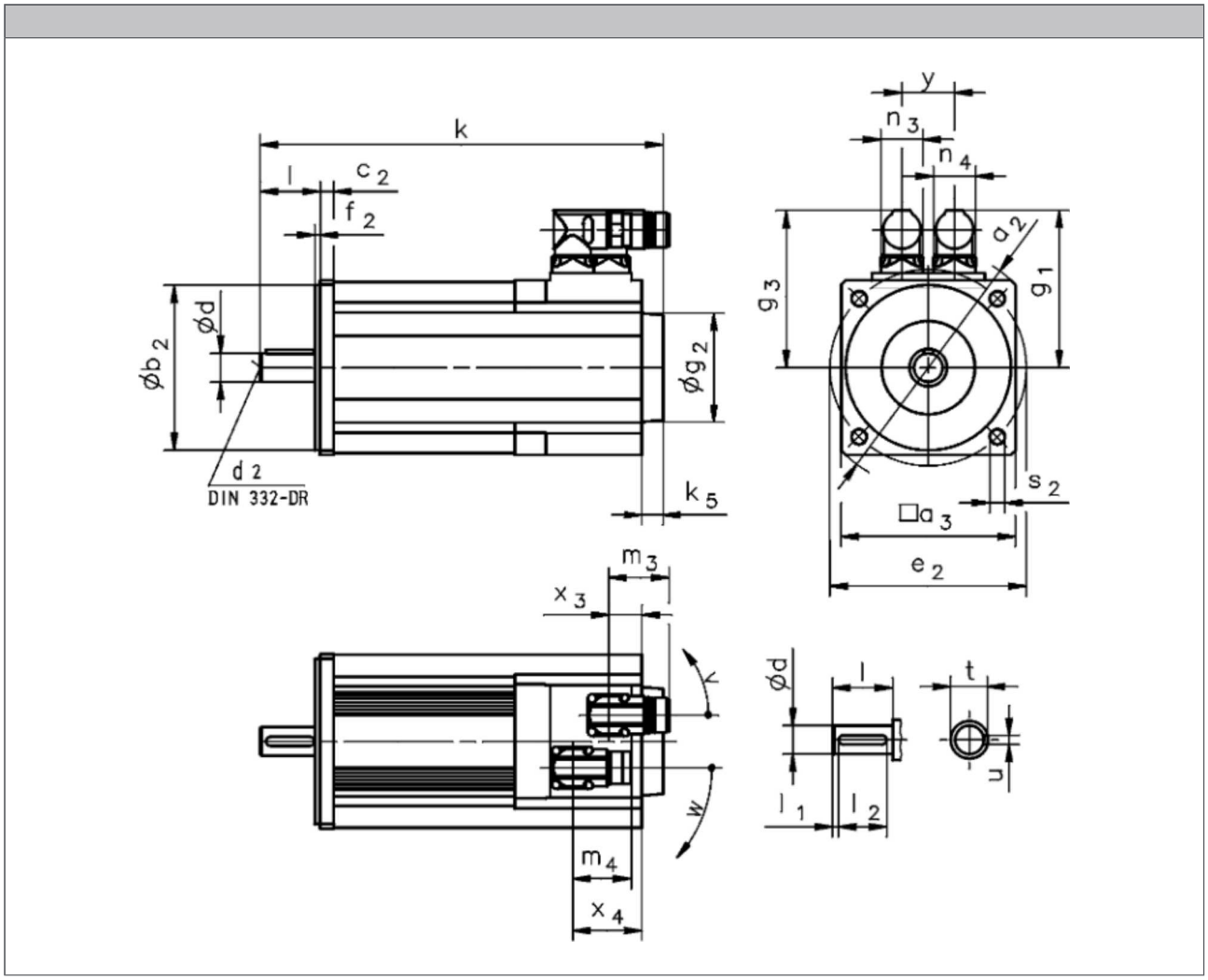
| | $a_2$ | $a_3$ | $b_2$ | $c_2$ | $e_2$ | $f_2$ | $s_2$ |
|---|---|---|---|---|---|---|---|
| | | | j6 | | | | |
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] |
| MCS09 | 120 | 89 | 80 | 8 | 100 | 3.0 | 7.0 |
| MCS12 | 160 | 116 | 110 | 9 | 130 | 3.5 | 10.0 |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensions, self-ventilated






| | | | MCS14D | MCS14H | MCS14L | MCS14P | MCS19F | MCS19J | MCS19P |
|---|---|---|---|---|---|---|---|---|---|
| R□0 / C40 B0 | k | [mm] | 251 | 291 | 331 | 371 | 280 | 320 | 380 |
| R□0 / C40 P□ | k | [mm] | 279 | 319 | 359 | 399 | 314 | 364 | 424 |
| R□0 / C40 | $k_5$ | [mm] | 24 | | | | 15 | | |
| | $g_2$ | [mm] | 78 | | | | | | |
| SR□ / SV□ / E□□ B0 | k | [mm] | 301 | 341 | 381 | 421 | 329 | 369 | 429 |
| SR□ / SV□ / E□□ P□ | k | [mm] | 329 | 369 | 409 | 449 | 363 | 413 | 473 |
| SR□ / SV□ / E□□ | $k_5$ | [mm] | 74 | | | | 64 | | |
| | $g_2$ | [mm] | 101 | | | | | | |
| SKM BO | k | [mm] | 269 | 309 | 349 | 389 | 299 | 339 | 399 |
| SKM P□ | k | [mm] | 297 | 337 | 377 | 417 | 333 | 383 | 443 |
| SKM | $k_5$ | [mm] | 42 | | | | 34 | | |
| | $g_2$ | [mm] | 78 | | | | | | |

► Speed / angle sensor: R□□ / C□□ / S□□ / E□□
► Brake: B0 / P□

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensions, self-ventilated

| | $g_1$ | $g_3$ | $x_3$ | $x_4$ | $m_3$ | $m_4$ | $n_3$ | $n_4$ | y | v | w |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [°] | [°] |
| MCS14D15- | 117 | 117 | 24 | 48 | 40 | 40 | 28 | 28 | 35 | 195 | 260 |
| MCS14D36- | | | | | | | | | | | |
| MCS14H15- | | | | | | | | | | | |
| MCS14H32- | | | | | | | | | | | |
| MCS14L15- | | | | | | | | | | | |
| MCS14L32- | 146 | 126 | 29 | 36 | | 75 | | 45 | | 180 | 205 |
| MCS14P14- | 117 | 117 | 24 | 48 | | 40 | | 28 | | 195 | 260 |
| MCS14P32- | 146 | 126 | 29 | 36 | | 75 | | 45 | | 180 | 205 |
| MCS19F14- | 142 | 142 | 24<br>51 [1)] | 48<br>75 [1)] | | 40 | | 28 | | 195 | 260 |
| MCS19F30- | 171 | 151 | 29<br>56 [1)] | 36<br>63 [1)] | | 75 | | 45 | | 180 | 205 |
| MCS19J14- | 142 | 142 | 24<br>51 [1)] | 48<br>75 [1)] | | 40 | | 28 | | 195 | 260 |
| MCS19J30- | 171 | 151 | 29<br>56 [1)] | 36<br>63 [1)] | | 75 | | 45 | | 180 | 205 |
| MCS19P14- | 142 | 142 | 24<br>51 [1)] | 48<br>75 [1)] | | 40 | | 28 | | 195 | 260 |
| MCS19P30- | 171 | 151 | 29<br>56 [1)] | 36<br>63 [1)] | | 75 | | 45 | | 180 | 205 |

| | d | $d_2$ | l | $l_1$ | $l_2$ | u | t |
|---|---|---|---|---|---|---|---|
| | k6 | | -0.7 ... 0.3 | | | | |
| | [mm] | [mm] | | [mm] | [mm] | [mm] | [mm] |
| MCS14 | 24 | M8 | 50 | 5.0 | 40 | 8.0 | 27.0 |
| MCS19 | 28 | M10 | 60 | | 50 | | 31.0 |

| | $a_2$ | $a_3$ | $b_2$ | $c_2$ | $e_2$ | $f_2$ | $s_2$ |
|---|---|---|---|---|---|---|---|
| | | | j6 | | | | |
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] |
| MCS14 | 188 | 143 | 130 | 13 | 165 | 3.5 | 12.0 |
| MCS19 | 250 | 192 | 180 | 11 | 215 | 4.0 | 14.0 |

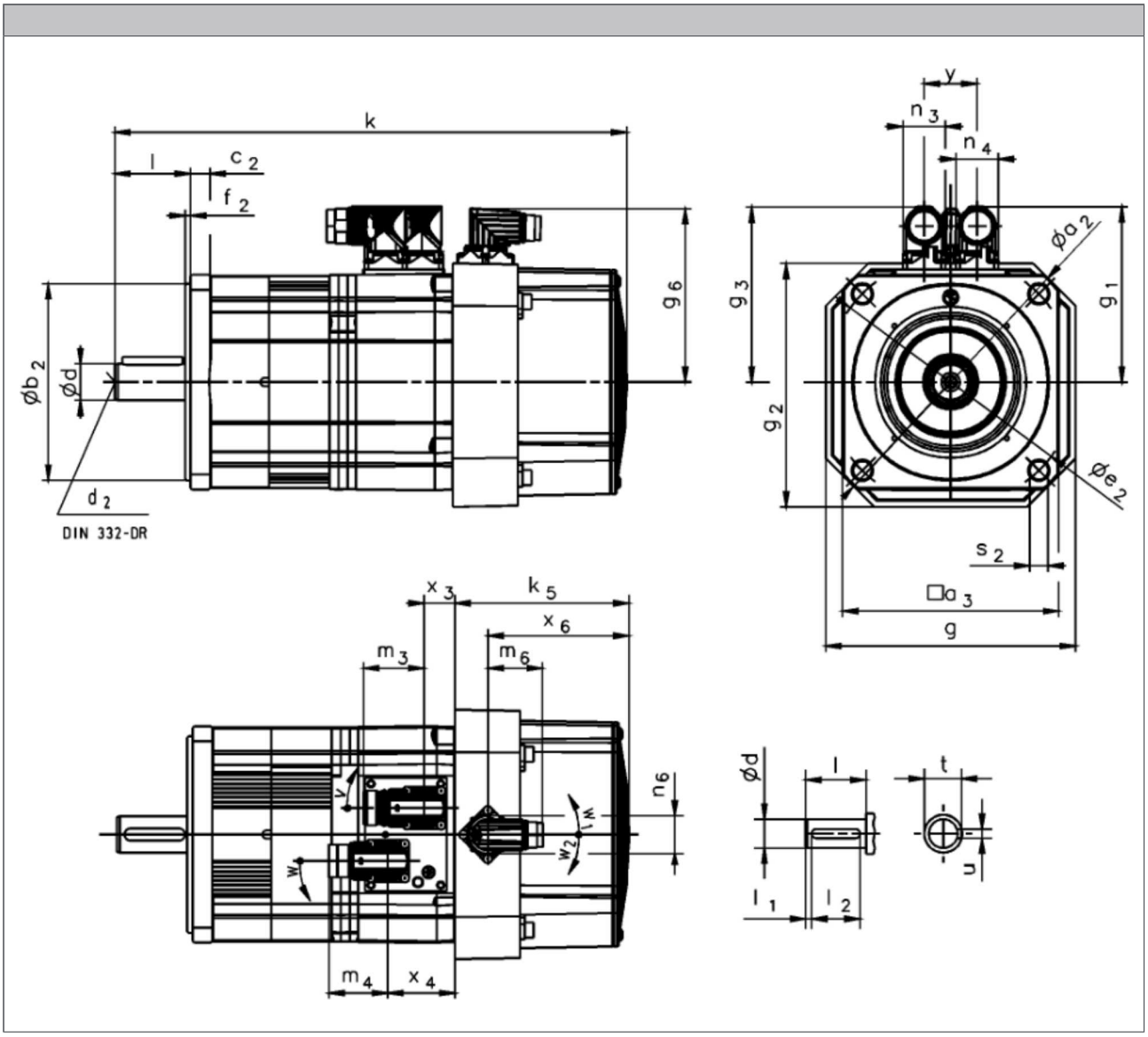
[1)] On version with brake (P□)



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensions, forced ventilated




| | | | MCS12D | MCS12H | MCS12L | MCS14D | MCS14H | MCS14L | MCS14P | MCS19F | MCS19J | MCS19P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R□0 / C40 B0 | k | [mm] | 301 | 341 | 381 | 339 | 379 | 419 | 459 | 387 | 427 | 487 |
| R□0 / C40 P□ | k | [mm] | 321 | 361 | 401 | 368 | 408 | 448 | 488 | 421 | 471 | 531 |
| R□0 / C40 | $k_5$ | [mm] | 92 | | | 115 | | | | 126 | | |
| S□□ / E□□ B0 | k | [mm] | 344 | 384 | 424 | 392 | 432 | 472 | 512 | 425 | 465 | 525 |
| S□□ / E□□ P□ | k | [mm] | 364 | 404 | 444 | 421 | 461 | 501 | 541 | 459 | 509 | 569 |
| S□□ / E□□ | $k_5$ | [mm] | 135 | | | 169 | | | | 165 | | |
| | g | [mm] | 140 | | | 167 | | | | 212 | | |
| | $g_2$ | [mm] | 140 | | | 163 | | | | 210 | | |

► Speed / angle sensor: R□□ / C□□ / S□□ / E□□
► Brake: B0 / P□



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Dimensions, forced ventilated

| | $g_1$ | $g_3$ | $g_6$ | $x_3$ | $x_4$ | $x_6$ | $m_3$ | $m_4$ | $m_6$ | $n_3$ | $n_4$ | $n_6$ | y | v | w | $w_1$ | $w_2$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [°] | [°] | [°] | [°] |
| MCS12D17 | 105 | 105 | 107 | 16 | 40 | 67 | 40 | 40 | 37 | 28 | 28 | 28 | 35 | 160 | 160 | 120 | 130 |
| MCS12D35 | | | | | | | | | | | | | | | | | |
| MCS12H14 | | | | | | | | | | | | | | | | | |
| MCS12H34 | | | | | | | | | | | | | | | | | |
| MCS12L17 | | | | | | | | | | | | | | | | | |
| MCS12L39 | | | | | | | | | | | | | | | | | |
| MCS14D14 | 117 | 117 | 115 | 20 | 44 | 93 | | | | | | | | | | | |
| MCS14D30 | | | | | | | | | | | | | | | | | |
| MCS14H12 | | | | | | | | | | | | | | | | | |
| MCS14H28 | 146 | 126 | | 24 | 31 | | | 75 | | | 45 | | | | | | |
| MCS14L14 | 117 | 117 | | 20 | 44 | | | 40 | | | 28 | | | | | | |
| MCS14L30 | 146 | 126 | | 24 | 31 | | | 75 | | | 45 | | | | | | |
| MCS14P11 | 117 | 117 | | 20 | 44 | | | 40 | | | 28 | | | | | | |
| MCS14P26 | 146 | 126 | | 24 | 31 | | | 75 | | | 45 | | | | | | |
| MCS19F12 | 142 | 142 | 142 | 19<br>46 [1] | 43<br>70 [1] | 96 | | 40 | | | 28 | | | | | | |
| MCS19F29 | 171 | 151 | | 24<br>51 [1] | 31<br>58 [1] | | | 75 | | | 45 | | | | | | |
| MCS19J12 | | | | | | | | | | | | | | | | | |
| MCS19J29 | | | | | | | | | | | | | | | | | |
| MCS19P12 | | | | | | | | | | | | | | | | | |
| MCS19P29 | | | | | | | | | | | | | | | | | |

5.1

| | d | $d_2$ | l | $l_1$ | $l_2$ | u | t |
|---|---|---|---|---|---|---|---|
| | k6 | | -0.7 ... 0.3 | | | | |
| | [mm] | [mm] | | [mm] | [mm] | [mm] | [mm] |
| MCS12 | 19 | M6 | 40 | 4.0 | 32 | 6.0 | 21.5 |
| MCS14 | 24 | M8 | 50 | 5.0 | 40 | 8.0 | 27.0 |
| MCS19 | 28 | M10 | 60 | | 50 | | 31.0 |

| | $a_2$ | $a_3$ | $b_2$ | $c_2$ | $e_2$ | $f_2$ | $s_2$ |
|---|---|---|---|---|---|---|---|
| | | | j6 | | | | |
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] |
| MCS12 | 160 | 116 | 110 | 9 | 130 | 3.5 | 10.0 |
| MCS14 | 188 | 143 | 130 | 13 | 165 | | 12.0 |
| MCS19 | 250 | 192 | 180 | 11 | 215 | 4.0 | 14.0 |

[1] On version with brake (P□)

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com





Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Permanent magnet holding brake

The synchronous servo motor can be fitted with integral permanent magnet holding brakes.
In the case of permanent magnet brakes, the rated torque applies solely as holding torque at standstill. This is due to the nature of their design. During braking from full motor speed, e.g. in the event of emergency stops, the braking torque is significantly reduced.
As such, they may not be used as safety elements (particularly with lifting axes) without additional measures being implemented.
The brakes are activated when the supply voltage is disconnected (closed-circuit principle). When using the brakes purely as holding brakes, virtually no wear occurs on the friction surfaces.

**For traversing axes**, adherence to the permissible load/brake motor ($J_L$ / $J_{MB}$) moment of inertia ensures that the permissible maximum switching rate of the brake will not be exceeded and at least 2,000 emergency stop functions can be performed from a speed of 3,000 rpm.
**For lifting axes**, the load torque resulting from the weight acts additionally. In this case the specifications for $J_L$ / $J_{MB}$ do not apply.

**Caution:**
**The brakes used are not safety brakes in the sense that a reduction in torque may arise as a result of disruptive factors that cannot be influenced, e.g. oil ingress.**

The ohmic voltage drop along the cable must be taken into consideration in long motor supply cables and must be compensated for by a higher voltage at the line input.

The following applies for Lenze system cables:

$$U[V] = U_B[V] + 0.08\frac{[V]}{[A]\cdot[m]}\cdot l_{Lg}[m]\cdot I_B[A]$$

If no suitable voltage (incorrect value, incorrect polarity) is applied to the brake, the brake will be applied and can be overheated and destroyed by the motor continuing to rotate.
The shortest switching times of the brakes are achieved by DC switching of the voltage. A spark suppressor is required to suppress interference and to increase the service life of the relay contacts here.



**Permanent magnet holding brake**



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Permanent magnet holding brake

### Rated data with standard braking torque

| | $U_{N, DC}$ [3, 5] | $M_N$ | $M_N$ | $M_{av}$ | $I_N$ [2] | J | $t_1$ [1] | $t_2$ [1] | $Q_E$ [4] | m | $J_{MB}$ | $J_L/J_{MB}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 20 °C | 120 °C | 120 °C | | | | | | | | |
| | [V] | [Nm] | [Nm] | [Nm] | [A] | [kgcm²] | [ms] | [ms] | [J] | [kg] | [kgcm²] | |
| MCS06C | 24 | 2.20 | 2.00 | 0.60 | 0.34 | 0.12 | 15.0 | 30.0 | 30.0 | 0.30 | 0.26 | 22.1 |
| MCS06F | | | | | | | | | | | 0.34 | 16.6 |
| MCS06I | | | | | | | | | | | 0.42 | 13.3 |
| MCS09D | | 8.00 | 6.00 | 4.50 | 0.65 | 1.07 | 20.0 | 40.0 | 400 | 0.80 | 2.17 | 36.4 |
| MCS09F | | | | | | | | | | | 2.57 | 30.5 |
| MCS09H | | | | | | | | | | | 2.97 | 26.3 |
| MCS09L | | | | | | | | | | | 3.87 | 19.9 |
| MCS12D | | 12.0 | 10.0 | 7.00 | | | 13.0 | 43.0 | | 0.90 | 5.07 | 15.0 |
| MCS12H | | | | | | | | | | | 8.40 | 8.70 |
| MCS12L | | | | | | | | | | | 11.7 | 5.90 |
| MCS14D | | 22.0 | 18.0 | 8.00 | 0.88 | 3.20 | 15.0 | 150 | 640 | 1.90 | 11.3 | 10.5 |
| MCS14H | | | | | | | | | | | 17.4 | 6.50 |
| MCS14L | | | | | | | | | | | 26.6 | 3.90 |
| MCS14P | | | | | | | | | | | 37.9 | 2.40 |
| MCS19F | | 37.0 | 32.0 | 15.0 | 0.93 | 12.4 | 96.0 | 113 | 2350 | 3.10 | 77.4 | 5.20 |

### Rated data with increased braking torque

| | $U_{N, DC}$ [3, 5] | $M_N$ | $M_N$ | $M_{av}$ | $I_N$ [2] | J | $t_1$ [1] | $t_2$ [1] | $Q_E$ [4] | m | $J_{MB}$ | $J_L/J_{MB}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 20 °C | 120 °C | 120 °C | | | | | | | | |
| | [V] | [Nm] | [Nm] | [Nm] | [A] | [kgcm²] | [ms] | [ms] | [J] | [kg] | [kgcm²] | |
| MCS09D | 24 | 12.0 | 10.0 | 7.00 | 0.65 | 1.07 | 20.0 | 40.0 | 400 | 0.80 | 2.17 | 36.4 |
| MCS09F | | | | | | | | | | | 2.57 | 30.5 |
| MCS09H | | | | | | | | | | | 2.97 | 26.3 |
| MCS09L | | | | | | | | | | | 3.87 | 19.9 |
| MCS12D | | 24.0 | 19.0 | 12.0 | 0.71 | 3.13 | 16.0 | 90.0 | 890 | 1.20 | 7.10 | 24.3 |
| MCS12H | | | | | | | | | | | 10.4 | 16.3 |
| MCS12L | | | | | | | | | | | 13.7 | 12.1 |
| MCS14D | | 37.0 | 32.0 | 15.0 | 0.93 | 12.4 | 96.0 | 113 | 2350 | 3.10 | 20.5 | 22.2 |
| MCS14H | | | | | | | | | | | 26.6 | 16.9 |
| MCS14L | | | | | | | | | | | 35.8 | 12.3 |
| MCS14P | | | | | | | | | | | 47.1 | 9.10 |
| MCS19J | | 100 | 80.0 | 43.0 | 1.29 | 30.0 | 30.0 | 90.0 | 2100 | 4.30 | 135 | 2.20 |
| MCS19P | | | | | | | | | | | 190 | 1.20 |

[1] Engagement and disengagement times are valid for rated voltage (± 0 %) and protective circuit for brakes with varistor for DC switching. The times may increase without a protective circuit.
[2] The currents are the maximum values when the brake is cold (value used for dimensioning the current supply). The values for a motor at operating temperature are considerably lower.
[3] With 24V DC brake: smoothed DC voltage, ripple ≤1 %.
[4] Maximum switching energy per emergency stop at n = 3000 r/min for at least 2000 emergency stops.
[5] Voltage tolerance: -10% to +5%



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Resolver

Stator-fed resolver with two stator windings offset by 90° and one rotor winding with transformer winding.

| Speed/angle sensor | | | | | |
|---|---|---|---|---|---|
| | [1] | | | RS0 | RV0 |
| **Product key** | | | | | |
| | | | | RS0 | RV03 |
| **Resolution** | | | | | |
| Angle | | | ['] | 0.80 | |
| **Accuracy** | | | | | |
| | | | ['] | -10 ... 10 | |
| **Absolute positioning** | | | | | |
| | | | | 1 revolution | |
| **Max. speed** | | | | | |
| | $n_{max}$ | | [r/min] | 8000 | |
| **Max. input voltage** | | | | | |
| DC | $U_{in,max}$ | | [V] | 10.0 | |
| **Max. input frequency** | | | | | |
| | $f_{in,max}$ | | [kHz] | 4.00 | |
| **Ratio** | | | | | |
| Stator / rotor | | ± 5 % | | 0.30 | |
| **Rotor impedance** | | | | | |
| | $Z_{ro}$ | | [Ω] | 51 + j90 | |
| **Stator impedance** | | | | | |
| | $Z_{so}$ | | [Ω] | 102 + j150 | |
| **Impedance** | | | | | |
| | $Z_{rs}$ | | [Ω] | 44 + j76 | |
| **Min. insulation resistance** | | | | | |
| At DC 500 V | R | | [MΩ] | 10.0 | |
| **Number of pole pairs** | | | | | |
| | | | | 1 | |
| **Max. angle error** | | | | | |
| | | | ['] | -10 ... 10 | |
| **Inverter assignment** | | | | | |
| | | | | i700<br>E84AVTC<br>E94A<br>ECS<br>EVS93 | E84AVTC<br>E94A<br>ECS<br>EVS93 |

[1] 6 - Product key > speed/angle sensor

### Speed-dependent safety functions

| Suitable for safety function | | | | | |
|---|---|---|---|---|---|
| | | | | No | Yes |
| **Max. permissible angular acceleration** | | | | | |
| MCS06 | α | [rad/s²] | | | 56000 |
| MCS09 ... MCS19 [2] | α | [rad/s²] | | | 19000 |
| **Functional safety** | | | | | |
| IEC 61508 | | | | | SIL3 |
| EN 13849-1 | | | | | Up to Performance Level e |

[2] 10 - Single encoder concepts with resolvers



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Incremental encoder and SinCos absolute value encoder

| Encoder type | | | TTL incremental | SinCos absolute value | | |
|---|---|---|---|---|---|---|
| Speed/angle sensor | [1] | | C40 | EQI | SRS | SVS |
| Product key | | | IK4096-5V-T | AM32-5V-E | AS1024-8V-H | AS1024-8V-K2 |
| Encoder type | | | Single-turn | Multi-turn | Single-turn | |
| Pulses | | | 4096 | 32 | 1024 | |
| Output signals | | | TTL | 1 Vss | | |
| Interfaces | | | | EnDat | Hiperface | |
| Absolute revolutions | | | 0 | 4096 | 1 | |
| Resolution | | | | | | |
| Angle [2] | | ['] | 1.30 | 0.40 | | |
| Accuracy | | ['] | -1 ... 1 | -5 ... 5 | -0.8 ... 0.8 | |
| Min. input voltage | | | | | | |
| DC | $U_{in,min}$ | [V] | 4.50 | 4.75 | 7.00 | |
| Max. input voltage | | | | | | |
| DC | $U_{in,max}$ | [V] | 5.50 | 5.25 | 12.0 | |
| Max. speed | | | | | | |
| | $n_{max}$ | [r/min] | 7324 | 12000 | 6000 | |
| Max. current consumption | | | | | | |
| | $I_{max}$ | [A] | 0.075 | 0.17 | 0.080 | |
| Limit frequency | | | | | | |
| | $f_{max}$ | [kHz] | 500 | 6.00 | 200 | |
| Inverter assignment | | | E94P | E94A | E84AVTC<br>E94A<br>ECS<br>EVS93 | |

[1] 6 - Product key > speed/angle sensor

[2] Inverter-dependent.

### Speed-dependent safety functions

| Suitable for safety function | | | No | No | No | Yes |
|---|---|---|---|---|---|---|
| Max. permissible angular acceleration | | | | | | |
| MCS06 | α | [rad/s²] | | | | 970000 |
| MCS09 ... MCS19 | α | [rad/s²] | | | | 240000 |
| Functional safety | | | | | | |
| IEC 61508 | | | | | | SIL2 |
| EN 13849-1 | | | | | | Up to Performance Level d |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Incremental encoder and SinCos absolute value encoder

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Encoder type** | | | SinCos absolute value | | | | |
| **Speed/angle sensor** | | | SKM | SRM | SVM | ECN | EQN |
| **Product key** | | | AM128-8V-H | AM1024-8V-H | AM1024-8V-K2 | AS2048-5V-E | AM2048-5V-E |
| **Encoder type** | | | Multi-turn | | | Single-turn | Multi-turn |
| **Pulses** | | | 128 | 1024 | | 2048 | |
| **Output signals** | | | 1 Vss | | | | |
| **Interfaces** | | | Hiperface | | | EnDat | |
| **Absolute revolutions** | | | 4096 | | | 1 | 4096 |
| **Resolution** | | | | | | | |
| Angle | | [°] | 0.40 | | | | |
| **Accuracy** | | | | | | | |
| | | [°] | -1.3 ... 1.3 | -0.8 ... 0.8 | | -0.6 ... 0.6 | |
| **Min. input voltage** | | | | | | | |
| DC | $U_{in,min}$ | [V] | 7.00 | | | 4.75 | |
| **Max. input voltage** | | | | | | | |
| DC | $U_{in,max}$ | [V] | 12.0 | | | 5.25 | |
| **Max. speed** | | | | | | | |
| | $n_{max}$ | [r/min] | 9000 | 6000 | | 12000 | |
| **Max. current consumption** | | | | | | | |
| | $I_{max}$ | [A] | 0.060 | 0.080 | | 0.15 | 0.25 |
| **Limit frequency** | | | | | | | |
| | $f_{max}$ | [kHz] | 200 | | | | |
| **Inverter assignment** | | | i700<br>E84AVTC<br>E94A<br>ECS<br>EVS93 | E84AVTC<br>E94A<br>ECS<br>EVS93 | | E94A | |

[1] Inverter-dependent.

### Speed-dependent safety functions

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Suitable for safety function** | | | No | No | Yes | No | No |
| **Max. permissible angular acceleration** | | | | | | | |
| MCS06 | α | [rad/s²] | | | 970000 | | |
| MCS09 ... MCS19 | α | [rad/s²] | | | 240000 | | |
| **Functional safety** | | | | | | | |
| IEC 61508 | | | | | SIL2 | | |
| EN 13849-1 | | | | | Up to Performance Level d | | |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Blower

### Rated data for 50 Hz

| | | Degree of protection | Number of phases | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | $U_{min}$ | $U_{max}$ | $U_{N, AC}$ | $P_N$ | $I_N$ |
| | | | | [V] | [V] | [V] | [kW] | [A] |
| MCS12 | F10 | IP54 | 1 | 210 | 240 | 230 | 0.019 | 0.12 |
| | F50 | | | 104 | 122 | 115 | 0.018 | 0.22 |
| MCS14 | F10 | | | 210 | 240 | 230 | 0.040 | 0.25 |
| | F50 | | | 104 | 122 | 115 | | 0.53 |
| MCS19 | F10 | | | 210 | 240 | 230 | 0.060 | 0.26 |
| | F50 | | | 104 | 122 | 115 | 0.047 | 0.45 |

### Rated data for 60 Hz

| | | Degree of protection | Number of phases | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | $U_{min}$ | $U_{max}$ | $U_{N, AC}$ | $P_N$ | $I_N$ |
| | | | | [V] | [V] | [V] | [kW] | [A] |
| MCS12 | F10 | IP54 | 1 | 210 | 240 | 230 | 0.019 | 0.12 |
| | F50 | | | 104 | 122 | 115 | 0.018 | 0.22 |
| MCS14 | F10 | | | 210 | 240 | 230 | 0.040 | 0.25 |
| | F50 | | | 104 | 122 | 115 | | 0.53 |
| MCS19 | F10 | | | 210 | 240 | 230 | 0.060 | 0.26 |
| | F50 | | | 104 | 122 | 115 | 0.047 | 0.45 |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

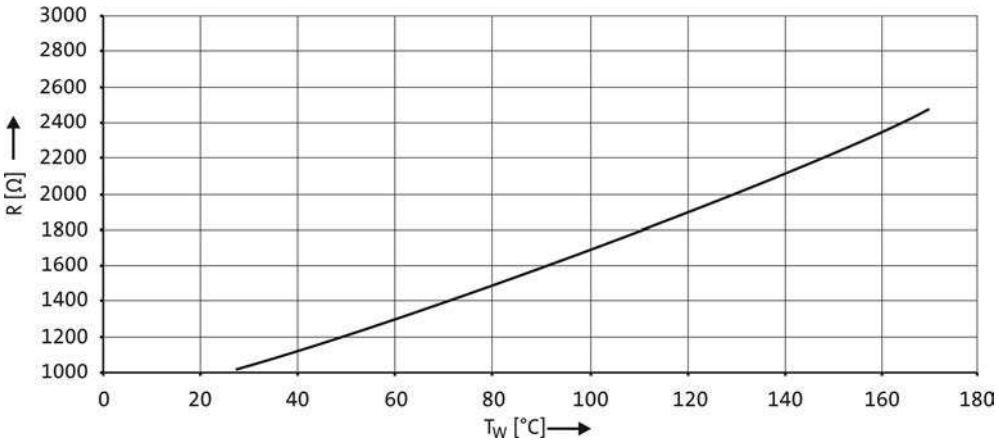


## Temperature monitoring

The thermal sensors used in the MCS motors continuously monitor the motor temperature. The temperature signal is transmitted over the system cable of the feedback system to the servo controller. Because of the different physical conditions, there are two temperature monitoring mechanisms on the MCS motors (there is no complete motor protection in either case).

**MCS06**
In case of this motor, the winding temperature of one winding phase is monitored with a KTY 83-110 type thermal sensor.

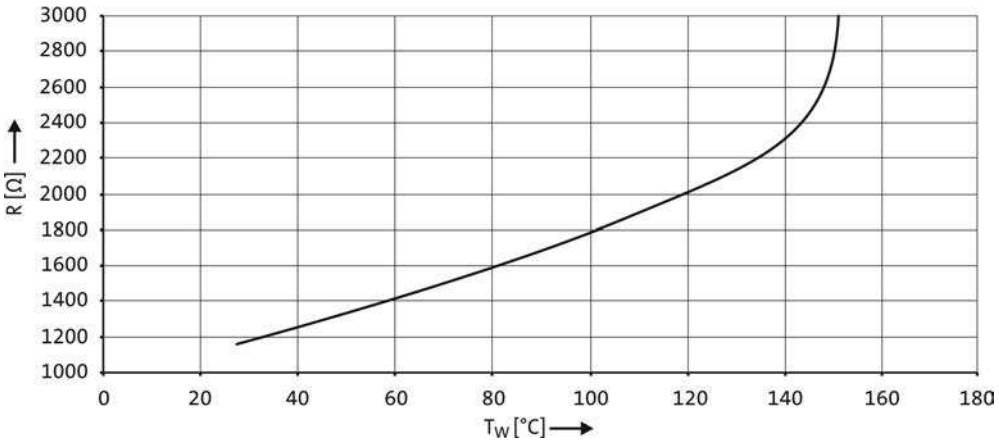
**Variation of resistance**






**MCS09 ... 19**
These motors are monitored by three thermal sensors (1x KTY 83-110 + 2x PTC 150 °C) connected in series. This means that the temperature of the motor is determined with great accuracy in the permitted operating range and at the same time the overtemperature response configured in the controller is executed in one of the winding phases.

**Variation of resistance**




► If the thermal sensor is supplied with a measurement current of 1 mA, the above relationship between the temperature and the resistance applies.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Terminal box

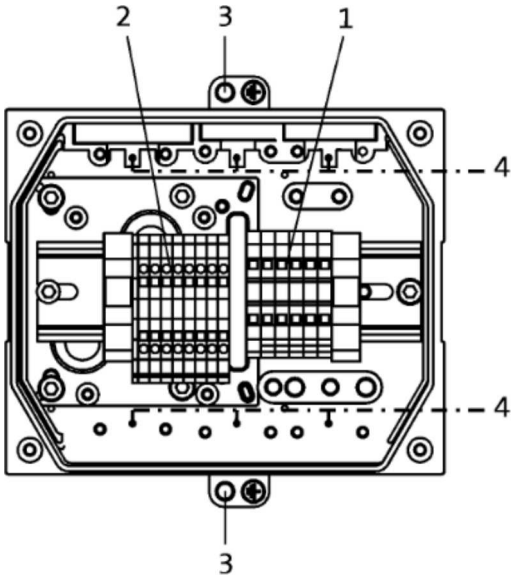
If a servo motor is to be connected to an existing cable or plug connectors are not to be used for other reasons, the connection can also be made via a terminal box.

The terminals are designed as tension spring terminals to ensure here the long-term vibration resistance of the cable contacts with adequate contact pressure required.

The terminal boxes have generously dimensioned space for the customer's own wiring and large surface shield connection areas to ensure a secure EMC-compliant connection. The cable outlet may be to the left or to the right, depending on requirements.

It is not possible to attach a terminal box to the MCS06 or to models with the blower.

**Connections**







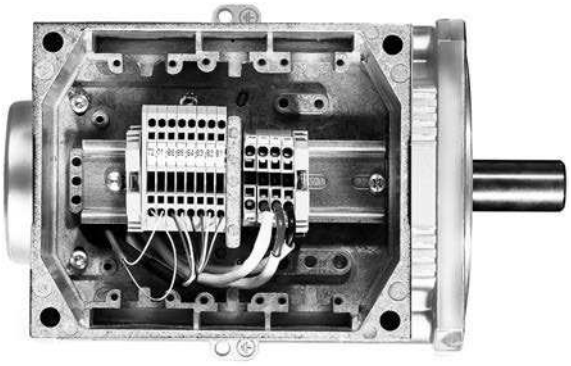
**1: Power connection (terminals loadable up to 65 A) + brake connection.**

**2: Angle/speed sensor connection + thermal sensor connection.**

**3: PE connection.**

**4: Large area shield contact.**

**5: Openings for 2x M32, 2x M25, 2x M20 fittings. The openings are plugged and can be opened up as required by the customer.**



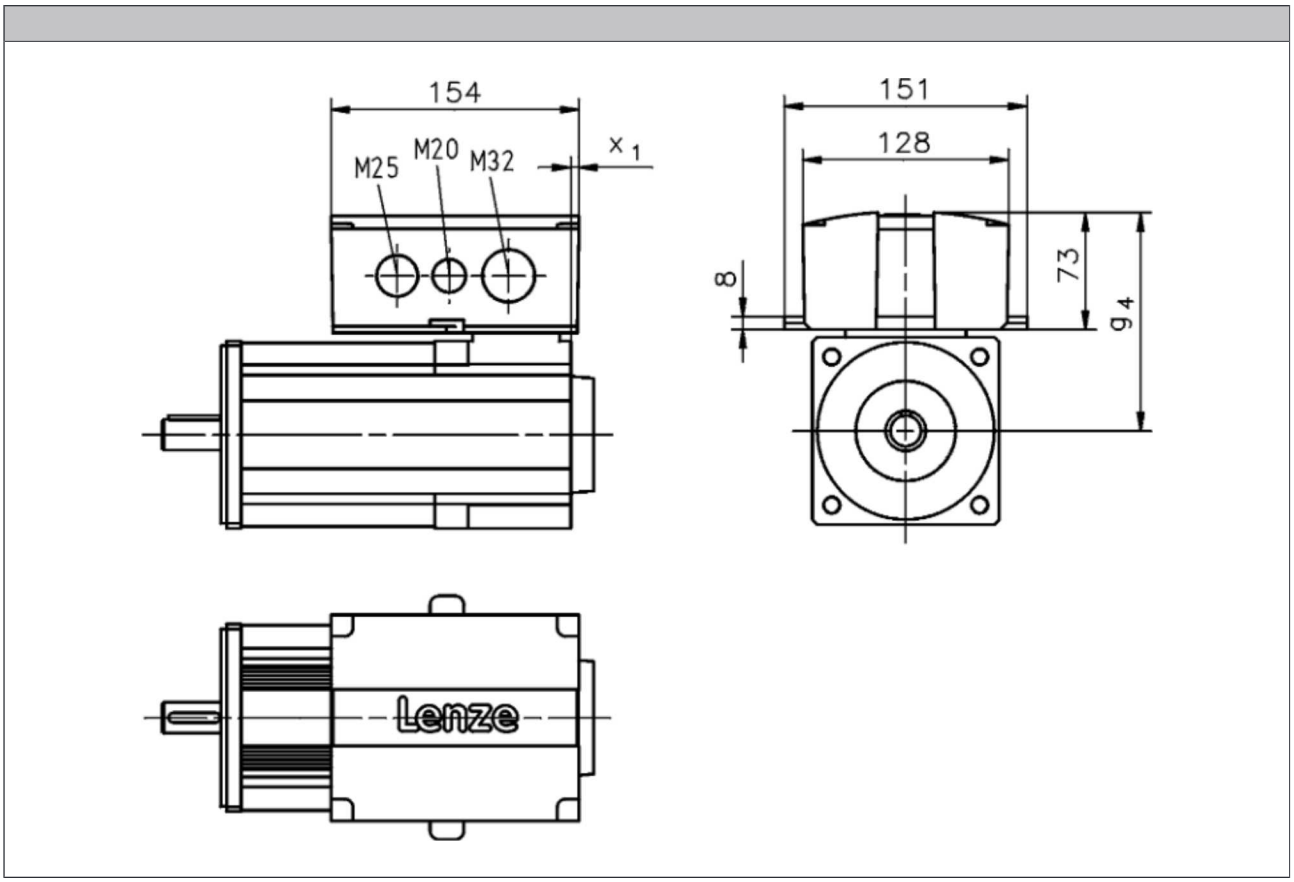


Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## Terminal box

### Dimensions




| | $g_4$ | $x_1$ |
|---|---|---|
| | [mm] | [mm] |
| MCS09 | 121 | 8 |
| MCS12 | 136 | 5 |
| MCS14 | 147 | 3 |
| MCS19 | 172 | |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## ICN connector

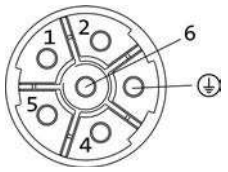
An ICN connector is used as standard for the electrical connection to the servo motors.

A connector is used for the connection of motor and brake.
The connections to the feedback system/temperature monitoring and the blower each employ a separate connector.

The connectors can be rotated through 270° and are fitted with a bayonet catch for SpeedTec connectors. As the connector fixing is also compatible with conventional union nuts. Existing mating connectors can therefore still be used without difficulty.

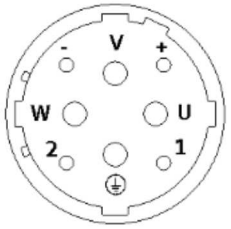
### Connection for power and brake

► MCS06 to 12

| Pin assignment | | | |
|---|---|---|---|
| Contact | Designation | Meaning | |
| 1 | BD1 | Holding brake + |  |
| 2 | BD2 | Holding brake - | |
| PE | PE | PE conductor | |
| 4 | U | Phase U power | |
| 5 | V | Phase V power | |
| 6 | W | Phase W power | |



► MCS14 to 19

| Pin assignment | | | |
|---|---|---|---|
| Contact | Designation | Meaning | |
| 1 | | Not assigned |  |
| 2 | | | |
| + | BD1 | Holding brake + | |
| - | BD2 | Holding brake - | |
| PE | PE | PE conductor | |
| U | U | Phase U power | |
| V | V | Phase V power | |
| W | W | Phase W power | |





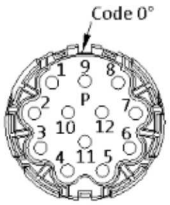
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## ICN connector

### Feedback connection

► Resolver

| Pin assignment | | | |
|---|---|---|---|
| Contact | Designation | Meaning | |
| 1 | +Ref | Transformer windings |   |
| 2 | -Ref | | |
| 3 | +VCC ETS | Supply: Electronic nameplate | |
| 4 | +COS | Cosine stator windings | |
| 5 | -COS | | |
| 6 | +SIN | Sine stator windings | |
| 7 | -SIN | | |
| 8 | | Not assigned | |
| 9 | | | |
| 10 | | | |
| 11 | +KTY | KTY temperature sensor | |
| 12 | -KTY | | |

► Hiperface incremental encoder and SinCos absolute value encoder

| Pin assignment | | | |
|---|---|---|---|
| Contact | Designation | Meaning | |
| 1 | B | Track B/+SIN |   |
| 2 | $A^-$ | Track A inverse/-COS | |
| 3 | A | Track A/+COS | |
| 4 | $+U_B$ | Supply + | |
| 5 | GND | Mass | |
| 6 | $Z^-$ | Zero track inverse/-RS485 | |
| 7 | Z | Zero track/+RS485 | |
| 8 | | Not assigned | |
| 9 | $B^-$ | Track B inverse/-SIN | |
| 10 | | Not assigned | |
| 11 | +KTY | KTY temperature sensor | |
| 12 | -KTY | | |



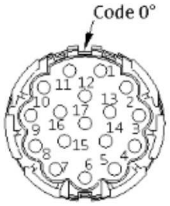
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



## ICN connector

### Feedback connection

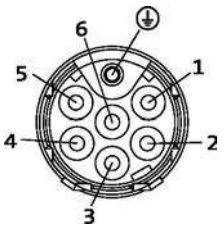
► SinCos absolute value encoder with EnDat interface

| Pin assignment | | | |
|---|---|---|---|
| Contact | Designation | Meaning | |
| 1 | $U_P$ sensor | Supply: UP sensor |  |
| 2 | | Not assigned | |
| 3 | | | |
| 4 | 0 V sensor | Supply: 0 V sensor | |
| 5 | +KTY | KTY temperature sensor | |
| 6 | -KTY | | |
| 7 | $+U_B$ | Supply + | |
| 8 | Cycle | EnDat interface cycle | |
| 9 | Cycle$^-$ | EnDat interface inverse cycle | |
| 10 | GND | Mass | |
| 11 | Shield | Encoder housing screen | |
| 12 | B | Track B | |
| 13 | B$^-$ | Track B inverse/-SIN | |
| 14 | Data | EnDat interface data | |
| 15 | A | Track A | |
| 16 | A$^-$ | Track A inverse | |
| 17 | Data$^-$ | EnDat interface inverse data | |



5.1

### Blower connection

| Pin assignment | | | |
|---|---|---|---|
| Contact | Designation | Meaning | |
| PE | PE | PE conductor |  |
| 1 | U1 | Fan | |
| 2 | U2 | | |
| 3 | | Not assigned | |
| 4 | | | |
| 5 | | | |
| 6 | | | |



Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

**Artisan Technology Group** is an independent supplier of quality pre-owned equipment

## Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

## We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

## Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP