EURA DRIVES

# PRODUCTS BROCHURE

# AS THE TIME GOES BY WE HAVE CONSTANTLY MADE QUALITY A TOP PRIORITY

Since we made our first AC drive 25 years ago, we have always earned the crown from our customers as the most reliable and trustworthy brand. It is because we have never stopping put quality and reliability as the first strategic priority.

EURA DRIVES

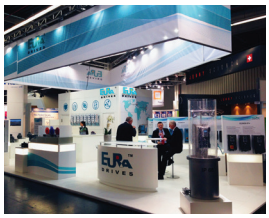
# EURA Drives
# A Drives Company

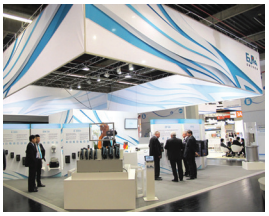
**EURA Drives as a professional company on the drives business market has 25 year's experiences. Our more than 1000 high motivated employees all over the world contribute to the success and the rapid growth of EURA Drives. The best trained drives experts in Europe guarantee the professional support and services for our customers. The central stock at the European headquarters in Hamburg makes it possible for the full availability and quick delivery for all our products. All products are compliant with international standards. Individual approvals, performed and certified by independent bodies, give our customers the trust in a world class products.**

2010


2011


2012


2013


2014

2015

# CONTENTS



CE UL LISTED

CCC ISO 9001

FREQUENCY INVERTER

# MULTI LANGUAGE KEYPAD


**E 800** **E 2000** **EP 66** **EM 30**

- Universal remote keypad- display unit, compatible with all EURA Drives products
- Robust, for any critical environments, IP66 waterproof / shockproof
- Easy to mount on cabinet door
- Multilanguage – 4 line character display, backlight with graphical functions
- Parametrizing tool, parameter copy/duplicating function
- Simple to customize – open software code, ready for easy customer branding

FREQUENCY INVERTER

## 15 kW - 500 kW

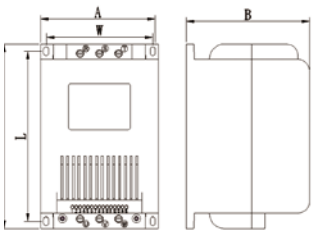
# HFR 1000 / 2000


- For smooth start of any kind of asynchronus motors, reduction of inrush current and mechanical stress.
- Startup control mode:
  - Current mode: Start ramp at defined current limit
  - Voltage mode: Startup at defined voltage ramp
  - Boost function
- Startup control mode:
  - Free stop by inertia
  - -Stop controlled by voltage ramp

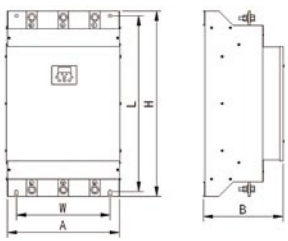
- Controlmode: - Keypad, terminal, MODBUS
- Startup control mode:
  - Programmable I/O channels
  - MODBUS interface
  - Integrated LED display, to set parameters and to display drive status
  - Optional remote control
  - Relay output for Bypass with programmable delay
  - Status relays output
  - Parallel operation of multiple motors
- Intelligent protection functions:
  - Overcurrent, overtemperature, motor overload, phase symmetry

# HFR 1000 - Technical product data

| Model | Applicable Motor (KW) | Rated Input Voltage(V) | Rated Input Current(A) | Tructure Code | External Dimension (A*B*H) | Mounting Size (W*L) | Remarks |
|---|---|---|---|---|---|---|---|
| HFR1015 | 15 | ~380 three-phase | 30 | R1 | 250*153*162 | 219*140 | Plastic Hanging |
| HFR1022 | 22 | ~380 three-phase | 45 | R1 | 250*153*162 | 219*140 | |
| HFR1030 | 30 | ~380 three-phase | 60 | R1 | 250*153*162 | 219*140 | |
| HFR1037 | 37 | ~380 three-phase | 75 | R1 | 250*153*162 | 219*140 | |
| HFR1045 | 45 | ~380 three-phase | 90 | R1 | 250*153*162 | 219*140 | |
| HFR1055 | 55 | ~380 three-phase | 110 | R1 | 250*153*162 | 219*140 | |
| HFR1075 | 75 | ~380 three-phase | 150 | R2 | 510*260*194 | 389*232.5 | |
| HFR1090 | 90 | ~380 three-phase | 180 | R2 | 510*260*194 | 389*232.5 | |
| HFR1110 | 110 | ~380 three-phase | 220 | R2 | 510*260*194 | 389*232.5 | |
| HFR1132 | 132 | ~380 three-phase | 260 | R2 | 510*260*194 | 389*232.5 | |
| HFR1160 | 160 | ~380 three-phase | 320 | R2 | 510*260*194 | 389*232.5 | |
| HFR1220 | 220 | ~380 three-phase | 440 | R3 | 590*360*255 | 560*300 | Metal Hanging |
| HFR1250 | 250 | ~380 three-phase | 500 | R3 | 590*360*255 | 560*300 | |
| HFR1280 | 280 | ~380 three-phase | 560 | R3 | 590*360*255 | 560*300 | |
| HFR1315 | 315 | ~380 three-phase | 630 | R3 | 590*360*255 | 560*300 | |




R1 - R2

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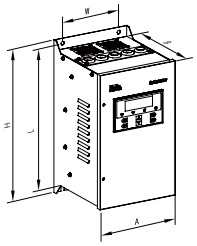
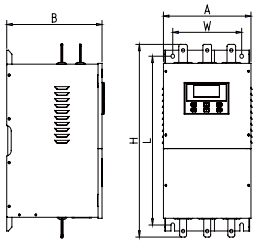



RC1




RC2 - RC4

# HFR 2000 - Technical product data

| Model | Applicable Motor (KW) | Rated Input Voltage(V) | Rated Input Current(A) | Tructure Code | External Dimension (A*B*H) | Mounting Size (W*L) | Remarks |
|---|---|---|---|---|---|---|---|
| HFR2015 | 15 | ~380 three-phase | 30 | RC1 | 370*200*220 | 150*350 | Metal Hanging |
| HFR2022 | 22 | ~380 three-phase | 45 | RC1 | 370*200*220 | 150*350 | |
| HFR2030 | 30 | ~380 three-phase | 60 | RC1 | 370*200*220 | 150*350 | |
| HFR2037 | 37 | ~380 three-phase | 75 | RC1 | 370*200*220 | 150*350 | |
| HFR2045 | 45 | ~380 three-phase | 90 | RC1 | 370*200*220 | 150*350 | |
| HFR2055 | 55 | ~380 three-phase | 110 | RC1 | 370*200*220 | 150*350 | |
| HFR2075 | 75 | ~380 three-phase | 150 | RC2 | 487.5*254*276.5 | 200*424.5 | |
| HFR2090 | 90 | ~380 three-phase | 180 | RC2 | 487.5*254*276.5 | 200*424.5 | |
| HFR2110 | 110 | ~380 three-phase | 220 | RC2 | 487.5*254*276.5 | 200*424.5 | |
| HFR2132 | 132 | ~380 three-phase | 260 | RC2 | 487.5*254*276.5 | 200*424.5 | |
| HFR2160 | 160 | ~380 three-phase | 320 | RC2 | 487.5*254*276.5 | 200*424.5 | |
| HFR2200 | 200 | ~380 three-phase | 400 | RC3 | 555*364.5*351.5 | 322*475 | |
| HFR2220 | 220 | ~380 three-phase | 440 | RC3 | 555*364.5*351.5 | 322*475 | |
| HFR2250 | 250 | ~380 three-phase | 400 | RC3 | 555*364.5*351.5 | 322*475 | |
| HFR2280 | 280 | ~380 three-phase | 560 | RC3 | 555*364.5*351.5 | 322*475 | |
| HFR2315 | 315 | ~380 three-phase | 630 | RC3 | 555*364.5*351.5 | 322*475 | |
| HFR2355 | 355 | ~380 three-phase | 700 | RC4 | 660*475.5*317.5 | 402*607.5 | |
| HFR2400 | 400 | ~380 three-phase | 800 | RC4 | 660*475.5*317.5 | 402*607.5 | |
| HFR2450 | 450 | ~380 three-phase | 900 | RC4 | 660*475.5*317.5 | 402*607.5 | |
| HFR2500 | 500 | ~380 three-phase | 1000 | RC4 | 660*475.5*317.5 | 402*607.5 | |

# HFR1000/HFR2000 Structure Instruction

| Item | Contents | |
|---|---|---|
| Input power supply | AC 400V±20%, 50/60Hz | |
| Applicable motor | Standard asyncronus motor | |
| Startup mode | Voltage ramp startup (1~120s); Current limiting startup; Kick startup, Jogging startup (Only for HFR2000) | |
| Stop mode | Free STOP, Voltage controlled STOP | |
| Analog output | Current mode output 0(4).....20 mA | |
| Relay output | Bypass control relays (7A/230V), fault relays | |
| Protection function | Out phase, over-load, over current over-heating | |
| Protection level | IP20 | |
| Cooling | Convection cooling (HFR1000) forced ventilation (HFR2000) | |
| Installation mode | Cabinet mounting | |
| Environment conditions | Equipment Location | In an indoor location, Prevent exposure from direct sunlight, Free from dust, tangy caustic gases, flammable gases, steam or the salt-contented, etc. |
| | Environment Temperature | -10°C~+45°C |
| | Environment Humidity | Below 95% |
| | Vibration Strength | Below 0.5g |
| | Height above sea level | 1000m or below |

FREQUENCY INVERTER

# E 800

## 0.2 kW - 110 kW

- All I/O channels programmable, two 12 Bit analogue inputs, to concatenate each other
- Build in PID controller, with specific HVAC functions
- MODBUS interface, for inverter control, and for reading and setting of all inverter I/O hardware channels
- In this way, the inverter I/O hardware can be implemented in subordinated control systems
- Control mode: V/Hz control for asynchronus motor, SENSORLESS control for Permanent Magnet Synchronus Motor - PMSM
- Intelligent voltage, current and carrier frequency adjustment functions, “catch on the fly” function.
- PC-Software, for inverter control and programming, diagnosis and troubleshooting
- Smart parameter copy tools

# E 800 - Technical product data

| | | |
|---|---|---|
| **Power input** | Supply voltage | 3-Phase 380 - 460V +/- 15%<br>3-Phase 230V +/-15%<br>1-Phase 230V +/-15% |
| | Input frequency | 44….67 Hz |
| | EMC filter | Integrated for second environment (industrial area) - option for first environment (residential area) |
| **Motor output** | Output voltage | 0……..V-input |
| | Output frequency | 0,5……..650 Hz |
| | Overload capability | 120% - 60 sec / 15 min |
| **Control-Mode** | V/Hz | Linear, Variable torque curve, user programmable curve |
| | PWM frequency | 800…10000Hz (FIXED / RANDOM) |
| **Diplay** | LED 7-segment display | Programmable, to display various inverter and working parameters |
| **Control hardware (I/O)** | Digital inputs | 5 dig. inputs (PNP/NPN) |
| | Analogue inputs | 2 x 12 BIT analogue inputs 0…10V, 0(4).....20 mA) |
| | Analogue outputs | 1 analogue output, to assign to various functions (0…10V, 0..20 mA) |
| | Digital outputs | 2 digital outputs (free assignement to different functions) |
| | Relais | 1 switchover contact 5 A 230 V (programmable function) |
| | MODBUS | Inverter control, reading and setting of all inverter I/O channels |
| **Specials** | Aux. power supply | Auxiliary power supply: 24V / 50 mA – on terminals<br>10V potentiometer power supply |
| **Protection functions with Foult memory** | Electrical protections | Overvoltage, undervoltage<br>Overcurrent, overload, motor overload, short circuit |
| | | Input phase loss, motor phase loss |
| | Thermal protections | Inverter overtemperature, motor-overload $I^2xt$ |
| **Optionals and accessories** | Display / keypad | Remote display / keypad unit |
| | Brake | Brake resistors for all kind of applications |
| | PC-Link Software | Smart tool for parameter setting, control an diagnosis |
| | Fieldbus | Gateway modules for all commonly used bus technologies |
| | Parameter copy stick | Smart tool for parameter storage and duplication |
| **Environmental and operating conditions** | Protection degree | IP20 / IP21 (option) |
| | Operating temperature | -10……+50 °C |
| | Humidity | Max. 90 % non condensing, non corrosive |
| | Altitude | 1000 m, above derating of 1% / 100m |

# E 800 – 230 / 240V Inverters

## Inverter E800 - 1 x 230V / 240V

| Model | Rated current | Frame-size | Dimensions (WxHxD-mm) | Brake resistor min.value |
|---|---|---|---|---|
| E800-0004 S2 | 0,4 kW - 2.5 A | E1 | 80x138x135 | 80 Ohm/200W |
| E800-0007 S2 | 0,75 kW - 4.5 A | | | |
| E800-0015 S2 | 1,5 kW - 7 A | E2 | 106x180x150 | |
| E800-0022 S2 | 2,2 kW - 10 A | | | |

## Inverter E800 - 3 x 230V / 240V

| Model | Rated current | Frame-size | Dimensions (WxHxD-mm) | Brake resistor min.value |
|---|---|---|---|---|
| E800-0004 T2 | 0,4 kW - 2,5 A | E1 | 80x138x135 | 80 Ohm/200W |
| E800-0007 T2 | 0,75 kW - 4,5 A | | | |
| E800-0015 T2 | 1,5 kW - 7 A | E2 | 106x180x150 | |
| E800-0022 T2 | 2,2 kW - 10 A | | | |

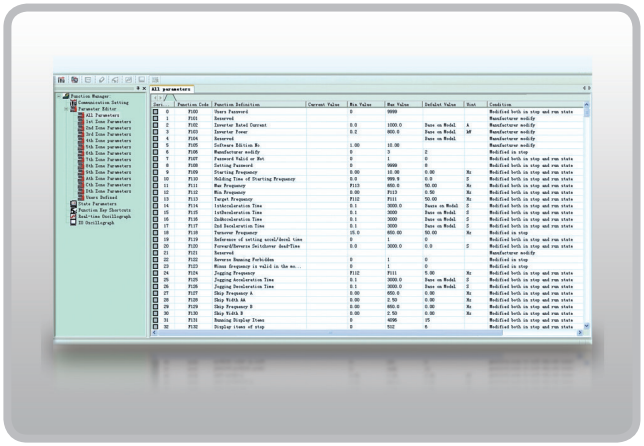
# E 800 – 400 / 460V Inverters

## Inverter E800 - 3 x 400V / 460V

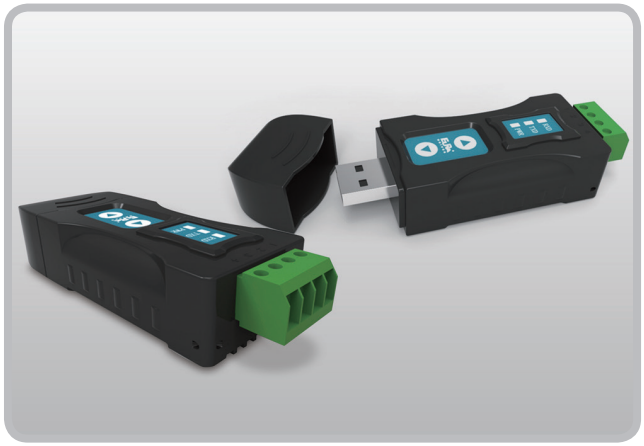
| Model | Rated current | Frame-size | Dimensions (WxHxD-mm) | Brake resistor min.value |
|---|---|---|---|---|
| E800-0007-T3 | 0,75 kW - 2 A | E2 | 106x180x150 | 150 Ohm/80W |
| E800-0015-T3 | 1,5 kW - 4 A | | | 150 Ohm/150W |
| E800-0022-T3 | 2,2 kW - 6,5 A | | | 150 Ohm/150W |
| E800-0030-T3 | 3,0 kW - 7 A | E3 | 106x180x150 | 150 Ohm/300W |
| E800-0040-T3 | 4,0 kW - 9 A | E4 | 138x235x152 | 150 Ohm/400W |
| E800-0055-T3 | 5,5 kW - 11 A | | | 100 Ohm/550W |
| E800-0075-T3 | 7,5 kW - 14 A | E5 | 156x265x170 | 100 Ohm/750W |
| E800-0110-T3 | 11 kW - 20 A | | | 100 Ohm/1.1kW |
| E800-0150-T3 | 15 kW - 26 A | E6 | 205x340x196 | 50 Ohm/1.5kW |
| E800-0185-T3 | 18,5 kW - 35 A | | | 50 Ohm/2.0kW |
| E800-0220-T3 | 22 kW - 40 A | | | 50 Ohm/2.2kW |
| E800-0300-T3 | 30 kW - 50 A | C3 | 265x435x235 | 25 Ohm/3.0kW |
| E800-0370-T3 | 37 kW - 68 A | | | 25 Ohm/3.0kW |

## Inverter E800 - 3 x 400V / 460V

| Model | Rated current | Frame | Dimensions (WxQHxD-mm) | Brake resistor min.value |
|---|---|---|---|---|
| E800-0450-T3 | 45 kW - 82 A | C4 | 314×480×235 | 15 Ohm/4.5kW |
| E800-0550-T3 | 55 kW - 98 A | C5 | 360x555x265 | 15 Ohm/5.5kW |
| E800-0750-T3 | 75 kW - 130 A | C5 | | 516x760x326 |
| E800-0900-T3 | 90 kW - 165 A | C6 | 410x630x300 | 8 Ohm/9.0kW |
| E800-1100-T3 | 110 kW - 200 A | C6 | | Optional brake-unit |



PC-SOFTWARE



CONVERTER &
PARAMETER COPY BOX

FREQUENCY INVERTER

# E 2000

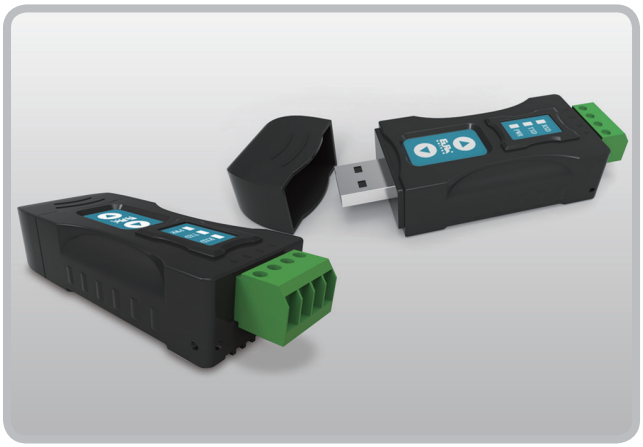
## 0.4 kW - 400 kW

- High-tech motor control concept, based on advanced DSP-technology – ready for V/Hz, SENSORLESS VECTOR, CLV and PMM motor control – intelligent AUTOTUNING functions for easy setup.
- Compact in size, modular in concept, rugged construction, build for the worldwide market.
- Flexible inverter control, dual high resolution analogue inputs, free mappable digital I/O channels
- Ready for all commonly used fieldbus systems.
- Universal function-set for all kind of industrial and residential applications, including integrated PID / pump controller routines.
- Smart PC-tools, for inverter control, -parametrization and –troubleshooting. Parameter-duplication stick.
- Approved for worldwide standards by independent bodies.

# E 2000 - Technical product data

| | | |
|---|---|---|
| **Power input** | Rated input voltage | 3-Phase 380 - 460V +/- 15%<br>1-Phase 230/240V +/- 15% |
| | Input frequency | 44….67 Hz |
| | EMC Filter | Integrated for 2. environment - industrial area (optional for residential area) |
| **Motor output** | Output voltage | 0……..V-input |
| | Output frequency | 0……...650 Hz (1500HZ OPTION) |
| | Frequency resolution | 0,01 Hz |
| | Overload capability | 150% - 60 sec. / 10 min |
| **Control Mode** | Motor control algorithm | V/Hz-SpaceVector, SLV-SENSORLESS VECTOR,Torque/Speed control mode CLV-Closed loop vector,Permanent Magnet Synchronous Motor PMSM SENSORLESS control |
| | Chopper frequency | 0.8…16 kHz (fixed / random) |
| | V/Hz curve | Linear, exponential, and user-programmable curve |
| | Starting torque | 150% rated torque at 0,5 Hz (in SLV Mode) |
| | Torque compensation | Automatic / Manual |
| | Motor data input | Manual, from nameplate / AUTOTUNING |
| | Control range | 1:100 in SLV mode,1:1000 in CLV mode,1:20 in PMSM mode |
| | Speed precision | +/- 0,5% (SLV),+/- 0.02% (CLV) |
| | Torque precision | +/- 5% (SLV) |
| | DC-Brake | User programmable functions |
| | Brake chopper | Chopper transistor integrated (up to 90 kW) |


**DATA LINK**



**CONVERTER &
PARAMETER COPY BOX**

| | | |
|---|---|---|
| **Diplay** | 7 segment, 4 characters | Config-Parameters and -value, programmable to display various working parameters |
| **I/O Channels, control functions** | Inverter control | Via terminals / Keypad / Serial link (or combination of all) |
| | Digital inputs | 6 (8) Dig. inputs (NPN-PNP selectable) pulstrain-input |
| | Speed reference input | Potentiometer (on keypad unit, external), analogue signal (terminals), keypad, internal programmable value, pulsetrain, serial link |
| | Analogue channels | 2 analogue channels - 12 BIT: 0…10V, 0...5V, -10V...0...10V, 0..(4)20 mA, all free scalable in gain and offset, and mathematically concatenable |
| | Analogue outputs | 2 analogue outputs, programmable in gain and function (0…10V, 0(4)..20 mA) |
| | Digital outputs | 2 digital outputs (free mapping to different functions) |
| | Relais output | 1 switchover contact 5 A 230 V (programmable assignment) |
| | Data link | Serial link RS 485 (MODBUS) |
| | Special functions | 12V / 50 mA auxiliary power supply on terminals, 10V potentiometer power supply, 5V/100 mA power supply on modbus connector<br>Simple PTC / KLIXON motor protection |
| **Electronic protections with fault history** | Electrical | Overvoltage, undervoltage<br><br>Overcurrent, overload, motor-overload, output short-circuit |
| | Thermal | Heatsink overtemperature, $I^2xt$ motorprotection |
| **Options** | Display | Remotable display / keypad units |
| | Brake chopper | Braking resistors for different load characteristics |
| | PC-software<br>Parameter Stick | Configuration-, control- an diagnosis-tool, parameter saving and duplicating<br><br>For parameter duplicating |
| **Environmental and operating conditions** | Protection class | IP20 / IP21(optional) |
| | Working temperature | -10……+50 °C |
| | Humidity | 0 to 95% RH, non-condensing, non-corrosive |
| | Altitude | 1000 m, above 1% derating / 100m |
| | Vibration | Max. 0,5 g |
| **Power range** | 0,4……400 kW | |
| **Standards** | Electromagnetic compatibility | EN61800-3(2004) |
| | Safety | EN61800-5-1 2003 |

# E 2000 - Products and Framesizes

| Model | Rated current | Frame | Dimensions (WxHxD-mm) | Brake resistor min.value |
|---|---|---|---|---|
| E2000-0004 S2 | 0,4 kW - 2.5 A | E1 | 80x138x135 | 80 Ohm/200W |
| E2000-0007 S2 | 0,75 kW - 4.5 A | | | |
| E2000-0015 S2 | 1.5 kW - 7 A | E2 | 106x180x150 | |
| E2000-0022 S2 | 2,2 kW - 10 A | | | |
| | | | | |
| E2000-0007 T3 | 0,75 kW - 2 A | E2 | 106x180x150 | 145 Ohm/800W |
| E2000-0015 T3 | 1,5 kW - 4 A | | | 100 Ohm/150W |
| E2000-0022 T3 | 2,2 kW - 6,5 A | | 106x180x170 | 100 Ohm/250W |
| E2000-0030 T3 | 3,0 kW - 7 A | E3 | | 100 Ohm/300W |
| E2000-0040 T3 | 4,0 kW - 9 A | E4 | 138x235x152 | 100 Ohm/400W |
| E2000-0055 T3 | 5,5 kW - 12 A | | | 100 Ohm/550W |
| E2000-0075 T3 | 7,5 kW - 17 A | E5 | 156x265x170 | 75 Ohm/750W |
| E2000-0110 T3 | 11 kW - 23 A | | | 75 Ohm/1.1kW |
| E2000-0150 T3 | 15 kW - 32 A | E6 | 205x340x196 | 35 Ohm/1.5kW |
| E2000-0185 T3 | 18,5 kW - 38 A | | | 35 Ohm/2.0kW |
| E2000-0220 T3 | 22 kW - 44 A | | | 30 Ohm/2.2kW |
| E2000-0300 T3 | 30 kW - 60 A | C3 | 265x435x235 | 25 Ohm/3.0kW |
| E2000-0370 T3 | 37 kW - 75 A | C4 | 314x480x285 | 25 Ohm/4.0kW |
| E2000-0450 T3 | 45 kW - 90 A | | | 15 Ohm/4.5kW |
| E2000-0550 T3 | 55 kW - 110 A | C5 | 360x555x265 | 15 Ohm/5.5kW |
| E2000-0750 T3 | 75 kW - 150 A | | | 12 Ohm/7.5kW |
| E2000-0900 T3 | 90 kW - 180 A | C6 | 410x630x300 | 8 Ohm/9.0kW |
| E2000-1100 T3 | 110 kW - 220 A | | | Option |
| E2000-1320 T3 | 132 kW - 265 A | C7 | 516x760x326 | |
| E2000-1600 T3 | 160 kW - 320 A | C8 | 560x1000x326 | |
| E2000-1800 T3 | 180 kW - 360 A | | | |
| E2000-2000 T3 | 200 kW -400 A | C9 | 400x1300x385 | |
| E2000-2200 T3 | 220 kW - 440A | CA | 535x1330x380 | |
| E2000-2500 T3 | 250 kW - 480 A | | | |
| E2000-2800 T3 | 280 kW - 530 A | CB0 | 600x1450x380 | |
| E2000-3150 T3 | 315 kW - 580 A | | | |
| E2000-3550 T3 | 355 kW - 640 A | | | |
| E2000-4000 T3 | 400 kW - 690 A | CB | 600x1580x380 | |

FREQUENCY INVERTER

# EM 30

## 0.4 kW - 15 kW

- High-tech motor control concept, based on advanced DSP-technology V/Hz, SENSORLESS VECTOR, PMM syncronus motor control mode - SPEED / TORQUE control Intelligent AUTOTUNING functions for easy set-up.
- Rugged construction, all metal enclosure, thermally decoupled from motor, IP67 / NEMA4, shock proof (4G).
- Flexible configurable man/machine interface – fieldbus capability
- Numerous functions, to make it suitable for all kind of industrial and residential applications, and for retrofit as well
- Smart PC-tools, for inverter control, -paramtrization and –troubleshooting. Parameter-duplication stick.
- Approved for worldwide standards by independent bodies.

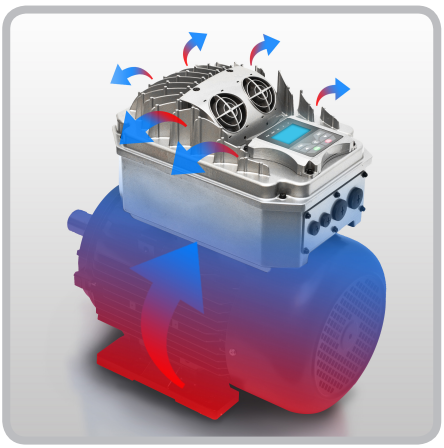
# EM 30 - Technical product data

| | | |
|---|---|---|
| **Power input** | Rated input voltage | 3-Phase 380 - 460V +/- 15%<br>1-Phase 230/240V +/- 15% |
| | Input frequency | 44….67 Hz |
| | EMC Filter | Integrated for 2. environment - industrial area (optional for residential area) |
| **Motor output** | Output voltage | 0……..V-input |
| | Output frequency | 0……..650 Hz (1500HZ OPITION) |
| | Frequency resolution | 0,01 Hz |
| | Overload capability | 150% - 60 sec. / 10 min |
| **Control Mode** | Motor control algorithm | V/Hz-SpaceVector - SLV-SENSORLESS Vector control - Torque/Speed control mode.<br>CLV-Closed loop vector - Permanent Magnet Synchronous Motor PMSM SENSORLESS control |
| | Chopper frequency | 0.8…16 kHz (fixed / random) |
| | V/Hz curve | Linear, exponential, and user-programmable curve |
| | Starting torque | 150% rated torque at 0,5 Hz (in SLV Mode) |
| | Torque compensation | Automatic / Manual |
| | Motor data input | Manual, from nameplate / AUTOTUNING |
| | Speed range | 1:100 in SLV mode, 1:1000 in CLV mode, 1:20 in PMSM mode |
| | Speed precision | +/- 0,5% (SLV),+/- 0.02% (CLV) |
| | Torque precision | +/- 5% (SLV) |
| | DC-Brake | User programmable functions |
| | Brake chopper | Chopper transistor integrated (up to 22 kW) |
| **Display** | Character display | Config-Parameters and -value, programmable to display various working parameters |

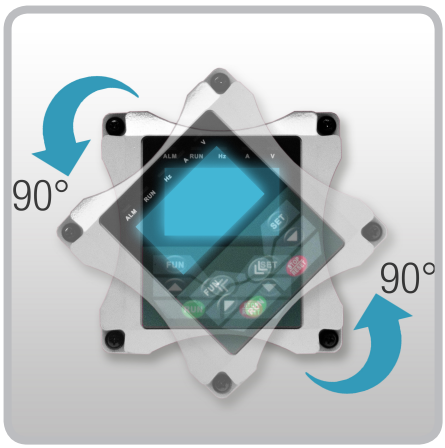
| | | |
|---|---|---|
| **I/O Channels** | Analogue channels | 2 analogue channels - 12 BIT: 0…10V, 0...5V, -10V...0...10V, 0..(4)20 mA,<br>all free scalable in gain and offset, and mathematically concatenable |
| | Analogue outputs | 2 analogue outputs, programmable in gain and function (0…10V, 0(4)..20 mA) |
| | Digital outputs | 1 switchover contact 5 A 230 V (programmable assignment) |
| | Relais output | 2 analogue outputs, programmable in gain and function (0…10V, 0(4)..20 mA) |
| | Data link | Serial link RS 485 (MODBUS) |
| **Special functions** | Special functions | 12V / 50 mA auxiliary power supply on terminals, 10V potentiometer power supply,<br>5V/100 mA power supply on modbus connector<br>PTC / KLIXON motor protection |
| **Electronic protections with fault history** | Electrical | Overvoltage, undervoltage<br>Overcurrent, overload, motor-overload, output short-circuit<br>Input phaseloss, motor phase unbalance |
| | Thermal | Heatsink overtemperature, $I^2xt$ motorprotection |
| **Optionals** | Display | Remotable display / keypad units |
| | Brake chopper | Braking resistors for different load characteristics |
| | PC-software<br>Parameter copy stick | Configuration-, control- an diagnosis-tool, parameter saving and duplicating<br>For parameter duplicating |
| **Environmental and operating conditions** | Protection class | IP67 / NEMA4 motor/wall mountable |
| | Operating temperature | -10……+50 °C – -40°C with automatic antifreeze control function (option) |
| | Humidity | 0 to 95% RH, non-condensing, non-corrosive |
| | Altitude | 1000 m, above: 1% derating / 100m |
| **Power range** | 0,4……15 kW | |
| **Standards** | Electromagnetic compatibility | EN61800-3(2004) |
| | Safety | EN61800-5-1 2003 |

# EM 30 - Products and Framesizes

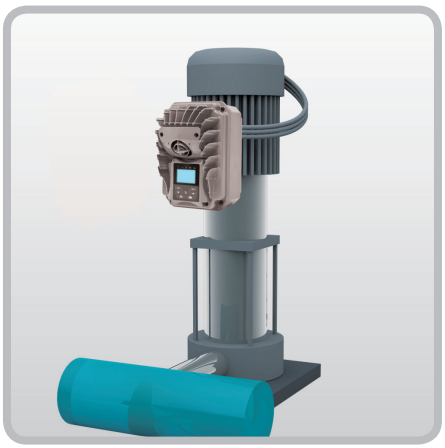
| Model | Motor power (KW) | Frame-size | Dimensions (WxHxD-mm) | Remarks |
|---|---|---|---|---|
| EM30-0004S2 | 0,4 kW - 2.5 A | J1<br>186x266x180 | | 1-phase 220V |
| EM30-0007S2 | 0.75 kW – 4,5A | | | |
| EM30-0015S2 | 1.5 kW – 7A | | | |
| EM30-0022S2 | 2.2 kW – 10A | | | |
| EM30-0004T2 | 0.4 kW – 2,5A | | | 3-phase 220V |
| EM30-0007T2 | 0.75 kW - 4,5A | | | |
| EM30-0015T2 | 1.5 kW – 7A | | | |
| EM30-0022T2 | 2.2 kW – 10A | | | |
| EM30-0007T3 | 0.75 kW – 2A | | | 3-phase 380V |
| EM30-0015T3 | 1.5 kW – 4A | | | |
| EM30-0022T3 | 2.2 kW – 6,5A | | | |
| EM30-0030T3 | 3.0 kW – 7A | | | |
| EM30-0040T3 | 4.0 kW – 9A | | | |
| EM30-0055T3 | 5.5 kW – 12A | J2 | 215x325x190 | |
| EM30-0075T3 | 7.5 kW – 17A | | | |
| EM30-0110T3 | 11 kW – 23A | J3 | 280x380x220 | |
| EM30-0150T3 | 15 kW – 32A | | | |



THERMALLY DECOUPLED FROM MOTOR




REMOVABLE KEYPAD & 90° ROTATION



DECENTRAL

FREQUENCY INVERTER

# EP 66

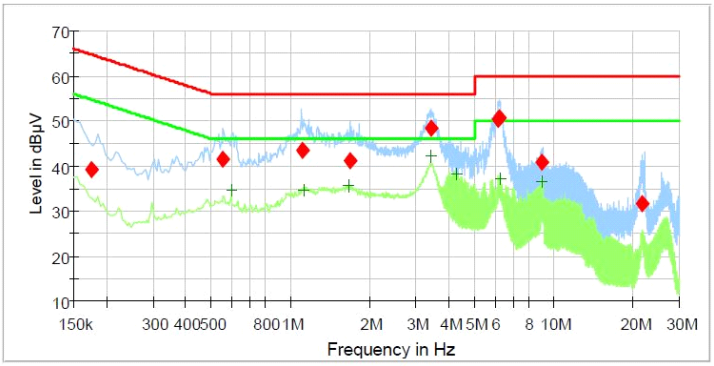
## 0.4 kW - 90 kW


- DSP based high-tech motor control concept, suitable for V/Hz, SENSORLESS VECTOR, PMM syncronus motor control. SPEED / TORQUE control mode, Intelligent AUTOTUNING functions for easy set-up.
- Rugged construction, IP66 / NEMA4
- Flexible configurable character display – fieldbus capability
- Removable cable conduit plate, including vent with humidity barrier
- Room inside the drive, for customer options, like main- / emergency switch, start/stop selectors, potentiometer and brake resistor.
- Optional BYPASS switch build in
- EMC filter build in for 1. environment, for residential area EMC compatibility

- All standard inverter functions build in, to make it suitable for various applications, and for retrofit as well.
- Smart PC-tools, for inverter control, -paramtrization and –troubleshooting. Parameter-duplication stick.
- Ready for the worldwide market, due to approved international standards.

# EP 66 - Technical product data

| | | |
|---|---|---|
| **Power input** | Rated input voltage | 3-Phase 380 - 460V +/- 15%<br>1-Phase 230/240V +/- 15% |
| | Input frequency | 44….67 Hz |
| | EMC Filter | Integrated for 2. environment - industrial area (optional for residential area – add-on box) |
| **Motor output** | Output voltage | 0……..V-input |
| | Output frequency | 0……..650 Hz (1500HZ OPITION) |
| | Frequency resolution | 0,01 Hz |
| | Overload capability | 150% - 60 sec. / 10 min |
| **Control Mode** | Motor control algorithm | V/Hz-SpaceVector, SLV-SENSORLESS Vector control, Torque/Speed control mode. CLV-Closed loop vector, Permanent Magnet Synchronous Motor PMSM SENSORLESS control |
| | Chopper frequency | 0.8…16 kHz (fixed / random pattern) |
| | V/Hz curve | Linear, exponential, and user-programmable curve |
| | Starting torque | 150% rated torque at 0,5 Hz (in SLV Mode) |
| | Torque compensation | Automatic / Manual |
| | Motor data input | Manual, from nameplate / AUTOTUNING |
| | Control range | 1:100 in SLV mode,1:1000 in CLV mode,1:20 in PMSM mode |
| | Speed precision | +/- 0,5% (SLV),+/- 0.02% (CLV) |
| | Torque precision | +/- 5% (SLV) |
| | DC-Brake | User programmable functions |
| | Brake chopper | Chopper transistor integrated (up to 90 kW) |
| **Display** | 7 segment, 4 characters LCD | To display configuration parameters and, programmable to show various operating parameters |




C1 EMC Filter Test Result by German independent test body

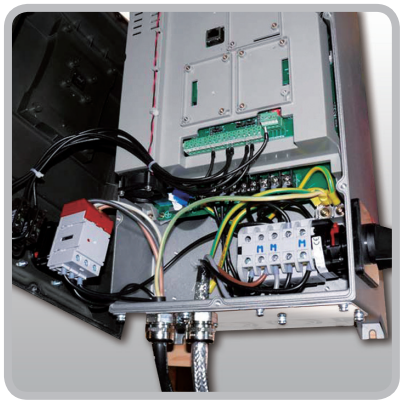
| | | |
|---|---|---|
| **I/O Channels, control functions** | Inverter control | Via terminals / Keypad / Serial link (or combination of all) |
| | Digital inputs | 6 (8) Dig. inputs (NPN-PNP selectable) pulstrain-input |
| | Speed reference input | Potentiometer (on keypad unit, external), analogue signal (terminals), keypad, internal programmable value, pulsetrain, serial link |
| | Analogue channels | 2 analogue channels - 12 BIT: 0…10V, 0...5V, -10V...0...10V, 0..(4)20 mA, all free scalable in gain and offset, and mathematically concatenable |
| | Analogue outputs | 2 analogue outputs, programmable in gain and function (0…10V, 0(4)..20 mA) |
| | Digital outputs | 2 digital outputs (free assignement to different functions) |
| | Relais output | 1 switchover contact 5 A 230 V (programmable assignment) |
| | Data link | Serial link RS 485 (MODBUS) |
| | Special functions | 12V / 50 mA auxiliary power supply on terminals, 10V potentiometer power supply, 5V/100 mA power supply on modbus connector<br>Simple PTC / KLIXON motor protection |
| **Electronic protections with fault history** | Electrical | Overvoltage, undervoltage<br>Input phaseloss, motor phase unbalance |
| | Thermal | Heatsink overtemperature, $I^2xt$ motorprotection |
| **Optionals** | Display | Remotable display / keypad units |
| | Brake chopper | Braking resistors for different applications and load characteristics |
| | Power control options | Main switch, emergency switch, BYPASS switch, |
| | Inverter control options | Potentiometer, inverter control selector switches |
| | PC-software<br>Parameter Stick | Configuration-, control- and diagnosis-tool, parameter saving and duplicating<br>For parameter duplicating |
| **Environmental and operating conditions** | Protection class | IP66 / NEMA4 |
| | Operating temperature | -10……+50 °C (-40 with optional antifreeze control) |
| | Humidity | 0 to 95% RH, non-condensing, non-corrosive |
| | Altitude | 1000 m, above 1% derating / 100m |
| | Vibration | Max. 1,0 g |
| **Power range** | 0,4……90 kW | |
| **Standards** | Electromagnetic compatibility | EN61800-3(2004) |
| | Safety | EN61800-5-1 2003 |

# EP 66 - Products and Framesizes

| Model | Motor power<br>Rated current | Framesize | Dimension<br>(W x H x D-mm) | Brake resistor<br>Min. value |
|---|---|---|---|---|
| EP66-0004S2 | 0.4kW - 2,5 A | I1 | 205x412x198 | 80 Ohm |
| EP66-0007S2 | 0.75kW - 4,5 A | | | |
| EP66-0015S2 | 1.5 kW - 7 A | | | |
| EP66-0022S2 | 2.2kW -10A | | | 60 Ohm |
| EP66-0004T2 | 0.4kW- 2.5A | | | 80 Ohm |
| EP66-0007T2 | 0.75kW - 4.5A | | | |
| EP66-0015T2 | 1.5kW - 7A | | | |
| EP66-0022T2 | 2.2kW - 10A | | | 60 Ohm |
| EP66-0004T3 | 0.4kW - 1.2A | | | 150 Ohm |
| EP66-0007T3 | 0.75kW - 2A | | | |
| EP66-0015T3 | 1.5kW - 4A | | | |
| EP66-0022T3 | 2.2kW - 6.5A | | | |
| EP66-0030T3 | 3.0kW - 7A | | | |
| EP66-0040T3 | 4.0kW - 9A | | | |
| EP66-0055T3 | 5.5kW - 12A | I2 | 246x420x198 | 100 Ohm |
| EP66-0075T3 | 7.5kW - 17A | | | |
| EP66-0110T3 | 11kW - 23A | I3 | 246x470x230 | |
| EP66-0150T3 | 15kW - 32A | | | 50 Ohm |
| EP66-0185T3 | 18.5kW - 38A | I4 | 246x650x326 | |
| EP66-0220T3 | 22kW - 44A | | | |
| EP66-0300T3 | 30kW - 60A | | | |
| EP66-0037T3 | 37kW - 75A | I5 | 308x680x376 | 20 Ohm |
| EP66-0450T3 | 45kW - 90A | | | |
| EP66-0550T3 | 55kW - 110A | | | |
| EP66-0750T3 | 75kW - 150A | I6 | 370x770x401 | 15 Ohm |
| EP66-0900T3 | 90kW - 180A | | | |

**OPTIONAL MAIN- / EMERGENCY SWITCH - INVERTER CONTROL**


**OPTIONAL BYPASS SWITCH**



**ROOM FOR BUILD-IN OPTIONALS**

FREQUENCY INVERTER

# E 2000Q

## 0.75 kW - 180 kW

- Full torque at zero speed (with closed loop VECTOR option)
- High overload capability: 200% for 2 sec.
- Smart brake control algorithm, for crane and hoist applications.
- Multiple motor control (open loop).
- Positioning function.
- Intelligent “no trip” functions, to guarantee reliable operation.
- Fault-memory and troubleshooting functions.

# E 2000Q - Technical product data

| | | |
|---|---|---|
| **Power input** | Rated Voltage Range | 3-phase 380 - 460V (+/-15%) |
| | Rated Frequency | 44/67Hz |
| **Motor output** | Output Voltage | 0.....Input voltage |
| | Output Frequency | 0.50-150.0Hz |
| **Motor output** | Carrier Frequency | 800~16000Hz; Fixed carrier-wave and random carrier-wave |
| | Input Frequency Resolution | Digital setting: 0.01Hz,<br>analog setting: max frequency0.1% |
| | Motor type | Asynchronus motor |
| **Control Mode** | Start Torque | 0.5HZ 100% (V/F), 0.5HZ 150% (SVC), 0HZ 180% (VC) |
| | Speed-control Range | 1:100 (SVC) ; 1:1000(VC) |
| | Speed precision | ±0.5% (SVC) ; ±0.02%(VC) |
| | Overload Capability | 150% rated current, 60 seconds.<br>200% rated current, 2seconds. |
| | Torque control | Auto torque promotion, manual Torque Promotion includes 1-20 curves. |
| | V/F Curve | Linear, square type and user-defined V/F curve. |
| | Torque precision | +/- 5% (SLV) |
| | DC-Brake | User programmable functions |
| | Auto voltage regulation (AVR) | To compensate power supply fluctuations |
| | Fixed frequencies, AUTOCYCLING function | Up to 15 fixed frequencies are programmable, including automatic cycling function. |
| | Acceleration/deceleration time selection | Linear or S curve |

| | | |
|---|---|---|
| **Control Mode** | Logic braking function | It can avoid inverter dropping down. |
| | Swift Lift Acceleration Function | Inverter will calculate max output frequency automatically at the light load status. |
| | Heavy load deceleration function | When load is too heavy, the load will not be raised up. |
| | Impact Stop Function | It can realize position limit in lifting situation. |
| | Motor Switch Function | Separate motors can be operated from a single drive. |
| | Suspending at zero speed in closed loop vector control mode | It can avoid heavy objects falling down when braking fault occurs. |
| | Decreasing speed with dropping voltage | When bus voltage is low consistently, output frequency will be decreased to keep inverter normal output, which will avoid under voltage fault during running process. |
| **Operation Function** | Frequency Setting | Potentiometer or external analog signal (0-5V, 0-10V, 0-20mA); keypad (terminal) ▲ ▲keys, external control logic and automatic circulation setting. |
| | Start/Stop Control | Terminal control, keypad control or communication control. |
| | Running Command Channels | 3 kinds of channels from keypad panel, control terminal and Modbus. |
| | Frequency Source | Frequency sources: given digit, given analog voltage, given analog current and given Modbus. |
| | Accessorial frequency Source | 7 kinds of accessorial frequency |
| **Optional** | Built-in EMI filter, built-in braking unit, Modbus, remote-control panel | |
| **Protection functions** | Input phase loss, output phase unbalance, under-voltage, over-voltage, over-current, inverter over-load, motor over-load, over-heat, under-load, pressure control, analog line disruption. | |
| **Display** | LED 7 segment display, for parameter and operating data display - programmable. | |
| **Environment Conditions** | Environment Temperature | -10°C - +50°C |
| | Humidity | Below 90% (no water-bead coagulation) |
| | Vibration | 1G |
| | Working altitude | 1000m, above derating - 10% / 100m |
| **Protection level** | IP20 | |
| **Applicable Motor** | 0.2-400kW | |

# E 2000Q - Products and Framesizes

| Model | Motor (kW) | Rated voltage | Rated Current | Structure Code | Remarks |
|---|---|---|---|---|---|
| E2000-0007T3F2BRQ | 0.75 | 380 | 2.0 | E2 | Three-Phase Plastic Hanging |
| E2000-0015T3F2BRQ | 1.5 | | 4.0 | | |
| E2000-0022T3F2BRQ | 2.2 | | 6.5 | | |
| E2000-0030T3F2BRQ | 3.0 | | 7.0 | E3 | |
| E2000-0040T3F2BRQ | 4.0 | | 9.0 | E4 | |
| E2000-0055T3F2BRQ | 5.5 | | 12.0 | | |
| E2000-0075T3F2BRQ | 7.5 | | 17.0 | E5 | |
| E2000-0110T3F2BRQ | 11 | | 23.0 | | |
| E2000-0150T3F2BRQ | 15 | | 32.0 | E6 | |
| E2000-0185T3F2BRQ | 18.5 | | 38.0 | | |
| E2000-0220T3F2BRQ | 22 | | 44.0 | C3 | Three-phase Metal hanging |
| E2000-0300T3F2BRQ | 30 | | 60 | | |
| E2000-0370T3F2BRQ | 37 | | 75 | C4 | |
| E2000-0450T3F2BRQ | 45 | | 90 | C5 | |
| E2000-0550T3F2BRQ | 55 | | 110 | | |
| E2000-0750T3F2BRQ | 75 | | 150 | | |
| E2000-0900T3F2BRQ | 90 | | 180 | C6 | |
| E2000-1100T3F2BRQ | 110 | | 220 | | |
| E2000-1320T3F2BRQ | 132 | | 265 | C7 | |
| E2000-1600T3F2BRQ | 160 | | 320 | C8 | |
| E2000-1800T3F2BRQ | 180 | | 360 | | |

CRANE

GANTRY

ELECTRIC HOIST

PERMANENT MAGNET MOTOR

# EVPM lighter, Smaller, better

**B3** 0.4 kW - 30 kW
**B5** 0.4 kW - 30 kW
**B14** 0.4 kW - 7.5 kW


- Permanent Magnet Synchronus Motors
- Treephase synchronus motors, based on IEC standard
- The economical alternative to IE3 asynchronus motors
- Highest efficiency: IE4=Short return of investment time
- Already compatible to future efficiency standards (IE4)
- Wide power range, from 0,4 to 30 kW, 230 / 400V, 1500/3000 rpm with Flange B3, B5, B14

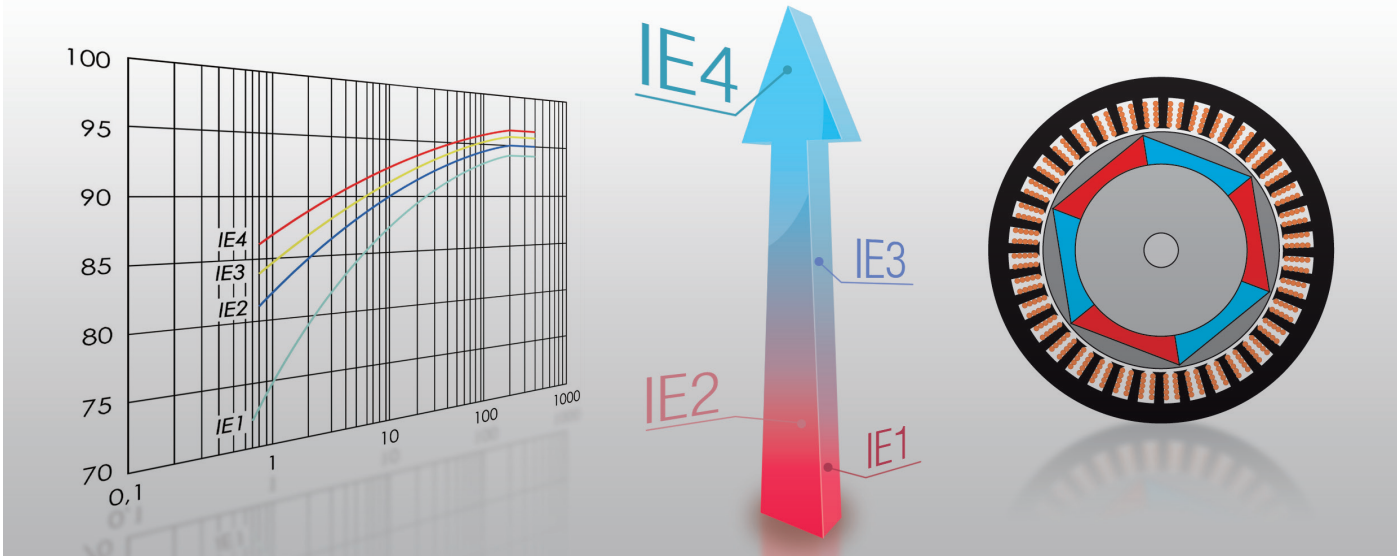
# EVPM - Technical product data - B3

| Motor Flange B3 | Rated Voltage | 3~Mot | Pole | Rated Power | Rated Speed | Efficiency | Rated Current | Rated Torque | Peak Torque | Siz | BEMF V/krpm | Connec-tion | Duty type | Weight | Fre-quency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | | Pole | kW | rpm | % | A | Nm | Nm | | | | | Kg | Hz |
| EVMP-401IN2Y063D15A03 | 230 | 3~Mot | 4 | i0,4 | 1500 | 86,9 | 2,4 | 2,54 | 5,08 | 63 | 120 | Y | S1 | 3,5 | 50 |
| EVMP-751IN2Y071D15A03 | 230 | 3~Mot | 4 | 0,75 | 1500 | 85,6 | 3,4 | 4,8 | 9,6 | 71 | 120 | Y | S1 | 5,4 | 50 |
| EVMP-112IN2Y071D15A03 | 230 | 3~Mot | 4 | 1,1 | 1500 | 87,4 | 4,9 | 7 | 14 | 71 | 120 | Y | S1 | 9 | 50 |
| EVMP-152IN2Y090D15A03 | 230 | 3~Mot | 4 | 1,5 | 1500 | 88,1 | 6,6 | 9,6 | 19,2 | 90L | 120 | Y | S1 | 14 | 50 |
| EVMP-222IN2Y090D15A03 | 230 | 3~Mot | 4 | 2,2 | 1500 | 89,7 | 9,4 | 14 | 28 | 90L | 120 | Y | S1 | 17 | 50 |
| EVMP-751IN4Y071D15A03 | 400 | 3~Mot | 4 | 0,75 | 1500 | 85,6 | 1,7 | 4,8 | 9,6 | 71 | 220 | Y | S1 | 5,4 | 50 |
| EVMP-112IN4Y071D15A03 | 400 | 3~Mot | 4 | 1,1 | 1500 | 87,4 | 2,45 | 7 | 14 | 71 | 220 | Y | S1 | 9 | 50 |
| EVMP-152IN4Y090D15A03 | 400 | 3~Mot | 4 | 1,5 | 1500 | 88,1 | 3,3 | 9,6 | 19,2 | 90L | 220 | Y | S1 | 14 | 50 |
| EVMP-222IN4Y090D15A03 | 400 | 3~Mot | 4 | 2,2 | 1500 | 89,7 | 4,7 | 14 | 28 | 90L | 220 | Y | S1 | 17 | 50 |
| EVMP-302IN4Y090D15A03 | 400 | 3~Mot | 4 | 3 | 1500 | 90,3 | 6,4 | 19,1 | 38,2 | 90L | 220 | Y | S1 | 21 | 50 |
| EVMP-402IN4Y112D15A03 | 400 | 3~Mot | 4 | 4 | 1500 | 90,9 | 8,6 | 25,5 | 51 | 112M | 220 | Y | S1 | 24 | 50 |
| EVMP-552IN4Y112D15A03 | 400 | 3~Mot | 4 | 5,5 | 1500 | 92,1 | 11,6 | 35 | 70 | 112M | 220 | Y | S1 | 30 | 50 |
| EVMP-752IN4Y112D15A03 | 400 | 3~Mot | 4 | 7,5 | 1500 | 92,6 | 16 | 47,8 | 95,6 | 112M | 220 | Y | S1 | 36 | 50 |
| EVMP-113IN4Y132D15A03 | 400 | 3~Mot | 4 | 11 | 1500 | 93,6 | 22 | 70 | 140 | 132M | 220 | Y | S1 | 57 | 50 |
| EVMP-153IN4Y132D15A03 | 400 | 3~Mot | 4 | 15 | 1500 | 94 | 30,9 | 95,5 | 191 | 132M | 220 | Y | S1 | 72 | 50 |
| EVMP-183IN4Y160D15A03 | 400 | 3~Mot | 4 | 18,5 | 1500 | 94,3 | 37,8 | 117,8 | 235,6 | 160L | 220 | Y | S1 | 97 | 50 |
| EVMP-223IN4Y160D15A03 | 400 | 3~Mot | 4 | 22 | 1500 | 94,7 | 45 | 140 | 280 | 160L | 220 | Y | S1 | 106 | 50 |
| EVMP-303IN4Y160D15A03 | 400 | 3~Mot | 4 | 30 | 1500 | 95 | 61 | 191 | 382 | 160L | 220 | Y | S1 | 135 | 50 |
| | | | | | | | | | | | | | | | |
| EVMP-401IN2Y063D30A03 | 230 | 3~Mot | 4 | 0,4 | 3000 | 86,9 | 2,4 | 1,27 | 2,54 | 63 | 67 | Y | S1 | 3 | 100 |
| EVMP-751IN2Y071D30A03 | 230 | 3~Mot | 4 | 0,75 | 3000 | 88,6 | 3,4 | 2,4 | 4,8 | 71 | 67 | Y | S1 | 5,4 | 100 |
| EVMP-112IN2Y071D30A03 | 230 | 3~Mot | 4 | 1,1 | 3000 | 89,8 | 4,9 | 3,5 | 7 | 71 | 67 | Y | S1 | 7,5 | 100 |
| EVMP-152IN2Y090D30A03 | 230 | 3~Mot | 4 | 1,5 | 3000 | 90,9 | 6,6 | 4,8 | 9,6 | 90S | 67 | Y | S1 | 10 | 100 |
| EVMP-222IN2Y090D30A03 | 230 | 3~Mot | 4 | 2,2 | 3000 | 91,8 | 9,4 | 7 | 14 | 90S | 67 | Y | S1 | 15 | 100 |
| EVMP-751IN4Y071D30A03 | 400 | 3~Mot | 4 | 0,75 | 3000 | 88,6 | 1,7 | 2,4 | 4,8 | 71 | 120 | Y | S1 | 5,4 | 100 |
| EVMP-112IN4Y071D30A03 | 400 | 3~Mot | 4 | 1,1 | 3000 | 89,8 | 2,45 | 3,5 | 7 | 71 | 120 | Y | S1 | 7,5 | 100 |
| EVMP-152IN4Y090D30A03 | 400 | 3~Mot | 4 | 1,5 | 3000 | 90,9 | 3,3 | 4,8 | 9,6 | 90S | 120 | Y | S1 | 10 | 100 |
| EVMP-222IN4Y090D30A03 | 400 | 3~Mot | 4 | 2,2 | 3000 | 91,8 | 4,7 | 7 | 14 | 90S | 120 | Y | S1 | 15 | 100 |
| EVMP-302IN4Y090D30A03 | 400 | 3~Mot | 4 | 3 | 3000 | 92,6 | 6,4 | 9,55 | 19,1 | 90S | 120 | Y | S1 | 16 | 100 |
| EVMP-402IN4Y112D30A03 | 400 | 3~Mot | 4 | 4 | 3000 | 93,3 | 8,6 | 12,8 | 25,6 | 112M | 120 | Y | S1 | 20 | 100 |
| EVMP-552IN4Y112D30A03 | 400 | 3~Mot | 4 | 5,5 | 3000 | 94 | 11,6 | 17,5 | 35 | 112M | 120 | Y | S1 | 28 | 100 |
| EVMP-752IN4Y112D30A03 | 400 | 3~Mot | 4 | 7,5 | 3000 | 94,5 | 16 | 24 | 48 | 112M | 120 | Y | S1 | 30 | 100 |
| EVMP-113IN4Y132D30A03 | 400 | 3~Mot | 4 | 11 | 3000 | 95 | 22 | 35 | 70 | 132S | 120 | Y | S1 | 45 | 100 |
| EVMP-153IN4Y132D30A03 | 400 | 3~Mot | 4 | 15 | 3000 | 95,3 | 30,9 | 47,75 | 95,5 | 132S | 120 | Y | S1 | 60 | 100 |
| EVMP-183IN4Y160D30A03 | 400 | 3~Mot | 4 | 18,5 | 3000 | 95,6 | 37,8 | 59 | 118 | 160M | 120 | Y | S1 | 80 | 100 |
| EVMP-223IN4Y160D30A03 | 400 | 3~Mot | 4 | 22 | 3000 | 95,9 | 45 | 70 | 140 | 160M | 120 | Y | S1 | 86 | 100 |
| EVMP-303IN4Y160D30A03 | 400 | 3~Mot | 4 | 30 | 3000 | 96,1 | 61 | 95,5 | 191 | 160M | 120 | Y | S1 | 95 | 100 |

- **More efficient:** Adopts high performance rare-earth permanent magnet materials, use special stator slots shape and rotor structure, motor efficiency can reach standard IE4.
- **Smaller Size:** Smaller 1~2 size than induction motor in same power, compact volume.
- **More reliability:** Current decrease, temperature rise lower, longer life.
- **Higher performance:** Smaller rotary inertia, bigger starting torque, wider running frequency.
- **Easy control:** Frequency conversion vector control mode, high control precision.
- **Better applicability:** Can be used in mal-condition, even in the occasion of long-time low-speed running and frequent starting.

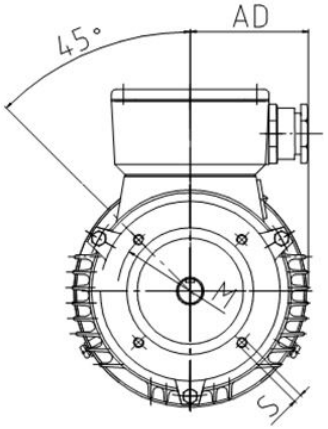
# EVPM - Technical product data - B5

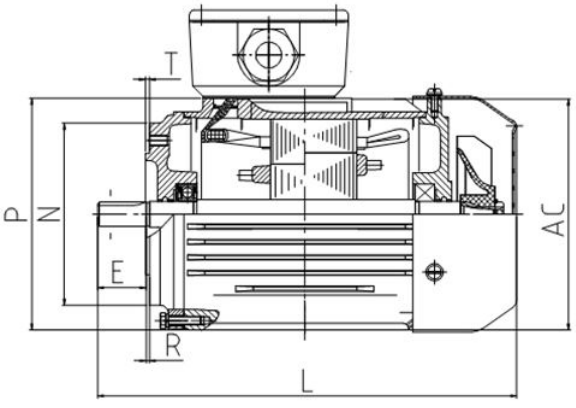
| Motor Flange B5 | Rated Voltage | 3~Mot | Pole | Rated Power | Rated Speed | Efficiency | Rated Current | Rated Tor-que | Peak Tor-que | Size | BEMF V/krpm | Connec-tion | Duty type | Weight | Fre-quency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | | Pole | kW | rpm | % | A | Nm | Nm | | | | | Kg | Hz |
| EVMP-401IN2Y063D15A05 | 230 | 3~Mot | 4 | 0,4 | 1500 | 86,9 | 2,4 | 2,54 | 5,08 | 63 | 120 | Y | S1 | 3,5 | 50 |
| EVMP-751IN2Y071D15A05 | 230 | 3~Mot | 4 | 0,75 | 1500 | 85,6 | 3,4 | 4,8 | 9,6 | 71 | 120 | Y | S1 | 5,4 | 50 |
| EVMP-112IN2Y071D15A05 | 230 | 3~Mot | 4 | 1,1 | 1500 | 87,4 | 4,9 | 7 | 14 | 71 | 120 | Y | S1 | 9 | 50 |
| EVMP-152IN2Y090D15A05 | 230 | 3~Mot | 4 | 1,5 | 1500 | 88,1 | 6,6 | 9,6 | 19,2 | 90L | 120 | Y | S1 | 14 | 50 |
| EVMP-222IN2Y090D15A05 | 230 | 3~Mot | 4 | 2,2 | 1500 | 89,7 | 9,4 | 14 | 28 | 90L | 120 | Y | S1 | 17 | 50 |
| EVMP-751IN4Y071D15A05 | 400 | 3~Mot | 4 | 0,75 | 1500 | 85,6 | 1,7 | 4,8 | 9,6 | 71 | 220 | Y | S1 | 5,4 | 50 |
| EVMP-112IN4Y071D15A05 | 400 | 3~Mot | 4 | 1,1 | 1500 | 87,4 | 2,45 | 7 | 14 | 71 | 220 | Y | S1 | 9 | 50 |
| EVMP-152IN4Y090D15A05 | 400 | 3~Mot | 4 | 1,5 | 1500 | 88,1 | 3,3 | 9,6 | 19,2 | 90L | 220 | Y | S1 | 14 | 50 |
| EVMP-222IN4Y090D15A05 | 400 | 3~Mot | 4 | 2,2 | 1500 | 89,7 | 4,7 | 14 | 28 | 90L | 220 | Y | S1 | 17 | 50 |
| EVMP-302IN4Y090D15A05 | 400 | 3~Mot | 4 | 3 | 1500 | 90,3 | 6,4 | 19,1 | 38,2 | 90L | 220 | Y | S1 | 21 | 50 |
| EVMP-402IN4Y112D15A05 | 400 | 3~Mot | 4 | 4 | 1500 | 90,9 | 8,6 | 25,5 | 51 | 112M | 220 | Y | S1 | 24 | 50 |
| EVMP-552IN4Y112D15A05 | 400 | 3~Mot | 4 | 5,5 | 1500 | 92,1 | 11,6 | 35 | 70 | 112M | 220 | Y | S1 | 30 | 50 |
| EVMP-752IN4Y112D15A05 | 400 | 3~Mot | 4 | 7,5 | 1500 | 92,6 | 16 | 47,8 | 95,6 | 112M | 220 | Y | S1 | 36 | 50 |
| EVMP-113IN4Y132D15A05 | 400 | 3~Mot | 4 | 11 | 1500 | 93,6 | 22 | 70 | 140 | 132M | 220 | Y | S1 | 57 | 50 |
| EVMP-153IN4Y132D15A05 | 400 | 3~Mot | 4 | 15 | 1500 | 94 | 30,9 | 95,5 | 191 | 132M | 220 | Y | S1 | 72 | 50 |
| EVMP-183IN4Y160D15A05 | 400 | 3~Mot | 4 | 18,5 | 1500 | 94,3 | 37,8 | 117,8 | 235,6 | 160L | 220 | Y | S1 | 97 | 50 |
| EVMP-223IN4Y160D15A05 | 400 | 3~Mot | 4 | 22 | 1500 | 94,7 | 45 | 140 | 280 | 160L | 220 | Y | S1 | 106 | 50 |
| EVMP-303IN4Y160D15A05 | 400 | 3~Mot | 4 | 30 | 1500 | 95 | 61 | 191 | 382 | 160L | 220 | Y | S1 | 135 | 50 |
| | | | | | | | | | | | | | | | |
| EVMP-401IN2Y063D30A05 | 230 | 3~Mot | 4 | 0,4 | 3000 | 86,9 | 2,4 | 1,27 | 2,54 | 63 | 67 | Y | S1 | 3 | 100 |
| EVMP-751IN2Y071D30A05 | 230 | 3~Mot | 4 | 0,75 | 3000 | 88,6 | 3,4 | 2,4 | 4,8 | 71 | 67 | Y | S1 | 5,4 | 100 |
| EVMP-112IN2Y071D30A05 | 230 | 3~Mot | 4 | 1,1 | 3000 | 89,8 | 4,9 | 3,5 | 7 | 71 | 67 | Y | S1 | 7,5 | 100 |
| EVMP-152IN2Y090D30A05 | 230 | 3~Mot | 4 | 1,5 | 3000 | 90,9 | 6,6 | 4,8 | 9,6 | 90S | 67 | Y | S1 | 10 | 100 |
| EVMP-222IN2Y090D30A05 | 230 | 3~Mot | 4 | 2,2 | 3000 | 91,8 | 9,4 | 7 | 14 | 90S | 67 | Y | S1 | 15 | 100 |
| EVMP-751IN4Y071D30A05 | 400 | 3~Mot | 4 | 0,75 | 3000 | 88,6 | 1,7 | 2,4 | 4,8 | 71 | 120 | Y | S1 | 5,4 | 100 |
| EVMP-112IN4Y071D30A05 | 400 | 3~Mot | 4 | 1,1 | 3000 | 89,8 | 2,45 | 3,5 | 7 | 71 | 120 | Y | S1 | 7,5 | 100 |
| EVMP-152IN4Y090D30A05 | 400 | 3~Mot | 4 | 1,5 | 3000 | 90,9 | 3,3 | 4,8 | 9,6 | 90S | 120 | Y | S1 | 10 | 100 |
| EVMP-222IN4Y090D30A05 | 400 | 3~Mot | 4 | 2,2 | 3000 | 91,8 | 4,7 | 7 | 14 | 90S | 120 | Y | S1 | 15 | 100 |
| EVMP-302IN4Y090D30A05 | 400 | 3~Mot | 4 | 3 | 3000 | 92,6 | 6,4 | 9,55 | 19,1 | 90S | 120 | Y | S1 | 16 | 100 |
| EVMP-402IN4Y112D30A05 | 400 | 3~Mot | 4 | 4 | 3000 | 93,3 | 8,6 | 12,8 | 25,6 | 112M | 120 | Y | S1 | 20 | 100 |
| EVMP-552IN4Y112D30A05 | 400 | 3~Mot | 4 | 5,5 | 3000 | 94 | 11,6 | 17,5 | 35 | 112M | 120 | Y | S1 | 28 | 100 |
| EVMP-752IN4Y112D30A05 | 400 | 3~Mot | 4 | 7,5 | 3000 | 94,5 | 16 | 24 | 48 | 112M | 120 | Y | S1 | 30 | 100 |
| EVMP-113IN4Y132D30A05 | 400 | 3~Mot | 4 | 11 | 3000 | 95 | 22 | 35 | 70 | 132S | 120 | Y | S1 | 45 | 100 |
| EVMP-153IN4Y132D30A05 | 400 | 3~Mot | 4 | 15 | 3000 | 95,3 | 30,9 | 47,75 | 95,5 | 132S | 120 | Y | S1 | 60 | 100 |
| EVMP-183IN4Y160D30A05 | 400 | 3~Mot | 4 | 18,5 | 3000 | 95,6 | 37,8 | 59 | 118 | 160M | 120 | Y | S1 | 80 | 100 |
| EVMP-223IN4Y160D30A05 | 400 | 3~Mot | 4 | 22 | 3000 | 95,9 | 45 | 70 | 140 | 160M | 120 | Y | S1 | 86 | 100 |
| EVMP-303IN4Y160D30A05 | 400 | 3~Mot | 4 | 30 | 3000 | 96,1 | 61 | 95,5 | 191 | 160M | 120 | Y | S1 | 95 | 100 |

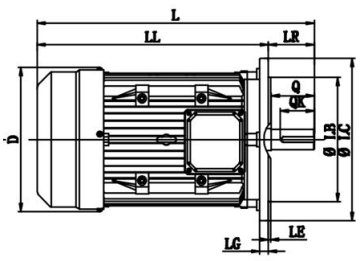


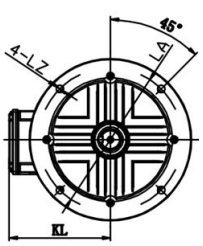
# EVPM - Technical product data - B14

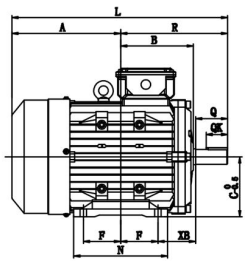
| Motor Flange B14 | Rated Voltage | 3~Mot | Pole | Rated Power | Rated Speed | Efficiency | Rated Current | Rated Torque | Peak Torque | Size | BEMF V/krpm | Connec-tion | Duty type | Weight | Fre-quency |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | V | | Pole | kW | rpm | % | A | Nm | Nm | | | | | Kg | Hz |
| EVMP-401IN2Y063D15A14 | 230 | 3~Mot | 4 | 0,4 | 1500 | 86,9 | 2,4 | 2,54 | 5,08 | 63 | 120 | Y | S1 | 3,5 | 50 |
| EVMP-751IN2Y071D15A14 | 230 | 3~Mot | 4 | 0,75 | 1500 | 85,6 | 3,4 | 4,8 | 9,6 | 71 | 120 | Y | S1 | 5,4 | 50 |
| EVMP-112IN2Y071D15A14 | 230 | 3~Mot | 4 | 1,1 | 1500 | 87,4 | 4,9 | 7 | 14 | 71 | 120 | Y | S1 | 9 | 50 |
| EVMP-152IN2Y090D15A14 | 230 | 3~Mot | 4 | 1,5 | 1500 | 88,1 | 6,6 | 9,6 | 19,2 | 90L | 120 | Y | S1 | 14 | 50 |
| EVMP-222IN2Y090D15A14 | 230 | 3~Mot | 4 | 2,2 | 1500 | 89,7 | 9,4 | 14 | 28 | 90L | 120 | Y | S1 | 17 | 50 |
| EVMP-751IN4Y071D15A14 | 400 | 3~Mot | 4 | 0,75 | 1500 | 85,6 | 1,7 | 4,8 | 9,6 | 71 | 220 | Y | S1 | 5,4 | 50 |
| EVMP-112IN4Y071D15A14 | 400 | 3~Mot | 4 | 1,1 | 1500 | 87,4 | 2,45 | 7 | 14 | 71 | 220 | Y | S1 | 9 | 50 |
| EVMP-152IN4Y090D15A14 | 400 | 3~Mot | 4 | 1,5 | 1500 | 88,1 | 3,3 | 9,6 | 19,2 | 90L | 220 | Y | S1 | 14 | 50 |
| EVMP-222IN4Y090D15A14 | 400 | 3~Mot | 4 | 2,2 | 1500 | 89,7 | 4,7 | 14 | 28 | 90L | 220 | Y | S1 | 17 | 50 |
| EVMP-302IN4Y090D15A14 | 400 | 3~Mot | 4 | 3 | 1500 | 90,3 | 6,4 | 19,1 | 38,2 | 90L | 220 | Y | S1 | 21 | 50 |
| EVMP-402IN4Y112D15A14 | 400 | 3~Mot | 4 | 4 | 1500 | 90,9 | 8,6 | 25,5 | 51 | 112M | 220 | Y | S1 | 24 | 50 |
| EVMP-552IN4Y112D15A14 | 400 | 3~Mot | 4 | 5,5 | 1500 | 92,1 | 11,6 | 35 | 70 | 112M | 220 | Y | S1 | 30 | 50 |
| EVMP-752IN4Y112D15A14 | 400 | 3~Mot | 4 | 7,5 | 1500 | 92,6 | 16 | 47,8 | 95,6 | 112M | 220 | Y | S1 | 36 | 50 |
| | | | | | | | | | | | | | | | |
| EVMP-401IN2Y063D30A14 | 230 | 3~Mot | 4 | 0,4 | 3000 | 86,9 | 2,4 | 1,27 | 2,54 | 63 | 67 | Y | S1 | 3 | 100 |
| EVMP-751IN2Y071D30A14 | 230 | 3~Mot | 4 | 0,75 | 3000 | 88,6 | 3,4 | 2,4 | 4,8 | 71 | 67 | Y | S1 | 5,4 | 100 |
| EVMP-112IN2Y071D30A14 | 230 | 3~Mot | 4 | 1,1 | 3000 | 89,8 | 4,9 | 3,5 | 7 | 71 | 67 | Y | S1 | 7,5 | 100 |
| EVMP-152IN2Y090D30A14 | 230 | 3~Mot | 4 | 1,5 | 3000 | 90,9 | 6,6 | 4,8 | 9,6 | 90S | 67 | Y | S1 | 10 | 100 |
| EVMP-222IN2Y090D30A14 | 230 | 3~Mot | 4 | 2,2 | 3000 | 91,8 | 9,4 | 7 | 14 | 90S | 67 | Y | S1 | 15 | 100 |
| EVMP-751IN4Y071D30A14 | 400 | 3~Mot | 4 | 0,75 | 3000 | 88,6 | 1,7 | 2,4 | 4,8 | 71 | 120 | Y | S1 | 5,4 | 100 |
| EVMP-112IN4Y071D30A14 | 400 | 3~Mot | 4 | 1,1 | 3000 | 89,8 | 2,45 | 3,5 | 7 | 71 | 120 | Y | S1 | 7,5 | 100 |
| EVMP-152IN4Y090D30A14 | 400 | 3~Mot | 4 | 1,5 | 3000 | 90,9 | 3,3 | 4,8 | 9,6 | 90S | 120 | Y | S1 | 10 | 100 |
| EVMP-222IN4Y090D30A14 | 400 | 3~Mot | 4 | 2,2 | 3000 | 91,8 | 4,7 | 7 | 14 | 90S | 120 | Y | S1 | 15 | 100 |
| EVMP-302IN4Y090D30A14 | 400 | 3~Mot | 4 | 3 | 3000 | 92,6 | 6,4 | 9,55 | 19,1 | 90S | 120 | Y | S1 | 16 | 100 |
| EVMP-402IN4Y112D30A14 | 400 | 3~Mot | 4 | 4 | 3000 | 93,3 | 8,6 | 12,8 | 25,6 | 112M | 120 | Y | S1 | 20 | 100 |
| EVMP-552IN4Y112D30A14 | 400 | 3~Mot | 4 | 5,5 | 3000 | 94 | 11,6 | 17,5 | 35 | 112M | 120 | Y | S1 | 28 | 100 |
| EVMP-752IN4Y112D30A14 | 400 | 3~Mot | 4 | 7,5 | 3000 | 94,5 | 16 | 24 | 48 | 112M | 120 | Y | S1 | 30 | 100 |

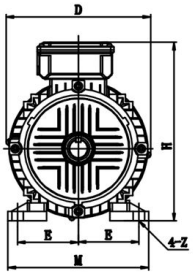


# APPLICATION

WATER SUPPLY - BOOSTER STATION

ESCALATOR / ELEVATOR CONTROL

MIXER - BIO-ENERGY PLANTS

WASTEWATER TREATMENT

AIR CONDITIONING - HEATING

MATERIAL HANDLING - CONVEYORS -PACKAGING MACHINES

BUILDING AUTOMATION

TEXTILE MACHINERY - FIBER PROCESSING

PROCESS COOLING / REFRIGERATION

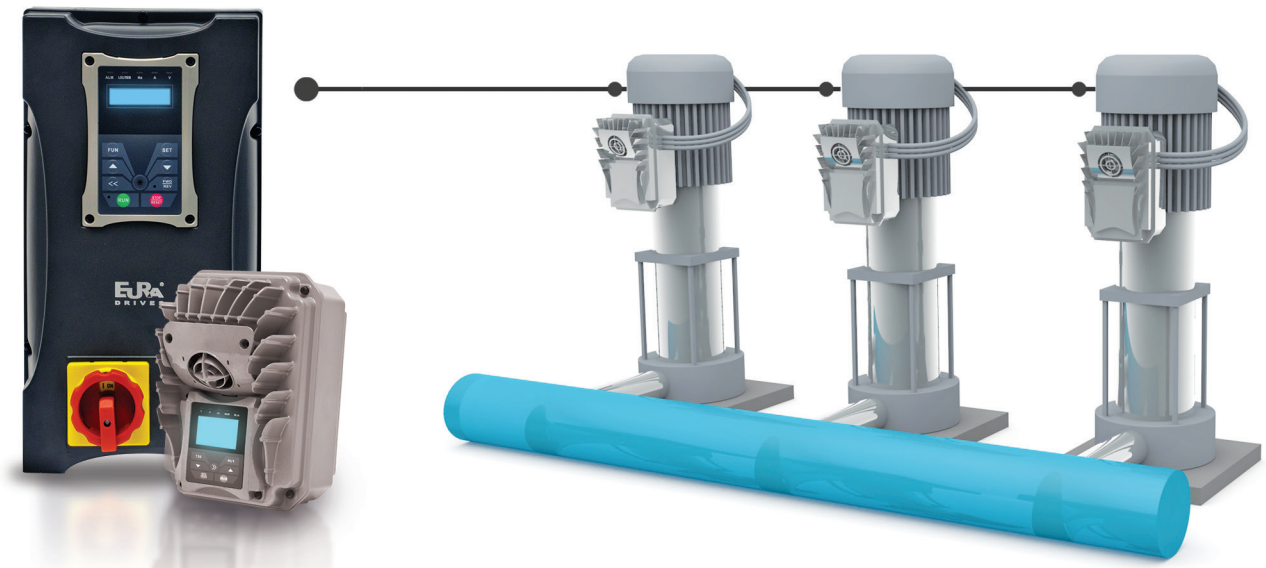
COMPRESSORS

VENTILATION - BLOWER

WASHING - DYING MACHINES

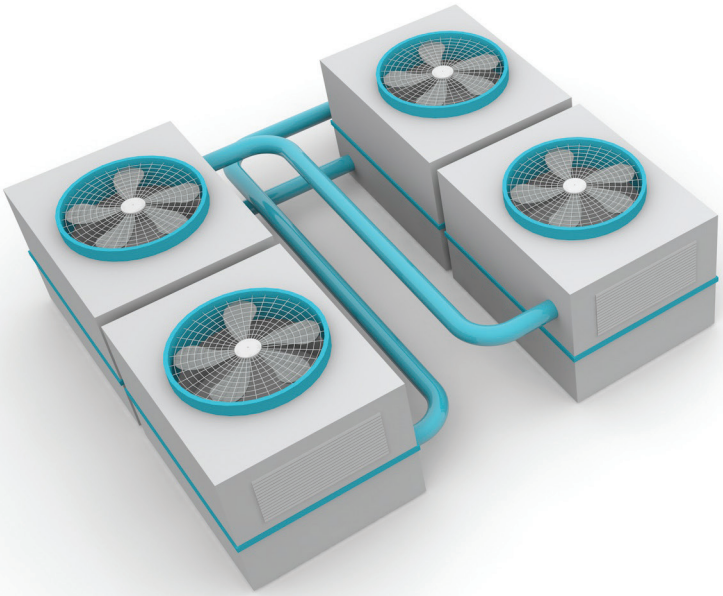
**EURA Drives Products are assembled on modern high speed lines, using high quality components from first class vendors. This is the guarantee for cost efficiency, reliability and absolute quality. The modular concept, easy configurability, and a lot of different setup parameters make our products suitable for the high volume OEM-market and simple applications as well.**

## WATER SUPPLY - BOOSTER STATION

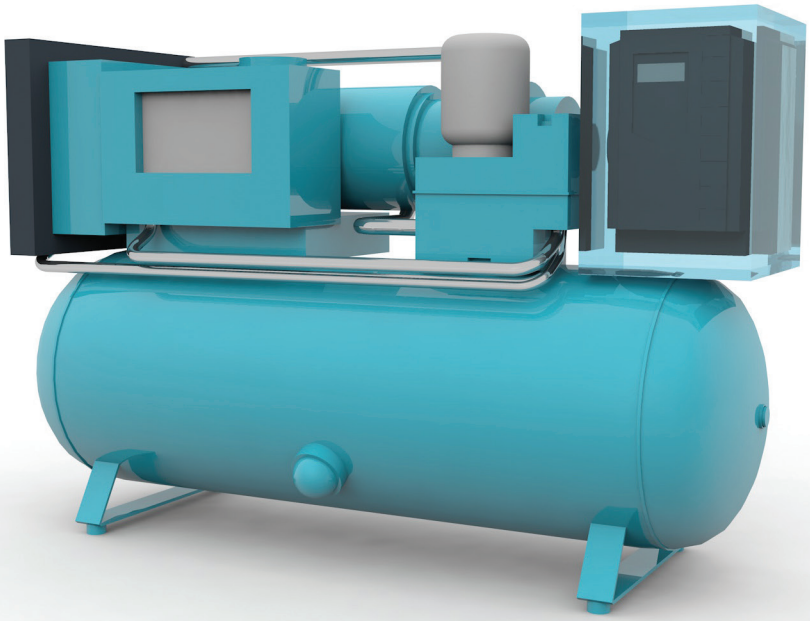


## ESCALATOR / ELEVATOR CONTROL

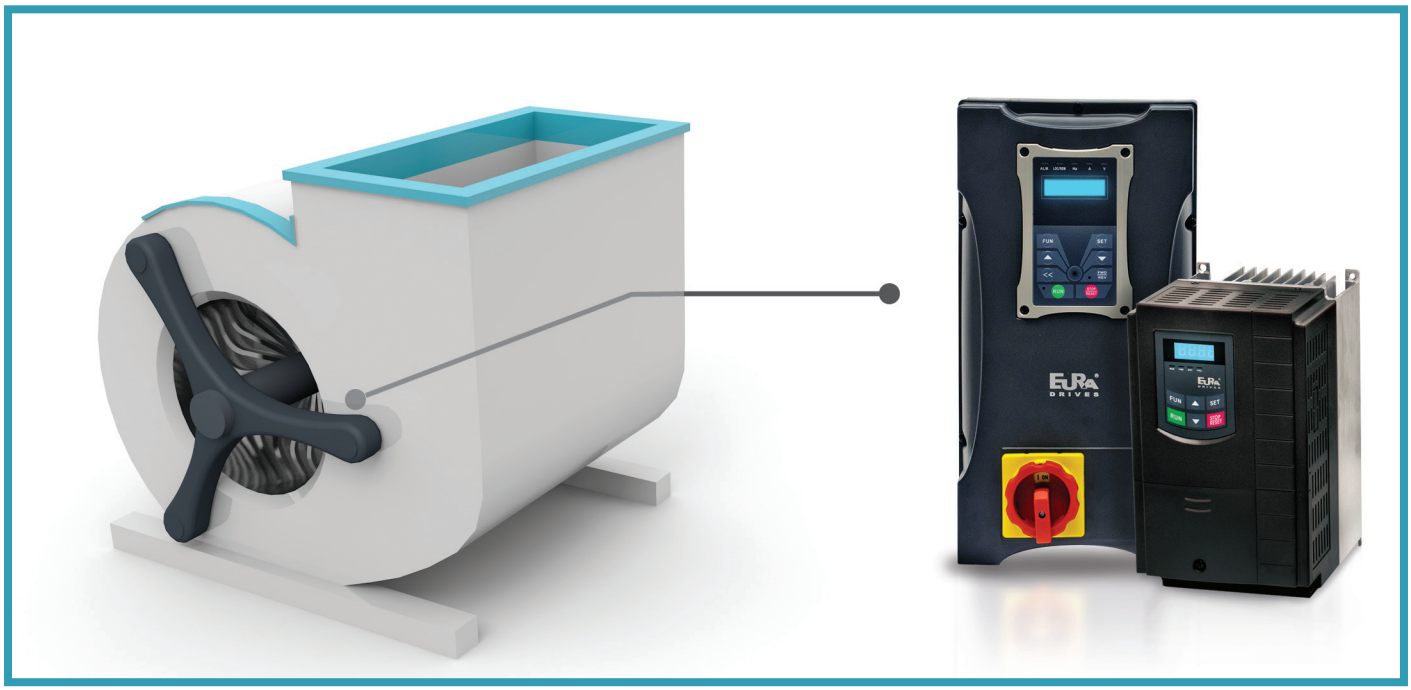
## PROCESS COOLING / REFRIGERATION



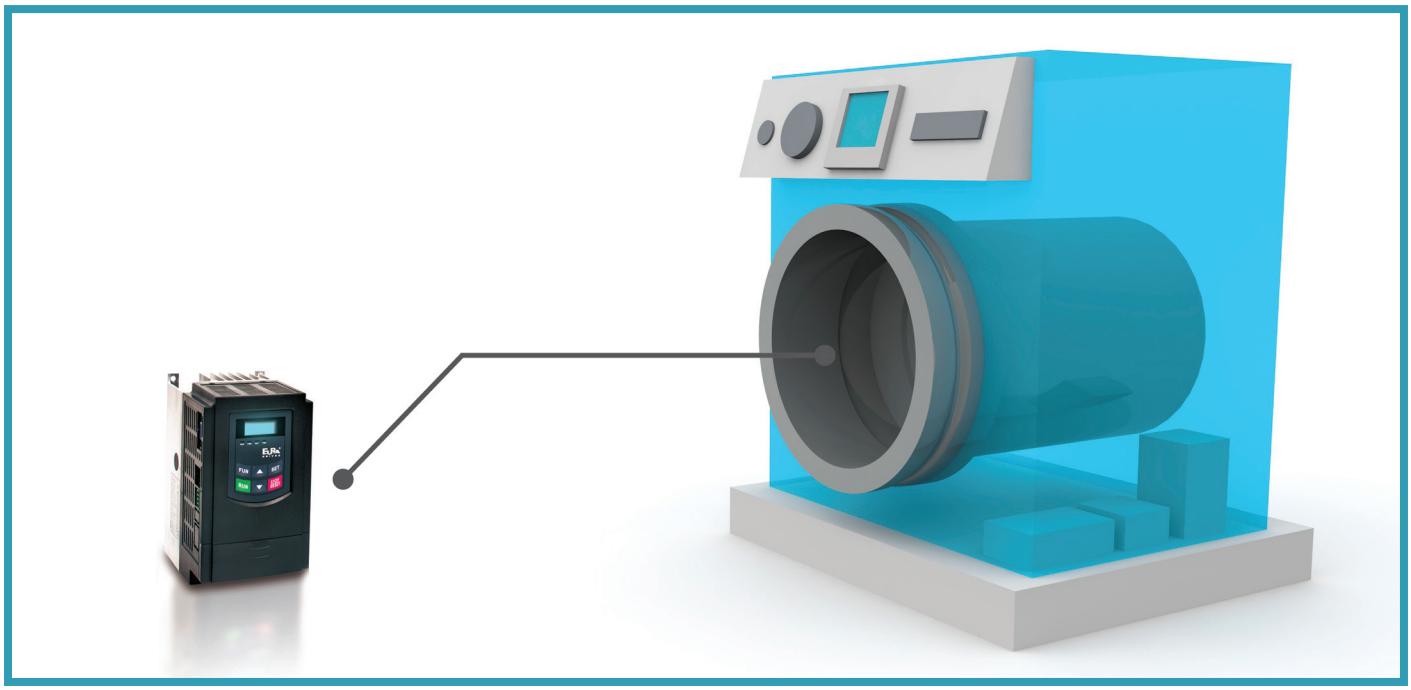
## COMPRESSORS



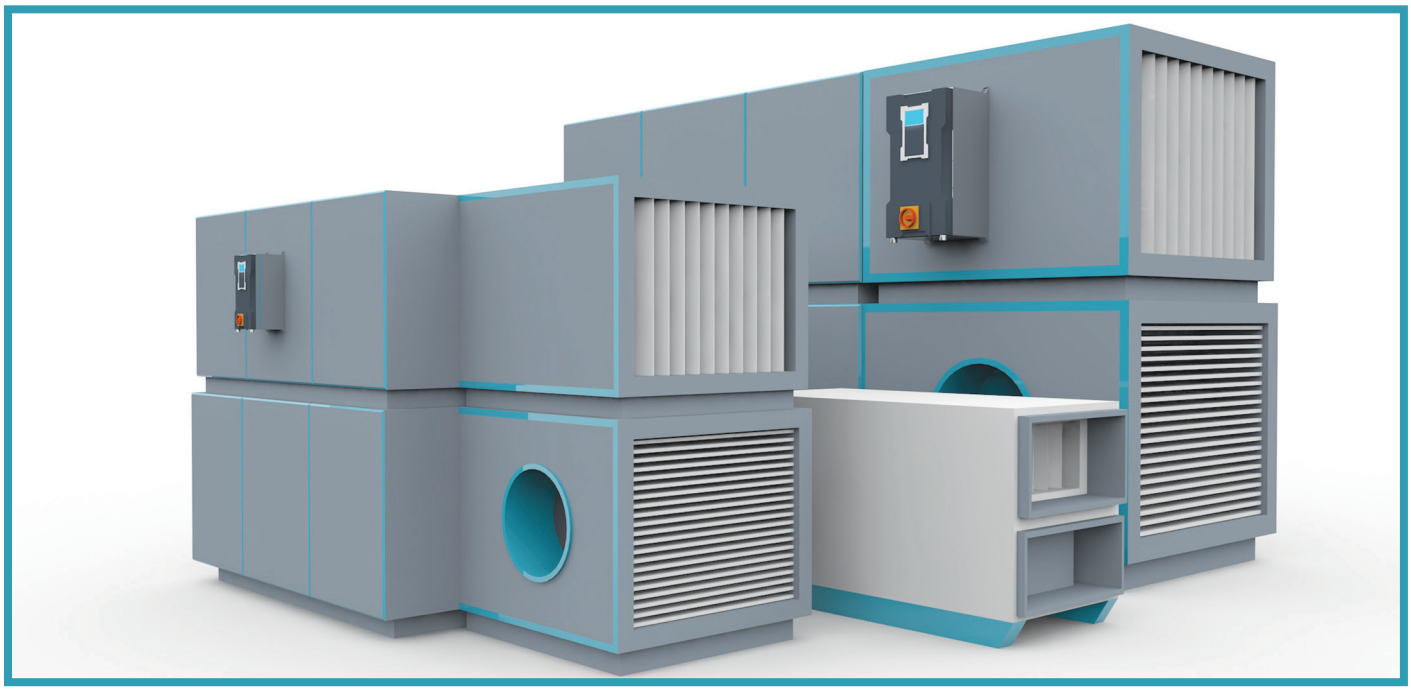
## VENTILATION - BLOWER



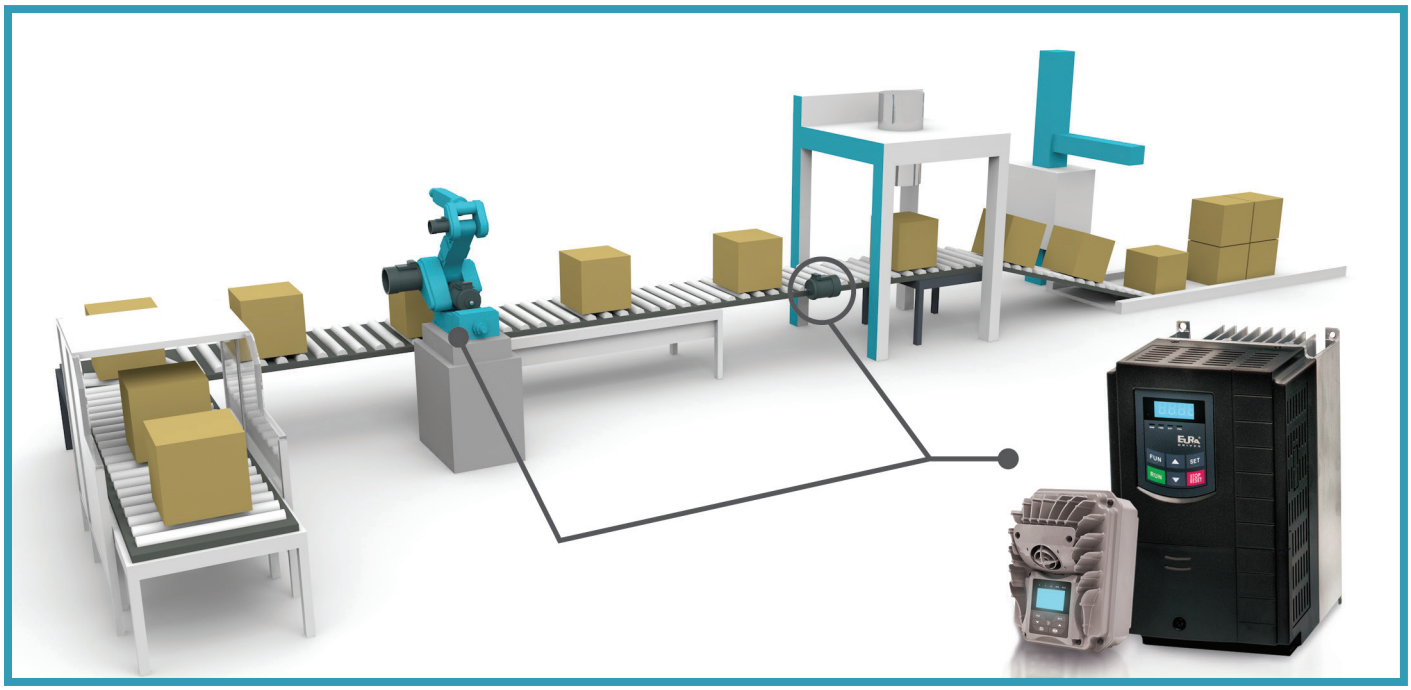
## WASHING - DYING MACHINES



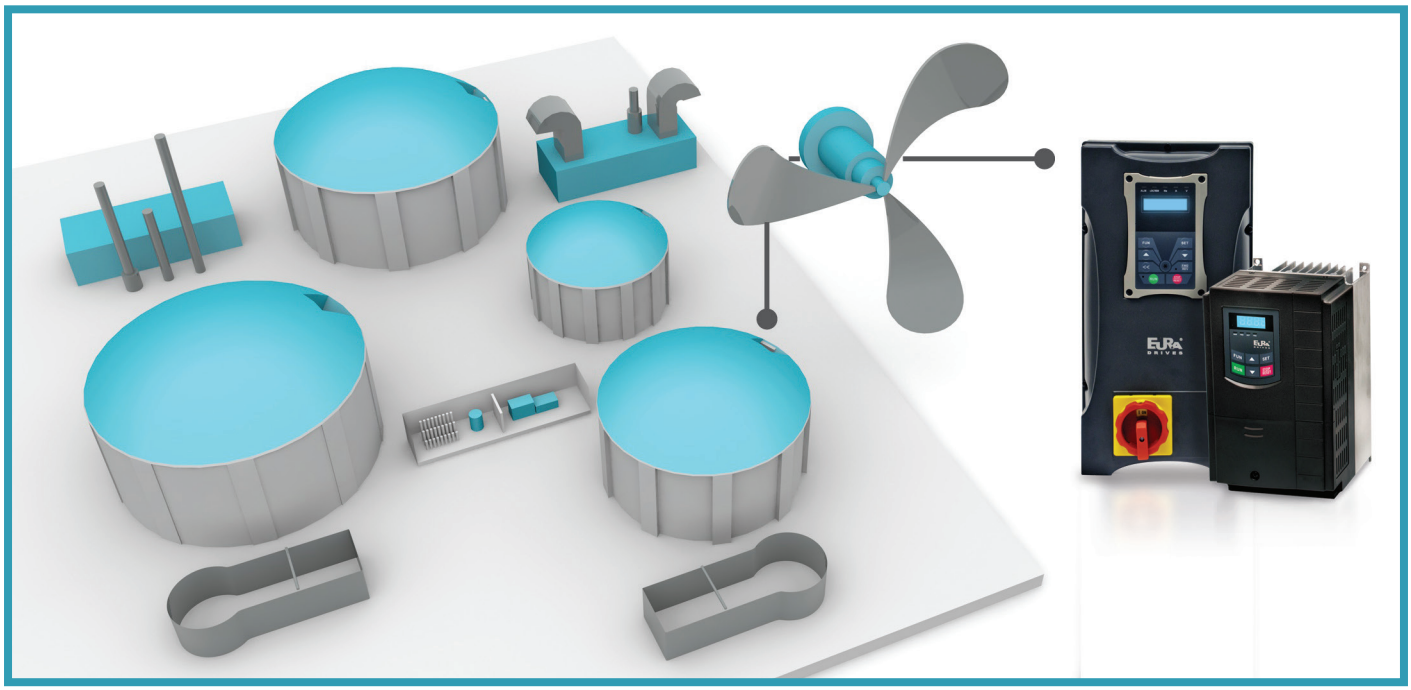
## AIR CONDITIONING - HEATING



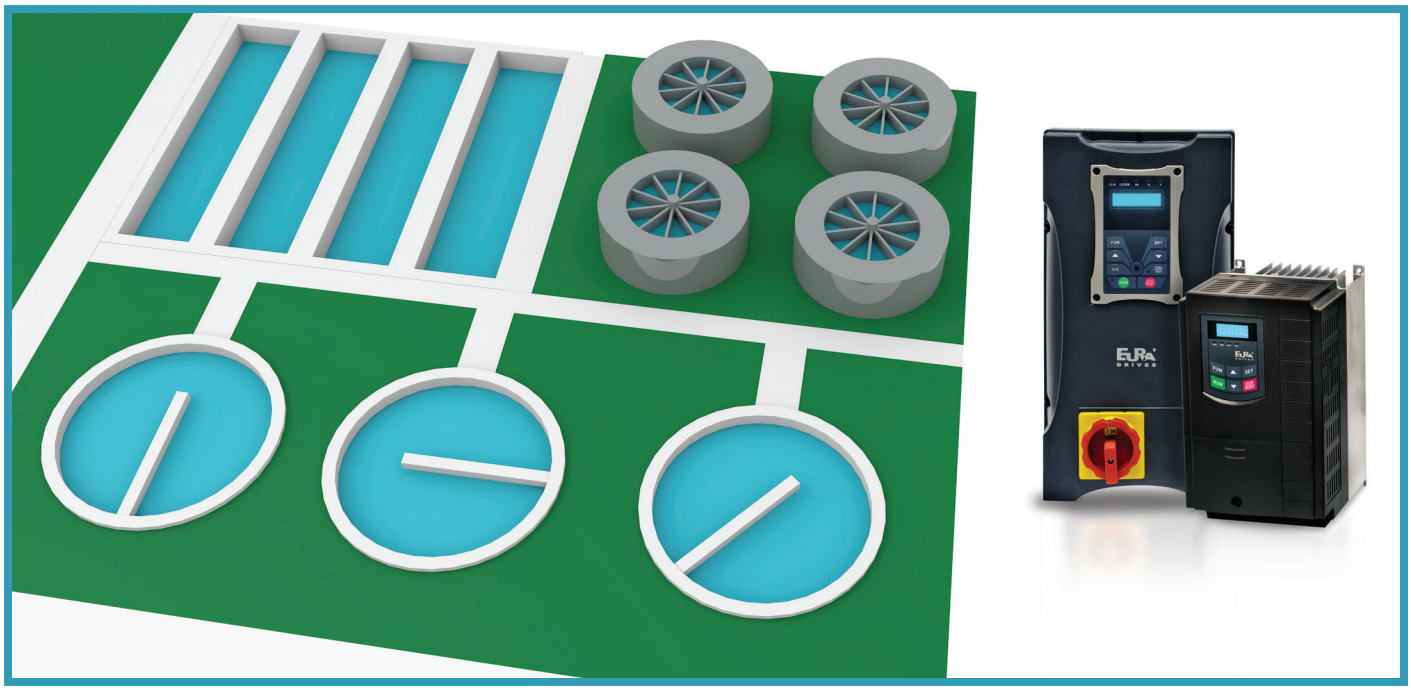
## MATERIAL HANDLING - CONVEYORS - PACKAGING MACHINES



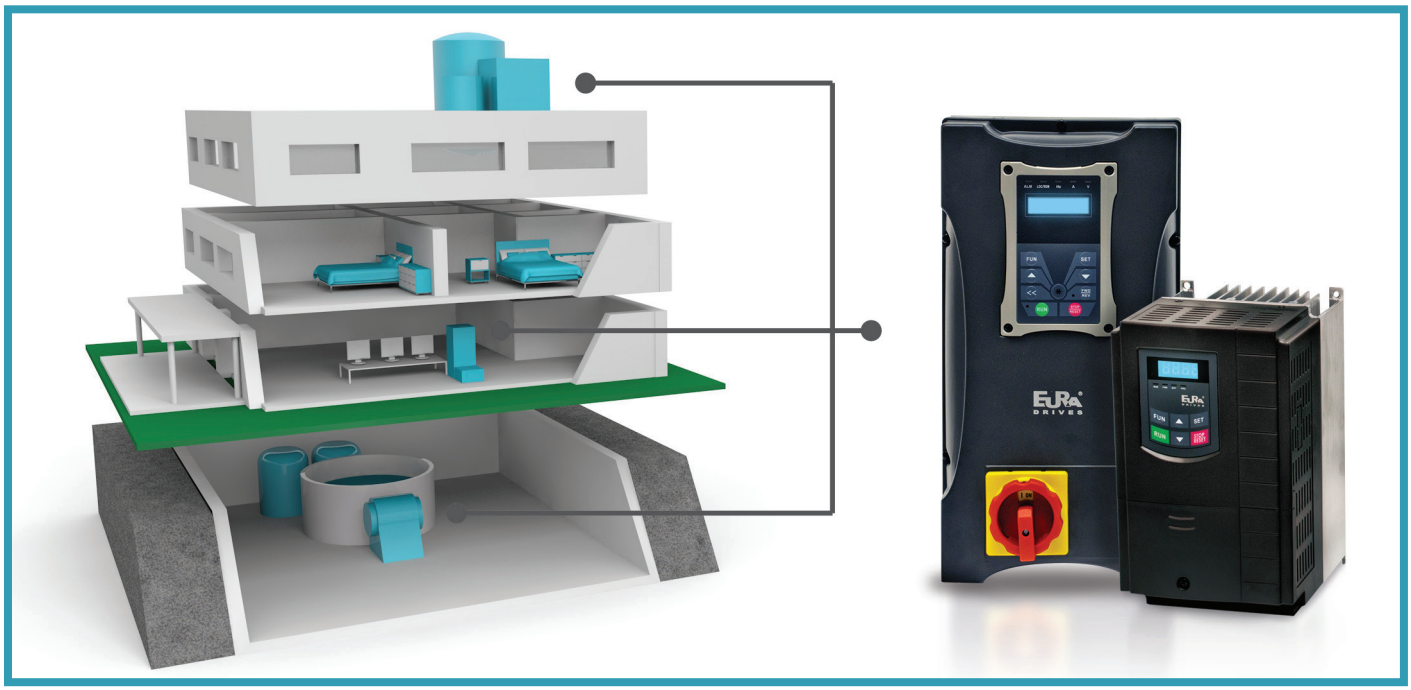
## MIXER - BIO-ENERGY PLANTS



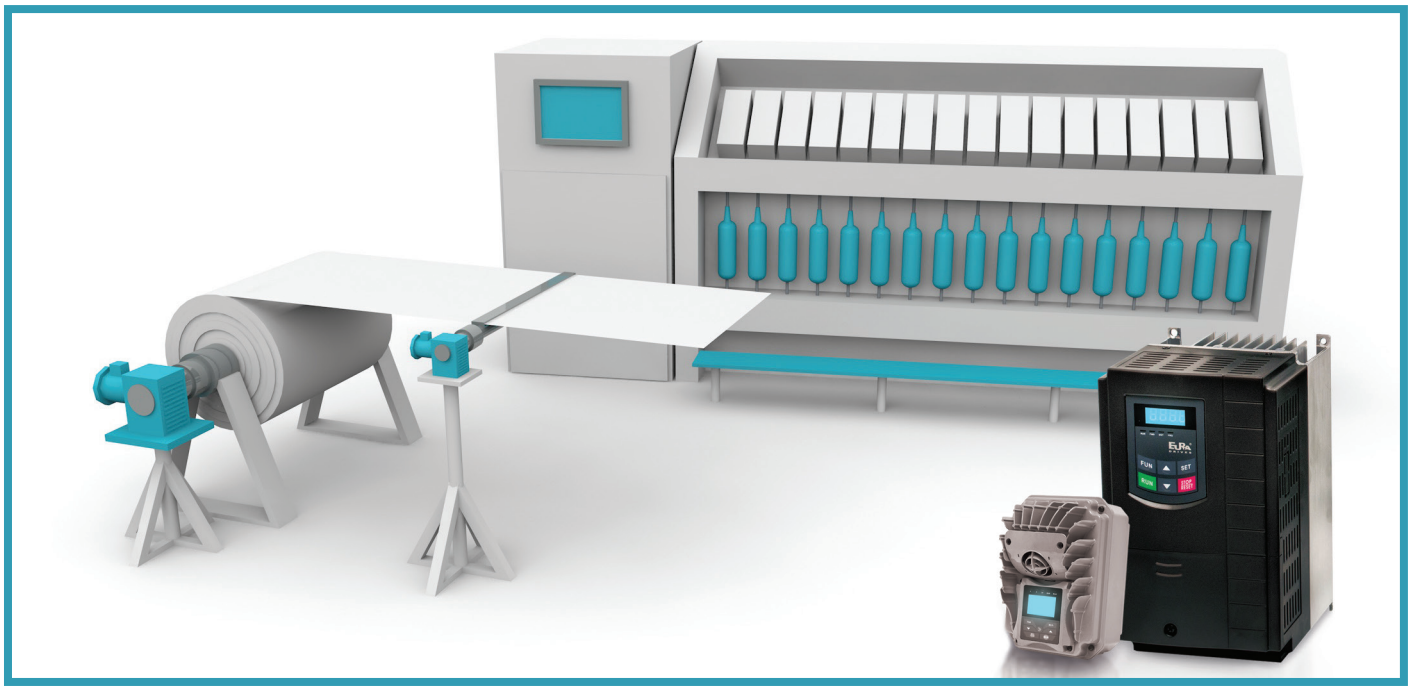
## WASTEWATER TREATMENT



## BUILDING AUTOMATION



## TEXTILE MACHINERY - FIBER PROCESSING



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