

# Elife-Drive MR Series



This technical review shows the main features and technical information of Elife-Drive MR Series. For further information about this series and the technical datasheets of each model, or to define an evaluation of your needs, please refer to our website to contact us.

The main **key features** include:

- Flexible and scalable, designed to control from 12V to 96V Brushless PMDC and PMSM, Brushed and AC Motors. (for more Power, more Voltage or more Phase Current you can choose the controller of the **Elife-Drive MP Series**)
- Different types of Feedback Supported:  
*Resolver, SSI Absolute Encoder, SinCos, Hall Sensors, Incremental Encoder, Fa-Coder, etc.*
- Advanced algorithms for predictive speed and torque control and telemetry of the Internal functions
- CANopen<sup>®</sup> communication protocol<sup>1</sup>:  
CiA<sup>®</sup> DS301 and CiA<sup>®</sup> DSP402 (Profile Velocity Mode, Profile Position Mode, Profile Torque Mode and Homing Mode)
- Electromagnetic Holding Brake Output with DPR System (Dynamic Power Reduction)
- European Conformity CE, designed in accordance with EN 60950-1 safety requirements and EMC standards.

## Electrical Box Version:



**Dimensions:** 250x150x90 mm

## Specification:

- Four Quadrant Regenerative Operation
- Sinusoidal or Trapezoidal Commutation Methods
- Fully Configurable and Programmable
- Emergency Ramp and Safe Torque Off (STO) Input

## Main Features:

- ➔ 8 Programmable Single Ended Digital Inputs
- ➔ 5 Programmable 400mA Digital Outputs
- ➔ 2 Programmable 2A Digital Outputs
- ➔ 2 Programmable 0÷10V 12-bit Analog Inputs
- ➔ 1 Programmable 0÷10V 12-bit Analog Output
- ➔ 1 Programmable 5 or 10V - 100mA Throttle Output

## Options:

- ➔ Internal DC-DC - Programmable 12 or 24V - 4A
- ➔ 120A PWM Output for External Braking Resistor

**Table 1:** Elife-Drive MR Series is available for different Supply Voltages and Phase Currents

| PHASE CURRENT *       | NOMINAL VOLTAGE SUPPLY - MAX MOTOR POWER |                 |                 |                  |
|-----------------------|--|-----------------|-----------------|------------------|
|                       | 12V - 5kW                                | 24V - 10kW      | 48V - 20kW      | 96V - 40kW       |
|                       | from 10V to 22V                          | from 16V to 34V | from 28V to 75V | from 65V to 150V |
| <b>up to 100 Arms</b> | MR12-100-5-x                             | MR24-100-10-x   | MR48-100-20-x   | MR96-100-40-x    |
| <b>up to 200 Arms</b> | MR12-200-5-x                             | MR24-200-10-x   | MR48-200-20-x   | MR96-200-40-x    |
| <b>up to 300 Arms</b> | MR12-300-5-x                             | MR24-300-10-x   | MR48-300-20-x   | MR96-300-40-x    |
| <b>up to 400 Arms</b> | MR12-400-5-x                             | MR24-400-10-x   | MR48-400-20-x   | MR96-400-40-x    |

\* The value of the maximum continuous (60 min) RMS phase current is ensured with an appropriate heat sink.



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<sup>1</sup>Elife International S.r.l. is a Member of CiA<sup>®</sup> - CAN in Automation