Rapid Link 4.0
Distributed, Electronic Drive System

Rapid Link 4.0 Brings your Materials Handling Efficiently Up To Date

Product Information
RAMO and RASP 4.0

EATON
Powering Business Worldwide

Rapid Link 4.0 is intelligent and modularly expandable – e.g. for demanding conveyor technology at airports and in logistics

Rapid Link 4.0 – The New Generation of Flexibility

Standardized installation, Plug and Play parametric programming directly on site and networked communication – these are the demands placed on modern drive engineering. Eaton delivers a modern answer with the distributed electronic drive system Rapid Link 4.0. With its flexible power spectrum, its simple handling and its intelligent programming options, this new motor starter and frequency inverter generation is the first choice for all kinds of conveying technology applications.

Variable mounting – for demand-driven installation

One form factor for all versions and tasks

- Quicker planning through installation design simplicity
- Upgrades, exchange and modifications are cost-effective with little installation effort
- Flexible routing of the energy and motor cables
- No derating of the electrical characteristics with side-mounting
- Controls and heat sink always in the optimum position

The tailored solution for every application

Whether its an airport, industrial manufacturing or logistics: The new Rapid Link 4.0 drive system has the tailored solution for every conveying engineering environment.

All variants of the compact electronic motor starter RAMO and the frequency inverter RASP feature a common footprint for total installation flexibility. The frequency inverter RASP is available in various power classes for different areas of application. A version with a device fan is available for ambient temperatures of 55 °C.

Versatility on a square: The new enclosure concept

Eaton makes the installation and the expansion of Rapid Link 4.0 particularly simple and efficient with a unique and flexible enclosure concept.

All motor starters up to 3 kW as well as all frequency inverters up to 2.2 kW feature the same square form factor and consequently feature identical mounting dimensions. Only a single fixing bracket type is required for the entire Rapid Link 4.0 range.

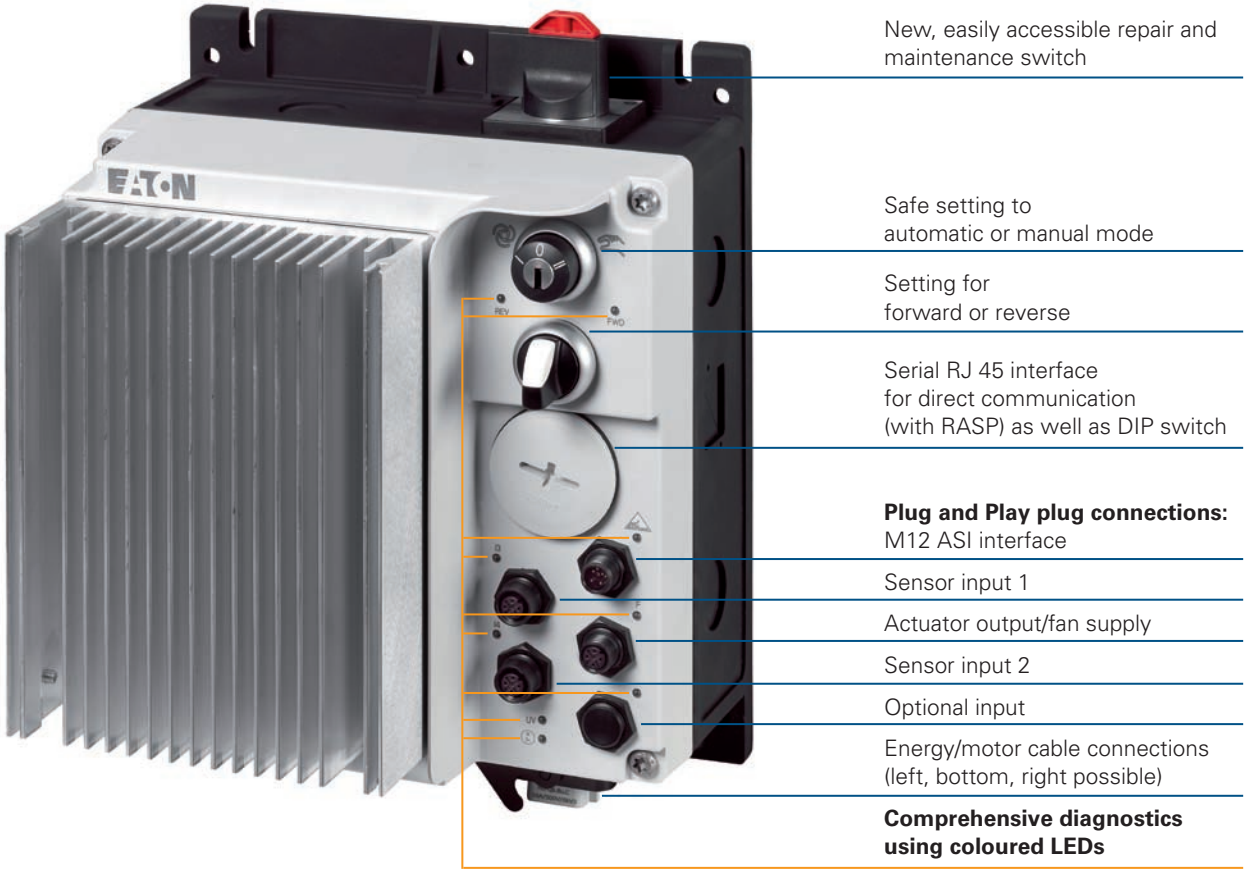
Incomer flexibility is provided with attachment from the left, right, top or bottom. And because the dimensions and connections are identical, the motor starters and frequency inverters can be exchanged by one another when you are extending the installation.

This simplifies installation, speeds up commissioning and reduces costs.

Rapid connection

Plug-in connection cables with standardized sockets reduce the wiring effort and support the simple installation concept for material handling systems.

Rapid Link 4.0 quickly and cost-effectively adapts to conversions and modifications, e. g. in industrial manufacturing and distribution logistics.



New, easily accessible repair and maintenance switch

Safe setting to automatic or manual mode

Setting for forward or reverse

Serial RJ 45 interface for direct communication (with RASP) as well as DIP switch

Plug and Play plug connections: M12 ASI interface

Sensor input 1

Actuator output/fan supply

Sensor input 2

Optional input

Energy/motor cable connections (left, bottom, right possible)

Comprehensive diagnostics using coloured LEDs

Practice-oriented optimization – the new functionality

Whether electronic or frequency-control, Rapid Link 4.0 optimizes the handling during installation and operation with new design features.

The starters are optionally available with an integrated, lockable switch disconnector. For maintenance purposes the Rapid Link 4.0 unit and motor can be quickly and safely disconnected from the electrical power source.

Reliable maximum performance

All devices stand out with their improved electrical values.

The service life of the electronic starter of the RAMO 4.0 has almost tripled in comparison to the predecessor version – with up to 10 million switching operations at 3 kW. Even the hourly switching frequency has been enhanced to over 3,000.

With its degree of protection IP 65, the electronic drive system Rapid Link 4.0 can also be operated non-enclosed, distributed and directly on the conveying system in harsh industrial environments, which significantly enhances the flexibility of the installation configuration.

Autonomous, distributed intelligence

The new generation of frequency inverter RASP is also available as a version with integrated braking resistor (chopper).

The RASP also supports any speeds with variable acceleration and delay.

The RASP can switch from U/f control to speed control. And thanks to its own on-board intelligence, reoccurring sequences can, for example, be permanently stored, which considerably reduces the software engineering requirement in the PLC.

Performance Features Overview

Electronic motor starter RAMO 4.0

Technical highlights

The new motor starter of the RAMO 4.0 series provides electronic direct-on-line and reversing start of three-phase motors in manual and automatic operation.

The electronic overload protection can be set with a DIP switch. Full motor protection is achieved in conjunction with temperature sensor evaluation.

The variants with an integrated manual override switch allow fast and safe current interruption for diagnostics and maintenance work on the motor.

External switchgear, e. g. solenoid valves, can be controlled directly via the optional actuator output (24 VDC). A further option is the integrated, electronic brake control for motor brakes.

Product features

Common frame sizes for power ratings from 0.3 to 3.0 kW (at 400 V, 50/60 Hz).

New, square enclosure concept for maximum flexibility on site.

Cable connections from the left, right or bottom are possible – with the same fixing holes for the device.

Increased service life of up to 10 million switching operations.

Up to 3000 switching cycles per hour at 2.2 kW.

Operating and ambient temperature up to +55°C, without derating.

High degree of protection IP 65.

Frequency controlled motor starter RASP 4.0

Technical highlights

The new RASP 4.0 series supports any speeds with variable acceleration and braking ramps via the integrated frequency inverter module.

It is thus ideal for demanding conveying engineering applications in distribution logistics, at airports and the packaging industry.

Cyclic program sequences can be programmed with fixed frequencies and they can be stored in the module, reducing the load on the PLC.

Product features

Common frame sizes for power ratings up to 2.2 kW (at 400 V, 50/60 Hz).

Performance classes available with 0.75 kW, 1.1 kW, 1.5 kW and 2.2 kW.

New, square enclosure concept for maximum flexibility on site.

Cable connections from the left, right or bottom are possible – without modifying the fixing of the device.

Frequency-controlled motor speeds from 0 to max. 320 Hz.

Electronic motor protection with adjustment ranges.

Monitoring of thermistor and motor cable.

Operating and ambient temperature up to +40°C, without derating.

High degree of protection IP 65.

Optional external fan unit for extended temperature range up to +55°C, without derating.

Rapid Link 4.0 is the robust, reliable drive system under all operating conditions – e.g. in logistics centres

Networked Communication

The serial RJ 45 frequency inverter interface directly opens two communication paths: comprehensive and comfortable using a Notebook or faster and more portable with an external keypad. Configuration and copying of parameters, even from device to device, as well as the display of setpoint and actual values and reading of the alarm memory are possible at any time on site.

Comfortable and convenient – configuration with the user-friendly MAX-Connect PC software

Current measured values such as motor current or frequency are clearly graphically displayed in real-time.

The comfortable comparison function allows quick and clear ergonomic reproduction of modified parameter settings.

Parameters that have been saved can be edited "offline" without the frequency inverter.

Always there, ready to use – the Rapid Link 4.0 external keypad with non-volatile memory

With the new Rapid Link 4.0 external keypad, parameters are copied to any number of devices on site using the Plug and Play principle – even simpler and faster installation of distributed drive engineering is hardly possible.

With its non-volatile parameter memory, the simple handling and an extremely compact and light design, the Rapid Link 4.0 external keypad becomes an irreplaceable companion in the field.

This does not just apply for installation and commissioning, but also during regular operation of the installation.

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