



### **Decentralized drive**







# Power has become flexible. Intelligent.

dDrive is the new decentralized inverter, designed to be installed directly on Rossi high efficiency electric motors in combination with a wide range of gearboxes. Thanks to a compact design and to the high degree of protection level, this solution is suitable for each environmental condition. It allows to minimize the electric cable length simplifying the machines complexity of industrial market.

With a fully pre-assembled, pre-wired and pre-tested step, the decentralized solution reduces project planning time and makes machine commissioning faster. By introducing an innovative modular design, we provide a configurable I/O's board to cover different application features. Several optionals can be selected to extend the product configuration at the most equipped version.

#### Features Benefits

Decentralized Frequency Inverter	Reduced electric cabinet dimension and cooling systems
Designed for Rossi IE2, IE3 electric motors	Compact solution of inverter, motor, and gearbox
Aluminum Housing IP 65	Suitable for hard environmental operating conditions
Sensorless Vector Control	No need of motor encoder for speed control
Safe Torque Off (STO)	High Safety Performance Level (up to PL E)
Configurable I/O's board	Customizable to fit all different application features
Internal PLC	To develop your own dedicated control functions
A large number of field buses available	Ease integration with existing automation controllers
Bluetooth Interface	Fast and smart inverter parametrization access

#### Technnical features

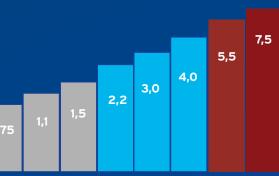
## Decentralized inverter

- Maximum overload: up to 200%
- Best sensor-less ability to handle overload on the market
- Flexibility in motor-mounted or wall-mounted installation
- Full "Plug & Play"
- Autotuning and programming software included
- In compliance with IE2 class ECO DESIGN
- EN 50598 IEC/EN 60034-30-1 and Eco design Directive in accordance with IEC 61800-9-2
- · Remote commissioning, monitoring and diagnostics, Bluetooth, App
- Communication and connection among several inverters
- A wide range of field buses

Size	A					В		С	
Rec. motor rating [kW]	0.55	0.75	1.1	1.5	2.2	3	4	5,5	7.5
Supply voltage	3 x 200 V AC -10 %480 V AC +10 % 280 V DC -10 %680 V DC +10 %								
Grid frequency	50/60 Hz ± 6%								
Network configurations	TN/TT								
Rated Current [A] (@ 4 kHz)	1.7	2.3	3.1	4	5.6	7.5	9.5	13	16.5
Min. brake resistance $[\Omega]$	100				50				
Overload for 60 sec. [%]	150								
Overload for 3 sec. [%]	200								
Switching frequency [kHz]	2, 4, 6, 8, 12, 16 (factory setting 4 kHz)								
Output frequency	0 Hz - 599 Hz								



Power range [kW]



В

9 Rated Powers



#### **MAIN FIELD BUSES**

- CANOpen
- Profinet
- EtherCAT
- Ethernet/IP
- Sercos III



#### PROTECTION/PAINTING

- Aluminium housing IP 65
- RAL9005 paint as standard
- Temperatures -40 °C / +50 °C



#### **MAIN OPTIONS**

- Built In Potentiometer
- Integrated Foil Keypad
- MMI
- Safe Torque Off (STO)
- Brake Rectifier
- Brake Chopper
- Pluggable Mains Connection
- Cutting Main Connector
- Main Switch



## Design

Simple installation, Direct integration and Easy configuration.

The new Rossi dDrive is the perfect solution for variable speed applications. Thanks to a modular concept, it allows the combination with a wide range of Rossi gearmotors.

IP 65

Housing protection

#### **Main Switch**

To fully disconnect the supply voltage



#### Integrated brake resistor

Thanks to the integrated brake resistor, dynamic processes can be undertaken without additional, external brake resistors

#### **Potentiometer**

Integrated potentiometer for on board speed setting



### **d prive** Power has become IoT integrated

#### Soft PLC

Freely programmable soft PLC embedded with complete access to the inverter parameters and status data



#### **Bluetooth & App**

The Rossi dDrive app provides a very convenient way of commissioning and observing of the application

#### Plug & Play Concept

M12 plug to connect inputs/outputs and fieldbuses. Robust industrial plug connectors (Harting Han Q4/2) allow a rapidly supply voltage connection





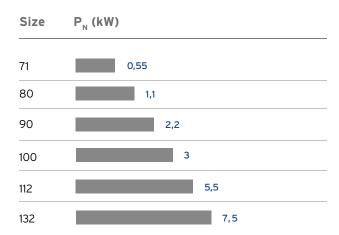




### **Electric motors**

- Standard and brake motors
- IE3 class of the international efficiency standard (IEC 60034-30)  $\geq$  0,75 kW
- IE2 class of the international efficiency standard (IEC 60034-30)  $\leq$  0,55 kW
- Multivoltage, 2, 4 and 6 poles
- Aluminium frame
- Cable entry possible from two sides (one each 180°)
- Motor insulation class F, rise temperature B
- RAL 5010 C3 paint as standard

Sizes 71 ... 132 Power ( $P_N$ ) 0,37 ... 7,5 kW Polarity 2, 4, 6 poles



### Power has become efficient.

Rossi electric motor range guarantees high efficiency, outstanding reliability, and low maintenance, combined with Rossi gear units and suitable for running with dDrive inverter.

High quality components for outstanding performance complying with IE2 and IE3 Energy Efficiency and Saving regulations.

Motors equipped with smart accessories minimize TCO and enhance compactness, robustness, reliability and modularity.

Suitable for heavy industrial applications thanks to high a.c. brake reactivity, d.c. brake progressivity and a wide accessories and options range.

Main benefits: compactness, maximum flexibility, high energy saving, and minimum environmental impact.









# Sales support & Customer Care

Our modular approach doesn't stop at the delivery of a product or solution. For us this is just the start. With strong online support systems, our customers have access to select the right product and make an

on-line order, and contact the customer support. We aim to deliver performance improvement and on-going assistance during the entire system life-cycle.



#### **Pre-sales**

Wherever a request comes from, worldwide, our engineers can quickly follow up the inquiries. A dedicated team with skilled technicians provides application support offering assistance and innovative solutions from orientation to concept development.



#### After-sales

We can help you maintain your line efficiency, turning costly downtime into profitable uptime. Spare parts, maintenance (including agreements), technical and field support, including help desk assistance. For emergencies, stock replenishment or planned maintenance, we deliver original spare parts wherever you are, in a timely manner.



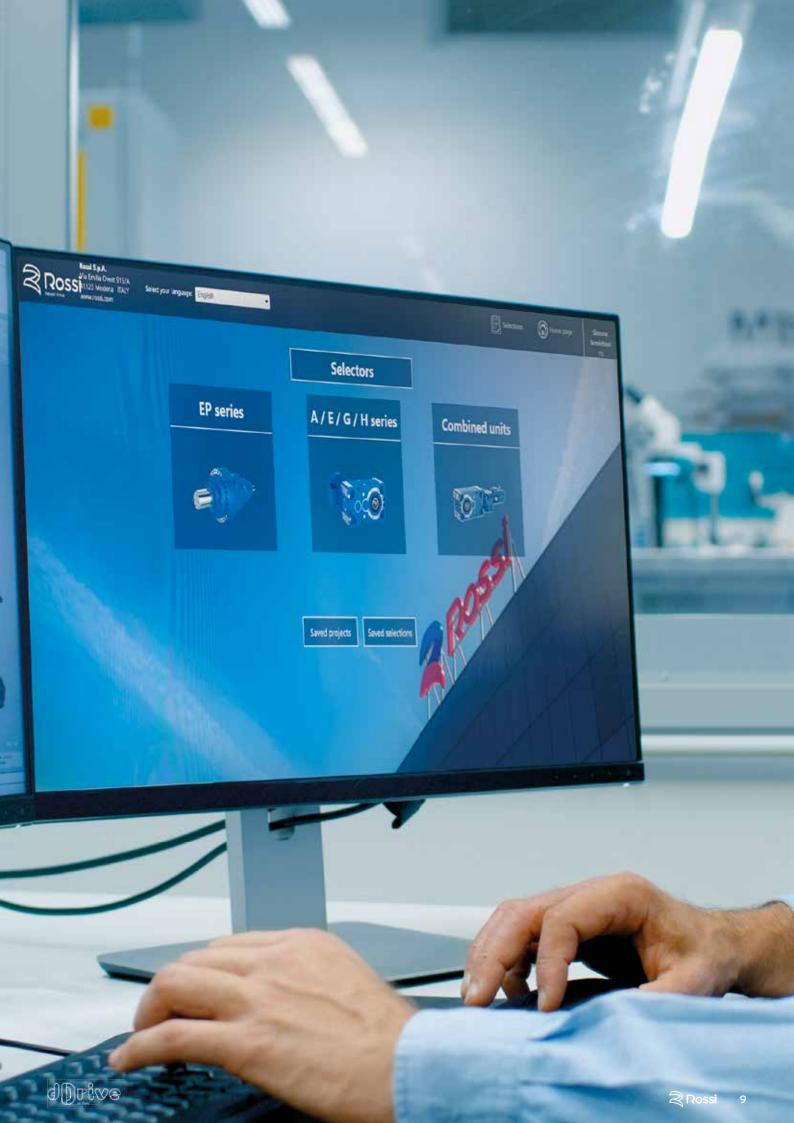
#### **Training**

We organize standard and customized courses on how to safely and efficiently operate, maintain and troubleshoot equipment. Staff needs to understand how to properly use the system and how to take advantage of features to maximize productivity and efficiency.



#### Digital support

Rossi for You is a suite of digital support tools enabling real-time access to your order tracking, invoices, spare part tables download and contact to our service. Fast and easy online access is available 24/7, in 5 languages. The on-line Selector, reserved to all customers, will allow to configure a standard product and make orders directly.



# Global presence local service



#### Local support

Sales, customer service, technical support, spare parts



15 branches\*



Worldwide distribution network\*

A global network of subsidiaries and dealers. From design and execution to after-sales service. Rossi is always close to you: a local, reliable and flexible partner.

Alongside our 24/7 **Rossi for You** portal you have a suite of digital support tools enabling real time access to your order tracking, invoices, spare part tables download and contact to our service.



9 111

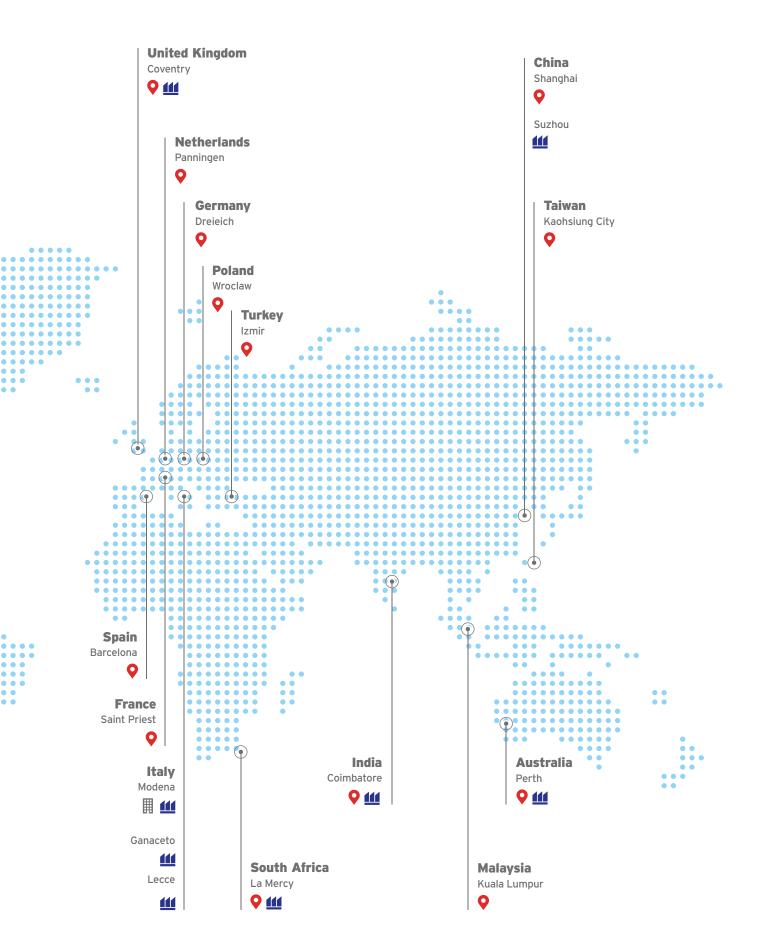
**United States** Suwanee, GA **Brazil** Cordeiropolis, SP

<sup>\*</sup>All contacts available on www.rossi.com



















#### HEADQUARTERS

#### Rossi S.p.A.

Via Emilia Ovest 915/A 41123 Modena - Italy

Phone +39 059 33 02 88

info@rossi.com www.rossi.com

© Rossi S.p.A. Rossi reserves the right to make any modification whenever to this publication contents. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described.