ORTEA®
ahead of time

DVS
Digital Voltage Stabiliser
Electromechanical

ORION

three-phase
2-250kVA

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2-250kVA

ORION stabilisers can be chosen to match different ranges of input voltage fluctuation.
Standard models offer a **double input connection** so that with the same unit two different input variations (±15%/±20% or ±25%/±30%) can be dealt with.
The output voltage regulation is performed **independently on each phase** (stabilization of each phase-to-neutral voltage).
ORION stabilisers are used with **three-phase loads** and **single-phase loads** with 100% current imbalance across the phases and asymmetrical mains voltage.
ORION voltage stabilisers require the **neutral wire** presence. It can also operate without neutral wire by adding a device able to generate it (D/Yn isolating transformer or neutral point reactor).
Every stabiliser belonging to this range is equipped with the **same control board** used on VEGA and ANTARES models, thus simplifying maintenance operations and spare parts storage.
Up to 45kVA, the stabilisers are equipped with wheels for easy handling.
An **automatic circuit breaker** is mounted on the regulation circuit to **protect** against overload and short circuit on the voltage regulator. The auxiliary circuit is protected by **fuses**.
The measuring instrumentation is installed on the cabinet door and consists of one **multi-task digital line analyser**. Such instrument is able to provide with information regarding the status of the line downstream the voltage stabiliser, such as phase and linked voltages, current, power factor, active power, apparent power, reactive power, etc.
By means of a changeover contact, the stabiliser control card allows for the acoustic signalling of the following alarms: minimum voltage, maximum voltage, internal overheating and overload on the voltage regulator. Voltage control and stabilisation, performed on the **true RMS** value, are managed by the digital **microprocessor**.

Standard features

Voltage stabilisation	independent phase control
Selectable output voltage	220-230-240V (L-N) / 380-400-415V (L-L)
Frequency	50/60Hz ±5%
Admitted load variation	Up to 100%
Admitted load imbalance	100%
Cooling	Natural ventilation up to 45kVA ±15% Aided with fans from 60kVA ±15%
Ambient temperature	-25/+45°C
Storage temperature	-25/+60°C
Max relative humidity	95%
Admitted overload	200% 2 min.
Harmonic distortion	None introduced
Colour	RAL 7035
Protection degree	IP21
Instrumentation	Output digital multimetre
Installation	Indoor
Overvoltage protection	Class II output surge arrestor (from 60kVA ±15%)

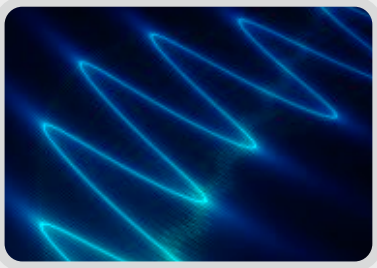
Optional features

Interrupting devices	**Integrated automatic power factor correction system**
Over/undervoltage protection	**SPD surge arrestors**
Manual bypass line	**EMI/RFI filters**
Total protection kit	**Neutral point reactors**
Input isolating transformer	**IP54 protection degree for indoor and outdoor**

All ORTEA stabilisers are designed and built in compliance with the 2006/95/EEC (Low Voltage) and 2004/108/EEC (Electromagnetic Compatibility) European Directives with regard to the CE marking requirements. ORTEA products are built with suitable quality components and that the manufacturing process is constantly verified in accordance with the Quality Control Plans which the Company applies in compliance with the ISO 9001:2008 Standards. The commitment towards environmental issues and safety at work maters is guaranteed by the certification of the Management System according to the ISO14001:2004 and OHSAS18001:2007 Standards.
In order to obtain better performance, the products described in the present document can be altered by the Company at any date and without prior notice. Technical data and descriptions do hold therefore any contractual value.

WARRANTY 2 YEARS

WIDE RANGE



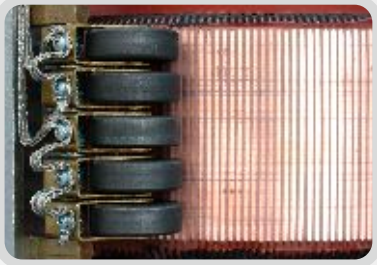
Different standard range of input voltage fluctuation:
symmetrical: **±15%**, **±20%**, **±25%**, **±30**% (other on request)
asymmetrical: **+15%/-25%**, **+15%/-45%** (other on request)

Output voltage accuracy: **±0.5%**.

TECHNOLOGY

Voltage control and stabilisation, performed on the **true RMS value**, are managed by the digital **microprocessor** with Ortea dedicated firmware.
All the Vega, Antares and Orion stabilisers are fitted with the **same control card**, thus simplifying maintenance operations and spare parts storage.
Independent regulation on each phase.

LONG LIFE



Ortea system voltage regulator with **rollers**, no sliding (consuming) parts.

PROTECTION

An **automatic circuit breaker** is mounted on the regulation circuit to protect against overload and short circuit on the voltage regulator.
The auxiliary circuit is protected by **fuses**.
Overvoltage protection: Class II output **surge arrestor**.

DISPLAY

The digital measuring instrumentation is installed on the cabinet door and consist of one **multi-task digital line analyser**. Such instrument is able to provide with information regarding the status of the line downstream the voltage stabiliser, such as phase and linked voltages, current, power factor, active and apparent power, reactive power, etc.

QUALITY

In order to provide with the **best quality**, the productive process includes intermediate checks and a thorough **final test for each** voltage stabiliser.
The implemented quality system ensures that all the production steps are controlled, from component verification at reception to the choice of the most suitable packaging depending on the type of transportation.

CERTIFICATION

Approved managing system:
– **ISO9001**:2008
– **ISO14001**:2004
– **OHSAS18001**:2007

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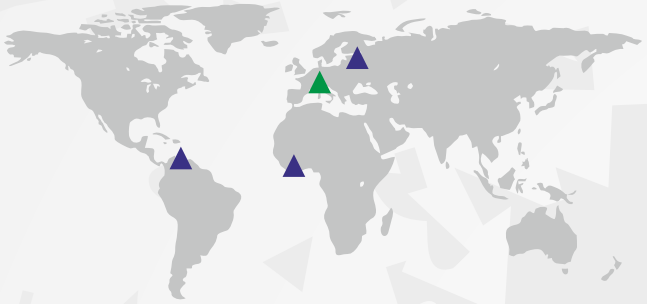
APPROVED MANAGING SYSTEM

ISO9001 ISO14001 OHSAS18001

Founded in 1969, ORTEA SpA is a leading company in manufacturing and engineering voltage stabilisers and magnetic components.
Over forty years in the business and ongoing technical research have made of ORTEA a competitive and technologically advanced company. Close co-operation between design, production and marketing enables to meet the requirements of a constantly growing number of customers.
In 1996 ORTEA joined ICAR Group, made of Italian and European industrial units specialised in manufacturing capacitors and power factor correction systems.

Beside standard production, ORTEA can be extremely flexible in developing and manufacturing special equipment according to User's specification. All this thanks to the experience gained over many years of applied technological development. Such development includes IT tools that enable the technical staff to elaborate electrical and mechanical designs for each «custom product» on a quick and cost-effective basis.

ORTEA is well established in the global market.
Thanks to strategically positioned offices and distributors and efficient commercial relations, ORTEA's products are installed and working in a large number of countries.



▲ ORTEA headquarters (Italy)
▲ ORTEA branches (Russia, Ivory Coast, Venezuela)

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