

# ODYSSEY

## IVC

Intelligent Voltage Compensator

From 160kVA  
to 4000kVA

IGBT static switches

Double conversion  
technology

Very fast response

Output voltage  
accuracy  $\pm 0.5\%$



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IVC Intelligent Voltage Compensator



### Standard features

<b>Voltage regulation</b>	IGBT control (double conversion technology)
<b>Voltage stabilisation</b>	Independent phase control
<b>Available nominal voltage*</b>	220-230-240V (L-N) / 380-400-415V (440-460-480V**) (L-L)
<b>Rating</b>	from 160kVA to 4000kVA
<b>Input voltage compensation</b>	±15% continuous (100% nominal output voltage) -50% for 1 minute (100% nominal output voltage) -60% for 1 minute (90% nominal output voltage)
<b>Frequency</b>	50-60Hz ±5%
<b>Admitted load variation</b>	Up to 100%
<b>Output voltage accuracy</b>	±0.5%
<b>Correction time</b>	<3 millisecs
<b>Cooling</b>	Forced ventilation
<b>Ambient temperature</b>	-20/+40°C
<b>Storage temperature</b>	-25/+60°C
<b>Max relative humidity</b>	95%
<b>Admitted overload</b>	150% for 1 minute (at nominal input voltage)
<b>Harmonic distortion</b>	None introduced
<b>Colour</b>	RAL 9005
<b>Protection degree</b>	IP21
<b>Instrumentation</b>	Digital display (10")
<b>Installation</b>	Indoor
<b>Communication system</b>	MODBUS RTU
<b>Overvoltage protection</b>	– Input class I surge arrester – Output class II surge arrester
<b>Protection</b>	– Input automatic circuit breaker – Automatic by-pass protection – Short circuit output protection
<b>Accessories</b>	– Isolating transformer – Manual maintenance by-pass – EMI/RFI filters

\* The nominal voltage can be adjusted by choosing **one** of the indicated values. Such choice sets the new nominal value as a reference for all the stabiliser parameters.

\*\* 60Hz only.

All ORTEA stabilisers are designed and built in compliance with the Low Voltage and 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 matters is guaranteed by the certification of the Management System according to the ISO 14001:2004 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.



The **static stabiliser** is used when the **correction speed** represents the critical issue (for example, computers, laboratory equipment, measuring benches, medical instrumentation, bottling industry, laser/water cutting industry, automation industry, ecc.).

The operating principle is similar to the electro-mechanical stabilisers. The difference lies in the fact that the **voltage compensation** on the buck/boost primary winding is performed by an electronic board through **IGBT static switches** instead of the autotransformer with variable transformer ratio. The **microprocessor**-based system monitors the output voltage and determines the opening/closing of the IGBT switch ensuring the best regulation. Thanks to the use of the **double conversion technology** and the aid of electrolytic capacitors, high ratings can be achieved.

The voltage stabiliser can operate with **different nominal voltage**. Such setting can be performed at the factory or at the Customer's premises according to the instructions given in the handbook. The stabiliser operates with a **load variation range** for each phase **from 0 to 100%** and **is not affected by the power factor of the load**. Odyssey can operate **with or without the neutral wire**.

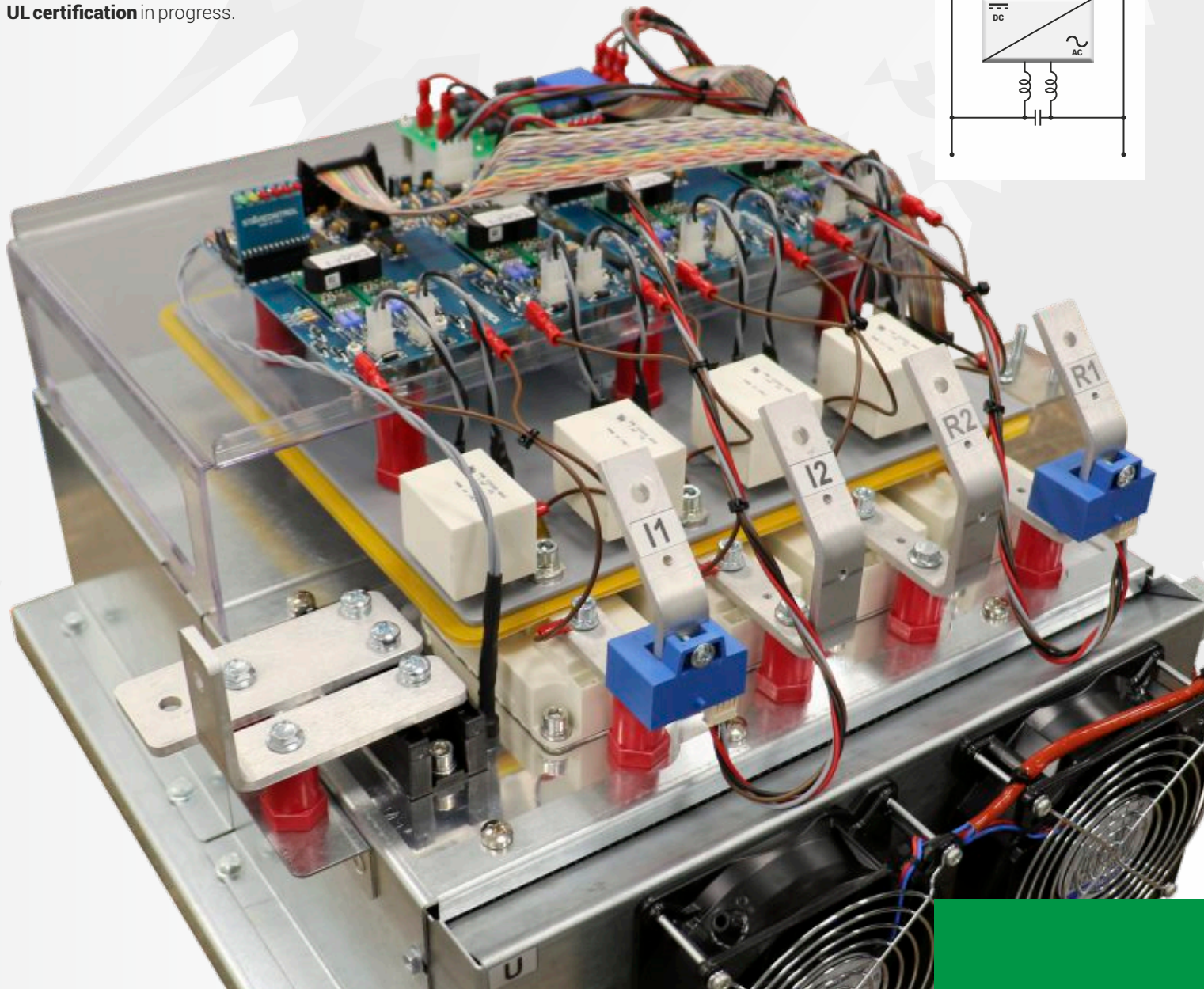
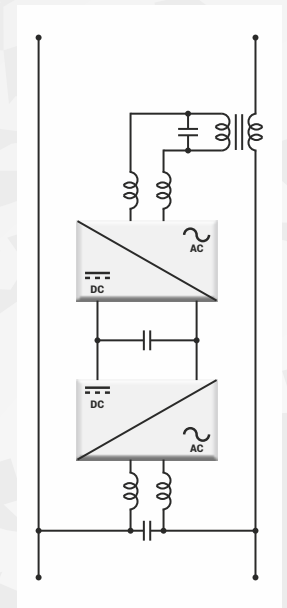
The standard cabinet is an IP21 metal enclosure with RAL9005 finish for indoor installation.

The **Odyssey** series is provided with a 10" digital display showing data and setting parameters.

It is also possible to communicate with the stabiliser with the **Modbus** protocol (standard communication protocol between electronic industrial equipment) via an Ethernet connection with RJ45 cable.

The stabilisers are designed and built in compliance with the European Directives concerning **CE marking** (Low Voltage Directive and Electromagnetic Compatibility Directive).




**UL certification** in progress.



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-  DIGITAL VOLTAGE STABILISERS
-  POWER TRANSFORMERS
-  POWER FACTOR CORRECTION SYSTEMS



-  Experience
-  Reliability
-  Flexibility
-  Speed
-  Research & Development
-  Synergy
-  After-sales
-  Quality



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