

## ODYSSEY

The three-phase ODYSSEY network equalizer is designed to supply a 400V voltage stabilised within  $\pm 1\%$  to the load, working with a variable input voltage (compared to the rated voltage value). The system is based on **IGBT** static switches and double conversion ac/dc dc/ac configuration. Choosing the **IGBT** controlled regulation allows for a very fast response time (the voltage is completely restored to his rated value in 20ms). The ODYSSEY is housed in an IP20 metallic cabinet provided with front door thus allowing for easy access to the components. The **IGBT** switches and the other semiconductors are protected against overvoltages and overcurrents due to short-circuits either on the mains or on the plant. Such protection is obtained by means of auxiliary circuits integrated in the logic control. In addition, a thyristor based by-pass circuit is provided. The circuit activates in case of overload or logic control failure. The heart of the equalizer is the Electronic Control Unit that manages the three phases independently by means of three control cards and an alarm card. In order to ease inspection and maintenance, all the boards are Eurocard type thus providing with removable and interchangeable components. Each phase card gives indications concerning supply presence, regulation mode and regulation limits. The alarm card deals with abnormal conditions and warns the operator about a possible problem by means of a red led and a siren (that can be silenced).

All the electrical data is shown on the display of a versatile digital multimeter. The relevant values can be easily read and transferred onto a remote PC thanks to the foreseen RS485 output, an interface and a dedicated software.

**The logic control is based on the microprocessor.**



The main features of the ODYSSEY network equalizer are:

- Modular system (rating up to 4 parallel modules of 300kVA each)
- Fast response time
- Independent regulation on each phase
- Absence of moving parts
- Protecting by-pass on the **IGBT**
- Negligible harmonic distortion
- 100% phase unbalance allowed
- 0 to 100% load variation allowed
- Not affected by the load power factor
- Remote control software
- RFI and EMI filters
- By-pass line

The following accessories can be included on request:

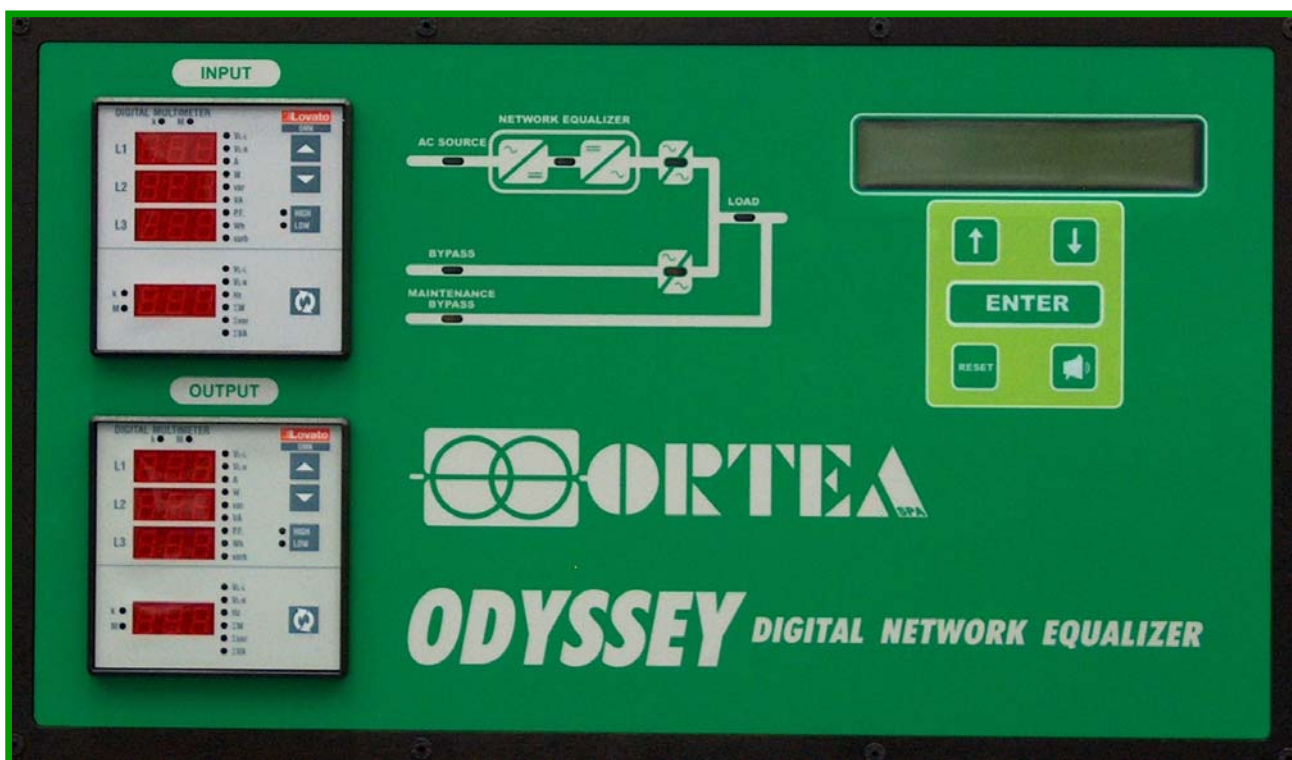
- Isolating input transformer to reduce line noise and transients and protect from lightings
- Output interrupting devices
- Other auxiliary circuits or signals

### ODYSSEY STANDARD FEATURES

<b>FREQUENCY</b>	<b>45/65Hz</b>
<b>ADMITTED LOAD VARIATION</b>	<b>from 0 to 100%</b>
<b>ADMITTED LOAD UNBALANCE</b>	<b>Up to 100%</b>
<b>MAINS WAVEFORM DISTORTION INCREMENT</b>	<b>&lt; 0.2%</b>
<b>COOLING</b>	<b>Forced ventilation</b>
<b>AMBIENT TEMPERATURE</b>	<b>-15/ +45 °C</b>
<b>STORAGE TEMPERATURE</b>	<b>-25/ +60°C</b>
<b>RELATIVE HUMIDITY</b>	<b>90%</b>
<b>ADMITTED OVERLOAD</b>	<b>200% 2sec</b>
<b>COLOUR</b>	<b>RAL 7035</b>
<b>PROTECTION</b>	<b>IP 20</b>
<b>INSTALLATION</b>	<b>Indoor</b>

### ODYSSEY +10/-20% THREE-PHASE VOLTAGE NETWORK EQUALIZER

TYPE	RATED POWER [kVA]	INPUT VOLTAGE +10% -20% [V]	MAX INPUT CURRENT [A]	OUTPUT VOLTAGE ± 1% [V]	RATED OUTPUT CURRENT [A]	EFFICIENCY [%]	RESPONSE TIME [ms]	DIMENSIONS [mm]	WEIGHT [kg]
100-10/20	100	400	180	400	145	>93	20	815x825x1670	630
150-10/20	150	400	271	400	216	>93	20	815x825x1670	720
200-10/20	200	400	361	400	289	>93	20	1200x860x1900	870
300-10/20	300	400	542	400	432	>93	20	1200x860x1900	1200
400-10/20	400	400	722	400	578	>93	20	2400x860x1900	1740
500-10/20	500	400	903	400	722	>93	20	2400x860x1900	2040
600-10/20	600	400	1084	400	867	>93	20	2400x860x1900	2400
750-10/20	750	400	1355	400	1083	>93	20	3600x860x1900	3060
900-10/20	900	400	1626	400	1300	>93	20	3600x860x1900	3600
1200-10/20	1200	400	2168	400	1734	>93	20	4800x860x1900	4800



The technical data in the above table are subject to change by the Company either for internal reasons or because of a specific request from the Customer  
 Input/output voltage 50Hz: 380/418 – Input/Output voltage 60Hz: 460/480