

## ODYSSEY

The three-phase ODYSSEY electronic stabiliser is designed to supply a 400V voltage stabilised within  $\pm 2\%$  to the load, working with a variable input voltage (compared to the rated voltage value). The system is based on **IGBT** static switches and a single buck/boost transformer. Choosing the **IGBT** controlled regulation allows for a very fast response time (0.75msec/V). Thanks to a specially designed three-phase buck/boost transformer, the ODYSSEY stabiliser contains only one power magnetic part, which means limiting weight and dimensions of the equipment. The ODYSSEY is housed in an IP21 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 stabiliser 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 a microprocessor.**



The main features of the ODYSSEY stabiliser are:

- Modular system (rating up to 1200 kVA)
- Fast response time
- Independent regulation on each phase
- Automatic input circuit breaker
- 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
- Surge protective devices against lightning and/or spike reduction varistors
- RFI and EMI filters

The following accessories can be included on request:

- By-pass line (manual or automatic)
- Isolating input transformer to reduce line noise and transients and protect from lightnings
- Output interrupting devices
- Other auxiliary circuits or signals

### ODYSSEY STANDARD FEATURES

FREQUENCY	48/63Hz
ADMITTED LOAD VARIATION	from 0 to 100%
ADMITTED LOAD UNBALANCE	Up to 100%
MAINS WAVEFORM DISTORTION INCREMENT	< 0.2%
COOLING	Natural Ventilation (Aided ventilation over 40°C)
AMBIENT TEMPERATURE	-15/+45 °C
STORAGE TEMPERATURE	-25/+60°C
RELATIVE HUMIDITY	90%
ADMITTED OVERLOAD	200% 2sec
COLOUR	RAL 7032
PROTECTION	IP 21
INSTALLATION	Indoor

**ODYSSEY +10/-20% THREE-PHASE 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/V]	DIMENSIONS [mm]	WEIGHT [kg]
100-10/20	100	400	180	400	145	>93	0.75	815x825x1670	630
150-10/20	150	400	271	400	216	>93	0.75	815x825x1670	720
200-10/20	200	400	361	400	289	>93	0.75	1200x860x1900	870
300-10/20	300	400	542	400	432	>93	0.75	1200x860x1900	1200
400-10/20	400	400	722	400	578	>93	0.75	2400x860x1900	1740
500-10/20	500	400	903	400	722	>93	0.75	2400x860x1900	2040
600-10/20	600	400	1084	400	867	>93	0.75	2400x860x1900	2400
750-10/20	750	400	1355	400	1083	>93	0.75	3600x860x1900	3060
900-10/20	900	400	1626	400	1300	>93	0.75	3600x860x1900	3600
1200-10/20	1200	400	2168	400	1734	>93	0.75	4800x860x1900	4800

**NOTES**

DIMENSIONS AND WEIGHTS IN ALL THE ABOVE TABLES ARE SUBJECT TO BE MODIFIED BY THE COMPANY WITHOUT PRIOR NOTICE.



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: 380/415V – Input/Output voltage 60Hz: 460/480