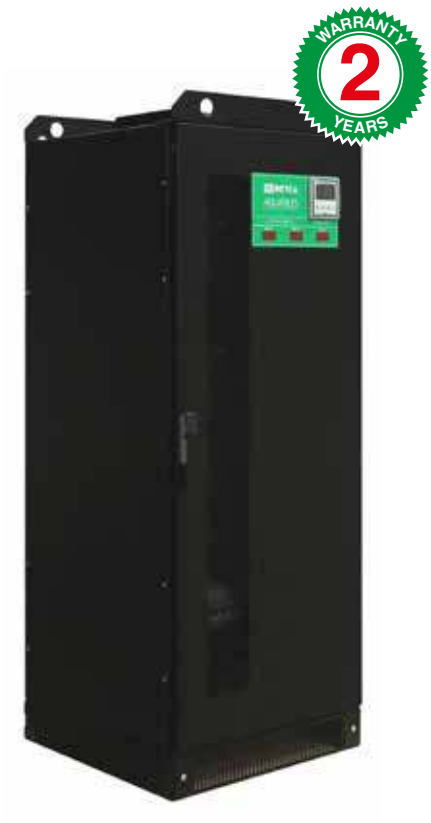
AQUARIUS / AQUARIUS PLUS THREE-PHASE 10-120kVA



Standard features

	Aquarius	Aquarius plus
Voltage stabilisation	Independent phase control	
Voltage regulation	IGBT controlled	
Selectable output voltage*	220-230-240V (L-N) 380-400-415V (L-L)	
Output voltage accuracy	±0.5%	
Frequency	50Hz ±5% or 60Hz ±5%	
Admitted load variation	Up to 100%	
Cooling	Forced ventilation	
Ambient temperature	-25/+45°C	
Storage temperature	-25/+60°C	
Max relative humidity	<95% (non condensing)	
Admitted overload	150% 2sec	
Colour	RAL 9005	
Enclosure protection	IP 21	
Instrumentation	Output digital multimetre	
Installation	Indoor	
Overvoltage protection	Output class II surge arrestors	
Protection	• EMI/RFI filters • Protection by-pass (automatic)	• EMI/RFI filters • Input circuit breaker • Protection by-pass (automatic) • Maintenance by-pass (manual)

** Output 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.

Ratings in relation to the input variation percentage

±15%	±20%	±25%	±30%
30	20	15	10
45	30	20	15
60	45	30	20
90	60	45	30
120	90	60	45

Accessories

- Interrupting devices
- Load protection against over/undervoltage
- Input isolating transformer
- Integrated automatic power factor correction system
- Neutral point reactor
- Up to IP55 protection degree for indoor and outdoor installation

CE

All ORTEA equipments 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 Standards. The commitment towards environmental issues and safety at work issues is guaranteed by the certification of the Management System according to the ISO14001 and OHSAS18001 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 not hold therefore any contractual value.

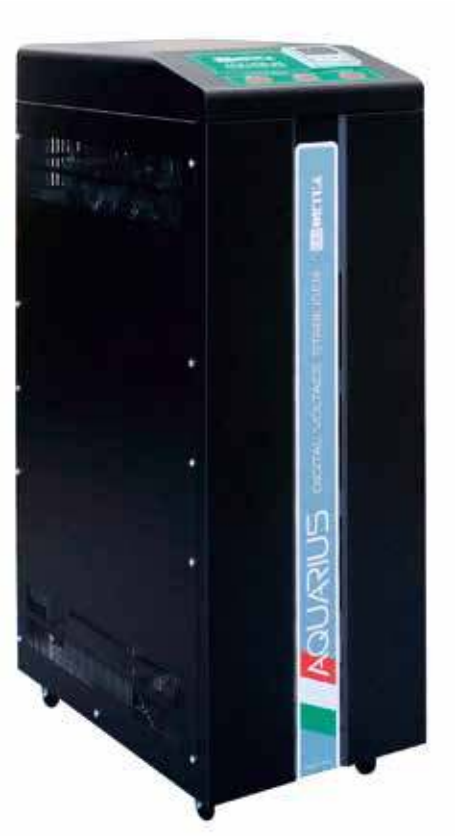
The Aquarius series identifies the three-phase static stabilisers and is available in two configurations:

- **Aquarius**. Base version fitted with class II output SPD, EMI/RFI filter and automatic bypass.
- **Aquarius Plus**. Advanced version which in addition to the protections included in the base version, offers also input circuit breaker and manual maintenance bypass device.

Standard units cover a wide power range and offer a double input connection so that with the same unit two different input variations (±15%/±20% or ±25%/±30%) can be dealt with.
These percentages cover most of the common necessities, but different values can be requested.
Each phase control unit (basically a single-phase inverter that generates the voltage destined to the series buck/boost transformer) is specifically designed for the static stabiliser. The board manages voltage regulation, measurement of the electrical parameters and alarms.

A front panel includes:

- A digital display for each phase indicating the output voltage and the alarm code (min/max output voltage, internal overheating, overload, shortcircuit, bypass status, etc.).
- A digital multimeter providing information regarding the voltage stabiliser output parametres, such as phase and linked voltage, current, power factor, active power, apparent power, reactive power, etc.



WIDE RANGE

±15%, ±20%, ±25%, ±30% .
Output voltage accuracy: ±0.5%.

TECHNOLOGY

IGBT-based control logic supported by a software specifically developed for Ortea.

SPEED

Response time: ≤10 milliseconds.

PROTECTION

The system is protected by EMI / RFI noise filters, class II output surge arrestors and automatic by-pass in case of internal failure.
In the Plus version, the protection is increased by the presence of an input switch and a maintenance by-pass.

INSTRUMENTATION

A digital display providing with output voltage and alarm readings for each phase is fitted on the front panel.
The digital multimeter provides for information about the output parameters.

Type	Input variation	Rated power	Input voltage range	Max input current	Output voltage	Rated output current	Eff.	Correction time	Cabinet type	Cabinet dimensions WxDxH	Weight
	[%]	[kVA]	[V]	[A]	[V]	[A]	[%]			[mm]	[kg]
Aquarius ±20%/±15%											
ET20-20	±20	20	320-480	36	400	29	>98	one cycle	23	410x680x1200	120
ET30-15	±15	30	340-460	51	400	43	>98	one cycle	23	410x680x1200	120
ET30-20	±20	30	320-480	54	400	43	>98	one cycle	23	410x680x1200	160
ET45-15	±15	45	340-460	76	400	65	>98	one cycle	23	410x680x1200	160
ET45-20	±20	45	320-480	81	400	65	>98	one cycle	31	600x600x1600	200
ET60-15	±15	60	340-460	102	400	87	>98	one cycle	31	600x600x1600	200
ET60-20	±20	60	320-480	109	400	87	>98	one cycle	35	800x600x1800	370
ET90-15	±15	90	340-460	153	400	130	>98	one cycle	35	800x600x1800	370
ET90-20	±20	90	320-480	162	400	130	>98	one cycle	35	800x600x1800	390
ET120-15	±15	120	340-460	204	400	173	>98	one cycle	35	800x600x1800	390

The values listed in the table are referred to 400V nominal voltage

Aquarius ±30%/±25%											
ETP10-30	±30	10	280-520	20	400	14	>98	one cycle	23	410x680x1200	120
ETP15-25	±25	15	300-500	29	400	22	>98	one cycle	23	410x680x1200	120
ETP15-30	±30	15	280-520	31	400	22	>98	one cycle	23	410x680x1200	160
ETP20-25	±25	20	300-500	39	400	29	>98	one cycle	23	410x680x1200	160
ETP20-30	±30	20	280-520	41	400	29	>98	one cycle	31	600x600x1600	200
ETP30-25	±25	30	300-500	57	400	43	>98	one cycle	31	600x600x1600	200
ETP30-30	±30	30	280-520	61	400	43	>98	one cycle	35	800x600x1800	370
ETP45-25	±25	45	300-500	86	400	65	>98	one cycle	35	800x600x1800	370
ETP45-30	±30	45	280-520	93	400	65	>98	one cycle	35	800x600x1800	390
ETP60-25	±25	60	300-500	116	400	87	>98	one cycle	35	800x600x1800	390

The values listed in the table are referred to 400V nominal voltage

Type	Input variation	Rated power	Input voltage range	Max input current	Output voltage	Rated output current	Eff.	Correction time	Cabinet type	Cabinet dimensions WxDxH	Weight
	[%]	[kVA]	[V]	[A]	[V]	[A]	[%]			[mm]	[kg]
Aquarius plus ±20%/±15%											
ETP20-20	±20	20	320-480	36	400	29	>98	one cycle	23	410x680x1200	130
ETP30-15	±15	30	340-460	51	400	43	>98	one cycle	23	410x680x1200	130
ETP30-20	±20	30	320-480	54	400	43	>98	one cycle	23	410x680x1200	170
ETP45-15	±15	45	340-460	76	400	65	>98	one cycle	23	410x680x1200	170
ETP45-20	±20	45	320-480	81	400	65	>98	one cycle	31	600x600x1600	220
ETP60-15	±15	60	340-460	102	400	87	>98	one cycle	31	600x600x1600	220
ETP60-20	±20	60	320-480	109	400	87	>98	one cycle	35	800x600x1800	410
ETP90-15	±15	90	340-460	153	400	130	>98	one cycle	35	800x600x1800	410
ETP90-20	±20	90	320-480	162	400	130	>98	one cycle	35	800x600x1800	430
ETP120-15	±15	120	340-460	204	400	173	>98	one cycle	35	800x600x1800	430

The values listed in the table are referred to 400V nominal voltage

Aquarius plus ±30%/±25%											
ETP10-30	±30	10	280-520	20	400	14	>98	one cycle	23	410x680x1200	130
ETP15-25	±25	15	300-500	29	400	22	>98	one cycle	23	410x680x1200	130
ETP15-30	±30	15	280-520	31	400	22	>98	one cycle	23	410x680x1200	170
ETP20-25	±25	20	300-500	39	400	29	>98	one cycle	23	410x680x1200	170
ETP20-30	±30	20	280-520	41	400	29	>98	one cycle	31	600x600x1600	220
ETP30-25	±25	30	300-500	57	400	43	>98	one cycle	31	600x600x1600	220
ETP30-30	±30	30	280-520	61	400	43	>98	one cycle	35	800x600x1800	410
ETP45-25	±25	45	300-500	86	400	65	>98	one cycle	35	800x600x1800	410
ETP45-30	±30	45	280-520	93	400	65	>98	one cycle	35	800x600x1800	430
ETP60-25	±25	60	300-500	116	400	87	>98	one cycle	35	800x600x1800	430

The values listed in the table are referred to 400V nominal voltage