WARRANTY 5 YEARS

Sirius Advance

three-phase
60-4000kVA

Standard features

Voltage stabilisation	Independent phase control
Output voltage selectable via display, PC and/or Ethernet*	from 210 to 255V (L-N) from 360 to 440V (L-L)
Output voltage accuracy	±0,5%
Frequency	50 ±5% or 60Hz ±5%
Admitted load variation	Up to 100%
Admitted load imbalance	100%
Cooling	Natural air ventilation. Above 35°C aided with fans
Ambient temperature	-25/+45°C
Storage temperature	-25/+60°C
Max relative humidity	95% (non condensing)
Admitted overload	200% 2 min.
Harmonic distortion	None introduced
Colour	RAL 7035
Protection degree	IP21
User interface	– 10" touch panel (multilingual) remotely available via VNC – Reactive power regulator
Installation	Indoor
Regulator overload protection	Digital control
Communication system	Ethernet / USB / MODBUS TCP/IP
Overvoltage protection	– Class I input surge arrestor – Class II output surge arrestor – Optimal voltage return through supercapacitors in case of blackout
Total protection and by-pass kit	– Input automatic circuit breaker – By-pass switch made of an interlocked automatic circuit breaker – Output interlocked motorized automatic circuit breaker with protection against overload, overvoltage, undervoltage, phase sequence error and phase failure
Integrated automatic power factor correction system	– Based on high energy density metallised poly-propylene three-phase capacitors (Un = 525V) – Three-phase blocking reactor (tuning frequency 180Hz)

* The 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.

ORTEA

CE

Sirius Advance
three-phase
60-4000kVA

Accessories

Input isolating transformer
EMI/RFI filters
Neutral point reactor
IP54 protection degree for indoor and outdoor installation

Rating in relation to the input variation percentage

±15%	±20%	±25%	±30%
125	100	80	60
160	125	100	80
200	160	125	100
250	200	160	125
320	250	200	160
400	320	250	200
500	400	320	250
630	500	400	320
800	630	500	400
1000	800	630	500
1250	1000	800	630
1600	1250	1000	800
2000	1600	1250	1000
2500	2000	1600	1250
3200	2500	2000	1600
4000	3200	2500	2000

Sirius Advance voltage stabilisers derive from the SIRIUS type, of which they maintain the main technical characteristics.
The standard integration of some functions and accessories usually offered as optional, **complete** and **enrich** the equipment.
The **additional features** are:
– Input automatic circuit breaker;
– Bypass switch via an interlocked automatic circuit breaker;
– Output interlocked motorized automatic circuit breaker;
– Integrated automatic power factor correction system.
The input **automatic circuit breaker** (QF1) ensures protection against failure and/or short-circuits inside the unit.
The **bypass automatic circuit breaker** (QF2) protects the line supplying the load against overload and shortcircuits in bypass condition.
The **output motorized automatic circuit breaker** (QF3), interlocked with the bypass switch, protects against overload, short-circuit, overvoltage, undervoltage, phase sequence error and phase failure.
The **integrated automatic Power Factor Correction system** maintains the power factor value (cos φ) to a high level ensuring the known advantages for the users but also affecting the sizing of the stabiliser.
The PFC system exploits **high energy density metallised polypropylene three-phase capacitors** (**Un=525V**) exclusively thus guaranteeing **robustness** and **reliability**. The addition of blocking reactors (detuned filters) eliminates undesired harmonics and protects the capacitors.
The reactive power controller is mounted on the external control synoptic panel.

Sirius Advance
three-phase
60-4000kVA

Wide range
– **±15%**, **±20%**, **±25%**, **±30%** (other on request)
Output voltage accuracy: **±0.5%**.

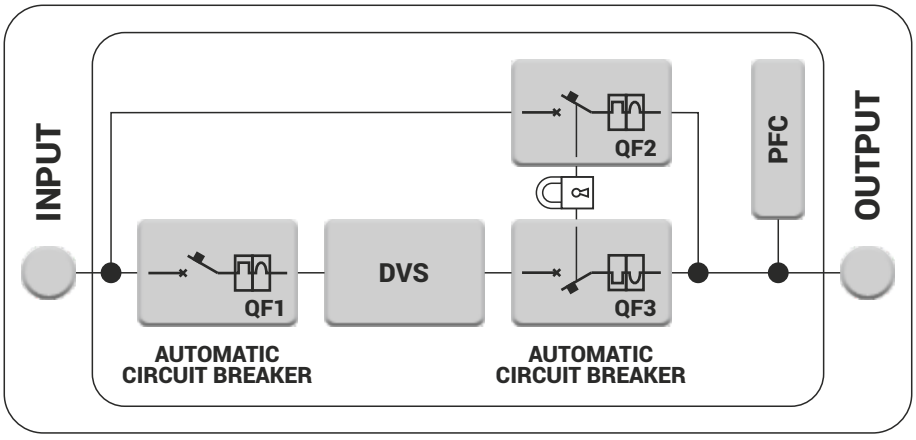
Technology
Control and stabilisation, performed on the **true RMS** value, are based on two **two-way DSP-microprocessor** operating with a software specifically developed for Ortea and under the supervision provided by a third **microprocessor** (**bodyguard**).
Parameters and reference voltage can be **set** via a **PC**, thus allowing for solving any problems related to voltage stability directly in the field.
Independent regulation on each phase.

Long life
Ortea system voltage regulator with **rollers** (without brushes, which are subject to heavy wear & tear).
Columnar voltage regulator make possible to achieve **high ratings** (up to 6000kVA) and a solid and reliable construction

Long life
Extended warranty: **5 years**.

Protection
The stabiliser is provided of an **electronic** voltage regulator **protection system** activates in case of overload on the voltage regulator.
In such conditions, the **load supply is not interrupted**.
The auxiliary circuit is protected by **fuses**.

Protection
Overvoltage protection:
– Class I input **surge arrestor**.
– Class II output **surge arrestor**.



Sirius Advance
three-phase
60-4000kVA

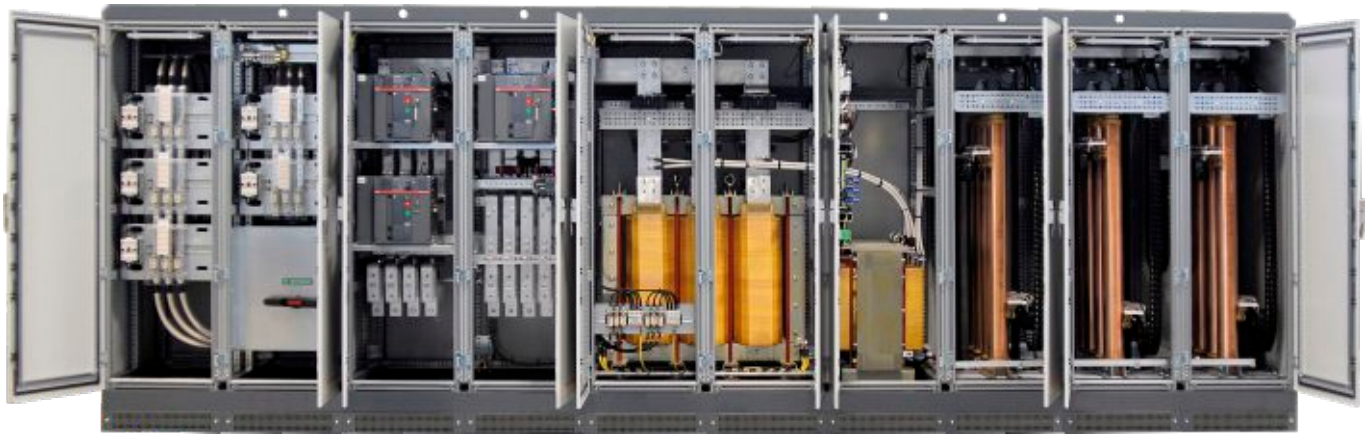
Protection
Output voltage reset to the minimum value in case of blackout by means of **supercapacitors** banks in order to ensure the correct shutdown.

Protection
Total protection by-pass kit:
– Input automatic circuit breaker
– By-pass automatic circuit breaker
– Output motorized automatic circuit breaker

User Interface
Multilingual **10" touch panel** fitted with RS485 port (linked and phase voltage current, frequency, power factor, active power, reactive power, apparent power etc.). The **touch panel** also displaying all the **information** regarding each phase operating mode ('power on'; reaching of voltage regulation limits; increase/decrease of voltage regulation, etc.) and the possible **alarms** (minimum and maximum voltage, maximum current, overtemperature, etc.). The display is remotable using VNC software.

Power Factor Correction
The PFC system exploits **high energy density metallized polypropylene three-phase capacitors** (Un = 525V) exclusively thus guaranteeing **robustness** and **reliability**.
The addition of blocking reactors (**detuned filters**) eliminates undesired harmonics and protects the capacitors.

Power Factor Correction
The **reactive power regulator** RPC are designed to provide the desired power factor while minimizing the wearing on the banks of capacitors, accurate and reliable in measuring and control functions are simple and intuitive in installation and construction.



Sirius Advance
three-phase
60-4000kVA

Type	Input voltage variation range	Rating	Input voltage range	Maximum input current	Output voltage ±0.5%	Output current	Efficiency	Speed regulation	Cabinet	Weight
	[%]	[kVA]	[V]	[A]	[V]	[A]	[%]	[ms/V]	Type	[kg]
Input voltage variation range **±20%/±15%** (the values listed in the table are referred to 400V nominal voltage)										
100-20	±20	100	320-480	180	400	144	>98	15	47	830
125-15	±15	125	340-460	212		180		20		
125-20	±20	125	320-480	226	400	180	>98	15	47	900
160-15	±15	160	340-460	272		231		20		
160-20	±20	160	320-480	289	400	231	>98	15	48	970
200-15	±15	200	340-460	340		289		20		
200-20	±20	200	320-480	361	400	289	>98	15	48	1070
250-15	±15	250	340-460	425		361		20		
250-20	±20	250	320-480	451	400	361	>98	15	48	1250
320-15	±15	320	340-460	543		462		20		
320-20	±20	320	320-480	577	400	462	>98	15	50	1500
400-15	±15	400	340-460	679		577		20		
400-20	±20	400	320-480	722	400	577	>98	15	57	1880
500-15	±15	500	340-460	849		722		20		
500-20	±20	500	320-480	902	400	722	>98	15	64	2200
630-15	±15	630	340-460	1070		909		20		
630-20	±20	630	320-480	1137	400	909	>98	18	64	2720
800-15	±15	800	340-460	1359		1155		24		
800-20	±20	800	320-480	1443	400	1155	>98	18	72	2950
1000-15	±15	1000	340-460	1698		1443		24		
1000-20	±20	1000	320-480	1804	400	1443	>98	18	73	4240
1250-15	±15	1250	340-460	2123		1804		24		
1250-20	±20	1250	320-480	2255	400	1804	>98	18	74	5000
1600-15	±15	1600	340-460	2717		2309		24		
1600-20	±20	1600	320-480	2887	400	2309	>98	18	75	5800
2000-15	±15	2000	340-460	3396		2887		24		
2000-20	±20	2000	320-480	3609	400	2887	>98	22	85	7100
2500-15	±15	2500	340-460	4245	400	3609	>98	30	88	7100
2500-20	±20	2500	320-480	4511	400	3609	>98	22	88	8350
3200-15	±15	3200	340-460	5434	400	4619	>98	30	89	8350
3200-20	±20	3200	320-480	5774	400	4619	>98	27	95	11800
4000-15	±15	4000	340-460	6793	400	5774	>98	36	95	11800

Sirius Advance
three-phase
60-4000kVA

Type	Input voltage variation range	Rating	Input voltage range	Maximum input current	Output voltage ±0.5%	Output current	Efficiency	Speed regulation	Cabinet	Weight
	[%]	[kVA]	[V]	[A]	[V]	[A]	[%]	[ms/V]	Type	[kg]
Input voltage variation range **±30%/±25%** (the values listed in the table are referred to 400V nominal voltage)										
60-30	±30	60	280-520	124	400	87	>98	10	47	830
80-25	±25	80	300-500	154		115		12		
80-30	±30	80	280-520	165	400	115	>98	10	47	900
100-25	±25	100	300-500	192		144		12		
100-30	±30	100	280-520	206	400	144	>98	10	48	970
125-25	±25	125	300-500	241		180		12		
125-30	±30	125	280-520	258	400	180	>98	10	48	1070
160-25	±25	160	300-500	308		231		12		
160-30	±30	160	280-520	330	400	231	>98	10	48	1250
200-25	±25	200	300-500	385		289		12		
200-30	±30	200	280-520	412	400	289	>98	10	50	1500
250-25	±25	250	300-500	481		361		12		
250-30	±30	250	280-520	516	400	361	>98	10	57	1880
320-25	±25	320	300-500	616		462		12		
320-30	±30	320	280-520	660	400	462	>98	10	64	2200
400-25	±25	400	300-500	770		577		12		
400-30	±30	400	280-520	825	400	577	>98	12	64	2720
500-25	±25	500	300-500	962		722		15		
500-30	±30	500	280-520	1031	400	722	>98	12	72	2950
630-25	±25	630	300-500	1212		909		15		
630-30	±30	630	280-520	1299	400	909	>98	12	73	4240
800-25	±25	800	300-500	1540		1155		15		
800-30	±30	800	280-520	1650	400	1155	>98	12	74	5000
1000-25	±25	1000	300-500	1925		1443		15		
1000-30	±30	1000	280-520	2062	400	1443	>98	12	74	5800
1250-25	±25	1250	300-500	2406		1804		15		
1250-30	±30	1250	280-520	2578	400	1804	>98	15	84	7100
1600-25	±25	1600	300-500	3079	400	2309	>98	18	84	7100
1600-30	±30	1600	280-520	3299	400	2309	>98	15	84	8350
2000-25	±25	2000	300-500	3849	400	2887	>98	18	85	8350
2000-30	±30	2000	280-520	4124	400	2887	>98	18	95	11800
2500-25	±25	2500	300-500	4811	400	3609	>98	22	95	11800