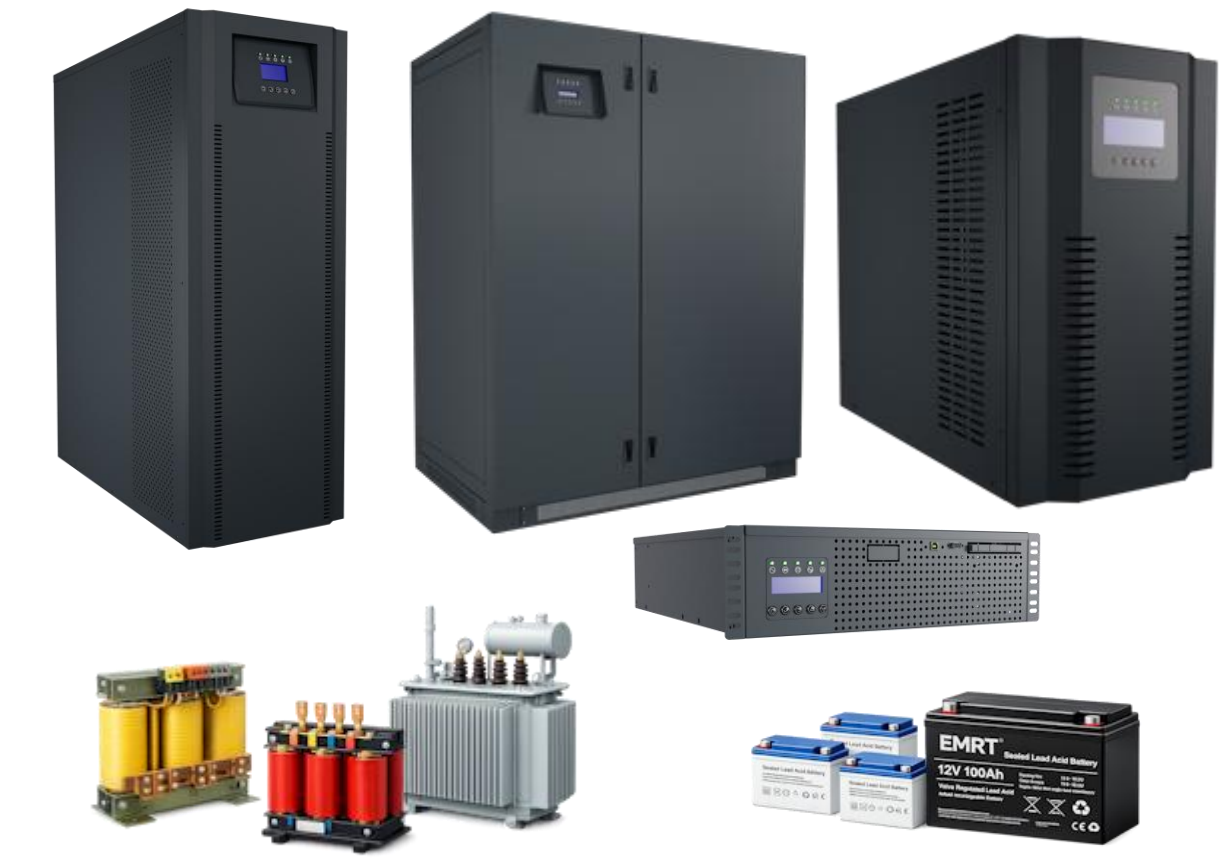
EMRT

Reliable Power Solutions



PRODUCT CATALOG

+(90) 545 797 36 78 | www.emrtpower.com

ABOUT US

EMRT
Reliable Power Solutions

COMPANY PROFILE

We are a technology-oriented manufacturer specializing in advanced **power electronics and energy solutions**. With strong engineering expertise and years of industry experience, we develop reliable systems designed to ensure stable and uninterrupted power for industrial, commercial, and critical infrastructure applications.

Our product portfolio includes **Uninterruptible Power Supply (UPS) systems, frequency converters, servo and static voltage stabilizers, power inverters, battery chargers, generators, transformers, and industrial battery solutions**. All products are designed with a focus on efficiency, durability, and operational reliability.

By combining innovative engineering with modern manufacturing technologies, we deliver energy systems that meet international quality standards and perform reliably even under demanding operating conditions.

With a customer-oriented approach and a commitment to continuous improvement, our company exports its products to various international markets, providing dependable energy solutions and building long-term partnerships worldwide.

VISION

To become a globally trusted brand in power electronics and energy systems by providing innovative, reliable, and sustainable solutions that support modern industries and critical infrastructures.

MISSION

To design and manufacture high-quality power systems that ensure uninterrupted, efficient, and safe energy supply while continuously improving our technologies and expanding our presence in global markets.

QUALITY POLICY

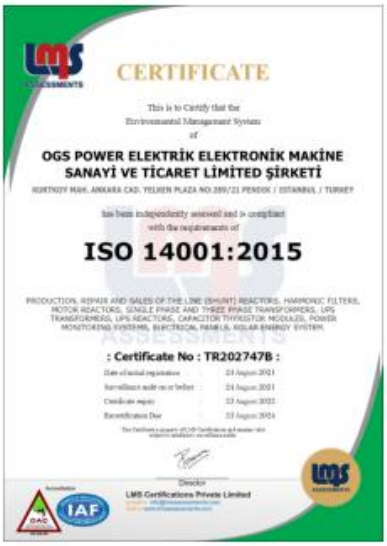
Quality is the foundation of our operations. We are committed to maintaining the highest standards in design, production, and service to ensure reliability and customer satisfaction.

Our quality approach is based on:

- Continuous improvement of production and management processes
- Compliance with international quality and safety standards
- Customer-focused product development
- Use of high-quality components and advanced technologies
- Ensuring long service life, reliability, and operational safety

CERTIFICATES

EMRT
Reliable Power Solutions



CERTIFICATE

This is to Certify that the Environmental Management System of

OGS POWER ELEKTRİK ELEKTRONİK MAKİNE SANAYİ VE TİCARET LİMİTED ŞİRKETİ

has been independently assessed and is compliant with the requirements of

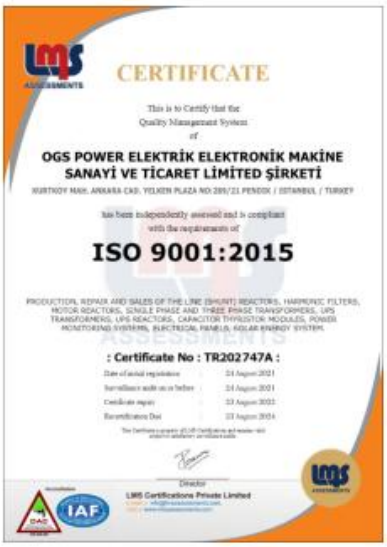
ISO 14001:2015

PRODUCTION, REPAIR AND SALES OF THE LINE (SHUNT) REACTORS, HARMONIC FILTERS, MOTOR REACTORS, SINGLE PHASE AND THREE PHASE TRANSFORMERS, UPS TRANSFORMERS, UPS REACTORS, CAPACITOR THYRISTOR MODULES, POWER MONITORING SYSTEMS, ELECTRICAL PANELS, SOLAR ENERGY SYSTEM.

: Certificate No : TR202747B :

Director

LMS Certifications Private Limited



CERTIFICATE

This is to Certify that the Quality Management System of

OGS POWER ELEKTRİK ELEKTRONİK MAKİNE SANAYİ VE TİCARET LİMİTED ŞİRKETİ

has been independently assessed and is compliant with the requirements of

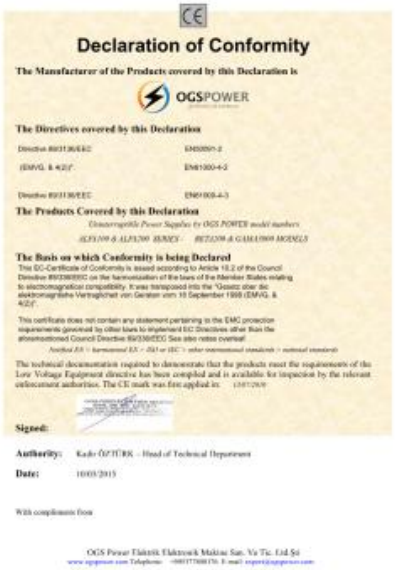
ISO 9001:2015

PRODUCTION, REPAIR AND SALES OF THE LINE (SHUNT) REACTORS, HARMONIC FILTERS, MOTOR REACTORS, SINGLE PHASE AND THREE PHASE TRANSFORMERS, UPS TRANSFORMERS, UPS REACTORS, CAPACITOR THYRISTOR MODULES, POWER MONITORING SYSTEMS, ELECTRICAL PANELS, SOLAR ENERGY SYSTEM.

: Certificate No : TR202747A :

Director

LMS Certifications Private Limited



Declaration of Conformity

The Manufacturer of the Products covered by this Declaration is

OGSPOWER

The Directives covered by this Declaration

The Products Covered by this Declaration

The Basis on which Conformity is being Declared

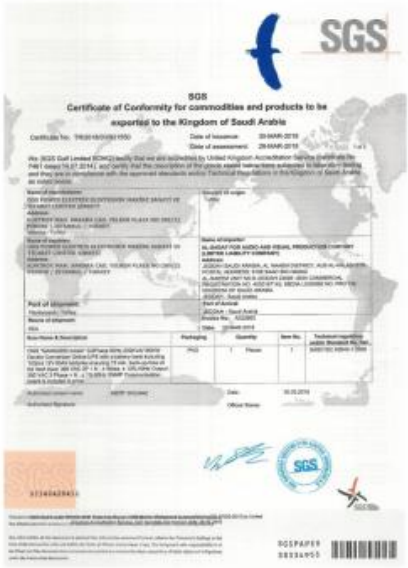
Signed:

Authority: Kadir ÖZTÜRK – Head of Technical Department

Date: 10/03/2015

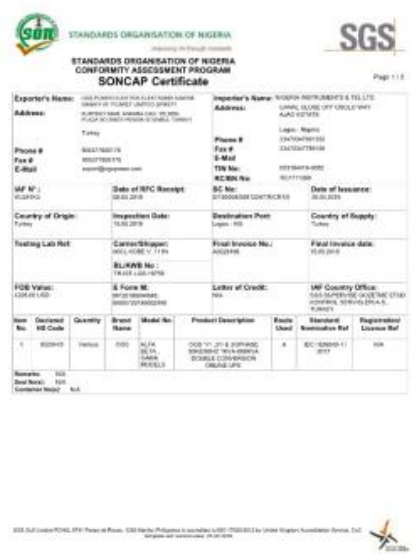
With compliments from

OGS Power Elektrik Elektronik Makina San. Ve Tic. Ltd.Şti



SGS

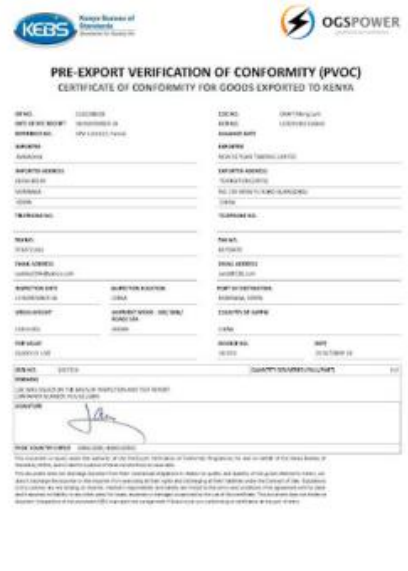
SGS
Certificate of Conformity for commodities and products to be exported to the Kingdom of Saudi Arabia



STANDARDS ORGANISATION OF NIGERIA

SGS

STANDARDS ORGANISATION OF NIGERIA
CONFORMITY ASSESSMENT PROGRAM
SONCAP Certificate



KEBS Kenya Bureau of Standards

OGSPOWER

PRE-EXPORT VERIFICATION OF CONFORMITY (PVOC)
CERTIFICATE OF CONFORMITY FOR GOODS EXPORTED TO KENYA

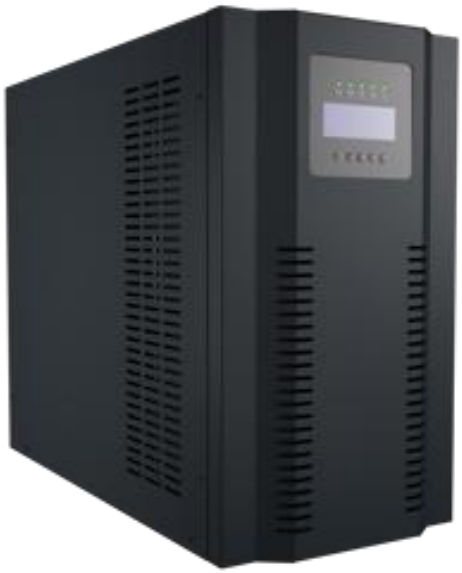
ONLINE UPS 1/1 PHASE 1-3 KVA

VEGA 1000 SERIES UPS systems are developed with the latest power conversion technologies and high quality components to ensure maximum protection for critical loads, optimized energy efficiency, and zero interference with connected systems.

This range covers 1–3 kVA single-phase input/single-phase output models based on online double conversion topology (VFI – Voltage and Frequency Independent) with three level IGBT inverter architecture for superior efficiency and reliability.

GENERAL SPECIFICATIONS

- Latest three-level inverter architecture
- High operational efficiency
- Pure sinewave output
- Advanced digital control interface
- Remote emergency power-off (EPO) capability
- RS-232 and USB communication ports
- Cold start functionality
- Protection against voltage transients and spikes
- Built-in self-diagnostics
- Intelligent battery
- Overload and short-circuit protection
- Excellent output voltage stability



APPLICATIONS

1:1 PHASE
3-LEVEL

ONLINE UPS 1/1 PHASE 1-3 KVA

MODEL	VEGA1001-PF1 VEGA1001-PF2	VEGA1002-PF1 VEGA1002-PF2	VEGA1003-PF1 VEGA1003-PF2
General			
Nominal Power (kVA)	1	2	3
Technology	OnLine Double Conversion	Three Level OnLine Double Conversion	
Waveform	Sinusoidal		
Architecture	Standalone		
Input			
Input Voltage	220/230/240 Vac 1PH+N+PE		
Input Frequency	50/60 Hz ±5% (Auto Sensing)		
Voltage Tolerance (%100 load)	-20%, +20%		
Input Power Factor	≥0,99		
Output			
Output Voltage	220/230/240 Vac 1 Ph+N+PE		
Output Frequency	50/60 Hz		
Efficiency (AC-AC)	Up to 90 @ 100% Load	Up to 95% (@ 50% Load) Up to 93% (@ 100% Load)	
Over Load	125% 60 Sec,150% 10 Sec		
Crest Factor	3:1		
Output Power Factor	1 (PF1 Model) / 0,9 (PF2 Model)		
Output Voltage THD	<2% (Full Linear Load)		
Transfer Time	0 ms - Online to Battery 4 ms - Inverter to Bypass		
Eco Mode	Optional		
Frequency Converter Operation	Optional		
Battery & Charger			
Battery Types	12V VRLA-AGM (GEL & Li-ion Optional)		
Battery Test	Automatic		
Charge Current	1 - 4A (Adjustable)		
Charge Time	6/8 Hours		
Charge Voltage	24VDC	48VDC	72VDC or 96VDC
Quantity	2 x 7/9 Ah	4 x 7/9 Ah	6 x 7/9 Ah or 8 x 7/9 Ah
Communication			
Standard	RS-232 aan USB		
Optionals	SNMP, Modbus, Dry Contacts, EPO		
Enviromental			
Operating Temperature	0°C - 40°C		
Storage Temperature	-25°C+ 55°C		
Relative Humidity	< 95% non condensing		
Noise (@ 1 Meter)	<45 dBA		
Altitude	< 1000m		
Physical			
Dimensions H x W x D (mm)	336 x 144 x 214	419 x 193 x 341	
Net Weight (Kg)	11	18	22 (6 Batteries) 26 (8 Batteries)

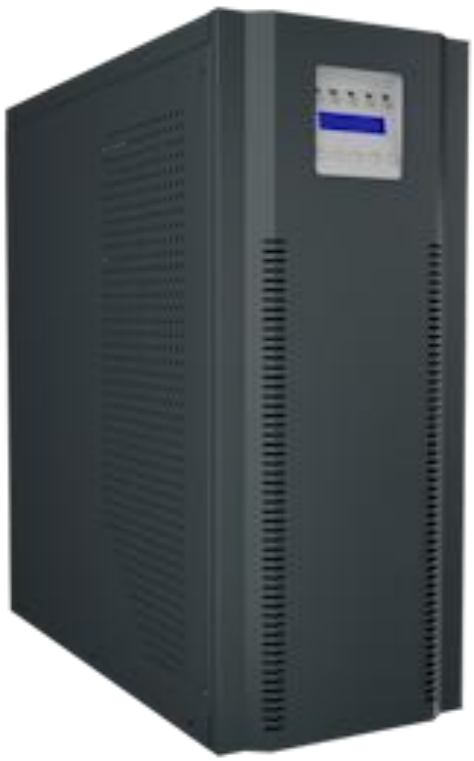
ONLINE UPS 1/1 PHASE 6-20 KVA

VEGA 1000 SERIES UPS systems are developed with the latest power conversion technologies and high-quality components to ensure maximum protection for critical loads, optimized energy efficiency, and zero interference with connected systems.

This range covers 6–20 kVA single-phase input/single-phase output models based on on-line double conversion topology (VFI – Voltage and Frequency Independent) with three level IGBT inverter architecture for superior efficiency and reliability.

GENERAL SPECIFICATIONS

- Three-Level IGBT Topology
- Unity Output Power Factor (1 kW = 1 kVA)
- IGBT PWM Rectifier & Inverter
- AC-AC Efficiency up to 95 %, Eco-Mode up to 98 %
- Low Input Current THD (≤ 5 %) and input PF > 0.99
- Cold-Start Capability
- Smart Battery Charger
- Temperature Compensated Three-Stage Charging
- Wide Input Voltage Range (-36 %)
- Frequency Converter Operation (50/60 Hz)
- Short Circuit, Overload, Surge, Lightning Protection
- Parallel Operation up to 4 Units
- 256 Event Real Time Log
- Built-in Static & Manual Bypass
- Intelligent Fan-Speed Control
- SNMP, RS-485/Modbus, RS-232, Dry Contacts
- Remote Monitoring & Management Software
- Emergency Power Off (EPO)
- Generator Soft Start Compatibility



APPLICATIONS

1:1 PHASE
3-LEVEL

ONLINE UPS 1/1 PHASE 6-20 KVA

MODEL	VEGA1006-SPF1 VEGA1006-SPF2	VEGA1006-PF1 VEGA1006-PF2	VEGA1010-PF1 VEGA1010-PF2	VEGA1015-PF1 VEGA1015-PF2 VEGA1015-PF3	VEGA1020-PF1 VEGA1020-PF2 VEGA1020-PF3
General					
Nominal Power (kVA)	6	6	10	15	20
Technology	Three Level OnLine Double Conversion				
Waveform	Sinusoidal				
Architecture	Standalone / Parallel (Optional)				
Input					
Input Voltage	220/230/240 Vac 1PH+N+PE				
Input Frequency	45-65 Hz				
Voltage Tolerance (%100 load)	±20%				
Voltage Tolerance (%50 load)	-40%, +20%				
Input Power Factor	≥0,99				
Input Current THD	≤5%				
Output					
Output Voltage	220/230/240 Vac 1 Ph+N+PE (Adjustable) ±1%				
Output Frequency	45-65 Hz ± 0,01%				
Efficiency (AC-AC)	Up to 95% (@ 50% Load), Up to 94% (@ 100 %Load)				
Ecomode Efficiency	Up to 98% (Optional)				
Nominal Output Frequency	50/60Hz +0,01 Free Run (Adjustable)				
Crest Factor	3:1				
Output Power Factor	1 (PF1 Model) / 0,9 (PF2 Model) / 0,8 (PF3 model)				
Output Voltage THD	<2% Linear Load & 5% Non-Linear Load				
Overload	150% for 1 Minutes				
Bypass	Built in Automatic and Maintenance Bypass				
Voltage Tolerance	± 10%				
Battery & Charger					
Battery Types	VRLA-AGM (GEL / NiCd / Li-ion Optioanl)				
Battery Test	Automatic or Manual				
Charge Time	<6h-8h				
Charge Current	1A			4A	
Charger Capacity (With Caharger Option)	4A / 13A				
Quantity (With Internal 12V 7/9Ah)	14 (PF3)/16 Pcs	16 / 20 (PF1) Pcs	16/28 Pcs (PF1)	28 Pcs (Only PF2 & PF3)	
Quantity (External Cabinet With 4A Charger)	20-30 Pcs (Default 30 Pcs) 30-40 Pcs (Default 30 Pcs) 40-46 Pcs (Default 40 Pcs)		30-40 Pcs (Default 30 Pcs) 40-46 Pcs (Default 40 Pcs)		
Quantity (External Cabinet With 13A Charger)	30-46 Pcs (Default 30 Pcs - Adjustable)				
Communication & Accessories					
Display Type	Graphical LCD, Status LEDS				
Communication Ports (Optionals)	RS485, Modbus , USB, SNMP, GSM Modem, Relay Contacts, Input Contacts, Gensets				
Accessories (Optionals)	Galvanic Isolation Transformer, Remote Monitoring Panel				
Enviromental					
Operating Temperature	0°C - 40°C				
Storage Temperature	-15°C+ 55°C				
Relative Humidity	< 95% non condensing				
Noise (@ 1 Meter)	<55 dBA				
Altitude	< 1500m				
Protection Class	IP 20 (Higher Ratings are Optional)				
Physical					
Dimensions H x W x D (mm)	661 x 257 x 580			761 x 257 x 676	
Net Weight (Kg)	25	30	38 / 30 (PF3)	40 / 38 (PF3)	42
Compliance					
Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)				

ONLINE UPS 1/1 – 3/1 PHASE 6-20 KVA

VEGA 2000 SERIES UPS systems are developed with the latest power conversion technologies and high-quality components to ensure maximum protection for critical loads, optimized energy efficiency, and zero interference with connected systems.

This range covers 6–20 kVA single-phase input/single-phase output models based on online double conversion topology (VFI – Voltage and Frequency Independent) with three-level IGBT inverter architecture for superior efficiency and reliability.

In terms of performance and technology, the VEGA 2000 Series represents one of the most advanced UPS solutions in its class — offering up to 95% efficiency at half load, unity power factor (1.0) output, and reduced system losses for improved overall energy utilization.

GENERAL SPECIFICATIONS

- Three-Level IGBT Topology
- Unity Output Power Factor (1 kW = 1 kVA)
- IGBT PWM Rectifier & Inverter
- AC-AC Efficiency up to 95 %, Eco-Mode up to 98 %
- Low Input Current THD (≤ 5 %) and input PF > 0.99
- Cold-Start Capability
- Smart Battery Charger
- Temperature Compensated Three-Stage Charging
- Wide Input Voltage Range (-36 %)
- Frequency Converter Operation (50/60 Hz)
- Short Circuit, Overload, Surge, Lightning Protection
- Parallel Operation up to 4 Units
- 256 Event Real Time Log
- Built-in Static & Manual Bypass
- Intelligent Fan-Speed Control
- SNMP, RS-485/Modbus, RS-232, Dry Contacts
- Remote Monitoring & Management Software
- Emergency Power Off (EPO)
- Generator Soft Start Compatibility

1:1 PHASE
3:1 PHASE
3-LEVEL

APPLICATIONS

ONLINE UPS 1/1 – 3/1 PHASE 6-20 KVA

MODEL	VEGA2006-PF1R VEGA2006-PF2R	VEGA2010-PF1R VEGA2010-PF2R	VEGA2015-PF1R VEGA2015-PF2R	VEGA2020-PF3R	VEGA2310-PF1R VEGA2310-PF2R	VEGA2315-PF1R VEGA2315-PF2R	VEGA2320-PF1R VEGA2320-PF2R
General							
Nominal Power (kVA)	6	10	15	20	10	15	20
Technology	Three Level OnLine Double Conversion						
Waveform	Sinusoidal						
Architecture	Standalone / Parallel (Optional)						
Input							
Input Voltage	220/230/240 Vac 1PH+N+PE				380/400/415 Vac 3PH+N+PE		
Input Frequency	45-65 Hz						
Voltage Tolerance (%100 load)	±20%						
Voltage Tolerance (%50 load)	-40%, +20%						
Input Power Factor	≥0,99						
Input Current THD	≤5%						
Output							
Output Voltage	220/230/240 Vac 1 Ph+N+PE (Adjustable) ±1%						
Output Frequency	45-65 Hz ± 0,01%						
Efficiency (AC-AC)	Up to 95% (@ 50% Load), Up to 94% (@ 100 %Load)						
Ecomode Efficiency	Up to 98% (Optional)						
Nominal Output Frequency	50/60Hz +0,01 Free Run (Adjustable)						
Crest Factor	3:1						
Output Power Factor	1 (PF1 Model) / 0,9 (PF2 Model) / 0,8 (PF3 model)						
Output Voltage THD	<2% Linear Load & 5% Non-Linear Load						
Overload	150% for 1 Minutes						
Bypass	Built in Automatic and Maintenance Bypass						
Voltage Tolerance	± 10%						
Battery & Charger							
Battery Types	VRLA-AGM (GEL / NiCd / Li-ion Optioanl)						
Battery Test	Automatic or Manual						
Charge Time	<6h-8h						
Charge Current	1A		4A		1A	4A	
Charger Capacity (With Caharger Option)	4A / 13A						
Quantity (With Internal 12V 7/9Ah)	16 / 20 (PF1) Pcs	20 Pcs	30 / 40 Pcs		20 Pcs	30 / 40 Pcs	
Quantity (External Cabinet With 4A Charger)	30-40 Pcs (Default 40 Pcs)						
Quantity (External Cabinet With 13A Charger)	30-40 Pcs (Default 40 Pcs - Adjustable)						
Communication & Accessories							
Display Type	Graphical LCD, Status LEDS						
Communication Ports (Optionals)	RS485, Modbus , USB, SNMP, GSM Modem, Relay Contacts, Input Contacts, Gensets						
Accessories (Optionals)	Galvanic Isolation Transformer, Remote Monitoring Panel						
Enviromental							
Operating Temperature	0°C - 40°C						
Storage Temperature	-15°C+ 55°C						
Relative Humidity	< 95% non condensing						
Noise (@ 1 Meter)	<55 dBA						
Altitude	< 1500m						
Protection Class	IP 20 (Higher Ratings are Optional)						
Physical							
Dimensions H x W x D (mm)	151 (3U) x 438 x 579 (19")						
Net Weight (Kg)	25	30	35	40	32	36	40
Compliance							
Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)						

ONLINE UPS 3/1 PHASE 10-40 KVA

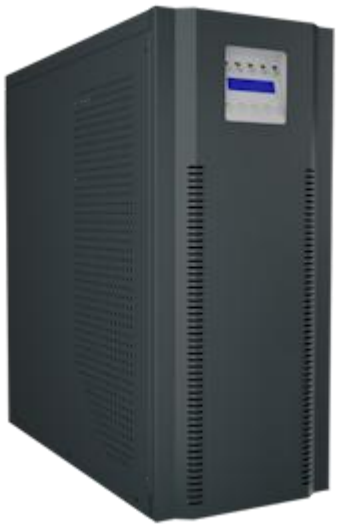
VEGA 2000 SERIES UPS systems are developed with the latest power conversion technologies and high-quality components to ensure maximum protection for critical loads, optimized energy efficiency, and zero interference with connected systems.

This range covers 10–40 kVA single-phase input/single-phase output models based on online double conversion topology (VFI – Voltage and Frequency Independent) with three-level IGBT inverter architecture for superior efficiency and reliability.

In terms of performance and technology, the VEGA 2000 Series represents one of the most advanced UPS solutions in its class — offering up to 95% efficiency at half load, unity power factor (1.0) output, and reduced system losses for improved overall energy utilization.

GENERAL SPECIFICATIONS

- Three-Level IGBT Topology
- Unity Output Power Factor (1 kW = 1 kVA)
- IGBT PWM Rectifier & Inverter
- AC-AC Efficiency up to 95 %, Eco-Mode up to 98 %
- Low Input Current THD (≤ 5 %) and input PF > 0.99
- Cold-Start Capability
- Smart Battery Charger
- Temperature Compensated Three-Stage Charging
- Wide Input Voltage Range (-36 %)
- Frequency Converter Operation (50/60 Hz)
- Short Circuit, Overload, Surge, Lightning Protection
- Parallel Operation up to 4 Units
- 256 Event Real Time Log
- Built-in Static & Manual Bypass
- Intelligent Fan-Speed Control
- SNMP, RS-485/Modbus, RS-232, Dry Contacts
- Remote Monitoring & Management Software
- Emergency Power Off (EPO)
- Generator Soft Start Compatibility



3:1 PHASE
3-LEVEL

APPLICATIONS

ONLINE UPS 3/1 PHASE 10-40 KVA

MODEL	VEGA2310-PF1 VEGA2310-PF2 VEGA2310-PF3	VEGA2315-PF1 VEGA2315-PF2 VEGA2315-PF3	VEGA2320-PF1 VEGA2320-PF2 VEGA2320-PF3	VEGA2330-PF1 VEGA2330-PF2 VEGA2330-PF3	VEGA2340-PF1 VEGA2340-PF2 VEGA2340-PF3
General					
Nominal Power (kVA)	10	15	20	30	40
Technology	Three Level OnLine Double Conversion				
Waveform	Sinusoidal				
Architecture	Standalone / Parallel (Optional)				
Input					
Input Voltage	380/400/415 Vac 3PH+N+PE				
Input Frequency	45-65 Hz				
Voltage Tolerance (%100 load)	±20%				
Voltage Tolerance (%50 load)	-40%, +20%				
Input Power Factor	≥0,99				
Input Current THD	≤5%				
Output					
Output Voltage	220/230/240 Vac 1 Ph+N+PE (Adjustable) ±1%				
Output Frequency	45-65 Hz ± 0,01%				
Efficiency (AC-AC)	Up to 95% (@ 50% Load), Up to 94% (@ 100 %Load)				
Ecomode Efficiency	Up to 98% (Optional)				
Nominal Output Frequency	50/60Hz +0,01 Free Run (Adjustable)				
Crest Factor	3:1				
Output Power Factor	1 (PF1 Model) / 0,9 (PF2 Model) / 0,8 (PF3 model)				
Output Voltage THD	<2% Linear Load & 5% Non-Linear Load				
Overload	150% for 1 Minutes				
Bypass	Built in Automatic and Maintenance Bypass				
Voltage Tolerance	± 10%				
Battery & Charger					
Battery Types	VRLA-AGM (GEL / NiCd / Li-ion Optioanl)				
Battery Test	Automatic or Manual				
Charge Time	<6h-8h				
Charge Current	1A			4A	
Charger Capacity (With Caharger Option)	4A / 13A				
Quantity (With Internal 12V 7/9Ah)	16/28 Pcs (PF1)	28 Pcs	28 Pcs (PF3)	2x30 Pcs (PF3)	-
Quantity (External Cabinet With 4A Charger)	A2: 30-40 pcs (Default 30 pcs) A3: 40-46 pcs (Default 40 pcs)				
Quantity (External Cabinet With 13A Charger)	30-46 Pcs (Default 30 Pcs - Adjustable)				
Communication & Accessories					
Display Type	Graphical LCD, Status LEDS				
Communication Ports (Optionals)	RS485, Modbus , USB, SNMP, GSM Modem, Relay Contacts, Input Contacts, Gensets				
Accessories (Optionals)	Galvanic Isolation Transformer, Remote Monitoring Panel				
Enviromental					
Operating Temperature	0°C - 40°C				
Storage Temperature	-15°C+ 55°C				
Relative Humidity	< 95% non condensing				
Noise (@ 1 Meter)	<55 dBA				
Altitude	< 1500m				
Protection Class	IP 20 (Higher Ratings are Optional)				
Physical					
Dimensions H x W x D (mm)	661 x 257 x 580 735 x 256 x 673 (PF1)	762 x 257 x 694	762 x 257 x 694 991 x 302 x 862 (PF1)	991 x 302x 862	1078 x 895 x 325 1352 x 975 x 436 (PF1)
Net Weight (Kg)	38 / 40 PF1 & PF2	40	50 / 65 PF1 & PF2	65 / 71 PF1 & PF2	71/ 90 PF1 & PF2
Compliance					
Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)				

ONLINE UPS 3/3 PHASE 10-120 KVA

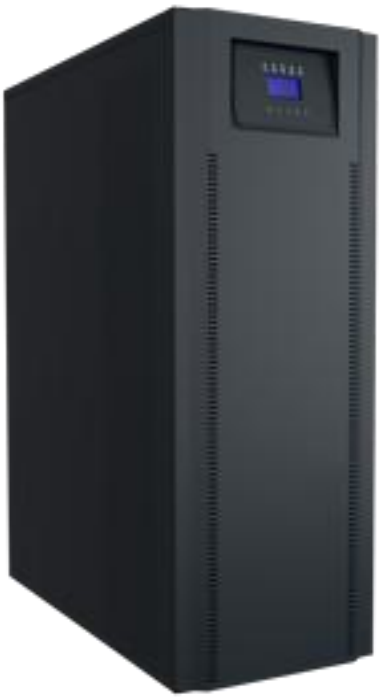
The VEGA 3000 Series is a high-performance on-line double-conversion (VFI) UPS platform utilizing modern 3-Level IGBT power architecture, delivering superior power quality, maximum system availability, and highly optimized lifecycle operating cost.

The system delivers unity power factor (PF=1) both at input and output, while providing extremely low input harmonic distortion (THDi ≤3%), significantly reducing installation infrastructure requirements and improving overall power network quality.

With output PF=1, VEGA 3000 ensures ideal protection for advanced IT, data center, industrial automation and power sensitive electronics, delivering extremely low output THDv (≤2%) and supporting all load types (inductive, resistive, capacitive or mixed) without derating.

GENERAL SPECIFICATIONS

- Three level IGBT topology
- True online double conversion
- Unity output power factor (1 kW = 1 kVA)
- IGBT PWM Rectifier & Inverter
- Efficiency up to 95 %, Eco-Mode up to 98 %
- Low input current THD (≤ 3 %), input PF > 0.99
- Cold start capability
- Smart battery charger
- Temperature compensated three stage charging
- Wide input voltage window
- Frequency converter operation (50/60 Hz)
- Short circuit, overload, surge, lightning protections
- Parallel operation up to 4 units
- 256 Event real time log
- Built-in static & manual bypass
- Intelligent fan speed control for extended service life
- SNMP, RS-485/Modbus, RS-232, dry contacts
- Remote monitoring & management software
- Emergency power off (EPO)
- Generator soft-start compatibility



APPLICATIONS

3:3 PHASE
3-LEVEL

ONLINE UPS 3/3 PHASE 10-120 KVA

MODEL	VEGA3010-PF1 VEGA3010-PF2	VEGA3015-PF1 VEGA3015-PF2	VEGA3020-PF1 VEGA3020-PF2	VEGA3030-PF1 VEGA3030-PF2	VEGA3040-PF1 VEGA3040-PF2	VEGA3060-PF1 VEGA3060-PF2	VEGA3080-ML-PF1 VEGA3080-ML-PF2	VEGA3100-ML-PF1 VEGA3100-ML-PF2	VEGA3120-ML-PF1 VEGA3120-ML-PF2
General									
Nominal Power (kVA)	10	15	20	30	40	60	80	100	120
Technology	Three Level OnLine Double Conversion								
Waveform	Sinusoidal								
Architecture	Standalone / Parallel (Optional)								
Input									
Input Voltage	380/400/415 Vac 3PH+N+PE								
Input Frequency	45-65 Hz								
Voltage Tolerance (%100 load)	±20%								
Voltage Tolerance (%50 load)	-36%, +20%								
Input Power Factor	≥0,99								
Input Current THD	≤3%								
Output									
Output Voltage	380/400/415 Vac 3PH+N+PE ± 1%								
Efficiency (AC-AC)	Up to 96% (@ 50% Load), Up to 95% (@ 100 %Load)								
Ecomode Efficiency	Up to 98% (Optional)								
Nominal Output Frequency	50/60Hz +0,01 Free Run (Adjustable) (Optional)								
Crest Factor	3:1								
Output Power Factor	1 (PF1 Model) / 0,9 (PF2 Model)								
Output Voltage THD	<2% Linear Load & 5% Non-Linear Load								
Bypass									
Bypass	Built in Automatic & Maintenance Bypass								
Overload	150% load for 1 Minutes								
Voltage Tolerance	± 10%								
Transfer Time	0 ms								
Battery & Charger									
Battery Types	VRLA-AGM (GEL / NiCd / Li-ion Optioanl)								
Battery Test	Automatic or Manual								
Charge Time	<6h-8h								
Charger Capacity PF1 Model (Max)	1 - 13A Adjustable								
Charger Capacity PF2 Model (Max)	1-4A Adjustable (1-13A) Optional					1 - 13A Adjustable			
Higher Charger Card Option	Available								
Quantity (With Internal 12V)	(PF1& PF2) 20/32 Pcs 7/9Ah	(PF1& PF2) 32 Pcs 7/9Ah	2x30 Pcs 7/9Ah (PF1) 32 Pcs 7/9Ah (PF2)	(PF1& PF2) 2x30 Pcs 7/9Ah	2x30 Pcs 18Ah (PF1) 2x30 Pcs 7/9Ah (PF2)	N/A (PF1) 2x30 Pcs 18Ah (PF2)	N/A		
Quantity (External Cabinet With 4A Charger)	V1: 30-40 pcs (Default 30 pcs) V2: 40-46 pcs (Default 40 pcs)					N/A			
Quantity (External Cabinet With 13A Charger)	30-46 Pcs (Default 30 Pcs - Adjustable from panel)					40-46 Pcs (Default 40 Pcs - Adjustable from panel)			
Communication & Accessories									
Display Type	Graphical LCD, Status LEDS								
Communication Ports (Optionals)	RS485, Modbus , USB, SNMP, GSM Modem, Relay Contacts, Input Contacts, Gensets								
Battery Temperature Sensor Input	Available								
Emergency Power Off (EPO)	Available								
Accessories (Optionals)	Galvanic Isolation Transformer, Remote Monitoring Panel								
Enviromental									
Operating Temperature	0°C - 40°C								
Storage Temperature	-15°C+ 55°C								
Relative Humidity	< 95% non condensing								
Noise (@ 1 Meter)	<55 dBA		<58 dBA				<60 dBA		
Altitude	< 1500m								
Protection Class	IP 20 (Higher Ratings are Optional)								
Physical									
Dimensions H x W x D (mm)	855 x 305 x 735 (PF1&PF2)		1078 x 325 x 895 (PF1 30kVa) 855 x 305 x 735 (PF1&PF2 20kVa & PF2 30kVa)		1330 x 420 x 1330 (PF1 60kVa) 1078 x 325 x 895 (PF2 40kVa) 1352 x 436 x 975 (PF1 40kVa & PF2 60 kVa		1257 x 432 x 918 PF1&PF2		
Net Weight (Kg)	48	51	65 PF1 / 54 PF2	71 PF1 / 65 PF2	90 PF1 / 71 PF2	115 PF1 / 95 PF2	125 PF1 / 115 PF2	135 PF1 / 125 PF2	140 PF1 / 130 PF2
Compliance									
Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)								

ONLINE UPS 3/3 PHASE 80-300 KVA

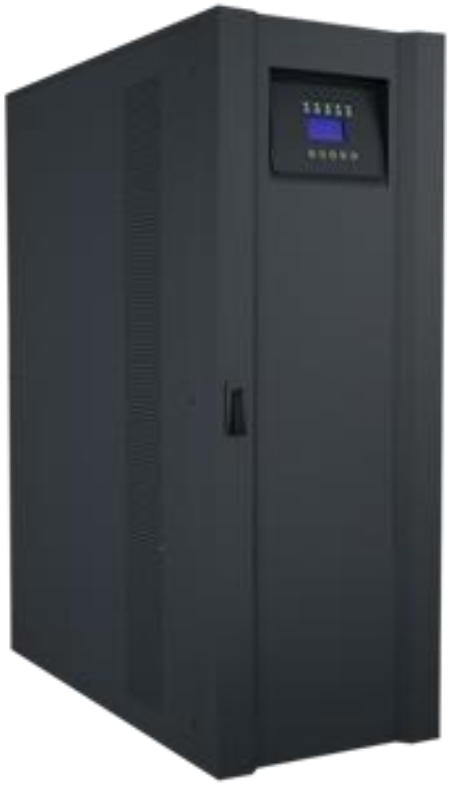
The VEGA 3000 Series three phase UPS engineered to deliver premium power protection with exceptionally low total cost of ownership, high operating efficiency and compact physical design.

VEGA 3000 is developed to satisfy future ready energy performance demands providing top class efficiency in VFI mode and noticeably reduced operating expenses across the product lifetime. Thanks to its smart efficiency management strategy, VEGA 3000 maintains excellent efficiency values even under partial load conditions.

With its unity power factor capability and scalable architecture, VEGA 3000 is the ideal high-availability power protection solution for industrial systems, data center environments and all enterprise class IT infrastructures that require guaranteed business continuity.

GENERAL SPECIFICATIONS

- Three level IGBT topology
- True online double conversion
- Unity output power factor (1 kW = 1 kVA)
- IGBT PWM Rectifier & Inverter
- Efficiency up to 95 %, Eco-Mode up to 98 %
- Low input current THD (≤ 3 %), input PF > 0.99
- Cold start capability
- Smart battery charger
- Temperature compensated three stage charging
- Wide input voltage window
- Frequency converter operation (50/60 Hz)
- Short circuit, overload, surge, lightning protections
- Parallel operation up to 8 units
- 256 Event real time log
- Built-in static & manual bypass
- Intelligent fan speed control for extended service life
- SNMP, RS-485/Modbus, RS-232, dry contacts
- Remote monitoring & management software
- Emergency power off (EPO)
- Generator soft-start compatibility



APPLICATIONS

3:3 PHASE
3-LEVEL

ONLINE UPS 3/3 PHASE 80-300 KVA

MODEL	VEGA3080-MS-PF1	VEGA3100-MS-PF1 VEGA3100-MS-PF2 VEGA3100-MS-PF3	VEGA3120-MS-PF1 VEGA3120-MS-PF2 VEGA3120-MS-PF3	VEGA3160-PF1 VEGA3160-PF2 VEGA3160-PF3	VEGA3200-PF1 VEGA3200-PF2 VEGA3200-PF3	VEGA3250-PF1 VEGA3250-PF2 VEGA3250-PF3	VEGA3300-PF2 VEGA3300-PF3
General							
Nominal Power (kVA)	80	100	120	160	200	250	300
Technology	Three Level OnLine Double Conversion						
Waveform	Sinusoidal						
Architecture	Standalone / Parallel (Optional)						
Input							
Input voltage	380, 400, 415 Vac 3PH+N+PE						
Input frequency	45-65 Hz						
Voltage Tolerance (%100 load)	±20%						
Voltage Tolerance (%50 load)	-36%, +20%						
Input Power Factor	≥0,99						
Input Current THD	≤3%						
Output							
Output Voltage	380, 400, 415 Vac 3PH+N+PE ± 1%						
Efficiency (AC-AC)	Up to 96% (@ 100% Load)						
Ecomode Efficiency	Up to 98% (Optional)						
Nominal Output Frequency	50/60Hz +0,01 Free Run (Adjustable) (Optional)						
Crest Factor	3:1						
Output Power Factor	1 (PF1 Model) / 0,9 (PF2 Model) / 0,8 (PF3 Model)						
Output Voltage THD	<2% Linear Load & 5% Non-Linear Load						
Bypass							
Bypass	Built in Automatic & Maintenance Bypass						
Overload	150% load for 1 Minutes						
Voltage Tolerance	± 10%						
Transfer Time	0 ms						
Battery & Charger							
Battery Types	VRLA-AGM (GEL / NiCd / Li-ion Optioanl)						
Battery Test	Automatic or Manual						
Charge Time	<6h-8h						
Quantity (External Cabinet)	40 - 46 pcs						
Communication & Accessories							
Display Type	Graphical LCD, Status LEDS						
Communication Ports (Optionals)	RS485, Modbus , USB, SNMP, GSM Modem, Relay Contacts, Input Contacts, Gensets, Jbus, Profibus						
Battery Temperature Sensor Input	Available						
Emergency Power Off (EPO)	Available						
Accessories (Optionals)	Galvanic Isolation Transformer, Remote Monitoring Panel						
Enviromental							
Operating Temperature	0°C - 40°C						
Storage Temperature	-15°C+ 55°C						
Relative Humidity	< 95% non condensing						
Noise (@ 1 Meter)	<62 dBA				<65 dBA		
Altitude	< 1000m						
Protection Class	IP 20 (Higher Ratings are Optional)						
Physical							
Dimensions H x W x D (mm)	1402x 543 x 928 1402 x 643 x 1014 (160 kVa PF1)				1402 x 643 x 1014 (PF2&PF3) (D: 820 PF1)	1402 x 820 x 1014	
Net Weight (Kg)	245	250	255	260	270	310	315
Compliance							
Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)						

ONLINE UPS 3/3 PHASE 300-1000 KVA

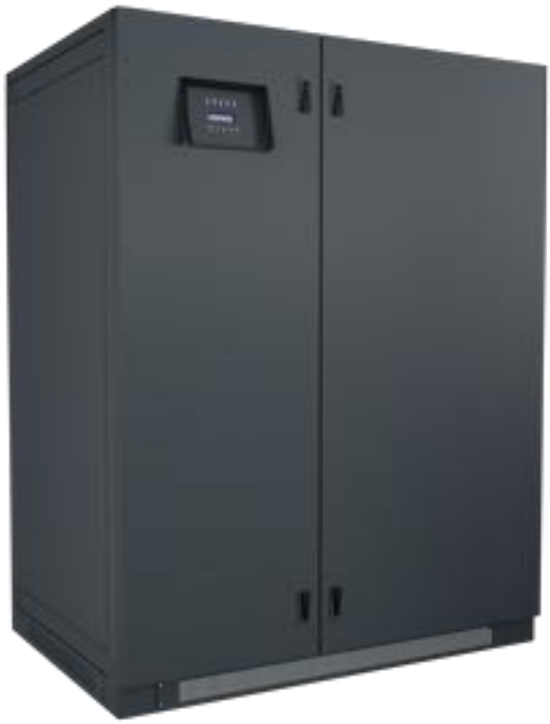
The VEGA 3000 Series three phase UPS engineered to deliver premium power protection with exceptionally low total cost of ownership, high operating efficiency and compact physical design.

VEGA 3000 is developed to satisfy future ready energy performance demands providing top class efficiency in VFI mode and noticeably reduced operating expenses across the product lifetime. Thanks to its smart efficiency management strategy, VEGA 3000 maintains excellent efficiency values even under partial load conditions.

With its unity power factor capability and scalable architecture, VEGA 3000 is the ideal high-availability power protection solution for industrial systems, data center environments and all enterprise class IT infrastructures that require guaranteed business continuity.

GENERAL SPECIFICATIONS

- Three level IGBT topology
- True online double conversion
- Unity output power factor (1 kW = 1 kVA)
- IGBT PWM Rectifier & Inverter
- Efficiency up to 95 %, Eco-Mode up to 98 %
- Low input current THD (≤ 3 %), input PF > 0.99
- Cold start capability
- Smart battery charger
- Temperature compensated three stage charging
- Wide input voltage window
- Frequency converter operation (50/60 Hz)
- Short circuit, overload, surge, lightning protections
- Parallel operation up to 8 units
- 256 Event real time log
- Built-in static & manual bypass
- Intelligent fan speed control for extended service life
- SNMP, RS-485/Modbus, RS-232, dry contacts
- Remote monitoring & management software
- Emergency power off (EPO)
- Generator soft-start compatibility



APPLICATIONS

3:3 PHASE
3-LEVEL

ONLINE UPS 3/3 PHASE 300-1000 KVA

MODEL	VEGA3300-PF1	VEGA3400-PF1 VEGA3400-PF2 VEGA3400-PF3	VEGA3500-PF1 VEGA3500-PF2 VEGA3500-PF3	VEGA3600-PF1 VEGA3600-PF2 VEGA3600-PF3	VEGA3800-PF1 VEGA3800-PF2 VEGA3800-PF3	VEGA31000-PF2 VEGA31000-PF3
General						
Nominal Power (kVA)	300	400	500	600	800	1000
Technology	Three Level OnLine Double Conversion					
Waveform	Sinusoidal					
Architecture	Standalone / Parallel (Optional)					
Input						
Input voltage	380/400/415 Vac 3PH+N+PE					
Input frequency	45-65 Hz					
Voltage Tolerance (%100 load)	±20%					
Voltage Tolerance (%50 load)	-36%, +20%					
Input Power Factor	≥0,99					
Input Current THD	≤3%					
Output						
Output Voltage	380/400/415 Vac 3PH+N+PE ± 1%					
Efficiency (AC-AC)	Up to 96% (@ 100% Load)					
Ecomode Efficiency	Up to 98% (Optional)					
Nominal Output Frequency	50/60Hz +0,01 Free Run (Adjustable) (Optional)					
Crest Factor	3:1					
Output Power Factor	1 (PF1 Model) / 0,9 (PF2 Model) / 0,8 (PF3 Model)					
Output Voltage THD	<2% Linear Load & 5% Non-Linear Load					
Bypass						
Bypass	Built in Automatic & Maintenance Bypass					
Overload	150% load for 1 Minutes					
Voltage Tolerance	± 10%					
Transfer Time	0 ms					
Battery & Charger						
Battery Types	VRLA-AGM (GEL / NiCd / Li-ion Optioanl)					
Battery Test	Automatic or Manual					
Charge Time	<6h-8h					
Quantity (External Cabinet)	40 - 46 pcs					
Communication & Accessories						
Display Type	Graphical LCD, Status LEDS					
Communication Ports (Optionals)	RS485, Modbus , USB, SNMP, GSM Modem, Relay Contacts, Input Contacts, Gensets, Jbus, Profibus					
Battery Temperature Sensor Input	Available					
Emergency Power Off (EPO)	Available					
Accessories (Optionals)	Galvanic Isolation Transformer, Remote Monitoring Panel					
Enviromental						
Operating Temperature	0°C - 40°C					
Storage Temperature	-15°C+ 55°C					
Relative Humidity	< 95% non condensing					
Noise (@ 1 Meter)	<68 dBA			<72 dBA		
Altitude	< 1000m					
Protection Class	IP 20 (Higher Ratings are Optional)					
Physical						
Dimensions H x W x D (mm)	1724 x 1663 x 884				1950 x 2950 x 930	
Net Weight (Kg)	600	660 PF1 620 PF2 & PF3	700 PF1 640 PF2 & PF3	800 PF1 750 PF2 & PF3	1050 PF1 900 PF2 & PF3	1200 PF1 1050 PF2 & PF3
Compliance						
Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)					

VEGA 3000-MOD SERIES

EMRT
Reliable Power Solutions

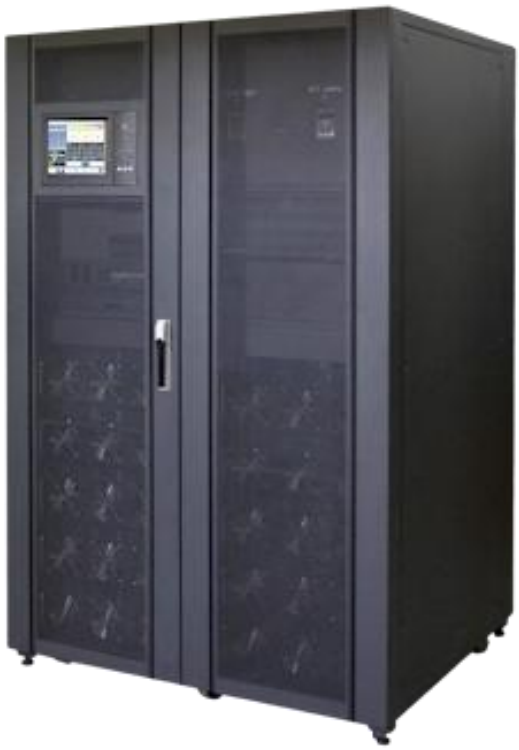
MODULAR ONLINE UPS 3/3 PHASE 50-600 KVA

The VEGA 3000-MOD Series is a modular UPS platform designed with the latest generation power components and advanced 3-Level architecture. Thanks to its hot-swappable modular design, the system can be configured flexibly from 50 kVA up to 500 kVA within a single cabinet. Up to three cabinets can also be paralleled, enabling total system capacity expansion up to 1500 kVA.

VEGA 3000-MOD delivers a highly functional, safe, and easy-to-deploy solution optimized for modern power infrastructures. Leveraging state-of-the-art power conversion technology, it ensures reliable operation, simplified serviceability, and scalable protection aligned with evolving operational requirements.

GENERAL SPECIFICATIONS

- 3-Level IGBT Technology
- Online Double Conversion
- IGBT PWM Rectifier & Inverter
- Multiprocessor Digital Control
- Up to 96% high efficiency
- Eco Mode Operation – efficiency up to 98%
- Low Input Current THD (≤3%)
- High Input Power Factor (≥0.99)
- Low Output Voltage THD (≤2%)
- Fast Dynamic Load Transient Response (≤2ms)
- Cold Start Capability
- Parallel Configurable – 3 units up to 1500kVA
- 256 Real-Time Event Log
- Dual Input Capability
- Static & Manual Bypass System built-in
- Remote Monitoring & Management Software support
- Excellent Generator Compatibility
- Programmable Dry Contacts
- 10.4” Touch Color LCD Display with graphical UI
- Independent LCD for each modular power module
- DC/DC Charger / Booster suppors flexible number of batteries
- Wide Input Voltage Operation Range (up to -36%)
- 4U – 50kVA Power Module
- Short circuit, overload, surge, lightning protection



MODULAR
3:3 PHASE
3-LEVEL

APPLICATIONS

MODULAR ONLINE UPS 3/3 PHASE 50-600 KVA

MODEL	VEGA3100-MOD	VEGA3200-MOD	VEGA3300-MOD	VEGA3500-MOD	VEGA3600-MOD
General					
System Capacity (kVA)	100	200	300	500	600
Power Module Capacity	50 kVa / 50 kW				
Input					
Dual Input	Standard		Optional	Standard	
Input voltage	380/400/415 Vac 3PH+N+PE				
Rated Frequency	50Hz / 60Hz				
Frequency Range	40Hz / 70Hz				
Input Power Factor	≥0,99				
Input Current THD	≤3% @ 100% Linear Load				
Output					
Output Voltage	380/400/415 Vac (Line-Line)				
Voltage Regulation	± 1% Balanced Load ± 1.5% Unbalanced Load				
Rated Frequency	50Hz / 60Hz				
Output Power Factor	1.0				
Output Voltage THD	<1.0 Linear Load, <5.5% Non-Linear Load				
Crest Factor	3:1				
Inverter Overload	110% 1 hour, 125% 10 min, 150% 1 min, >150% 200ms				
Bypass					
Rated Voltage	380/400/415 Vac (Line-Line)				
Rated Frequency	50Hz / 60Hz				
Inpıt Voltage Range	-40%, +25% (Adjustable)				
Frequency Range	± 1Hz, ± 3Hz, ± 5Hz (Adjustable)				
Over Load	125% Long Term Operation < 130% 10 Minutes < 150% 1 Minutes > 150% 300 ms		110% Long Term Operation < 130% 10 Minutes < 150% 1 Minutes > 150% 1 ms		110% Long Term Operation 110% - 125% 10 Minutes 125% - 150% 1 Minutes > 150% 1 s
Battery					
Voltage	± 240 VDC				
Quantity	40 Pcs (Adjustable 32 -44)				
Voltage Precision	1%				
Charge Power	up to 20% Output Active Power				
Battery Cold Satart	Optional		Standard		
System					
Efficiency	AC Mode 96%, Eco Mode 99%				
Display	10.4" Touch Screen, LED, Keyboard				
Communication Interface	RS232, RS485, Programmable Dry Contacts, USB				
Optional	SNMP, Parallel Kit, SPD, LBS, Dust Filter				
Accessories (Optional)	Galvanic Isolation Transformer, Remote Monitoring Panel				
Enviromental					
Operating Temperature	0°C - 40°C				
Storage Temperature	-40°C+ 70°C				
Relative Humidity	< 95% non condensing				
Noise (@ 1 Meter)	<62 dBA				<65 dBA
Altitude	< 1000m, Power Derate 1% for every 100m rise between 1000-2000m				
Protection Class	IP 20 (Higher Ratings are Optional)				
Physical					
Dimensions Cabinet H x W x D (mm)	1150 x 600 x 980	1600 x 650 x 960	2000 x 650 x 1095	2000 x 1300 x 1100	
Dimensions Power Module H x W x D (mm)	178 x 510 x 700				
Net Weight Cabinet (Kg)	120	170	220	450	1040
Net Weight Module (Kg)	45				

SPICA 3000 SERIES

EMRT
Reliable Power Solutions

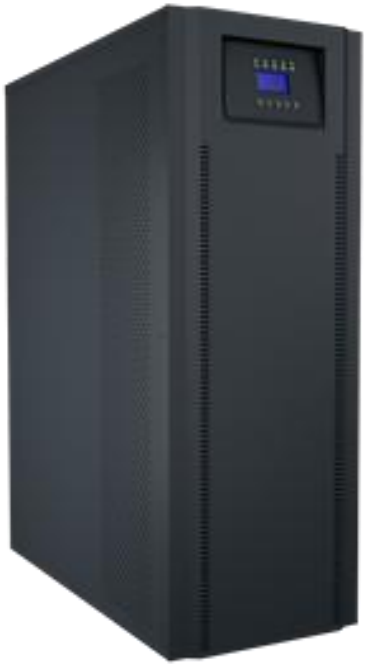
STATIC FREQUENCY CONVERTER 50/60 - 400 HZ 10 - 120 KVA

SPICA 3000 Series Frequency Converters are engineered to minimize the impact on upstream power sources such as mains supplies or generators. This is achieved through a low harmonic input current and a smooth, progressive rectifier start-up, significantly reducing electrical stress. Thanks to these characteristics, SPICA Series converters are particularly well suited for operation with generator based power systems.

The SPICA 3000 Series Frequency Converters also deliver enhanced protection and reliability across a broad range of demanding applications

GENERAL SPECIFICATIONS

- Three level IGBT topology
- Battery connection feature
- 1-Phase or 3-Phase Output
- Multi processor digital control
- Special input-output values according to requirements.
- 256 Event real time log
- RS-232 , RS-485 and dry contact outputs
- SNMP Compatible



APPLICATIONS

- **Aircraft Power Supply Systems**
- **Radar and Flight Control Systems**
- **Naval Platforms and Maritime Systems**
- **Military and Defence Applications**
- **Laboratory Test Benches**

3:3 PHASE
3:1 PHASE
3-LEVEL

SPICA 3000 SERIES

EMRT
Reliable Power Solutions

STATIC FREQUENCY CONVERTER 50/60 - 400 HZ 10 - 120 KVA

MODEL	SPICA3010-PF1 SPICA3010-PF2	SPICA3015-PF1 SPICA3015-PF2	SPICA3020-PF1 SPICA3020-PF2	SPICA3030-PF1 SPICA3030-PF2	SPICA3040-PF1 SPICA3040-PF2	SPICA3060-PF1 SPICA3060-PF2	SPICA3080-PF1 SPICA3080-PF2	SPICA3100-PF1 SPICA3100-PF2	SPICA3120-PF1 SPICA3120-PF2
General									
Nominal Power (kVA)	10	15	20	30	40	60	80	100	120
Technology	Three Level OnLine Double Conversion								
Waveform	Sinusoidal								
Architecture	Standalone / Parallel (Optional)								
Input									
Input Voltage	380/400/415 Vac 3PH+N+PE								
Input Frequency	50-60-400 Hz								
Voltage Tolerance (%100 load)	±20%								
Voltage Tolerance (%50 load)	-36%, +20%								
Input Power Factor	≥0,99								
Input Current THD	≤3%								
Output									
Output Voltage	380/400/415 Vac 3PH+N+PE ± 1%								
Efficiency (AC-AC)	Up to 96% (@ 50% Load), Up to 95% (@ 100 %Load)								
Ecomode Efficiency	Up to 98% (Optional)								
Nominal Output Frequency	50/60Hz +0,01 Free Run (Adjustable) (Optional)								
Crest Factor	3:1								
Output Power Factor	1 (PF1 Model) / 0,9 (PF2 Model)								
Output Voltage THD	<2% Linear Load & 5% Non-Linear Load								
Communication & Accessories									
Display Type	Graphical LCD, Status LEDS								
Communication Ports (Optionals)	RS485, Modbus , USB, SNMP, GSM Modem, Relay Contacts, Input Contacts, Gensets								
Battery Temperature Sensor Input	Available								
Emergency Power Off (EPO)	Available								
Accessories (Optionals)	Galvanic Isolation Transformer, Remote Monitoring Panel								
Enviromental									
Operating Temperature	0°C - 40°C								
Storage Temperature	-15°C+ 55°C								
Relative Humidity	< 95% non condensing								
Noise (@ 1 Meter)	<55 dBA		<58 dBA				<60 dBA		
Altitude	< 1500m								
Protection Class	IP 20 (Higher Ratings are Optional)								
Physical									
Dimensions H x W x D (mm)	855 x 305 x 735 (PF1&PF2)		1078 x 325 x 895 (PF1 & PF2) 855 x 305 x 735 (PF2 20kVa)		1330 x 420 x 1330 (PF1 40kVa) 1078 x 325 x 895 (PF1 & PF2)		1257 x 432 x 930 (PF1&PF2)		
Dimensions H x W x D (mm) (IP54+)	1580 x 1110 x 1950								
Net Weight (Kg)	48	51	65 PF1 / 54 PF2	71 PF1 / 65 PF2	90 PF1 / 71 PF2	115 PF1 / 95 PF2	125 PF1 / 115 PF2	135 PF1 / 125 PF2	140 PF1 / 130 PF2
Compliance									
Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)								

SPICA 3000 SERIES

EMRT
Reliable Power Solutions

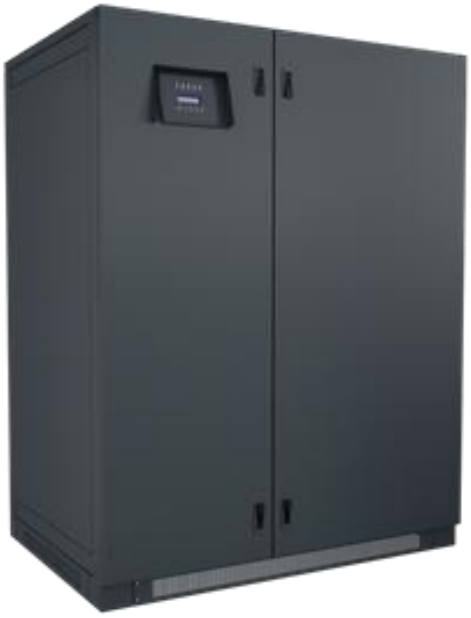
STATIC FREQUENCY CONVERTER 50/60 - 400 HZ 160 - 800 KVA

SPICA 3000 Series Frequency Converters are engineered to minimize the impact on upstream power sources such as mains supplies or generators. This is achieved through a low harmonic input current and a smooth, progressive rectifier start-up, significantly reducing electrical stress. Thanks to these characteristics, SPICA Series converters are particularly well suited for operation with generator based power systems.

The SPICA 3000 Series Frequency Converters also deliver enhanced protection and reliability across a broad range of demanding applications

GENERAL SPECIFICATIONS

- Three level IGBT topology
- Battery connection feature
- 1-Phase or 3-Phase Output
- Multi processor digital control
- Special input-output values according to requirements.
- 256 Event real time log
- RS-232 , RS-485 and dry contact outputs
- SNMP Compatible



APPLICATIONS

- **Aircraft Power Supply Systems**
- **Radar and Flight Control Systems**
- **Naval Platforms and Maritime Systems**
- **Military and Defence Applications**
- **Laboratory Test Benches**

3:3 PHASE
3-LEVEL

SPICA 3000 SERIES

EMRT
Reliable Power Solutions

STATIC FREQUENCY CONVERTER 50/60 - 400 HZ 160 - 800 KVA

MODEL	SPICA3160-PF1 SPICA3160-PF2	SPICA3200-PF1 SPICA3200-PF2	SPICA3250-PF1 SPICA3250-PF2	SPICA3300-PF1 SPICA3300-PF2	SPICA3400-PF1 SPICA3400-PF2	SPICA3500-PF1 SPICA3500-PF2	SPICA3600-PF1 SPICA3600-PF2	SPICA3800-PF1 SPICA3800-PF2
General								
Nominal Power (kVA)	160	200	250	300	400	500	600	800
Technology	Three Level OnLine Double Conversion							
Waveform	Sinusoidal							
Architecture	Standalone / Parallel (Optional)							
Input								
Input Voltage	380/400/415 Vac 3PH+N+PE							
Input Frequency	50-60-400 Hz							
Voltage Tolerance (%100 load)	±20%							
Voltage Tolerance (%50 load)	-36%, +20%							
Input Power Factor	≥0,99							
Input Current THD	≤3%							
Output								
Output Voltage	380/400/415 Vac 3PH+N+PE ± 1%							
Efficiency (AC-AC)	Up to 96% (@ 50% Load), Up to 95% (@ 100 %Load)							
Ecomode Efficiency	Up to 98% (Optional)							
Nominal Output Frequency	50/60Hz +0,01 Free Run (Adjustable) (Optional)							
Crest Factor	3:1							
Output Power Factor	1 (PF1 Model) / 0,9 (PF2 Model)							
Output Voltage THD	<2% Linear Load & 5% Non-Linear Load							
Communication & Accessories								
Display Type	Graphical LCD, Status LEDS							
Communication Ports (Optionals)	RS485, Modbus , USB, SNMP, GSM Modem, Relay Contacts, Input Contacts, Gensets							
Battery Temperature Sensor Input	Available							
Emergency Power Off (EPO)	Available							
Accessories (Optionals)	Galvanic Isolation Transformer, Remote Monitoring Panel							
Enviromental								
Operating Temperature	0°C - 40°C							
Storage Temperature	-15°C+ 55°C							
Relative Humidity	< 95% non condensing							
Noise (@ 1 Meter)	<55 dBA		<58 dBA				<60 dBA	
Altitude	< 1500m							
Protection Class	IP 20 (Higher Ratings are Optional)							
Physical								
Dimensions H x W x D (mm)	1014 x 1402 x 643	1014 x 1402 x 820			884 x 1724 x 1663			930 x 1950 x 2950
Net Weight (Kg)	260	270	300	315	660 PF1 / 620 PF2	700 PF1 / 640 PF2	800 PF1 / 750 PF2	1050 PF1 / 900 PF2
Compliance								
Standards	EN 62040-1-1 (Safety), EN 62040-2 (EMC), EN 62040-3 (Performance)							

LIBRA 1000 SERIES

EMRT
Reliable Power Solutions

DC/AC INVERTER 1-PHASE 3-10 KVA

LIBRA 1000 Series inverter is a DC input powered device designed to generate a stable three-phase AC output. Fully controlled by a microprocessor-based system, it ensures precise regulation of output voltage and frequency while delivering reliable and high-quality power for a wide range of mains-powered equipment.

With its robust design and advanced control architecture, the LIBRA 1000 Series provides fast response to load variations and maintains consistent performance under demanding operating conditions. Built-in protection features and high efficiency make it a dependable solution for industrial, commercial, and critical power applications where durability and stable power supply are essential.

GENERAL SPECIFICATIONS

- 3-Level IGBT Technology
- Multiprocessor Digital Control
- 256 detailed real-time event logs
- Data analysis via the user panel
- RS232, RS485 communication port and dry contact outputs
- Special production input-output values according to needs
- Models with 1-phase output
- SNMP compatible communication
- Remote monitoring and management

1 - PHASE INVERTER

APPLICATIONS

DC/AC INVERTER 1-PHASE 3-10 KVA

MODEL	LIBRA - 1000
General	
Nominal Power (kVA)	3-10 Kva
Technology	IGBT
Communication (optional)	RS485, SNMP, Relay Contacts, Modbus
Emergency Power Off (EPO)	Available
Display	Alphanumeric or Graphical lcd screen
Efficiency	> 90%
Accessories (Optional)	Remote Monitoring Panel
Input	
Input Voltage	48 / 96 / 110 / 220 / 400 Vdc (Optional)
Output	
Output Voltage	220 / 230 / 240 V 1PH+N+PE 50/60/400 Hz
Voltage Regulation	±1% (balanced load) ±2% (unbalanced load)
Frequency	50/60/400 Hz
Protection	Electronic overcurrent protection, Votage low and high protection
THD	≤2% (Linear load) & ≤5% (Non-linear load)
Power Factor	0.8 (0.9 and 1 optional)
Enviromental	
Operating Temperature	0°C - 40°C
Storage Temperature	-15°C+ 50°C
Relative Humidity	< 95% Non condensing
Altitude	< 1000m
Protection Class	IP 20 (Higher Ratings are Optional)

LIBRA 3000 SERIES

EMRT
Reliable Power Solutions

DC/AC INVERTER 3-PHASE 10-500 KVA

LIBRA 3000 Series inverter is a DC input powered device designed to generate a stable three-phase AC output. Fully controlled by a microprocessor-based system, it ensures precise regulation of output voltage and frequency while delivering reliable and high-quality power for a wide range of mains-powered equipment.

With its robust design and advanced control architecture, the LIBRA 3000 Series provides fast response to load variations and maintains consistent performance under demanding operating conditions. Built-in protection features and high efficiency make it a dependable solution for industrial, commercial, and critical power applications where durability and stable power supply are essential.

GENERAL SPECIFICATIONS

- 3-Level IGBT Technology
- Multiprocessor Digital Control
- 256 detailed real-time event logs
- Data analysis via the user panel
- RS232, RS485 communication port and dry contact outputs
- Special production input-output values according to needs
- Models with 3-phase output
- SNMP compatible communication
- Remote monitoring and management

3 - PHASE INVERTER

APPLICATIONS

DC/AC INVERTER 3-PHASE 10-500 KVA

MODEL	LIBRA - 3000
General	
Nominal Power (kVA)	10-500 Kva
Technology	IGBT
Communication (optional)	RS485, SNMP, Relay Contacts, Modbus
Emergency Power Off (EPO)	Available
Display	Alphanumeric or Graphical lcd screen
Efficiency	> 90%
Accessories (Optional)	Remote Monitoring Panel
Input	
Input Voltage	48 / 96 / 110 / 220 / 400 Vdc (Optional)
Output	
Output Voltage	220 / 230 / 240 V 3PH+N+PE 50/60/400 Hz
Voltage Regulation	±1% (balanced load) ±2% (unbalanced load)
Frequency	50/60/400 Hz
Protection	Electronic overcurrent protection, Votage low and high protection
THD	≤2% (Linear load) & ≤5% (Non-linear load)
Power Factor	0.8 (0.9 and 1 optional)
Enviromental	
Operating Temperature	0°C - 40°C
Storage Temperature	-15°C+ 50°C
Relative Humidity	< 95% Non condensing
Altitude	< 1000m
Protection Class	IP 20 (Higher Ratings are Optional)

ORION 1000-SRV SERIES

EMRT
Reliable Power Solutions

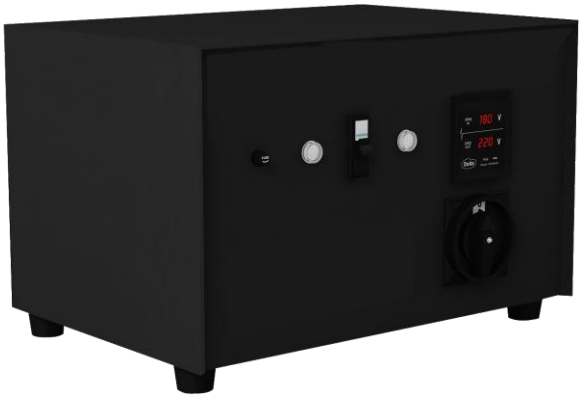
SERVO VOLTAGE STABILIZER 1/1 PHASE 3.5-50 KVA

ORION 1000-SRV Series servo voltage regulators are designed to continuously stabilize the mains voltage by eliminating overvoltage, undervoltage, and phase imbalance conditions. Equipped with advanced electronic monitoring and protection circuits, the system ensures precise regulation under dynamic network conditions. In the event that input voltage exceeds the regulation limits, an electro-mechanical bypass and cut-off mechanism safely disconnects the output, protecting connected loads from potential electrical damage.

ORION 1000-SRV Voltage regulators are heavy-duty, servo-driven systems controlled by a microcontroller, designed to precisely regulate mains voltage and ensure reliable power for critical loads.

GENERAL SPECIFICATIONS

- 1-phase input / 1-phase output
- Effective mains voltage regulation
- Compatible with non-linear loads
- Wide operating voltage and power range
- Fast and accurate regulation response
- High reliability with microprocessor control and smart drive technology
- High efficiency operation
- Manual bypass via pole-change switch for load transfer
- Safe and cost-effective operation
- Optional overcurrent and overload protection
- Digital display of system status, input, and output values
- 1-year standard warranty
- Spare parts availability up to 10 years



1:1 PHASE SERVO

APPLICATIONS

ORION 1000-SRV SERIES

EMRT
Reliable Power Solutions

SERVO VOLTAGE STABILIZER 1/1 PHASE 3.5-50 KVA

MODEL	ORION 10035-SRV	ORION 1015-SRV	ORION 10075-SRV	ORION 1010-SRV	ORION 1015-SRV	ORION 1020-SRV	ORION 1025-SRV	ORION 1030-SRV	ORION 1040-SRV	ORION 1050-SRV
General										
Nominal Power (kVA)	3,5	5	7,5	10	15	20	25	30	40	50
Technology	Servo type, microprocessor controlled, full automatic									
Cooling	Smart fan system									
Voltage Monitoring	TRUE RMS Panel Voltmeter (74 × 74 mm) (Output & Line Voltages)									
Efficiency	> 96 @ Full Load									
Mechanical Bypass	Manual line selection via PAKO switch (Regulator / Bypass)									
Input										
Input Voltage Correction Range	165 - 225 Vac (130 - 240 Vac Optional)									
Input Frequency	47-65 Hz									
Protection	High & Low Voltage , Over Current Protection									
Output										
Output Voltage	220/230/240 Vac									
Voltage Correction Rate	~ 90 V/s									
Overload	200% 10s									
Voltage Recovery Time	~ 90 Volt / Sec (160 VAC - 250 Vac)									
Protection	Automatically disconnects the output to protect the load under overload or short-circuit conditions.									
Enviromental										
Operating Temperature	-10°C - 50°C									
Storage Temperature	-20°C+ 60°C									
Relative Humidity	< 90% (DIN 40040)									
Noise (@ 1 Meter)	<50 dBA									
Altitude	< 2000m									
Protection Class	IP 20 (Higher Ratings are Optional)									
Physical										
Dimensions H x W x D (mm)	30 x 55 x 37				32 x 60 x 40	85 x 50 x 50			85 x 50 x 60	
Net Weight (Kg)	29	30	34	47	55	95	110	130	155	180
Compliance										
Standards	CE / ISO 9001									

ORION 1000-SRV SERIES

EMRT
Reliable Power Solutions

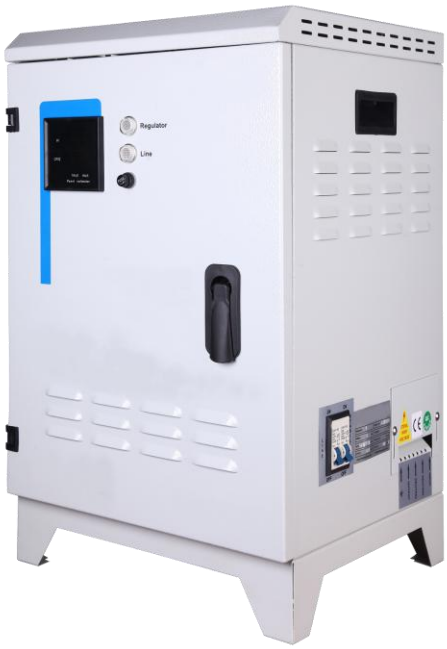
SERVO VOLTAGE STABILIZER 1/1 PHASE 8-20 KVA

ORION 1000-SRV Series servo voltage regulators are designed to continuously stabilize the mains voltage by eliminating overvoltage, undervoltage, and phase imbalance conditions. Equipped with advanced electronic monitoring and protection circuits, the system ensures precise regulation under dynamic network conditions. In the event that input voltage exceeds the regulation limits, an electro-mechanical bypass and cut-off mechanism safely disconnects the output, protecting connected loads from potential electrical damage.

ORION 1000-SRV Voltage regulators are heavy-duty, servo-driven systems controlled by a microcontroller, designed to precisely regulate mains voltage and ensure reliable power for critical loads.

GENERAL SPECIFICATIONS

- 1-phase input / 1-phase output
- Effective mains voltage regulation
- Compatible with non-linear loads
- Wide operating voltage and power range
- Fast and accurate regulation response
- High reliability with microprocessor control and smart drive technology
- High efficiency operation
- Manual bypass via pole-change switch for load transfer
- Safe and cost-effective operation
- Optional overcurrent and overload protection
- Digital display of system status, input, and output values
- 1-year standard warranty
- Spare parts availability up to 10 years



APPLICATIONS

1:1 PHASE SERVO

ORION 1000-SRV SERIES

EMRT
Reliable Power Solutions

SERVO VOLTAGE STABILIZER 1/1 PHASE 8-20 KVA

MODEL	ORION 1008-SRV-H	ORION 1010-SRV-H	ORION 1015-SRV-H	ORION 1020-SRV-H
General				
Nominal Power (kVA)	8	10	15	20
Technology	Servo type, microprocessor controlled, full automatic			
Voltage Monitoring	TRUE RMS Panel Voltmeter (74 × 74 mm) (Output & Line Voltages)			
Efficiency	> 96 @ Full Load			
Mechanical Bypass	Manual line selection via PAKO switch (Regulator / Bypass)			
Input				
Input Voltage Correction Range	165 - 225 Vac (130 - 240 Vac Optional)			
Input Frequency	47-65 Hz			
Protection	High & Low Voltage , Over Current Protection			
Output				
Output Voltage	220/230/240 Vac			
Voltage Correction Rate	~ 90 V/s			
Overload	200% 10s			
Voltage Recovery Time	~ 90 Volt / Sec (160 VAC - 250 Vac)			
Protection	Automatically disconnects the output to protect the load under overload or short-circuit conditions.			
Enviromental				
Operating Temperature	-10°C - 50°C			
Storage Temperature	-25°C+ 60°C			
Relative Humidity	< 90% (DIN 40040)			
Noise (@ 1 Meter)	<50 dBA			
Altitude	< 2000m			
Protection Class	IP 20 (Higher Ratings are Optional)			
Physical				
Dimensions H x W x D (mm)	30 x 30 x 36	55 x 30 x 36	61 x 38 x 41	66 x 40 x 43
Net Weight (Kg)	35	43	72	81
Compliance				
Standards	CE / ISO 9001			

ORION 1000-STC SERIES

EMRT
Reliable Power Solutions

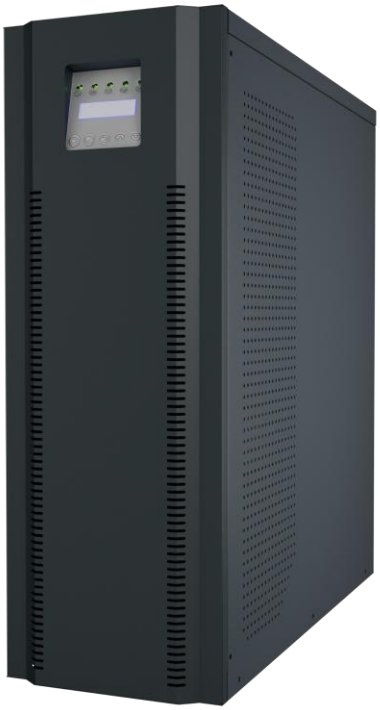
STATIC VOLTAGE STABILIZER 1/1 PHASE 5-50 KVA

ORION 1000-STC voltage regulators are designed to protect sensitive equipment by stabilizing mains voltage and eliminating overvoltage, undervoltage, and network imbalances. With electronically controlled regulation, they ensure a consistent and reliable output voltage under fluctuating supply conditions.

When voltage levels exceed the adjustment range, the regulator automatically disconnects the output through an electromechanical mechanism, preventing potential damage to connected loads. This combination of fast electronic protection and secure disconnection provides dependable performance, extended equipment life, and uninterrupted operation for everyday applications.

GENERAL SPECIFICATIONS

- Maintenance-free thyristor-based static technology
- Microprocessor-controlled digital regulation
- Clear and user-friendly LCD interface
- Ultra-fast response time of 20 ms
- Continuous protection against voltage fluctuations
- Integrated protection against overload, over-temperature, and abnormal voltage levels
- High efficiency across the entire power range
- Robust industrial-grade design
- Wide input voltage operating range
- Static and manual bypass functionality
- Advanced communication and remote monitoring support



APPLICATIONS

1:1 PHASE STATIC

STATIC VOLTAGE STABILIZER 1/1 PHASE 5-50 KVA

MODEL	ORION 1005-STC	ORION 10075-STC	ORION 1010-STC	ORION 1015-STC	ORION 1020-STC	ORION 1030-STC	ORION 1040-STC	ORION 1050-STC
General								
Nominal Power (kVA)	5	7,5	10	15	20	30	40	50
Technology	Thyristor (SCR) Technology, Microprocessor controlled, High Speed Regulation							
Efficiency	> 97% (typical)							
Mechanical Bypass	Available							
Display	Graphical lcd screen							
Communication (Optional)	RS485, SNMP, Relay Contacts, Modbus							
Emergency Power Off (Optional)	Available							
Accessories (Optional)	Remote Monitoring Panel							
Input								
Input Voltage	220, 230, 240 Vac 1 Ph + N							
Voltage tolerance	(-25)% (+20)% (-35)% (+15)% (optional) (-50)% (+15)% (optional)							
Frequency	50 / 60 Hz (±5%)							
Output								
Output Voltage	220, 230, 240 Vac 1Ph + N ±3%							
Voltage Correction Speed	%2>175V/sec / %3>275V/sec / %5>500V/sec							
Overload	150% 1 Minute							
Respond Time	20 msec.							
Protection	Short circuit, over load, over current, electronic and fuse protection							
Protections								
Voltage Protection	Electronic protection for Low Voltage and High Voltage							
Current Protection	Input Circuit Breaker or Input Fuses							
Temperature Protection	Electronic Over Temperature Protection							
Short Circuit Protection	Available							
Surge Protection	Surge Arrester Class-I or Class-II (optional)							
Enviromental								
Operating Temperature	-10°C - 40°C							
Storage Temperature	-25°C+ 60°C							
Relative Humidity	< 95% (DIN 40040)							
Noise (@ 1 Meter)	<55 dBA							
Altitude	< 1500m							
Protection Class	IP 20 (Higher Ratings are Optional)							
Physical								
Dimensions H x W x D (Cm)	30 x 70 x 81							
Net Weight (Kg)	30	33	38	50	55	65	80	85

ORION 3000-SRV SERIES

EMRT
Reliable Power Solutions

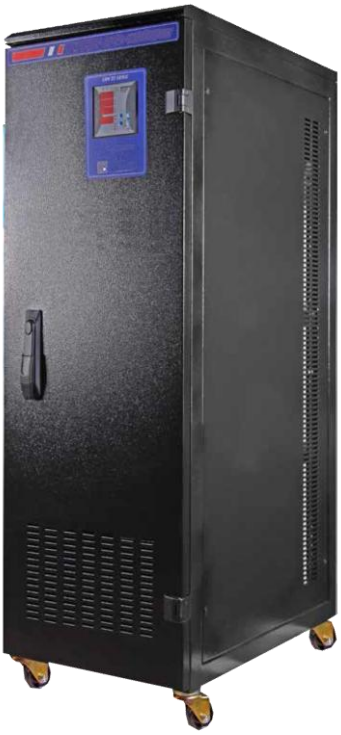
SERVO VOLTAGE STABILIZER 3/3 PHASE 10-150 KVA

ORION 3000-SRV Series servo voltage regulators are designed to continuously stabilize the mains voltage by eliminating overvoltage, undervoltage, and phase imbalance conditions. Equipped with advanced electronic monitoring and protection circuits, the system ensures precise regulation under dynamic network conditions. In the event that input voltage exceeds the regulation limits, an electro-mechanical bypass and cut-off mechanism safely disconnects the output, protecting connected loads from potential electrical damage.

ORION 3000 Voltage regulators are heavy-duty, servo-driven systems controlled by a microcontroller, designed to precisely regulate mains voltage and ensure reliable power for critical loads.

GENERAL SPECIFICATIONS

- Three-phase input / three-phase output
- Effective mains voltage regulation
- Compatible with non-linear loads
- Wide operating voltage and power range
- Fast and accurate regulation response
- High reliability with microprocessor control and smart drive technology
- High efficiency operation
- Manual bypass via pole-change switch for load transfer
- Safe and cost-effective operation
- Optional overcurrent and overload protection
- Digital display of system status, input, and output values
- 1-year standard warranty
- Spare parts availability up to 10 years



APPLICATIONS

3:3 PHASE SERVO

SERVO VOLTAGE STABILIZER 3/3 PHASE 10-150 KVA

MODEL	ORION 3010-SRV	ORION 3015-SRV	ORION 3022-SRV	ORION 3030-SRV	ORION 3045-SRV	ORION 3060-SRV	ORION 3075-SRV	ORION 3100-SRV	ORION 3120-SRV	ORION 3150-SRV
General										
Nominal Power (kVA)	10,5	15	22,5	30	45	60	75	100	120	150
Technology	Servo type, microprocessor controlled, full automatic									
Cooling	Smart fan system									
Voltage Monitoring	TRUE RMS Panel Voltmeter (74 × 74 mm) (Output & Line Voltages)									
Efficiency	> 96 @ Full Load									
Mechanical Bypass	Manual line selection via PAKO switch (Regulator / Bypass)									
Input										
Input Voltage Correction Range	285 - 445 Vac (190 - 415 Vac Optional)									
Input Frequency	47-65 Hz									
Protection	High & Low Voltage , Over Current Protection									
Output										
Output Voltage	380/400/415 Vac									
Voltage Correction Rate	~ 90 V/s									
Overload	200% 10s									
Voltage Recovery Time	~ 90 Volt / Sec (160 VAC - 250 Vac)									
Protection	Automatically disconnects the output to protect the load under overload or short-circuit conditions.									
Enviromental										
Operating Temperature	-10°C - 40°C									
Storage Temperature	-20°C+ 60°C									
Relative Humidity	< 90% (DIN 40040)									
Noise (@ 1 Meter)	<55 dBA									
Altitude	< 2000m									
Protection Class	IP 20 (Higher Ratings are Optional)									
Physical										
Dimensions H x W x D (mm)	117 x 40 x 64			127 x 40 x 64		140 x 88 x 60			165 x 94 x 66	
Net Weight (Kg)	95	105	125	145	165	260	280	310	400	425
Compliance										
Standards	CE / ISO 9001									

ORION 3000-SRV SERIES

EMRT
Reliable Power Solutions

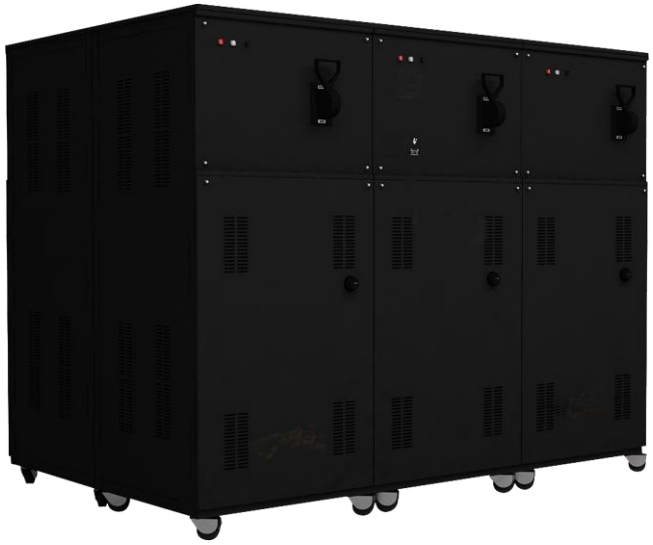
SERVO VOLTAGE STABILIZER 3/3 PHASE 200-3000 KVA

ORION 3000-SRV Series servo voltage regulators are designed to continuously stabilize the mains voltage by eliminating overvoltage, undervoltage, and phase imbalance conditions. Equipped with advanced electronic monitoring and protection circuits, the system ensures precise regulation under dynamic network conditions. In the event that input voltage exceeds the regulation limits, an electro-mechanical bypass and cut-off mechanism safely disconnects the output, protecting connected loads from potential electrical damage.

ORION 3000 Voltage regulators are heavy-duty, servo-driven systems controlled by a microcontroller, designed to precisely regulate mains voltage and ensure reliable power for critical loads.

GENERAL SPECIFICATIONS

- Three-phase input / three-phase output
- Effective mains voltage regulation
- Compatible with non-linear loads
- Wide operating voltage and power range
- Fast and accurate regulation response
- High reliability with microprocessor control and smart drive technology
- High efficiency operation
- Manual bypass via pole-change switch for load transfer
- Safe and cost-effective operation
- Optional overcurrent and overload protection
- Digital display of system status, input, and output values
- 1-year standard warranty
- Spare parts availability up to 10 years



APPLICATIONS

3:3 PHASE SERVO

SERVO VOLTAGE STABILIZER 3/3 PHASE 200-3000 KVA

MODEL	ORION 3200-SRV	ORION 3250-SRV	ORION 3300-SRV	ORION 3400-SRV	ORION 3500-SRV	ORION 3600-SRV	ORION 3800-SRV	ORION 31000-SRV	ORION 31250-SRV	ORION 31500-SRV	ORION 32000-SRV	ORION 32500-SRV	ORION 33000-SRV
General													
Nominal Power (kVA)	200	250	300	400	500	600	800	1000	1250	1500	2000	2500	3000
Technology	Servo type, microprocessor controlled, full automatic												
Cooling	Smart fan system												
Voltage Monitoring	TRUE RMS Panel Voltmeter (74 × 74 mm) (Output & Line Voltages)												
Efficiency	> 97 @ Full Load												
Mechanical Bypass	Manual line selection via PAKO switch (Regulator / Bypass)												
Input													
Input Voltage Correction Range	285 - 440 Vac (190 - 415 Vac Optional)												
Input Frequency	47-65 Hz												
Protection	High & Low Voltage , Over Current Protection												
Output													
Output Voltage	380/400/415 Vac												
Voltage Correction Rate	~ 90 V/s												
Overload	200% 10s												
Voltage Recovery Time	~ 90 Volt / Sec (160 VAC - 250 Vac)												
Protection	Automatically disconnects the output to protect the load under overload or short-circuit conditions.												
Enviromental													
Operating Temperature	-10°C - 50°C												
Storage Temperature	-25°C+ 60°C												
Relative Humidity	< 90% (DIN 40040)												
Noise (@ 1 Meter)	<55 dBA												
Altitude	< 2000m												
Protection Class	IP 20 (Higher Ratings are Optional)												
Physical													
Dimensions H x W x D (mm)	190 x 120 x 180			175 x 180 x 122			200 x 210 x 120	185 x 210 x 200		195 x 245 x 250			
Net Weight (Kg)	1050	1100	1200	1650	2000	2100	2900	3450	3900	4400	4900	5300	5700
Compliance													
Standards	CE / ISO 9001												

ORION 3000-STC SERIES

EMRT
Reliable Power Solutions

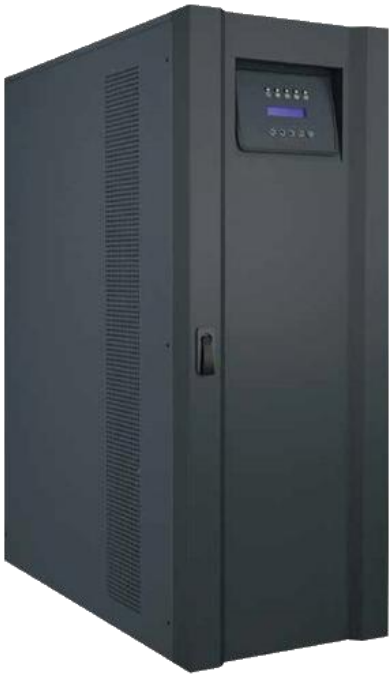
STATIC VOLTAGE STABILIZER 3/3 PHASE 10-150 KVA

ORION 3000-STC voltage regulators are designed to protect sensitive equipment by stabilizing mains voltage and eliminating overvoltage, undervoltage, and network imbalances. With electronically controlled regulation, they ensure a consistent and reliable output voltage under fluctuating supply conditions.

When voltage levels exceed the adjustment range, the regulator automatically disconnects the output through an electromechanical mechanism, preventing potential damage to connected loads. This combination of fast electronic protection and secure disconnection provides dependable performance, extended equipment life, and uninterrupted operation for everyday applications.

GENERAL SPECIFICATIONS

- Three-phase input / three-phase output
- Static Automatic Voltage Regulator (AVR)
- Power range: 10–150 kVA
- Input voltage: 300–480 VAC (3P+N)
- Input frequency: 50 Hz
- Output voltage: 380 / 400 VAC (3P+N)
- Output voltage tolerance: ±2%
- Regulation speed: up to 5000 V/s
- Efficiency: >97%
- Operating temperature: 0°C to 40°C
- Relative humidity: 0–95% (non-condensing)
- Acoustic noise level: <55 dBA
- Short-term overload capability: up to 500% for 20 ms



APPLICATIONS

3:3 PHASE STATIC

STATIC VOLTAGE STABILIZER 3/3 PHASE 10-150 KVA

MODEL	ORION 3010-STC	ORION 3015-STC	ORION 3020-STC	ORION 3030-STC	ORION 3045-STC	ORION 3060-STC	ORION 3075-STC	ORION 3100-STC	ORION 3120-STC	ORION 3150-STC
General										
Nominal Power (kVA)	10	15	20	30	45	60	75	100	120	150
Technology	Thyristor (SCR) Technology, Microprocessor controlled, High Speed Regulation									
Efficiency	> 97% (typical)									
Mechanical Bypass	Available									
Display	Graphical lcd screen									
Communication (Optional)	RS485, SNMP, Relay Contacts, Modbus									
Emergency Power Off (Optional)	Available									
Accessories (Optional)	Remote Monitoring Panel									
Input										
Input Voltage	380, 400 Vac 3Ph+N									
Voltage tolerance	(-23)% (+18)% (-40)% (+18)% (optional)									
Frequency	50 / 60 Hz (±5%)									
Output										
Output Voltage	380 / 400 Vac 3Ph+ N ± 3% (±2% optional)									
Voltage Correction Speed	%2>175V/sec / %3>275V/sec									
Overload	150% 1 Minute									
Respond Time	20 msec.									
Protection	Short circuit, over load, over current, electronic and fuse protection									
Protections										
Voltage Protection	Electronic protection for Low Voltage and High Voltage									
Current Protection	Input Circuit Breaker or Input Fuses									
Temperature Protection	Electronic Over Temperature Protection									
Short Circuit Protection	Available									
Surge Protection	Surge Arrester Class-I or Class-II (optional)									
Enviromental										
Operating Temperature	-10°C - 40°C									
Storage Temperature	-25°C+ 60°C									
Relative Humidity	< 95% (DIN 40040)									
Noise (@ 1 Meter)	<55 dBA									
Altitude	< 1500m									
Protection Class	IP 20 (Higher Ratings are Optional)									
Physical										
Dimensions H x W x D (Cm)	81 x 30 x 70						120 x 43 x 96			
Net Weight (Kg)	130	150	160	170	190	210	230	250	270	300

ORION 3000-STC SERIES

EMRT
Reliable Power Solutions

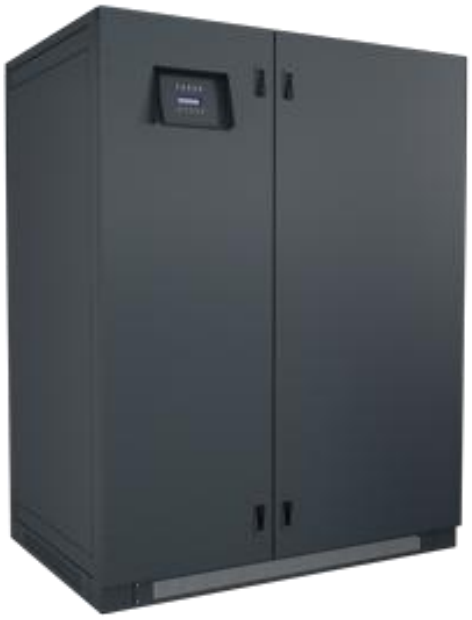
STATIC VOLTAGE STABILIZER 3/3 PHASE 200-3000 KVA

ORION 3000-STC voltage regulators are designed to protect sensitive equipment by stabilizing mains voltage and eliminating overvoltage, undervoltage, and network imbalances. With electronically controlled regulation, they ensure a consistent and reliable output voltage under fluctuating supply conditions.

When voltage levels exceed the adjustment range, the regulator automatically disconnects the output through an electromechanical mechanism, preventing potential damage to connected loads. This combination of fast electronic protection and secure disconnection provides dependable performance, extended equipment life, and uninterrupted operation for everyday applications.

GENERAL SPECIFICATIONS

- Three-phase input / three-phase output
- Static Automatic Voltage Regulator (AVR)
- Power range: 200–3000 kVA
- Input voltage: 300–480 VAC (3P+N)
- Input frequency: 50 Hz
- Output voltage: 380 / 400 VAC (3P+N)
- Output voltage tolerance: ±2%
- Regulation speed: up to 5000 V/s
- Efficiency: >97%
- Operating temperature: 0°C to 40°C
- Relative humidity: 0–95% (non-condensing)
- Acoustic noise level: <55 dBA
- Short-term overload capability: up to 500% for 20 ms



APPLICATIONS

3:3 PHASE STATIC

ORION 3000-STC SERIES

EMRT
Reliable Power Solutions

STATIC VOLTAGE STABILIZER 3/3 PHASE 200-3000 KVA

MODEL	ORION 3200-STC	ORION 3250-STC	ORION 3300-STC	ORION 3400-STC	ORION 3600-STC	ORION 3800-STC	ORION 31000-STC	ORION 32000-STC	ORION 32500-STC	ORION 33000-STC
General										
Nominal Power (kVA)	200	250	300	400	600	800	1000	2000	2500	3000
Technology	Thyristor (SCR) Technology, Microprocessor controlled, High Speed Regulation									
Efficiency	> 97% (typical)									
Mechanical Bypass	Available									
Display	Graphical lcd screen									
Communication (Optional)	RS485, SNMP, Relay Contacts, Modbus									
Emergency Power Off (Optional)	Available									
Accessories (Optional)	Remote Monitoring Panel									
Input										
Input Voltage	380, 400, 415 Vac 3Ph+N									
Voltage tolerance	(-23)% (+18)% (-40)% (+18)% (optional)									
Frequency	50 / 60 Hz (±5%)									
Output										
Output Voltage	380 / 400 Vac 3Ph+ N ± 3% (±2% optional)									
Voltage Correction Speed	%2>175V/sec / %3>275V/sec									
Overload	150% 1 Minute									
Respond Time	20 msec.									
Protection	Short circuit, over load, over current, electronic and fuse protection									
Protections										
Voltage Protection	Electronic protection for Low Voltage and High Voltage									
Current Protection	Input Circuit Breaker or Input Fuses									
Temperature Protection	Electronic Over Temperature Protection									
Short Circuit Protection	Available									
Surge Protection	Surge Arrester Class-I or Class-II (optional)									
Enviromental										
Operating Temperature	-10°C - 40°C									
Storage Temperature	-25°C+ 60°C									
Relative Humidity	< 95% (DIN 40040)									
Noise (@ 1 Meter)	<55 dBA									
Altitude	< 1500m									
Protection Class	IP 20 (Higher Ratings are Optional)									
Physical										
Dimensions H x W x D (Cm)	160 x 55 x 140					170 x 110 x 225			190 x 150 x 240	
Net Weight (Kg)	625	700	780	850	920	1200	1500	1700	2000	2400

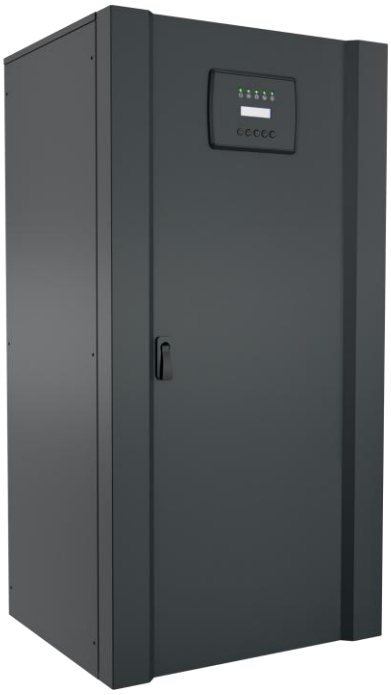
HYDRA 1000 SERIES

BATTERY CHARGERS 1-PHASE 10 – 300A

Transformer Based, SCR controlled battery chargers operate as industrial AC/DC rectifier systems featuring automatic constant voltage and constant current regulation. The integrated isolation transformer ensures full galvanic separation between the utility grid and the connected DC load and battery bank, enhancing operational safety, system reliability, and protection against grid disturbances.

GENERAL SPECIFICATIONS

- Internal isolation transformer at input
- Float charge, equalizing charge and boost charge modes
- Automatic and manual charge modes
- Operation as voltage source or current source
- Programmable current limitation
- Low output voltage ripple and high reliability
- Calibration of measurements from front panel
- DC Low / High, Line Failure, Over Temperature, Short Circuit protections
- Programmable dry contacts
- Advanced Communication Capabilities
- 256 Real Time Event Log with Detailed Parameters
- Soft start



1-PHASE

- **12/24VDC: 10A-300A**
- **36/48VDC: 10A-150A**
- **110VDC: 10A-200A**
- **220VDC: 10A-100A**

BATTERY CHARGERS 1-PHASE 10 – 300A

MODEL	HYDRA 1000
General	
Topology	Transformer Isolated, SCR Control
Cooling	Forced Cooling, Natural Cooling (Optional)
Efficiency	≥85% @ Full Load
Isolation Voltage	1500 or 3000 VAC Input/Chassis and Output/Chassis
Input Phase Count	100% - 120% of Floating Charge
Measurements	Load Output Voltage and Current / Battery Output Voltage and Current / Utility Voltage / Line voltage / Frequency / Power factor (Optional) / Batt. ambient temperature (Optional)
Optionals	Individual Outputs for Battery and Load / Additional LVD Contactor Separating Load and Battery From Each Other / DC +/- Ground Leakage Protection / Battery Monitoring / Management System (BMS) / Analog Measurement Indicator
Input	
Input Phase Count	1 Phase
Input Voltage	110VAC / 127VAC / 208VAC / 220VAC / 230VAC / 240VAC
Voltage Tolerance (%100 load)	±15%, ±20% (Optional)
Nominal Frequency	-36%, +20%
Input Power Factor	50/60 Hz 5%
Input Current THD	30%
Input Protections	Overcurrent Protection, Overvoltage Protection
Output	
Output Voltage	24 VDC / 48 VDC / 110 VDC / 220 VDC
Output Voltage Adjusment	100% - 120% of Nominal Output Voltage
Output Current Adjustment	10% - 100% of Nominal Current
Charge Current Adjustment	10% - 100% of Nominal Current
Boost Charge	100% - 120% of Floating Charge
Float Charge Voltage (V/C)	2.23V Lead Acid, 1.4V NiCd
Boost Charge Voltage (V/C)	2.4V Lead Acid, 1.6V NiCd
Output Protections	Short Circuit / Over Voltage / Over Temperature / Over Current Reverse Voltage (Reverse Connection) Protection
Communication & Paralelling	
Communication	RS232 (Standard), Dry Contacts (Optional), RS485 (Optional), Modbus TCP (Optional), GSM (Optional)
Paralleling	Redundant Operation with Active or Passive Load Sharing Option
Enviromental	
Operating Temperature	-5°C - +50°C
Storage Temperature	-20°C - + 70°C
Relative Humidity	0 - 95% non condensing
Noise (@ 1 Meter)	45 - 55 dBA (According to Ratings)
Altitude	1000m
Protection Class	IP 20 (Higher Ratings are Optional)
Compliance	
Standards	EN60146-1-1, EN62477-1 (LVD), EN61204-3, EN61003-3-12, EN61003-3-11 (EMC)

HYDRA 3000 SERIES

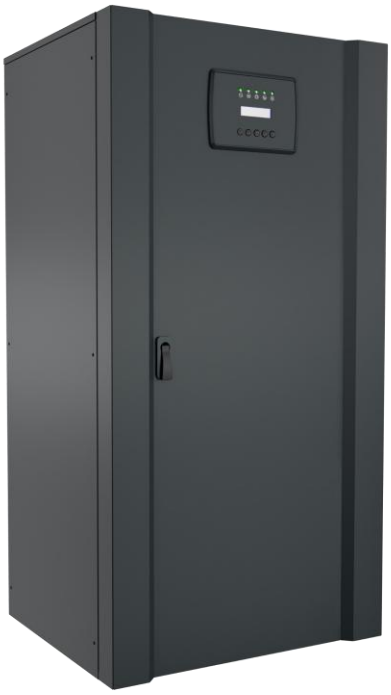
EMRT
Reliable Power Solutions

BATTERY CHARGERS 3-PHASE 30 – 500A

Transformer Based, SCR controlled battery chargers operate as industrial AC/DC rectifier systems featuring automatic constant voltage and constant current regulation. The integrated isolation transformer ensures full galvanic separation between the utility grid and the connected DC load and battery bank, enhancing operational safety, system reliability, and protection against grid disturbances.

GENERAL SPECIFICATIONS

- Internal isolation transformer at input
- Float charge, equalizing charge and boost charge modes
- Automatic and manual charge modes
- Operation as voltage source or current source
- Programmable current limitation
- Low output voltage ripple and high reliability
- Calibration of measurements from front panel
- DC Low / High, Line Failure, Over Temperature, Short Circuit protections
- Programmable dry contacts
- Advanced Communication Capabilities
- 256 Real Time Event Log with Detailed Parameters
- Soft start



3-PHASE

- **12VDC: 50A-200A**
- **24VDC: 30A-300A**
- **48VDC: 30A-200A**
- **110/220VDC: 30A-500A**

BATTERY CHARGERS 3-PHASE 30 – 500A

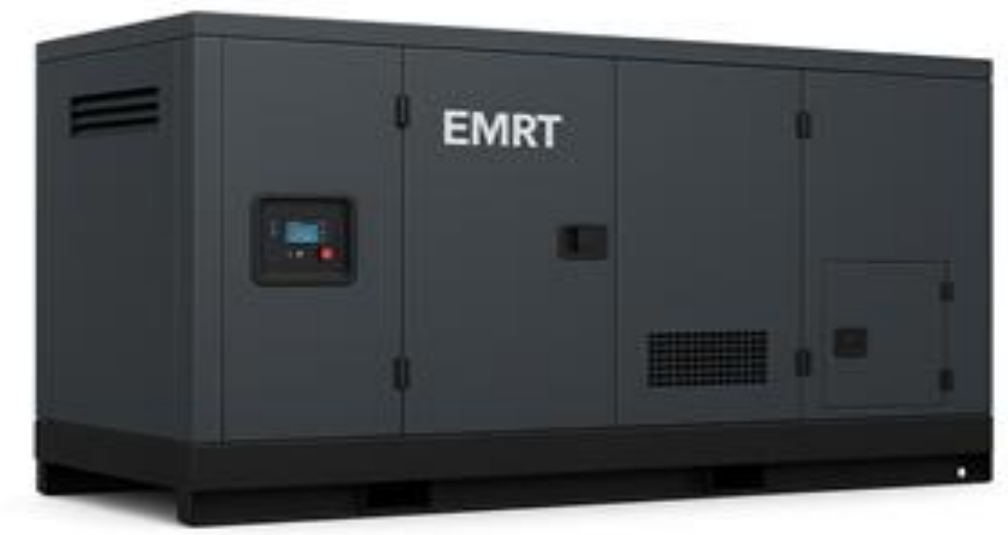
MODEL	HYDRA 3000
General	
Topology	Transformer Isolated, SCR Control
Cooling	Forced Cooling, Natural Cooling (Optional)
Efficiency	≥85% @ Full Load
Isolation Voltage	1500 or 3000 VAC Input/Chassis and Output/Chassis
Input Phase Count	100% - 120% of Floating Charge
Measurements	Load Output Voltage and Current / Battery Output Voltage and Current / Utility Voltage / Line voltage / Frequency / Power factor (Optional) / Batt. ambient temperature (Optional)
Optionals	Individual Outputs for Battery and Load / Additional LVD Contactor Separating Load and Battery From Each Other / DC +/- Ground Leakage Protection / Battery Monitoring / Management System (BMS) / Analog Measurement Indicator
Input	
Input Phase Count	3 Phase
Input Voltage	190VAC / 200VAC / 380VAC / 400VAC / 415VAC
Voltage Tolerance (%100 load)	±15%, ±20% (Optional)
Nominal Frequency	-36%, +20%
Input Power Factor	50/60 Hz 5%
Input Current THD	30%
Input Protections	Overcurrent Protection, Overvoltage Protection
Output	
Output Voltage	24 VDC / 48 VDC / 110 VDC / 220 VDC
Output Voltage Adjusment	100% - 120% of Nominal Output Voltage
Output Current Adjustment	10% - 100% of Nominal Current
Charge Current Adjustment	10% - 100% of Nominal Current
Boost Charge	100% - 120% of Floating Charge
Float Charge Voltage (V/C)	2.23V Lead Acid, 1.4V NiCd
Boost Charge Voltage (V/C)	2.4V Lead Acid, 1.6V NiCd
Output Protections	Short Circuit / Over Voltage / Over Temperature / Over Current Reverse Voltage (Reverse Connection) Protection
Communication & Paralelling	
Communication	RS232 (Standard), Dry Contacts (Optional), RS485 (Optional), Modbus TCP (Optional), GSM (Optional)
Paralleling	Redundant Operation with Active or Passive Load Sharing Option
Enviromental	
Operating Temperature	-5°C - +50°C
Storage Temperature	-20°C - + 70°C
Relative Humidity	0 - 95% non condensing
Noise (@ 1 Meter)	45 - 55 dBA (According to Ratings)
Altitude	1000m
Protection Class	IP 20 (Higher Ratings are Optional)
Compliance	
Standards	EN60146-1-1, EN62477-1 (LVD), EN61204-3, EN61003-3-12, EN61003-3-11 (EMC)

GENERATORS UP TO 4000 KVA

Our industrial generator sets are engineered to deliver **high-capacity, reliable, and continuous power** for the most demanding applications. Covering a wide power range **up to 4000 kVA**, these generators are suitable for both **prime power** and **standby power** operations in environments where power continuity is critical.

Each generator set is built to operate reliably in **industrial and harsh environmental conditions**. Optimized cooling systems, reinforced mechanical structures, and carefully selected components ensure long service life and minimal downtime.

Optional configurations include extended fuel tanks, remote monitoring systems, low-temperature start kits, and custom enclosure solutions, allowing the generator to be tailored precisely to site requirements.



APPLICATIONS

QUALITY STANDARDS

Our generators are manufactured in compliance with VDE 0530, BSE 4999 BS5000, IEC 34, EN12601; EN60204-1; TS ISO 8528-1 ... -13; EN12100-1; EN12100-2; EN61000-6-4; EN61000-6-2; EN61000-4-11; EN61000-4-6; EN61000-4-5; EN61000-4-2; EN55011; EN55016-2-1; EN55016-2-3; EN61000-3-2; EN61000-3-3; EN55014-1; EN61000-6-2; EN61000-4-3; EN61000-4-4; EN61000-4-8; EN61000-4-11; TS EN ISO 3744; TS EN ISO 3746; TS EN 60034-1; TS EN 60034-22; TS EN ISO 3046; BS 5514; NEMA MG 21; IEC 60034, BS 4999/5000 and TS EN 60947-1..4 standards.

Our generators up to 400 kw are manufactured in compliance with 2000/14/EC European noise emission directive and certified from Ente Certificazione Macchine.

LYRA SERIES

EMRT
Reliable Power Solutions

ENGINE SPECIFICATIONS

- Heavy duty diesel engine
- 4 cycle, water cooled, turbocharged, air to air/air to water cooled
- Electronic or mechanic governor system
- 12/24 Volt self-starter and charger alternator
- Changeable air, fuel and oil filter
- Flexible fuel pipe
- Oil discharge valve and extention pipe
- Industrial type silencer, exhaust spiral or compensator
- Maintenance free battery
- Engine block water heater (in automatic models)

ALTERNATOR SPECIFICATIONS

- Brushless, single bearing, flexible disc 4 poles alternator for harmonic failure
- H type isolation class
- IP 21-23 protection class
- Self exciter
- Electronic automatic voltage regulator
- Stator 2/3 step for harmonic failure
- The alternator windings are protected by insulating varnish against oil and acid

CANOPY

- Modular type sound-proof canopy
- Canopy installation executed with screw and nut, without welding process
- Epoxy and polyester powder painted canopy
- Weatherproof canopy rating is IP 23
- Canopy designed for easy maintenance
- Lockable doors on both sides of canopy
- Emergency stop button
- Transparent panel inspection window
- Insulation details: Non-flammeable acoustic foam

CANOPY OPTIONS

- Standard canopy
- Super silent canopy
- Extra super silent canopy (thicker insulation)

CONTAINER

- Chassis parts and load-bearing construction are manufactured from 140mm NPU
- The base metal sheet is manufactured from 2/3 diamond-shaped metal sheet
- Sidewall metal sheets are manufactured from 1.5mm ST 37 DKP trapezoidal metal sheet
- The top metal sheet will be manufactured from 1.5mm ST 37 DKP trapezoidal metal sheet
- Air disposing and suction parts are manufactured with the normal shutter in bolt-mounted hot-plug
- Lifting lugs are manufactured to bear the total load of the container (with generator)(8 pcs ISO Locked)
- PPG RAL 9010 paint application is followed for painting
- Internal illumination has 2x1x18 Watt waterproof fixture and 1x1x16 A monophasic plug fitting
- Top wall isolation is 0.8mm galvanised perforated metal sheet coating on 8cm fibro-glass glass wool plate
- The double-winged main door is manufactured with a pipe-type locking mechanism
- Service doors are manufactured with 4 single-winged and internal
- panic bar mechanisms to be locked outside (These doors are designed mounted inside the container body and doorknobs do not exceed container body)
- Emergency stop button on long edges
- Warning signs are placed to necessary places inside and outside the container

CONTAINER OPTIONS

- Standard container
- Acoustic container

SILENCER OPTIONS

- Standard industrial type
- Critical type
- Hospital type

PROTECTION & ALARMS

- High water temperature
- Low oil pressure
- High & low engine speed
- Low radiator water level
- Over current load
- High & low genset voltage
- Start/stop failure

GENSET CONTROLLERS

- LCD display screen
- Hardware and materials needed
- Battery charger
- USB port & RS-485 output

OPTIONAL EQUIPMENTS

- Charge ammeter
- Moulded case circuit braker (in automatic models)
- Hospital/Critical type silencer
- Modular type sound-proof canopy
- Mobile - trailer
- Synchronization control panel for 2-16 gensets
- 3 pole/4 pole automatic transfer panel (A.T.S.)
- Fuel and oil heater
- Alternator heater
- Automatic fuel filling system
- Fuel-water seperator filter
- PMG warning system

INDUSTRIAL POWER TRANSFORMERS

Our transformers are engineered to deliver safe, stable, and efficient power distribution for critical energy systems. Designed for seamless integration with UPS systems, frequency converters, voltage stabilizers, and industrial power infrastructures, our transformers ensure electrical isolation, voltage adaptation, and long-term operational reliability.

With robust mechanical construction and optimized electromagnetic design, our transformers minimize losses while maintaining high performance under continuous and demanding load conditions. They are suitable for both industrial and infrastructure-level applications where power quality and system protection are essential.

ISOLATION TRANSFORMERS

- Provides galvanic isolation between primary and secondary circuits.
- Protects sensitive equipment from electrical noise and voltage disturbances.
- Commonly used in UPS systems, control panels, and power electronics.
- Typical ratings: up to 1 MVA, voltages up to 5 kV / 400–690 V.

AUTO TRANSFORMERS

- Uses a single Offers high efficiency and compact size for voltage adjustment.
- Suitable for motor starting and small voltage conversion applications.
- Typical ratings: up to 1 MVA, voltages up to 5 kV.
- winding acting as both primary and secondary circuit.

DISTRIBUTION TRANSFORMERS

- Steps down medium voltage to low voltage for industrial power distribution.
- Ensures reliable and efficient energy supply to facility loads.
- Available in oil-filled or dry-type designs for indoor or outdoor use.
- Typical ratings: 100 kVA – 50 MVA, voltages up to 36 kV.

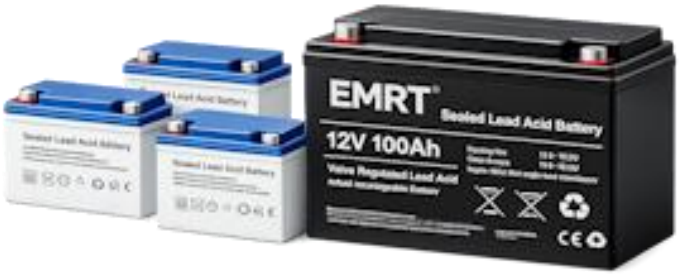
RECTIFIER TRANSFORMERS

- Designed to supply rectifier systems converting AC to DC power.
- Built to withstand harmonics and non-linear loads from power converters.
- Supports multi-pulse rectifier configurations such as 6 or 12 pulse.
- Typical ratings: up to 1 MVA, voltages up to 5 kV.

VRLA AGM / GEL BATTERIES

Our VRLA battery solutions are designed to provide reliable, maintenance-free energy storage for UPS systems and critical power applications. Engineered for stable performance and long service life, these batteries ensure uninterrupted power during outages, voltage disturbances, and grid failures.

With robust construction and consistent electrical characteristics, they are ideally suited for use in power electronics equipment where safety, reliability, and predictable backup time are essential.



APPLICATIONS

- UPS and uninterruptible power supply systems
- Data centers and IT infrastructure
- Telecom and communication equipment
- Industrial control and automation systems
- Emergency and standby power systems
- Energy storage solutions for power electronics

AGM/VRLA

- Maintenance-free sealed battery with electrolytes absorbed in glass mats.
- Provides fast response and high current capability, ideal for sensitive loads.
- Suitable for UPS, inverters, rectifiers, and emergency backup systems.
- Typical ratings: up to 1 MVA equivalent DC, voltages up to 500 V, capacities up to 3000 Ah.

GEL/VRLA

- Electrolyte is gelled with silica, providing excellent deep discharge performance.
- Optimized for long cycle life and energy storage applications.
- Ideal for solar PV inverters, off-grid systems, and renewable energy storage.
- Typical ratings: up to 500 V, capacities up to 2000 Ah.