

NETWORK

VARNA SERIES

On-line UPS double conversion high frequency from 1 to 10 kVA

Description



The Varna series include active input PFC rectifier (Power Factor Corrector) and make use of the advantages of PWM technology with IGBTs to obtain equipment with high technical features. They resolve mains electricity problems without resorting to the use of the battery in most cases, thereby increasing its service life. They are ideal for supplying critical systems of up to 10kVA that require a high reliability and quality supply with low operating and maintenance costs.

Data is provided locally through mimic panel with LCD display (and LEDs for 6-10kVA). The communications interface, together with its powerful software, allow users to monitor the status of the unit and provides information on its environment



Varna Series 1-3kVA



Varna Series 6-10kVA

Features

- > True On-Line UPS, double conversion architecture
- > PWM IGBT technology with Pure sine-wave output
- > Power: 1,2,3,6 and 10 kVA
- > Fully digitized microprocessor/DSP Controlled
- > LCD display with information about status of UPS
- > Lightning and surge protection
- > Advanced battery management (ABM)
- > Automatic battery charging in UPS off mode
- > Battery replacement warning
- > Automatic diagnostics & battery check
- > RS 232 & USB communication port
- > Cold start function (DC power on)
- > Extended back up time with battery pack
- > Power management & software monitoring
- > Emergency power off function (6-10kVA)
- > ECO mode for energy saving (1-3kVA)
- > Generator compatible
- > High input power factor ≥ 0.99
- > Manual bypass (6-10kVA)
- > SNMP and Dry contact cards optional

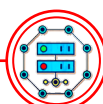
Applications



Domestic Use



Small Data Center



Network & Server



Industrial controls & Process Automation



Medical Equipment



Building Automation



Elevator & Escalator

GENERAL SPECIFICATIONS

Model	Varna 1000	Varna 2000	Varna 3000	Varna 6000	Varna 10000
Power kVA	1	2	3	6	10

GENERAL

Technology	Online, double conversion, high frequency				
Overload	105~110% up to 10 min, 110~130% up to 1 min			100~110% up to 30 min, 110~130% up to 5 min	

INPUT

Voltage	110~300 Vac at 50% Load, 160~300 Vac at 100% Load			110~300 Vac at 50% Load, 176~300 Vac at 100% Load	
Frequency	40~70 Hz			46~54 Hz	
Power factor	≥0.99				

OUTPUT

Power (kVA/kW)	1/0.8	2/1.6	3/2.4	6/4.8	10/8
Voltage	220/230/240Vac ±1%				
Output frequency	50 Hz ±0.25			50 Hz±0.1	
Power factor	≥0.8 (0.9 optional)				
Outputs	6 IEC		6 IEC and terminals		Terminals
Type of wave	Pure sinewave				
Harmonic distortion	THD < 3% (linear load)				
Crest factor	3:1				

EFFICIENCY

AC Mode	88%	89%	90%	92%	93%
DC Mode	83%	87%	88%	90%	91%

BATTERY

Standard Type	Battery Type	12 V/7Ah x 3Pcs	12 V/9Ah x 4Pcs	12 V/7Ah x 8Pcs	12V/7Ah x 16 or 20Pcs	12 V/7Ah x 20Pcs			
	Typical Recharge Time	4 hours recover to 90% capacity			9 hours recover to 90% capacity				
	Charging Current (max.)	1A			1A/2A				
Long-run Type	Battery Type	Sealed lead acid, VRLA Type							
	Numbers	2	3	4	6	8	6	8	16 ~ 20 (Adjustable)
	Charging Current (max.)	1A/2A/4A/6A (Adjustable)						1A/2A/4A/6A (Adjustable, 6A is only available for 16pcs batteries)	

INDICATORS

LCD display	Load level, Battery level, AC mode, Battery mode, Bypass mode and Fault indicators
Acoustics	Battery mode, low battery, overload, fault, bypass mode

COMMUNICATIONS

Control software	View power
Communications	RS232 and USB
Indicators	Automatic shutdown of applications, input/output voltage and frequency, load status, battery capacity, temperature, historic events, system analysis
SNMP card	Optional

PROTECTION

Protection	Low battery, current limitation, overload, short-circuit, temperature and output over/low voltage
Automatic bypass	Yes
RFI filter	Yes
PFC: Power factor corrector	Yes

STANDARDS

Marks	CE
Directives	EN 62040-1, EN 62040-2 (EMC)

OTHERS

Operation temperature	0-40°C				
Relative humidity	20-90% non-condensing			0-95% non-condensing	
Altitude without decreasing power	1000 meters over sea level				
Acoustic level	<50dBA			<55dBA	<58dBA
Dimension WxDxH (mm)	145x282x220	145x397x220	190x421x318	190x369x688	190x442x688
Weight (Kg)	9.8	17	27.6	61	66

** Indicated dimension and weigh for UPS models with internal batteries (10 minutes of autonomy),
Rest of models and backup times with external battery module, consult weights and dimensions.

** Specifications may be changed without notice.