INSERT

TECHNOLOGY: **TRUE ON LINE Double Conversion**

CLASSIFICATION: **VFI-SS-111** (EN 62040-3)

POWER RANGE: **15-40 kVA**

No. OF PHASES: **3:3**

APPLICATIONS

- Computers network
- Data processing centers
- Industrial equipment
- Clusters
- Tele information systems
- Automation and control systems

SPECIFICATION

True On-Line Double Conversion technology provides excellent output voltage performance regardless of power interference and type of powered loads.
IGBT rectifier the most advanced technology providing very low THDi and a high input power factor of 0.99
Automatic bypass uninterruptible power supply provides uninterrupted power to consumers in critical situations such as overheating or failure.
Service bypass allows servicing of equipment without shutting down the powered.

Communication:
USB, RS232, RS485 for reading and monitoring parameters, management operation and configuration of the UPS
DryContact relay contacts for interfacing with BMS systems
SNMP integration with systems management network NMS.SNMP integration with NMS-type network management systems
Emergency power off Connector (EPO) for providing remote disconnection of power supply to consumers in case of fire
The 5.0" LCD color touchscreen control and monitoring panel makes it easy to UPS operation, allows diagnostics of parameters and power supply operation mode and allows event logging.
The highly efficient charging system gives the UPS the ability to quickly charge battery banks with very large capacities, for achieving long autonomous operation times.
The unit's high efficiency (>96%) limits the heat emitted, making it making the eventual cooling of rooms simpler, and the operation of the UPS is much cheaper.
ECO-Mode allows a significant reduction in the cost of operation of the device and virtually eliminates heat emission thanks to >99% efficiency.
Internal batteries up to 160pcs x 9Ah ensure the unit's small size with using basic battery packs. The batteries do not require additional space for installation.
Adjustable battery quantity allows you to fine tune the amount of batteries for the required backup time.

Conformal coating protecting the UPS boards insulates the electronic components electronics from adverse environmental conditions like moisture, dust, dust and surges.
Automatic diagnostics and digital control (32 bit DSP x2) guarantees full device performance, component control and operating parameters without user intervention.
Redundant fans ensure UPS operation even in case of failure of 1 or 2 fans, with limited output power.
Highest output power factor of 1.0 allows for load the power supply with full active power.
The wide input voltage range in normal operation ensures stable operation of the device without the need to use batteries, which significantly contributes to extending their service life.
The wide input frequency range in normal operation mode allows the power supply to be freely used in a network with unstable parameters and with power supply from a generator set.
Advanced battery management guarantees optimal charging and utilization of the battery bank, increases battery life and reduces operating costs. Temperature compensation function charging voltage.
The excellent quality of the output voltage, achieved through the use of a 3-level IGBT inverter, with the use of advanced PWM control technology, makes it possible to deliver a voltage with stable parameters, regardless of energy disturbances and the type of powered devices.High overload capacity provides protection of the device and continuity of power supply when transient transients occur.
Advanced software that allows the user to fully control over the device and powered loads.
Configurability of operating parameters nominal voltages, frequencies, preferred modes of operation, method of communication - greatly expands the range of of possible applications.
Redundant configurations:
- redundant parallel operation for increased reliability
- capacitive parallel operation for increased power
- HotStandby operation

INSERT 15 - 40K

Model	INSERT 15K	INSERT 20K	INSERT 30K	INSERT 40K
Power [kVA/kW]	**15 / 15**	**20 / 20**	**30 / 30**	**40 / 40**
Number of phase IN : OUT	3:3			
Input				
Supply voltage	380 / 400 / 415 VAC			
Voltage range	304 VAC - 485 VAC for 100% load Min. 138 VAC - 304 VAC linear for 40% - 100% load			
Frequency	50 / 60 Hz			
Frequency range	40 – 70 Hz			
THDi	<3%			
Input power factor	≥0,99			
Output				
Nominal voltage	380 / 400 / 415 VAC			
Power factor	1,0			
Static/dynamic voltage regulation	±1% / ±2%			
Nominal frequency	50 / 60 ± 0,05 Hz			
Inverter overload	105% - 110% - 60 min., 110% - 125% - 10 min., 125% - 150% - 1 min., >150% - 0.2 sec.			
Efficiency in On-line mode	>96%			
Efficency in Eco Mode	99%			
Creast factor	3:1			
Battery				
Cold start	Yes			
Battery type	VRLA, AGM, GEL			
Number of batteries in 1 string	32 - 40 psc. x 12V			
Number of internal batteries	Max. 2*40 psc		Max. 3*40 psc	Max. 4*40 psc
Max capacity of charging system	10 A			15 A
Charging time	3 - 8 hours up to 90% capacity (configurable)			
Charging cycle	In accordance with DIN 41773 with automatic charge deactivation according to current and voltage criteria, with time control, temperature-compensated charging voltage option			
Dimensions and weight				
Dimensions W x D x H [mm]	350 x 770 x 1085		450 x 950 x 1178	600 x 950 x 1178
UPS weight without battery	106 kg		124 kg	232 kg
Number of internal batteries	40 / 80 psc		40 / 80 / 120 psc	40 / 80 / 120 / 160 psc
UPS weight with 7 Ah batteries	194 kg / 282 kg		212 kg / 300 kg / 388 kg	320 kg / 408 kg / 496 kg / 584 kg
UPS weight with 9 Ah batteries	214 kg / 322 kg		232 kg / 340 kg / 448 kg	428 kg / 448 kg / 556 kg / 664 kg
Signalling and communication ports				
Operating status indicator	5-inch touchscreen LCD, LED diode, audible alarm			
Communication	USB, RS232, RS485, EPO, Parallel operation connector, DryContact x6 Optional: SNMP card, Battery temperature sensor (30 and 40kVA)			
Environmental conditions				
Noise level	<58 dB @ 100% load / <55 dB @ 50% load			
Permissible operating temperature	0°C ÷ 40°C			
Recommended operating temperature	15°C ÷ 25°C			
Storage temperature	-25°C ÷ 55°C			
Humidity	0 ÷ 95% (non-condensing)			
Standards				
Resistance to interference	EN62040-2:2018			
Safety	EN62040-1:2019, EN62040-3:2011, CE			
Optional equipment				
- SNMP card - Environmental conditions sensor - Temperature sensor for battery charging voltage compensation		- Uninterruptible External Bypass, Service - BackFeed Protection, - Battery rack or battery modules		

The publication gives the parameters of the standard models. Due to continuous product improvement, the parameters are subject to change without prior notice.