87045 LIMOGES Cedex
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KEOR HPE 200-250-300

1. TECHNICAL FEATURES

1. General Features			
Power (KVA)	200	250	300
UPS Topology	ON LINE – Double Conversion		
Nominal Apparent Output Power (kVA Cosφ 1.0)	**200**	**250**	**300**
Nominal Active Output Power (kW Cosφ 1.0)	**200**	**250**	**300**
Efficiency (AC ÷ AC) (%) **@25% load** **@50% load** **@75% load** **@100% load**	**Up to 94,5** **Up to 95,8** **Up to 96** **Up to 95,5**		
Efficiency (AC ÷ AC) (Eco Mode)	**>98%**		
Heat dissipation at rated load, VFI voltage (kW)	**9,4**	**11,8**	**14,1**
UPS Ambient Temperature (°C)	**0 ÷ 40**		
BATTERY ambient temperature (°C)	**0 ÷ +25**		
UPS storage temperature (°C)	**-10 ÷ +70**		
BATTERY storage temperature (°C)	**-15 ÷ +40**		
Relative humidity % (not condensing)	**< 95%**		
Altitude m	**<1000 (Above Sea level)**		
Power derating for altitude > 1000 m	According to "IEC62040-3", 0,5% every 100m		
Ventilation	**Forced**		
Requested cooling air volume (m3/h)	**1800**	**2200**	**2300**
Audible noise level (according to IEC EN 62040-3)	**< 65dB**		
Number of cells for standard Lead acid battery	**360 ÷ 372**		
Protection Degree	**IP20**		
Electromagnetic Compatibility EMI	According to "IEC EN 62040-2" (CE marking)		
Safety	IEC EN 62040-1		
Test and performance	IEC EN 62040-3		
Colour	**RAL9005**		
Accessibility	**Front Access**		
Installation	**Against the Wall**		
Dimensions (mm) (WxDxH)	880 x 966 x 1976		
Weight kg (without battery)	**720**	**850**	**900**
Input/output cable connection	**Cables entry front bottom**		
Transport	Base provided for forklift handling		
Storage and transport conditions	According to "IEC EN 62040-3"		
Reference standards	EN 62040-1 - EN62040-2 - EN62040-3 ISO 9001:2008 - ISO 14001		
Front panel	10" Touch-screen		
Voltage-free contact interface	Optional for signalisations / alarms		
Serial communication interface	Standard: RS232 - USB Optional: RS485 (Mod-Bus RTU protocol)		
Parallel configuration (optional)	Up to 5+1 (redundant parallel) Up to 6 (power parallel)		

2. Input: rectifier and battery charger			
Power (KVA)	200	250	300
Input	Three-phase		
Nominal input voltage (Vac)	**400**		
Input voltage range (%)	-20/+15		
Input frequency (Hz)	50 - 60		
Input frequency range (%)	±10		
Input power factor	**>0,99**		
Input current THD at nominal voltage and THDV <0,5% (%) @25% load @50% load @75% load @100% load	 < 5 < 4 < 3 < 3		
DC output voltage accuracy (%)	±1		
DC output voltage ripple (%)	<1 (RMS)		
Battery recharging characteristic	Intermittent charging with prevailing state of complete rest and control of the battery status IU (DIN 41773)		
Maximum recharging current (A) - at nominal load - with DCM function (max current)	 30 100	 40 100	 40 100
AC-DC converter type	IGBT-based PFC		
Input protection	Fuses		
Nominal current absorbed from mains (at nominal load and battery charged) (A)	**302**	**378**	**453**
Maximum current absorbed from mains (at nom. load, nom. voltage and max. recharging current) (A)	**423**	**518**	**611**
Rectifier soft-start (walk-in) (sec)	Settable from 5" to 30"		
Rectifier sequential start-up (hold-off) (sec)	Settable from 1" to 300"		

3. Batteries			
Power (KVA)	200	250	300
Type (standard) other on request	Sealed lead acid (VRLA - maintenance free)		
Number of Cells	**360 - 372**		
Floating Voltage at 25°C	812 for 360 cells, 840 for 372 cells		
Minimum Discharge Voltage Vdc	620 for 360 cells, 632 for 372 cells		
Power drawn by the inverter (at rated load cosϕ = 1) (KW)	**204,1**	**255,1**	**306,1**
Power drawn by the inverter (at rated load and minimum battery voltage) (KW)	**329,0**	**411,0**	**494**
Battery Protection	Fuses		
Battery Test	**Provided as Standard**		

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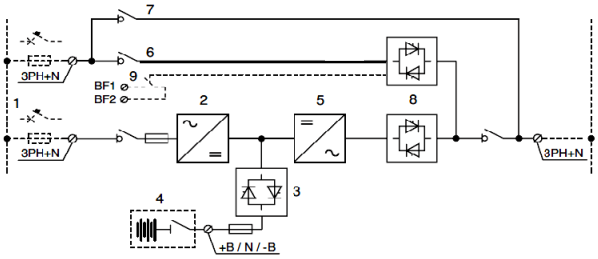
4. Output Inverter			
Power (KVA)	200	250	300
Inverter Bridge	3-Level IGBT (High Frequency PWM)		
Nominal Apparent Output Power (kVA Cosφ 1.0)	**200**	**250**	**300**
Nominal Active Output Power (kW Cosφ 1.0)	**200**	**250**	**300**
Efficiency (DC ÷ AC) (%) **@25% load** **@50% load** **@75% load** **@100% load**	**Up to 96** **Up to 97** **Up to 97** **Up to 98**		
Output	**3 Phase / 4 Wires**		
Rated Output Voltage (selectable) (Vac)	380-400-415		
Output Voltage Stability - Static (Balanced Load) (%) - Static (Unbalanced Load) (%) - Dynamic (Step Load 20%÷ 100% ÷20%) (%) - Output Volt. Recovery Time(after step load) (ms) - IEC EN 62040-3	± 1 ± 2 ± 5 < 20 VFI-SS-111		
Phase Angle Accuracy (°) - Balanced Load - 100% Unbalanced Load	± 1 ± 1		
Output Frequency (selectable) (Hz)	**50 / 60**		
Output Frequency Stability - Free Running Quartz Oscillator (Hz) - Inverter Sync. with Mains (Hz) - Slew rate (Hz/s)	± 0,001 ± 2 (other on request) <1		
Nominal Output Current (@ 400 Vac output) (A)	**289**	**361**	**433**
Overload Capability	10 min >100%…125% 30 s >125%…150% 100 ms >150%		
Short Circuit Current (A)	**720**	**900**	**1050**
Short Circuit Characteristic	Current limited with electronic protection Automatic stop after 5 seconds		
Output Waveform	**Sinewave**		
Output Harmonic Distortion (%) - Linear Load - Non Linear Load - IEC EN 62040-3	< 1 < 5 Fully compliant		
Max Crest Factor without derating	**3 : 1**		

5. Bypass	
Automatic static by-pass	Electronic Thyristor Switch Three-phase + Neutral
Nominal input voltage (Vac)	380 – 400 - 415
Input voltage range (%)	±10
Input frequency (Hz)	50 - 60
Input frequency range (%)	±10
Transfer mode	Without break
Transfer: inverter - automatic bypass	In case of: - Short-circuit - Battery discharged - Inverter test - Inverter failure
Transfer: automatic bypass - inverter	- Automatic - Block on bypass after 6 transfers within 2 minutes, reset by front panel
Overload Capability (%)	150 Continuously 1000 For 1 Cycle
Manual By-Pass	- Electronically controlled - No-break assisted re-start procedure
Back-feed protection	NC contact for the control of an external device

6. Block Diagram



1. Separate mains input for rectifier and bypass
2. Rectifier battery-charger
3. Battery static switch
4. External battery
5. Inverter
6. Emergency line (bypass)
7. Maintenance bypass line
8. Inverter (SSI) and bypass(SSB) static switch
9. Optional contact for external back-feed protection

OPTIONS

1. BATTERY TEMPERATURE VOLTAGE COMPENSATION
2. SERIAL INTERFACE RS-485 (ModBus protocol RTU)
3. SNMP ADPTER
4. PARALLEL CARD INTERFACE KIT
5. LOAD-SYNC CARD INTERFACE KIT
6. ISOLATION TRANSFORMER
7. WALL MOUNTED FUSED SWITCH BOX

SOFTWARE ENABLED FUNCTIONS

1. DIESEL MODE OPERATION
2. RECTIFIER WALK-IN TIME
3. RECTIFIER DELAY ON STARTUP (HOLD-OFF TIME)
4. DYNAMIC CHARGING MODE (DCM)
5. VFD (ECO) OPERATING MODE MANAGEMENT
6. UHE (ULTRA HIGH EFFICIENCY) OPERATING MODE MANAGEMENT
7. FREQUENCY CONVERTER