

KEOR XPE 600-750-900



600kW



750-900kW

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1. Technical Features

1. General Features			
Power (KVA)	600	750	900
UPS Topology	ON LINE – Double Conversion		
Architecture	Scalable, Configurable, Hot Serviceable		
Power Unit (kW)	300	250	300
No. Power Unit : syst N (Syst N+1 Redundant)	2 (2 + 1)	3 (3 + 1)	3 (3 + 1)
Nominal Active Power (kW Cosφ 1.0)	600	750	900
Efficiency (AC ÷ AC) (%)	Up to 95,5%		
@25% load	Up to 96%		
@50% load	Up to 96%		
@75% load	Up to 96%		
@100% load	Up to 95,5%		
Efficiency (AC ÷ AC) (Eco Mode)	>99%		
Heat dissipation at rated load, VFI, voltage (kW)	28	35	42
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 %	< 95% (not condensing)		
Altitude m	<1000 (Above Sea level)		
Power derating for altitude > 1000 m	According to "IEC62040-3", 0,5% every 100m		
Ventilation	Forced		
Audible noise level (IEC EN 62040-3)	< 78dB		
Protection Degree	IP20 (IP21 Optional)		
Electromagnetic Compatibility	According to "IEC EN 62040-2" (CE marking)		
Safety	IEC EN 62040-1		
Test and performance	IEC EN 62040-3		
Colour	RAL9005 (Black) RAL9003 (White)		
Accessibility	Front Access		
Installation	Against the Wall, Line, Back to Back, L or U Shape		
Dimensions (mm) (WxDxH)	2770x970x2100	4090x970x2100	4090x970x2100
Weight kg (without battery)	2250	3150	3300
Input/output connection	Cables entry bottom / top		
Transport	Base provided for forklift handling		
Reference standards	EN 62040-1 - EN62040-2 - EN62040-3 ISO 9001:2008 - ISO 14001		
Front panel	10" Touch-screen		
Voltage-free contact interface	signalisations / alarms		
Serial interface	Standard: RS232 - USB Optional: RS485 (Mod-Bus RTU protocol)		
Estimated content of circular economy derived materials	20% (approx)		
Recyclability rate calculated using the method described in technical report IEC/TR 62635*	60% (approx)		

2. Input: rectifier and battery charger

Power (KVA)	600	750	900
Input	Three-phase + Neutral		
Nominal input voltage (Vac)	400		
Input voltage range (%)	-20/+15		
Input frequency (Hz)	45 to 65		
Input frequency range (%)	Adjustable from ±5 to ±10		
Input power factor	>0,99		
Input current THD at nominal voltage and THDV <0,5% (%)	Up to 95,5%		
@25% load	< 8		
@50% load	< 4		
@75% load	< 3		
@100% load	< 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)	80	120	120
- at nominal load	80	120	120
- with DCM function (max current)	200	300	300
AC-DC converter type	IGBT-based PFC		
Input protection	Fast Fuses		
Nominal current absorbed from mains (at nominal load and battery charged) (A)	910	1138	1366
Maximum current absorbed from mains (at nom. load, nom. voltage and max. recharging current) (A)	1000	1275	1495
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)	600	750	900
Topology	Standard distributed battery In option centralized battery		
Technology	Sealed lead acid, Li-Ion, Ni-Cd, FlyWheel		
Number of 2V Cells	360 – 372		
Floating Voltage at 25°C	812 - 840		
Minimum Discharge Voltage Vdc	620 - 632		
Power drawn by the inverter (at rated load cosφ = 1) (KW)	612	765	918
Current drawn by the inverter at rated load and minimum battery voltage (A)	987	1234	1480
Battery Protection	Fast Fuses		
Battery Test	Provided as Standard		

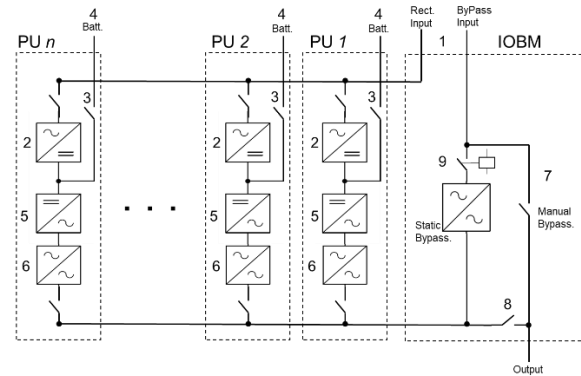
*This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for end-of-life of this product.

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4. Output Inverter			
Power (KVA)	600	750	900
Inverter Bridge	3-Level IGBT (High Frequency PWM)		
Nominal Apparent Output Power (kVA Cosφ 1.0)	600	750	900
Nominal Active Output Power (kW Cosφ 1.0)	600	750	900
Efficiency (DC ÷ AC) (%)	Up to 97 Up to 98 Up to 98 Up to 98		
Output	3 Phase / 4 Wires		
Rated Output Voltage (selectable) (Vac)	380-400-415		
Output Voltage Stability	± 1 ± 2 ± 5		
- Static (Balanced Load) (%)	± 1		
- Static (Unbalanced Load) (%)	± 2		
- Dynamic (Step Load 20%÷ 100% ÷20%) (%)	± 5		
- Output Volt. Recovery Time(after step load) (ms)	< 20		
- IEC EN 62040-3	VFI-SS-111		
Phase Angle Accuracy (°)	± 1 ± 1		
- Balanced Load	± 1		
- 100% Unbalanced Load	± 1		
Output Frequency (selectable) (Hz)	50 / 60		
Output Frequency Stability	± 0,001 ± 2 (other on request) <1		
- Free Running Quartz Oscillator (Hz)	± 0,001		
- Inverter Sync. with Mains (Hz)	± 2 (other on request)		
- Slew rate (Hz/s)	<1		
Nominal Output Current (@ 400 Vac output) (A)	870	1090	1304
Overload Capability	5mn up to 125% 30 s up to 150% 100 ms >150%		
Short Circuit Current (A)	2100	2700	3150
Short Circuit Characteristic	Current limited with electronic protection Automatic stop after 5 seconds		
Output Waveform	Sinewave		
Output Harmonic Distortion (%)	< 1 < 5 Fully compliant		
- Linear Load	< 1		
- Non Linear Load	< 5		
- IEC EN 62040-3	Fully compliant		
Max Crest Factor without derating	3 : 1		

5. Bypass			
Input	Three-phase + Neutral		
Nominal input voltage (Vac)	380 – 400 - 415		
Input voltage range (%)	±10		
Input frequency (Hz)	50 - 60		
Input frequency range (%)	±10		
Automatic static by-pass	Electronic Thyristor Switch Transfer mode without break In case of: - Short-circuit - Battery discharged - Inverter test - Inverter failure		
Transfer: inverter - automatic bypass	- Automatic		
Transfer: automatic bypass - inverter	- Block on bypass after 6 transfers within 2 minutes, reset by front panel		
Nominal Current In (A)	870	1090	1304
Static by pass overload current– 20 ms	15 In	21 In	17 In
Max Icw according IEC 62040-1 (100kA Optional)	20 kA	50 kA	50 kA
Manual By-Pass	- Electronically controlled - No-break assisted re-start procedure		
Back-feed protection	Internal disconnecter		

2. Block Diagram



PU: Power Unit

IOBM: In Out Bypass Module

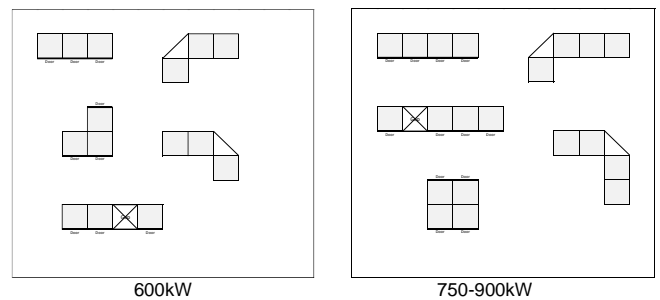
1. Mains input for rectifier and bypass (Separate/Common)
2. Rectifier battery-charger
3. Battery switch
4. External Battery cabinet (Distributed/Centralized)
5. Inverter
6. Inverter static switch (SSI)
7. Maintenance bypass Line
8. Output switch
9. Back-feed protection
10. By pass disconnecter

3. Options to configure

Redundancy N+1: Yes / No	Connection Entrance: Bottom/Top
Future scalability: Yes / No	Icw kit 100kA
Hot Scalability: Yes / No	
Manual Bypass: Yes / No	
Grounding System: TNC/TNS	Central or side IOBM
Battery : Centralized / Distributed	Cabinets Layouts

Some of Possible Layouts:

Linear, L Shape, Back to Back, U Shape, Linear with Gap



4. Software Enabled Functions

- Diesel Mode Operation
- Rectifier Walk-In Time
- Rectifier Delay On Startup (Hold-Off Time)
- Dynamic Charging Mode (Dcm)
- Vfi / Vfd (Eco) Operating Mode Management
- Frequency Converter