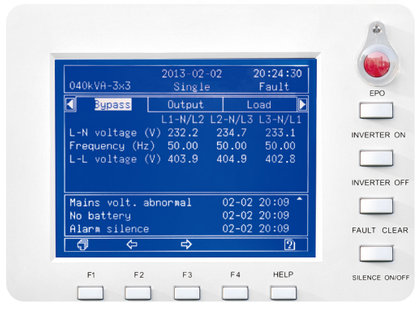
GOMEH

YAK-LF SERIES

10 ~ 800kVA

3:3 phase PF: 0.9



Control Panel

500kVA

300kVA

Features

■ Online double conversion

· Online Double Conversion design helps to output a pure sine wave ,which is immune from the UPS input, so that the load can run steadily.

· UPS transfers among different working mode without output interruption, thereby powering the load uninterruptedly.

■ Full DSP control

· Full DSP Control avoids the risks caused by analog devices failure and makes the control system more stable and reliable.

■ High power factor

· The output power factor up to 0.9 better matches the load.

· The input power factor 0.98 with filter helps to improve the efficiency, reduce the harmonic pollution to the Grid and lower the UPS running cost.

■ Wide input adaptability

· The range of AC input voltage is (380Va/ 400Vac/415Vac) (-25%/+20%), minimizing transfer to battery mode, thereby greatly prolonging the battery life.

· Wide input frequency ranging from 45Hz to 65Hz, ensures stability of UPS while generator connected.

■ Optimized battery management

· Intelligent battery management system and advanced battery auto float/boost charge technology, reduces the frequency of battery maintenance, greatly improves the battery efficiency and extends battery life.

· Battery discharge time prediction: the system will display the backup time of battery calculated by discharge current and voltage.

· Battery self-test: battery is automatically tested at regular intervals

· Flexible battery configuration ranging from 360~408Vdc / 480Vdc.

■ N+X parallel redundancy

· N+X parallel redundant design, up to 6 units available, makes the configuration more flexible.

Any unit in parallel system fails, the faulty one will automatically cut off the output, and the load will be powered by the remained units.

· It is easy to configure the parallel system just by connecting the parallel cables and doing proper settings.

· Non-fixed Master-Slave relationship: Among several UPS in parallel, the unit startup first is Master UPS, the others are Slave. The master and slave may be exchanged.

■ Strong overload capability

· 110% / 125% / 150% overload for 60min / 10min / 1min.

■ Power walk in

· Specially designed power walk in function, in which rectifier of each unit in parallel system will be turned on in sequence at intervals to avoid the sudden load on the generator, thereby reducing the cost of the generator required.

■ Generator mode

· Set the maximum output power of the generator when a smaller one than needed is employed to extend the battery duration time. In this case, the load is supplied by both the generator and battery.

■ LBS synchronization

· Synchronize the output of the two independent UPS systems (single unit or parallel) even when the two systems are operating on different modes (bypass/inverter) or on battery.

■ Multi-protection

· Self-diagnosis function will take place before start-up for safety.

· Multi-protection: AC input under/over voltage, overload, short-circuit, over-current, over bus voltage, over-temperature, fan failure, auxiliary power failure, battery under voltage, battery over-charge and so on.

■ EPO function

· A concave red EPO button with transparent cover is embodied in the LCD control panel for emergency power off.

■User-friendly network management

· Chinese/English LCD and LED mimic diagram: real time operation parameters and status

· RS232 & RS485 communication ports: for local monitor with corresponding software, and MODBUS protocol is optional.

· SNMP adapter (optional): for remote monitor through network

· Dry contacts for additional monitoring:

a) UPS on Inverter

b) Mains input failure

c) remote EPO

d) Battery low voltage alarm

e) UPS fault

f) UPS alarm

g)UPS on battery

h) UPS on bypass

Note: d)--h) optional

Technical Specifications:

MODEL	YAK-LF10	YAK-LF20	YAK-LF30	YAK-LF40	YAK-LF60	YAK-LF80
Capacity (VA/Watts)	10kVA / 9kW	20kVA / 18kW	30kVA / 27kW	40kVA / 36kW	60kVA / 54kW	80kVA/ 72kW
INPUT						
Operating voltage range	380/400/415Vac (-25% / +20%), (3Ph+N+PE)					
Operating frequency range	50/60Hz (±5Hz)					
Power factor	>0.97(with filter)					
OUTPUT						
Output voltage	380/400/415Vac (±1%)					
Output frequency	50/60Hz (±0.05%)					
Harmonic distortion (THD)	<3% (linear load)					
Crest factor	3:1 (Max.)					
Efficiency	⩾88%	⩾89%		⩾90%		⩾90.5%
BYPASS						
Rated voltage	380/400/415Vac					
Rated frequency	50/60Hz					
Voltage protection range	Upper limit: +20% (+10%,+15%,+20% adjustable) Lower limit: -40% (-10%, -20%, -30%, -40% adjustable)					
Frequency protection range	±10% (±2.5%, ±5%, ±10%, ±20% adjustable)					
BATTERY						
Battery voltage	384Vdc (360~384Vdc)					
SYSTEM FEATURES						
Transfer time	0ms (Line mode ⟷Battery mode)					
Overload	110%/60min ,125%/10min ,150%/1min					
LED display	Input, Inverter, Bypass, Battery, Output, Status					
LCD display	I/O voltage, frequency, power, power factor, battery voltage, current, battery status, load percentage, UPS status, history record					
Communication interface	Dry contact, RS232, RS485, SNMP card (Optional)					
Optional	Harmonic filter, SNMP adapter, LBS cables, battery temperature sensor, Bypass current-sharing inductor					
ENVIRONMENTAL						
Operating temperature	0~40℃					
Storage temperature	-25℃~55℃					
Humidity range	0~95% (non-condensing)					
Altitude	<1500m					
Noise level	<60dB			<65dB		
PHYSICAL						
Dimension W×D×H (mm)	570 x 800 x 1195				880 x 760 x 1600	
Net weight (kg)	217	273	316	330	483	525
Shipping weight (kg)	272	328	371	385	553	595
STANDARDS						
Safety	IEC/EN62040-1;IEC/EN60950-1					
EMC	IEC/EN 62040-2;IEC 61000-2-2;IEC 61000-4-2;IEC 61000-4-3;IEC 61000-4-4; IEC 61000-4-5;IEC 61000-4-6;IEC 61000-4-8;IEC 61000-4-11;					
Performance	IEC 62040-3					

Specifications are subject to change without prior notice.

Technical Specifications:

MODEL	YAK-LF100	YAK-LF120	YAK-LF160	YAK-LF200	YAK-LF300	YAK-LF400	YAK-LF500	YAK-LF600	YAK-LF800
Capacity (VA/Watts)	100kVA / 90kW	120kVA / 108kW	160kVA / 144kW	200kVA / 180kW	300kVA / 270kW	400kVA / 360kW	500kVA / 450kW	600kVA / 540kW	800kVA / 720kW
INPUT									
Operating voltage range	380/400/415Vac (-25% / +20%), (3Ph+N+PE)								
Operating frequency range	50/60Hz (±5Hz)								
Power factor	>0.97(with filter)								
OUTPUT									
Output voltage	380/400/415Vac(±1%)								
Output frequency	50/60Hz (±0.05%)								
Harmonic distortion (THD)	<2% (linear load)								
Crest factor	3:1 (max)								
Efficiency	⩾92%		⩾92.5%		⩾93%		⩾93.5%		⩾94%
BYPASS									
Rated voltage	380/400/415Vac								
Rated frequency	50/60Hz (auto-sensing)								
Voltage protection range	Upper limit: +20% (+10%,+15%,+20% adjustable) Lower limit: -40% (-10%, -20%, -30%, -40% adjustable)								
Frequency protection range	±10% (±2.5%, ±5%, ±10%, ±20% adjustable)								
BATTERY									
Battery voltage	384Vdc (360~408Vdc)						480Vdc		
SYSTEM FEATURES									
Transfer time	0ms (Line mode ⟷ Battery mode)								
Overload	110%/60min ,125%/10min ,150%/1min								
LED display	Input, Inverter, Bypass, Battery, Output, Status								
LCD display	I/O voltage, frequency, power, power factor, battery voltage, current, battery status, load percentage, UPS status, history record, settings								
Communication interface	Dry contact, RS232, RS485, SNMP card (Optional)								
Optional	Harmonic filter, SNMP adapter, LBS cables, battery temperature sensor, Bypass current-sharing inductor								
ENVIRONMENTAL									
Operating temperature	0~40℃								
Storage temperature	-25℃~55℃								
Humidity range	0~95% (non-condensing)								
Altitude	<1500m								
Noise level	<65dB				<70dB				
PHYSICAL									
Dimension W×D×H (mm)	1160×805×1600(6P) 1520×830×1600(12P)		1200×800×1600(6P) 1400×1000×1900(12P)		1400×1000×1900(6P) 1640×1000×1900(12P)		2580× 1000×1900	2800× 1040×1900	3900×1100 ×1950(12P)
Net weight (kg)	800/1100	903/1250	980/1645	1030/1715	1560/2395	1640/2510	3510	4500	6400
Shipping weight (kg)	890/1190	993/1293	1080/1775	1130/1845	1690/2545	1770/2665	3730	4750	6700
STANDARDS									
Safety	IEC/EN 62040-1;IEC/EN 60950-1								
EMC	IEC/EN 62040-2;IEC 61000-2-2;IEC 61000-4-2;IEC 61000-4-3;IEC 61000-4-4; IEC 61000-4-5;IEC 61000-4-6;IEC 61000-4-8;IEC 61000-4-11;								
Performance	IEC 62040-3								

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