



MPOWER UPS



STARK SERIES

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10 years of uninterruptible power

STARK SERIES

On-Line Double Conversion Technology, DSP Controlled IGBT Rectifier UPS 3 phase in / 3 phase out from 10 to 40kVA

- IGBT Rectifier
- Real Digital Signal Processor (DSP) controlled transformerless design
- High Output Power Factor (0.9)
- Input Power Factor Correction PFC (>0.99)
- Low Input Total Harmonic Distortion Level (THDi \leq 3%)
- High Efficiency (up to 93%)
- Wide Input Voltage Range
- Cold Start Capability
- Increased Efficiency with Eco Mode Operation
- Fan Speed Control depending on internal temperature and load %
- Parallel Redundant Operation up to 4 Units
- Common Battery Application with Parallel Systems
- Configurable Battery Quantity
- 3 Step intelligent battery charging system
- Static and Manual Bypass Built-in
- User Friendly LCD/LED Display Panel
- Remaining back up time indication on the LCD Display panel
- EPO (Emergency Power Off) Function
- Short Circuit, Overload, Over temperature, Deep Discharge protection
- USB, RS232, RS485 & RELAY Contact Communication Ports
- Compact dimension with internal battery placement options

Accessory Options

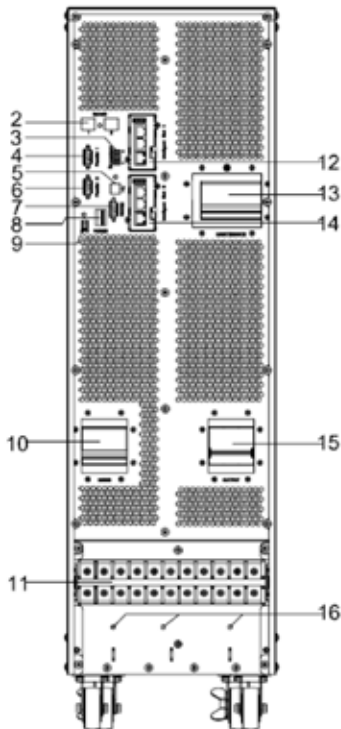
- Additional Relay Card
- SNMP Card (Internal)
- Parallel Connection Cable

This series UPS is a three phase in/ three phase out high frequency online UPS. The UPS offers protection against many power supply problems we experience, such as blackout, over-voltage, under-voltage, sudden voltage drop, high voltage pulse, voltage fluctuation, surge, inrush current, harmonic distortion (THD), noise interference and frequency fluctuations.

This UPS is suitable for a range of different applications including computers, servers, emergency lighting equipment, data centres, telephone systems and automated industrial applications.

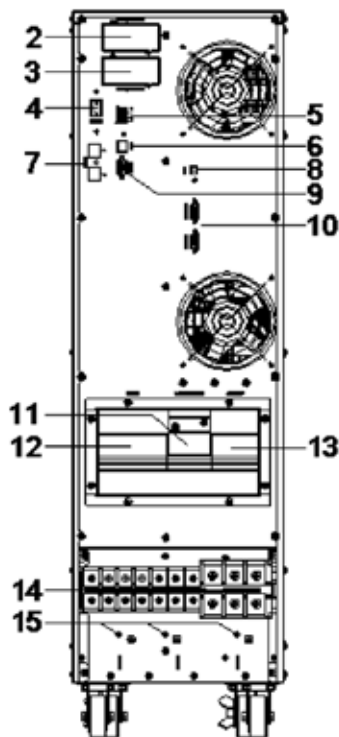


STARK SERIES



30-40kVA Rear View (terminal block without cover)

1. LCD panel
2. Intelligent Slot 1 (SNMP card/Relay card)
3. Intelligent Slot 2 (SNMP card/Relay card)
4. Battery Power Switch
5. Dry contact port
6. USB port
7. RS485 port
8. REPO port
9. RS232
10. Parallel port
11. Maintenance switch & its cover
12. I/P Switch
13. O/P Switch
14. Terminal block for Input, output & battery
15. Ground



10-20kVA Rear View (terminal block without cover)

1. LCD panel
2. RS485 port
3. Dry contact port
4. Parallel port 1
5. USB port
6. Parallel port 2
7. Rs232
8. Power Switch
9. REPO port
10. I/P Switch
11. Terminal block
12. Intelligent Slot 1 (SNMP card/ Relay card)
13. Maintenance switch & its cover
14. Intelligent Slot 2 (SNMP card/ Relay card)
15. O/P Switch
16. Ground

Specification

MODEL	ST3310	ST3315	ST3320	ST3330	ST3340
Power (kVA)	10	15	20	30	40
Power (kW)	9	13.5	18	27	36
INPUT					
Phase Configuration	3Ph + N + PE				
Nominal Voltage	380 / 400 / 415 VAC				
Voltage Range (Full Load)	304-478				323-478
Voltage Range (Half Load)	208-478				
Frequency	50/60 Hz \pm 10% (auto sensing)				
Power Factor	0.99				
Total Harmonic Distortion (THDi)	3%				
OUTPUT					
Power Factor	0.9				
Phase Configuration	3Ph + N + PE				
Nominal Voltage	380 / 400 / 415 VAC (adjustable)				
Wave Form	Pure Sine Wave				
Total Harmonic Distortion at 100% load	\leq 2% with linear load \leq 5% with non linear load				
Frequency	50Hz or 60Hz (adjustable)				
Frequency Tolerance(free running)	(50/60 \pm 0.2%)Hz @ Battery Operation				
Static Voltage Regulation (0%-100% load)	<1%				
Crest Factor	3:1				
Transfer Time	0sec				
Overload	60 min @ (100%-110%)				
	10 min @ (110%-125%)				
	1 min @ (125%-150%)				
	Transfers to Bypass @ \geq 150% (On-line Mode)				
Total Efficiency	Up to 93%				
BATTERY					
Type	Maintenance-free lead acid batteries				
Recharge Time (for Internal Battery)	4-6h up to 90%				
Quantity per String	16/18/20pcs				32/34/36/38/40pcs
Internal Battery Type	7Ah, 9Ah				None
Internal Battery Quantity	Up to 40pcs			Up to 60pcs	None
Standard Charging Current	1.5A	2.7A		4A	10A
Max Charging Current	10A				
Cold Start	Yes				
DISPLAY					
Operation Modes	Normal Mode, Back up Mode, Eco Mode, Parallel Mode				
LCD display	Input Voltage, Input Frequency, Output Voltage, Output Frequency, Load %, Battery Voltage, Battery Current, Autonomy Time, Temperature				
PROTECTION					
	Overload, Over Voltage, Overheat, Short Circuit, Low Battery				
COMMUNICATION					
Interface (Communication ports)	USB, RS485, 3pcs RELAY Contact Signal,				
Dry Contact (standard)	UPS Battery Low, AC Power Failure, Shut down UPS				
ENVIRONMENT					
Operating Temperature	0°C - 40°C				
Proposed Temp. to extend battery life	20°C - 25°C				
Humidity	up to 95% (non-condensing)				
Max. Altitude without derating	up to 1000 meters				
Audible Noise at 1 m	<55 dB				<58 dB
Protection Class	IP20				
PHYSICAL SPECIFICATIONS					
Dimensions(mm) (WxDxH)	250 x 828 x 868				
Weight - without battery (kg)	65	70	71	93	73
STANDARDS					
Standards	EN62040-1-1 (Safety); EN62040-2 (EMC)				
ACCESSORIES					
Optional	SNMP & Additional Relay Board				