

powermode

OFFICE NUMBER : 011-235-7750
E-MAIL: power@powermode.co.za

JOHANNESBURG
8 Ranworth Crescent,
Warehouse 157/3,
Longlake, Ext 23, 2090

CAPE TOWN
Unit 1 Iberica Park,
Platinum
Crescent,
Milnerton, 7441

DURBAN
89 Watsonia Rd,
Bluff,
Durban, 4052

EAST LONDON
50 Riverwood Eco
Estate,
Willowpark,
EastLondon, 5201

NATIONAL SERVICE FOOTPRINT

When joining our Power Guard program, you can look forward to the following perks:

- Priority VIP Technical Support
- Discounted Repair Costs
- 24/7 Support
- Exclusive offer
- And so much more

We have a national service footprint membership called 'Power Guard'. This means that no matter where your business is located, we will come to you and give you the support you need. That's our guarantee to you.



POWERMODE: SPECIALISTS IN UNINTERRUPTABLE POWER SUPPLY

The Q-on brand of UPS' synonymous with quality and reliability. Supporting an extensive product range, we have the solution to meet any environment.



Q-on

POWER THAT SCALES AS YOU NEED IT

The Q-on I-Series is a range of scalable, dual online UPSs' that brings Li-ion reliability and longevity to UPS battery life. For the first time you can now have the sophistication and power reliability of a UPS coupled with the 10 year lifespan of Li-ion batteries. Available from 5-30 kVA, the Q-on I-Series is ready to protect your critical loads instantaneously.



Q-on

Q-ON I-SERIES UPS

Single & Three Phase - High Frequency Long Run, Li-ion UPS

Q-ON I-SERIES FEATURES

- Scale your power solution by adding additional UPS' and or batteries as required
- Lithium-ion & Lead acid battery compatible
- Fall over redundancy
- Single And Three Phase compatible



The Safe & Secure All In One Power Solution

- Safe and secure
- Maximise your space
- Ease of install
- Neat and tidy
- All in one packaged solution



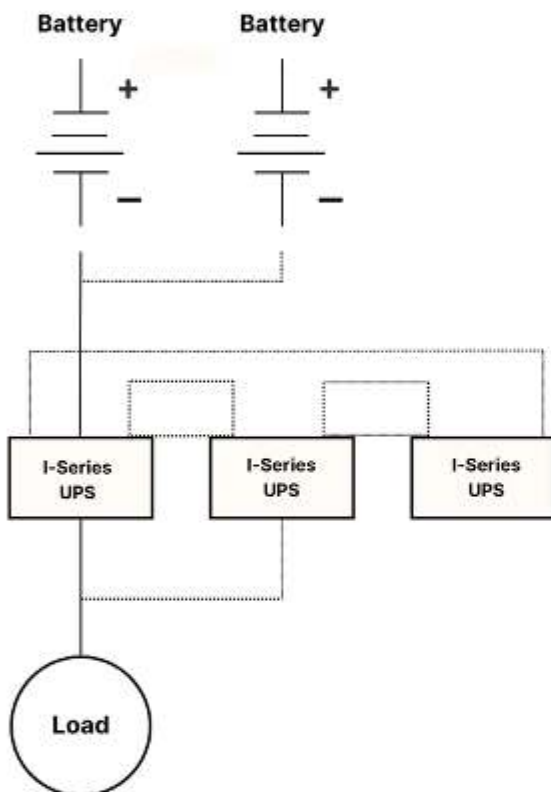
TECHNICAL SPECIFICATIONS



MODEL		5KL-48V
CAPACITY		5000VA/5000W
INPUT		
Voltage		220/230/240 VAC
Voltage Range		110-280 VAC @ 50% load ; 176-280 VAC @ 100% load
Frequency Range		46~54 Hz or 56~64 Hz
Power Factor		≥ 0.98 @ Nominal Voltage (100% Load)
THDI		≤ 8%
OUTPUT		
Output Voltage		220/230/240 VAC
AC Voltage Regulation (Batt. Mode)		± 1%
Frequency Range (Synchronized Range)		46~54 Hz or 56~64 Hz
Frequency Range (Batt. Mode)		50 Hz ± 0.1 Hz or 60Hz ± 0.1 Hz
Current Crest Ratio		3:1
Harmonic Distortion		≤ 3% THD (Linear Load), ≤ 5 % THD (Non-linear Load)
Transfer Time	AC Mode to Batt. Mode	Zero
	Inverter to Bypass	4 ms (Typical)
Waveform		Pure Sinewave
EFFICIENCY		
Line Mode		93.0%
ECO Mode		98.5%
Battery Mode		91.0%
BATTERY		
Battery Voltage		48 VDC
Floating Charge Voltage		54.6 VDC
Overcharge Protection		66 VDC
Charging Current (max.)		60 A
INDICATORS		
LCD Panel		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicator Via LCD
PHYSICAL		
Dimension, D x W x H(mm)		465 x 190 x 318
Net Weight (kgs)		15.5
Communication Interface		RS232 & USB
OPERATING ENVIRONMENT		
Humidity		0 to 95% Relative Humidity(Non-condensing)
Operating Temperature		0°C to 50°C
Storage Temperature		-15°C to 60°C

Q-on I-Series Information

- True double-conversion
- Pure Sine-wave output
- Output Power Factor 1.0
- Configurable charging current via LCD setting
- Compatible with Generator
- Cold Start capability
- Overload and short circuit protection
- Very powerful AC charger at 60A
- Common 48Vdc battery pack for the parallel system
- Full Bridge inverter design to support half-wave load & unbalanced load



Flexibility & Scalability

- Configure a solution with up to 9 UPS' in parallel
- Include multiple batteries depending on your runtime requirement
- Build the solution as you grow
- Built in fail over/redundancy
- Single phase and three phase compatible

Battery Features

- High performance BMS (Battery Management System)
- High Performance LiFeP04 prismatic cells
- Vertical stackable form factor standard.
- Wall bracket or 19" rack compatible
- Compatible with multi-brand inverters
- Parallel expansion up 8 batteries
- Long cycle life (4000 - 6000 times)
- 10 year limited guarantee
- 15 year design life o Certification of IEC62619, UN38.3



Q-ON S-SERIES UPS

Dual Online - Long Run - Single Phase UPS

The Q-ON S-Series UPS Dual Online - Long Run - Single Phase UPS is compatible with lead acid batteries, making it a versatile and reliable power backup solution. This UPS is ideal for environments where uninterrupted power is critical.



Q-ON S-SERIES SINGLE PHASE UPS

KEY FEATURES

- True double-conversion design with high adaptability to harsh mains conditions
- PF=1 (VA=Watt)
- DSP design enables precise and reliable control
- High efficiency results in energy saving
- Supports energy-saving ECO mode
- Compact size requiring small installation space
- Built-in OVCD protection, fan lock detection, over temperature detection, overload warning to enhance the product reliability
- Intelligent communication slot enables remote monitoring
- Programmable LCD display for quick UPS parameters configuration



Q-on S-series UPS Rear Panel View



Q-on S-series 6K/KL & 10K/KL Dual Online UPS

TECHNICAL SPECIFICATIONS



Model name		QS Q-ON 6K	QS Q-ON 6KL	QS Q-ON 10K	QS Q-ON 10KL
Power rating	VA/Watt	6000VA/6000W	6000VA/6000W	10000VA/10000W	10000VA/10000W
Efficiency	Double conversion mode	95%	95%	95%	95%
	ECO mode	98%	98%	98%	98%
Input performance	Voltage range	160-276V 100% load, 110-160V derating to 50% load linearly	160-276V 100% load, 110-160V derating to 50% load linearly	160-276V 100% load, 110-160V derating to 50% load linearly	160-276V 100% load, 110-160V derating to 50% load linearly
	Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Frequency range	40Hz-70Hz (45Hz-55Hz)	40Hz-70Hz (45Hz-55Hz)	40Hz-70Hz (45Hz-55Hz)	40Hz-70Hz (45Hz-55Hz)
	PF	54Hz-66Hz @ load>60%)	54Hz-66Hz @ load>60%)	54Hz-66Hz @ load>60%)	54Hz-66Hz @ load>60%)
	THDI	>0.995	>0.995	>0.995	>0.995
Input connection	Wiring/socket	L/N/PE hardware terminal connection	L/N/PE hardware terminal connection	L/N/PE hardware terminal connection	L/N/PE hardware terminal connection
Output performance	Rated voltage	220/230/240V	220/230/240V	220/230/240V	220/230/240V
	Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Maximum PF	1	1	1	1
	Voltage accuracy	±1%	±1%	±1%	±1%
	Th.D.	<1% linear load <5% non-linear load	<1% linear load <5% non-linear load	<1% linear load <5% non-linear load	<1% linear load <5% non-linear load
	Transfer time	0ms (10ms @ ECO- >Inverter)	0ms (10ms @ ECO- >Inverter)	0ms (10ms @ ECO- >Inverter)	0ms (10ms @ ECO- >Inverter)
	Crest Ratio	max 3:1	max 3:1	max 3:1	max 3:1
	Overload (line mode)	100%<load≤105% continuous. 105%< load ≤125% for 10 minutes 125<load≤150% for 30 seconds. >150% for 500ms.	100%<load≤105% continuous. 105%< load ≤125% for 10 minutes 125<load≤150% for 30 seconds. >150% for 500ms.	100%<load≤105% continuous. 105%< load ≤125% for 10 minutes 125<load≤150% for 30 seconds. >150% for 500ms.	100%<load≤105% continuous. 105%< load ≤125% for 10 minutes 125<load≤150% for 30 seconds. >150% for 500ms.
Output connection	Wiring/socket	L/N/PE hardware terminal connection	L/N/PE hardware terminal connection	L/N/PE hardware terminal connection	L/N/PE hardware terminal connection
Battery	Voltage	192VDC (192~240VDC adjustable)	192VDC (192~240VDC adjustable)	192VDC (192~240VDC adjustable)	192VDC (192~240VDC adjustable)
	Capacity (AH)	16*12V/7Ah, 16~20pcs adjustable	NA	16*12V/9Ah, 16~20pcs adjustable	NA
	Backup time PF=0.9; 100% load)	4.5min	NA	3min	NA
Maximum connect external battery module quantity	External battery module quantity	6	6	6	6
Charger	Maximum charging current	1.4A(0-4A adjustable)	4A (2-12A adjustable)	2A (0-4A adjustable)	4A (2-12A adjustable)
	Recharging time	3h to 90%	3h to 90%	3h to 90%	3h to 90%
Other working mode	CVCF	Yes (derating to 60% load)	Yes (derating to 60% load)	Yes (derating to 60% load)	Yes (derating to 60% load)
	Parallel	Optional (up to 3)	Optional (up to 3)	Optional (up to 3)	Optional (up to 3)

TECHNICAL SPECIFICATIONS



Model name		QS Q-ON 6K	QS Q-ON 6KL	QS Q-ON 10K	QS Q-ON 10KL
Output performance	Rated voltage	220/230/240V	220/230/240V	220/230/240V	220/230/240V
	Rated frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
	Maximum PF	1	1	1	1
	Voltage accuracy	±1%	±1%	±1%	±1%
	Th.D.	<1% linear load <5% non-linear load	<1% linear load <5% non-linear load	<1% linear load <5% non-linear load	<1% linear load <5% non-linear load
	Transfer time	0ms (10ms @ ECO- >Inverter)	0ms (10ms @ ECO- >Inverter)	0ms (10ms @ ECO- >Inverter)	0ms (10ms @ ECO- >Inverter)
	Crest Ratio	max 3:1	max 3:1	max 3:1	max 3:1
	Overload (line mode)	100%<load≤105% continuous.	100%<load≤105% continuous.	100%<load≤105% continuous.	100%<load≤105% continuous.
		105%< load ≤125% for 10 minutes	105%< load ≤125% for 10 minutes	105%< load ≤125% for 10 minutes	105%< load ≤125% for 10 minutes
		125%<load≤150% for 30 seconds.	125%<load≤150% for 30 seconds.	125%<load≤150% for 30 seconds.	125%<load≤150% for 30 seconds.
		>150% for 500ms.	>150% for 500ms.	>150% for 500ms.	>150% for 500ms.
Physical performance	Dimension(W*D*H) mm	220*492*589	220*492*348	220*492*589	220*492*348
	Net Weight (KG)	52.7	13	60.3	15.2
	IP protection level	IP20	IP20	IP20	IP20
Environment	Operating temperature	0-50°C (power derating to 50% @40-50°C)	0-50°C (power derating to 50% @40-50°C)	0-50°C (power derating to 50% @40-50°C)	0-50°C (power derating to 50% @40-50°C)
	Relative Humidity	0-95%	0-95%	0-95%	0-95%
	Operating Altitude	0~3000m (the load derating 1% every up 100m @1000~3000m)	0~3000m (the load derating 1% every up 100m @1000~3000m)	0~3000m (the load derating 1% every up 100m @1000~3000m)	0~3000m (the load derating 1% every up 100m @1000~3000m)
	Acoustic Noise	<45dB @ typical load with battery fully charged	<45dB @ typical load with battery fully charged	<50dB @ typical load with battery fully charged	<50dB @ typical load with battery fully charged
Certification	Certification/standard	CE, IEC/EN 62040	CE, IEC/EN 62040	CE, IEC/EN 62040	CE, IEC/EN 62040
EMI	Conduction/Radiation	C3	C3	C3	C3
EMS	ESD	IEC/EN 61000-4-2	IEC/EN 61000-4-2	IEC/EN 61000-4-2	IEC/EN 61000-4-2
	RS	IEC/EN 61000-4-3	IEC/EN 61000-4-3	IEC/EN 61000-4-3	IEC/EN 61000-4-3
	EFT	IEC/EN 61000-4-4	IEC/EN 61000-4-4	IEC/EN 61000-4-4	IEC/EN 61000-4-4
	Surge	IEC/EN 61000-4-5	IEC/EN 61000-4-5	IEC/EN 61000-4-5	IEC/EN 61000-4-5
Accessory	Maintenance bypass switch	Standard offer	Standard offer	Standard offer	Standard offer
	Input power cable	NA	NA	NA	NA
	Output power cable	NA	NA	NA	NA
	EBM cable	yes (in EBM)	yes (in EBM)	yes (in EBM)	yes (in EBM)
	USB cable	Yes	Yes	Yes	Yes
	RS232 cable	Optional	Optional	Optional	Optional
	Manual	Yes	Yes	Yes	Yes

Q-on

BUILT FOR THE TOUGHEST CONDITIONS

The Q-on Rugged Series UPS is built to withstand the harshest of environments and operating conditions. Tested and proven in South Africa, you can rely upon this UPS to provide uninterrupted power supply for critical loads.



Q-ON RUGGED SERIES UPS

Transformer based, Dual Online, 3 Phase UPS

3 Phase UPS from 10 to 600 kVA, transformer based and ruggedly constructed, ideal for Southern Africa's harsh environment. The built in transformer provided galvanic isolation and helps to smooth power delivery to your critical loads. The low voltage UPS operation also mitigates against dust or moisture induced track flash-over – the main cause of catastrophic UPS failures in the field.



COMPATIBLE WITH LEAD-ACID & LITHIUM-ION



Q-ON 3-PHASE RUGGED UPS

The Q-ON 3-Phase Rugged UPS is specifically designed to meet the rigorous demands of industrial environments. Its robust construction and advanced features ensure reliable power supply, minimizing downtime and enhancing operational efficiency. This UPS is perfect for businesses requiring high power capacity and resilience.

Q-ON RUGGED SERIES FEATURES

- Online double-conversion
- DSP technology guarantees high reliability
- True galvanic isolation transformer design Control designed to withstand all kinds of loads
- Intelligent battery management to prolong battery lifecycle
- Independent ventilation enhance durable operation under harsh environment
- Adjustable battery numbers
- Accept dual-mains input
- Parallel operation with up to 4 units (option)
- Varieties of communication options available
- Optional 7" touch LCD
- Reverse phase frequency operation and supports non-neutral input



TECHNICAL SPECIFICATIONS



MODEL	Q-on 10K	Q-on 15K	Q-on 20K	Q-on 30K	Q-on 40K	Q-on 60K	Q-on 80K	Q-on 100K	Q-on 120K	Q-on 160K	Q-on 200K
CAPACITY	10 KVA / 8 KW	15 KVA / 12 KW	20 KVA / 16 KW	30 KVA / 24 KW	40 KVA / 32 KW	60 KVA / 48 KW	80 KVA / 64 KW	100 KVA / 80 KW	120 KVA / 96KW	160 KVA / 128KW	200 KVA / 160KW
INPUT											
Nominal Voltage	3 x 380VAC/400VAC (3Ph + N)										
Acceptable Voltage Range	285VAC ~ 475VAC										
Frequency	50/60 Hz ± 10 %										
INVERTER											
Nominal Voltage	3 x 380VAC/400VAC (3Ph + N)										
Precision	Stationary: ±1% Transitory: ±5% (load variations 100-0-100%)										
Frequency	50/60 Hz synchronised ±1 % With mains absent ±0.1 Hz										
Max. Synchronization Speed	±1 Hz/s										
Waveform	Pure Sinewave										
Total Harmonic Distortion (THDv)	<2% (Linear Load) ; <5% (Non-linear Load)										
Phase Displacement	120° ±1% (balanced load) ; 120° ±2% (imbalances 50% of the load)										
Dynamic Recovery Time	3 cycles at 90 % of the static value										
Admissible Overload	110% for 10min; 150% for 60sec ; >160% for 200ms										
Admissible Crest Factor	3:1										
Admissible Power Factor	0.6~1 (inductive or capacitive)										
Imbalance Output Voltage @ 100% Unbalanced Load	<1%										
Current Limit	High overload, short-circuit: RMS Voltage Limit High Crest-Factor current: Peak Voltage Limit										
STATIC BYPASS											
Type	Solid state										
Voltage	3 x 380VAC/400VAC (3Ph + N)										
Frequency	50/60 Hz										
Activation Criterion	Microprocessor control										
Transfer Time	Zero										
Admissible Overload	150% for 1 hour; 180% for 30sec; >200% for 200ms										
Transfer to Bypass	Immediate, for overloads above 160%										
Retransfer	Automatic after alarm clear										
MAINTENANCE BYPASS											
Type	Without interruption										
Voltage	3 x 400V (3Ph + N)										
Frequency	50/60 Hz										
Overall Efficiency	Line Mode	89%	90%	91%	92%						
	Battery Mode	90%	91%	92%	93%						
BATTERY & CHARGER											
Battery Type and Numbers	12VDC x 32 pcs (29~32 pcs adjustable)										
Nominal Battery Voltage	384 VDC (Based on 32pcs batteries)										
Charging Method	CC/CV										
Precision	±1%										
Charging Current	Default 10A, *Maximum= Capacity(KW)/Battery (real-time).			Default 10A; Maximum 40A; 5A@ full load							
Charging Voltage	432 VDC (Based on 32pcs batteries)										
PHYSICAL											
Dimensions, D x W x H (mm)	656 x 405 x 817			656 x 405 x 941	821 x 432 x 1159		975 x 554 x 1286		975 x 554 x 1326	1051 x 705 x 1646	
Net Weight (Kas)	118	120	145	193	278	365	471	573	650	760	840

* The maximum current is never higher than 40A.

Product specifications are subject to change without further notice.

INDUSTRY LEADING BATTERIES

Weida Sealed Lead Acid Batteries provide high quality energy storage to provide power to critical loads during an outage.

With a design life of up to 12 years, you can rest assured that Weida batteries will carry the load when you need it most.

