

T-4003 (Transformer Less)

THREE PHASE - 20 to 80 kVA



FEATURES

- Three-step IGBT PWM Control Technology
- Advanced DSP Digital Control Technology
- ECO mode Efficiency up to 99%
- Wide Input Voltage Range
- Wide Input Frequency Compatibility 42-72Hz
- Higher Density Reduces up to 50% of the Footprint
- Predictable Component Lifetime Enhances System Reliability
- Optimized Battery Management (OBM) Technology,
- Robust Design with Dust-Proof Filter & PCBA Coating
- Up to 4 EBM's Connections for Extend Backup Time

ONLINE DOUBLE CONVERSION PURE SINE WAVE HIGH FREQUENCY UPS SYSTEMS

T-4003 THREE PHASE

T-4003 UPS series features high efficiency, high performance, double conversion, online mode, and three-in and three-out. With perfect power source protection solutions, the UPS effectively addresses multiple power source problems such as power outage, high-voltage AC and low-voltage AC, voltage sag, damped oscillation, high-voltage impulse, voltage surge, harmonic distortion, clutter interference and frequency variation, etc.

It is widely applied for computers, communications devices and other controlling devices. We can choose optional accessories to cope with inrush load situations / feed-back circuit protections, etc in complicated electrical environments.

APPLICATIONS:



DATA CENTER



MANUFACTURING FACILITIES



TELECOMMUNICATION



COMMERCIAL BUILDINGS



TRANSPORTATION



FINANCIAL SERVICES



SECURITY AND SURVEILLANCE



HEALTHCARE

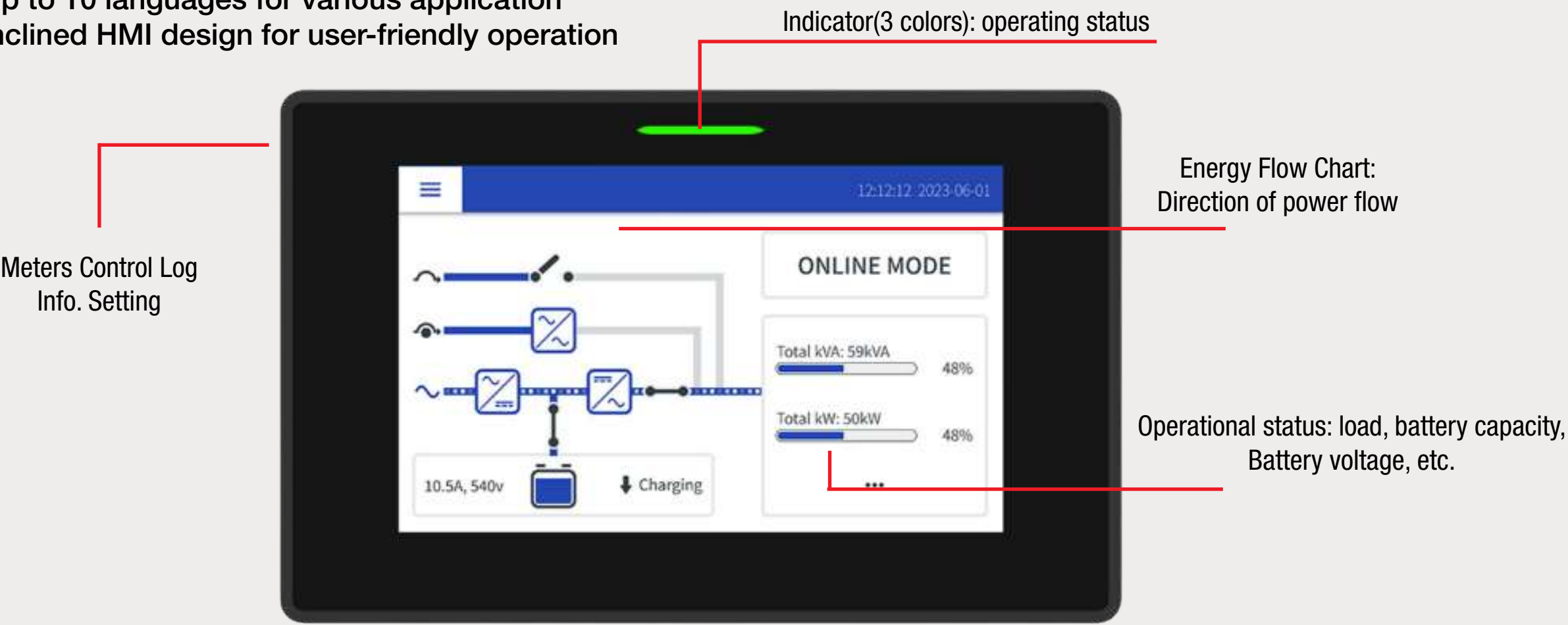
- Excellent Protection to Harsh Environment
- Dual and Single Feed Input Options
- Modular Fan and Battery Design
- Service Reminder for Preventive Maintenance
- Various Communication Options
- High Reliability Due to Dual 85 High Temperature
- Conformal Coating of PCBs
- Pre-Install Battery and Without Pre-Install Battery

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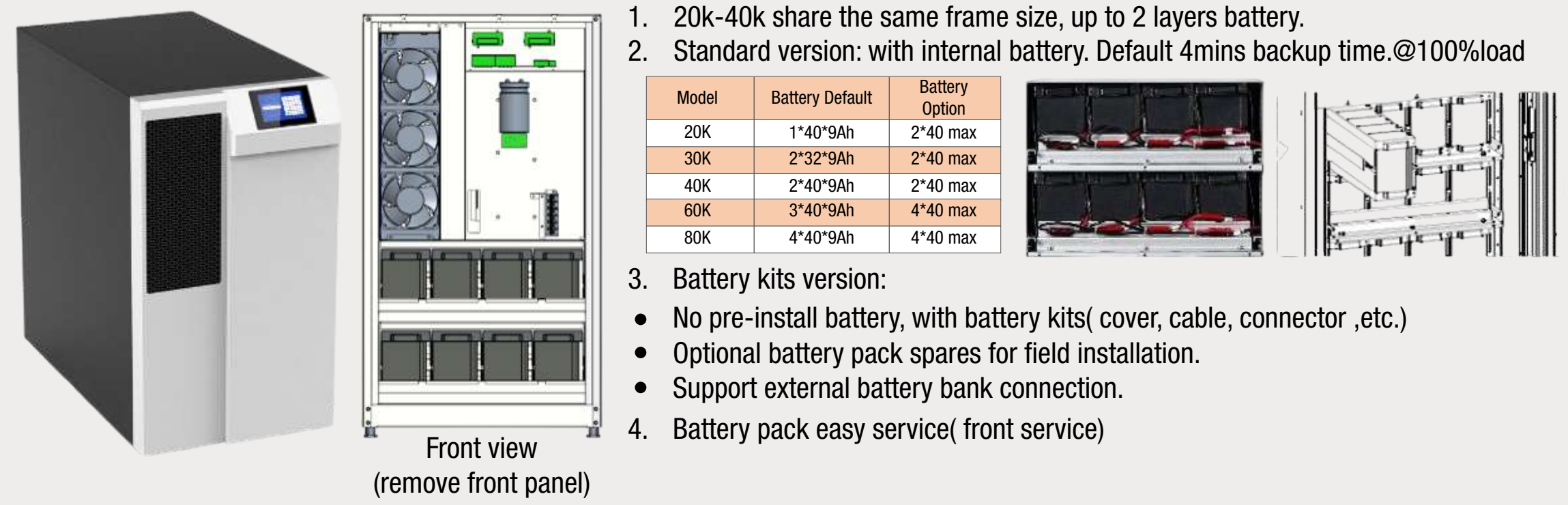
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SMART & EASY MANAGEMENT

- 5-inch color touchable LCD
- Up to 10 languages for various application
- Inclined HMI design for user-friendly operation



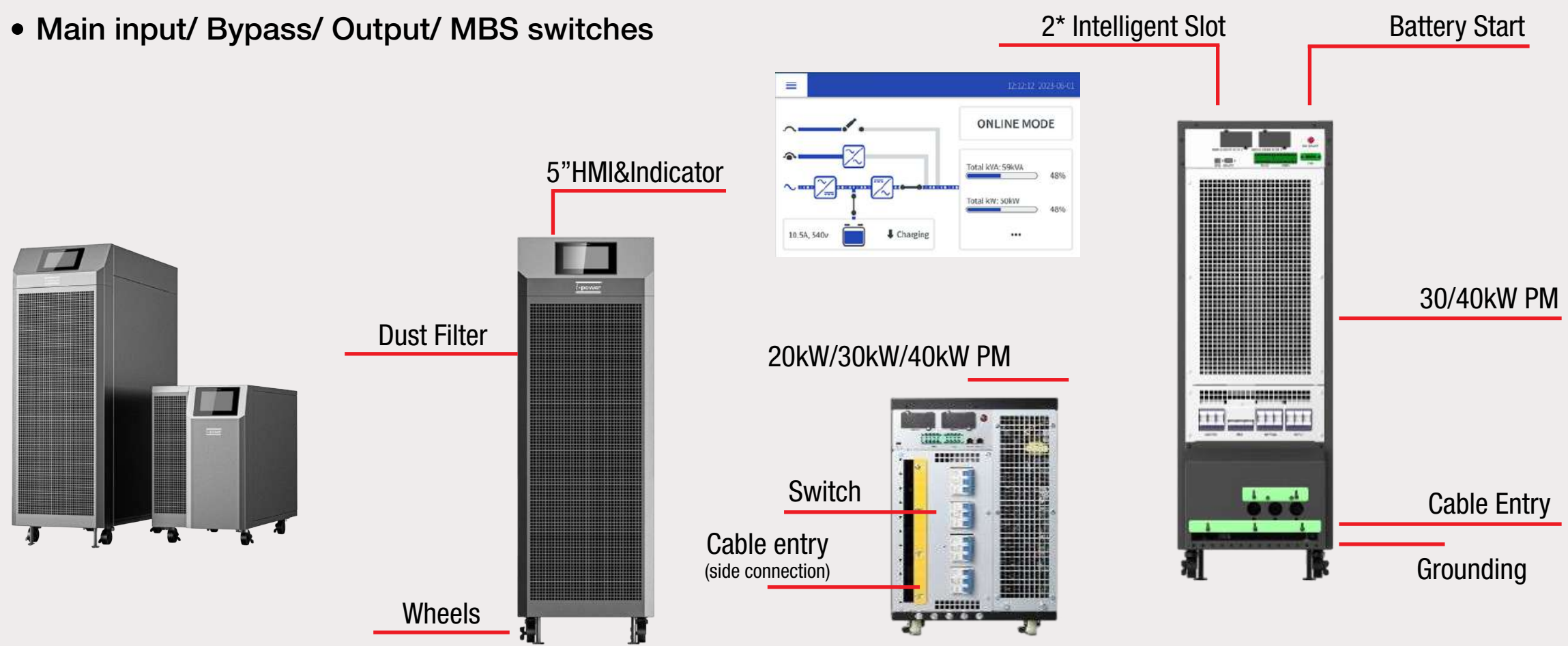
STANDARD BUILT-IN BATTERY MODELS



- Pre-install battery and without pre-install battery options for flexible configuration and stock management.
- Support external battery bank for battery kits version.
- Configurable backup time

LONG RUN MODELS

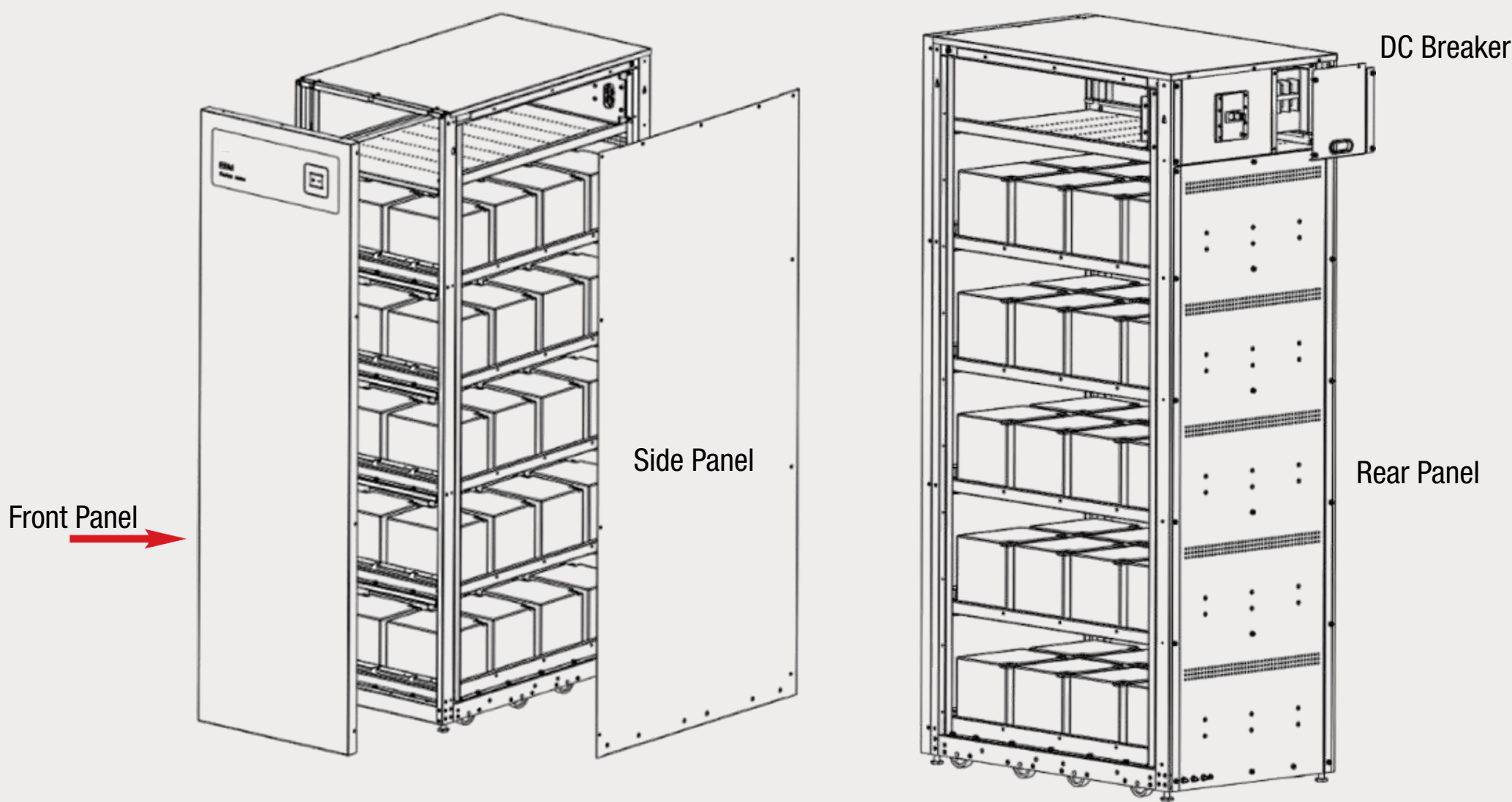
- Main input/ Bypass/ Output/ MBS switches



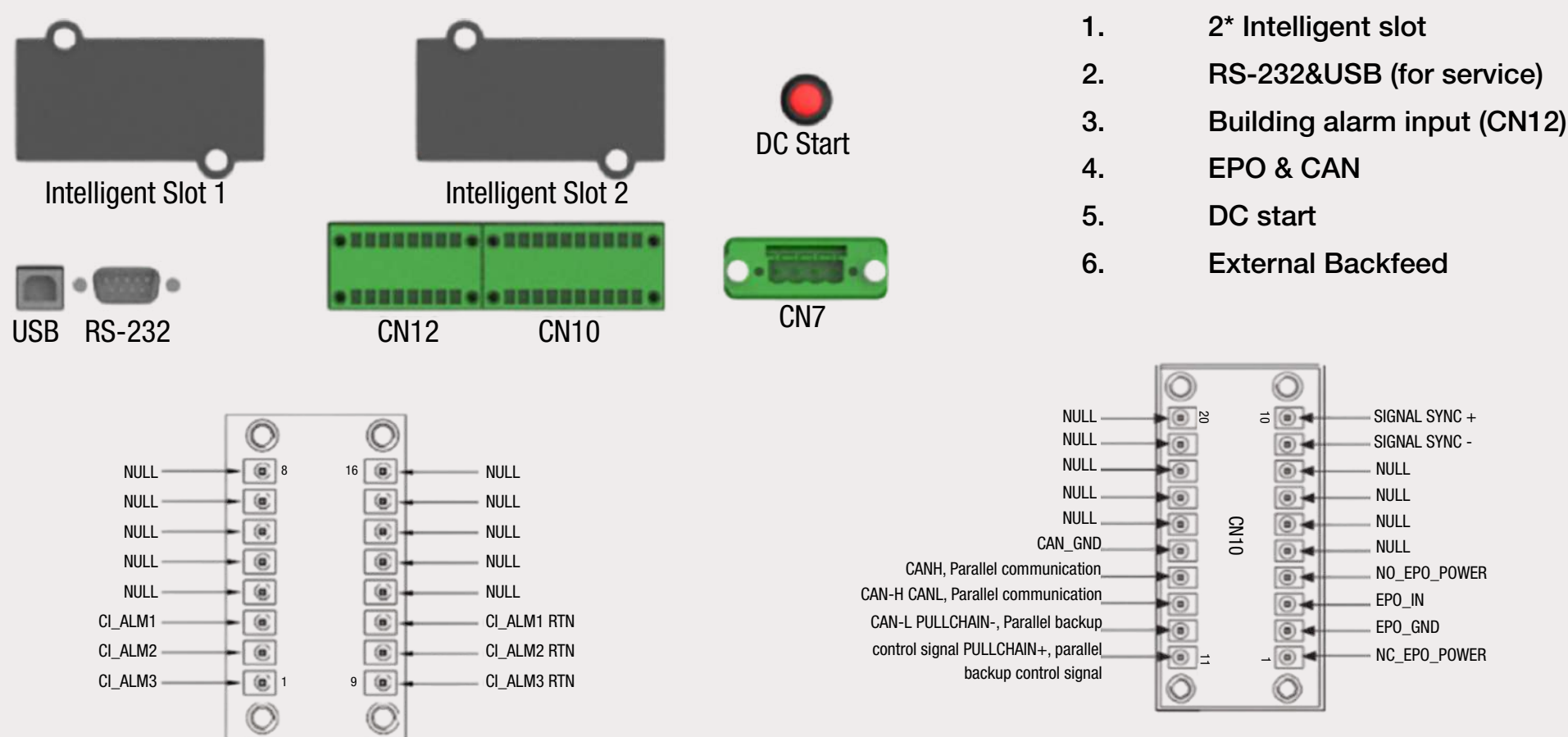
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BATTERY CABINETS FOR LONG RUN MODELS

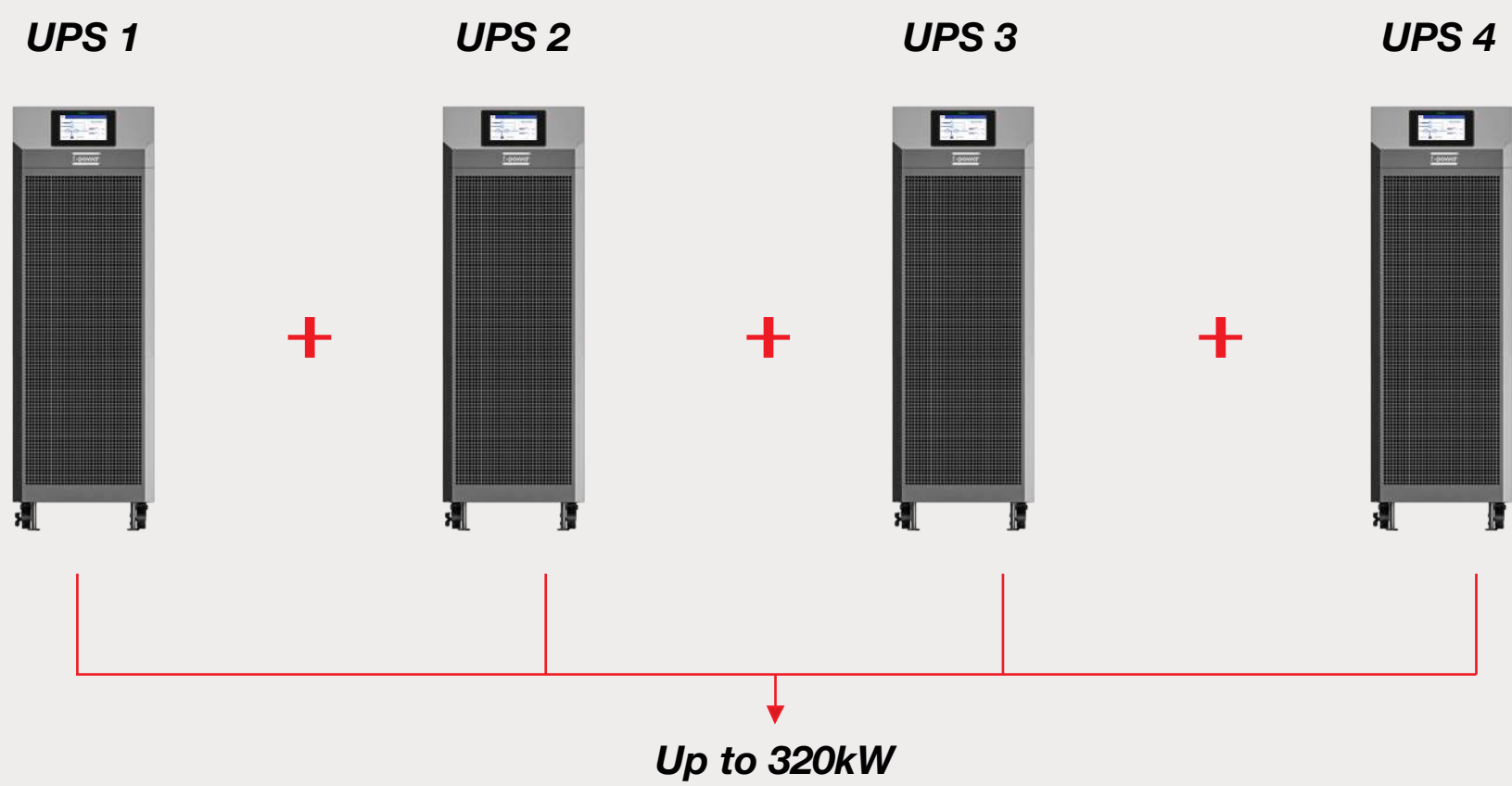


CONFIGURATION & COMMUNICATIONS



OPTIMIZED PARALLEL TECHNOLOGY

With no Master-slave in the parallel system, eliminates single point of failure, enhances reliability.



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TECHNICAL SPECIFICATION

Model (Long Back-up)	OH3020T14400S	OH3030T14400S	OH3040T14400S	OH3060T14400S	OH3080T14400S
Model (Standard)	OH3020T14000B	OH3030T14000B	OH3040T14000B	OH3060T14000B	OH3080T14000B
Capacity	20kVA/20kW	30kVA/30kW	40kVA/40kW	60kVA/60kW	80kVA/80kW
UPS Structure	Online Double Conversion				
Topology	High Frequency Pure Sine Wave PWM IGBT Based				
Classification	(VFI-SS-111)				
Degree of Protection	IP20				
Overall Efficiency	Up to 96% in online mode; >99% in ECO mode				
Cable Entry	Bottom Rear				
Conformal Coating	PCBA conformal coating				
Parallel Redundancy	Parallel redundancey upto 4 units				
ECO Mode	Available				
Protections	Overload, Short-Circuit, Over Temp., Utility Power Voltage High/low, BAT Voltage High/low				
Colour	Pantone Black C and Pantone 877C				
Safety	IEC/EN 62040-1				
EMC	IEC/EN 62040-2				
Performance	IEC/EN 62040-3				
Electromagnetic Compatibility	IEC/EN 62040-2 C3				
Certification	CE & ISO				

RECTIFIER SPECIFICATION

AC Power	Three-phase,4-wire+PE				
Rated Input Voltage	230/400Vac nominal (220/380, 240/415 Selectable)				
Input Voltage Range	(-50% ~ +20%), depends on load percentage				
Operating Frequency / Tolerance	50 or 60Hz; Tolerance 42-72Hz				
Input Current Distortion	<3% THDi (Linear load condition at rated input current)				
Input Power Factor	0.99PF at 100% load				
Inrush Current	≤120% of rated current for ≤2 cycles				
Number of Input Phases	3 phase + Neutral + PE (3 phase)				
Rated Rectifier Input Current (rms @ 400V)	31A	45A	61A	91A	122A
Max Rectifier Input Current (rms @ 400V)	36A	54A	72A	108A	144A

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OUTPUT SPECIFICATION

Rated Output Voltage	230/400 Vac, Three Phase, (220/380, 240/415 selectable)				
Output Voltage Variation	1% Balanced load, 2% Unbalanced load				
Output Power Factor	1PF				
Crest Factor	2.5:1				
Rated Output Frequency	50 Hz (default) or 60 Hz				
Output Frequency Variation	Selectable from 1Hz to 4Hz , with slew rate 0.5Hz/sec (default), 0.1Hz on battery				
Output Frequency	Maximum of 2.5 degrees				
Total Voltage Distortion	<2% with linear load, 5% with non-linear load defined according to EN62040-3				
Rated Output Current (rms @ 400V)	29A	44A	58A	87A	116A
Short Circuit Capability (200ms)	73A	108A	145A	217A	290A
Overload Capacity Without Bypass	102–110% load 60 mins, 111–125% load 10mins, 126–150% load 1min, >150% load 150msec a 40C				

BYPASS SPECIFICATION

Automatic Bypass	Static bypass switch, continuously rated*, no break transfer				
Separate Bypass Input Feed	Standard (single feed cable links supplied for field fitting)				
Bypass Frequency Range	4Hz (default), selectable from 1Hz to 4Hz				
Bypass Input Current (rms @ 400V)	30A/34A	44A/51A	59A/68A	89A/102A	118A/136A

BATTERY SPECIFICATION

Battery Type	VRLA, Lithium-ion, Nicad				
Battery- Long Run Models	32/34/36//38/40/42/44 blocks VRLA battery, Operating VDC: 320-607VDC, Default 432VDC				
Battery- Standard Models	2*40*9Ah max	2*40*9Ah max	2*40*9Ah max	4*40*9Ah max	4*40*9Ah max
Battery Cut-Off Voltage	VRLA: 1.67V/Cell (Positive and negative battery voltages are independent systems, and the battery cut-off voltage depends on the minimum of the positive and negative voltages.)				
Charging Current Long Run Model	20A. Max	30A. Max	40A. Max	60A. Max	80A. Max
Charging Current with Batteries	1.6A default	1.6A default	1.6A default	3.2A default	3.2A default
Battery Recharge Profile	Optimized Battery Management (OBM®) = 90% resting,10% floating/charging (typical)				

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COMMUNICATION SPECIFICATION

Display	5” Touchscreen HMI, 1x LEDs for notice and alarm
Standard Communication Ports	2x Intelligent-Slot, 1x Emergency Power Off input (default NC, optional NO), 3x Building Alarm inputs,1x RS-232(for service),1x USB (for service)
Optional Communication Cards	NMC card, CMC G2 card, Relay card, EMP

ENVIRONMENTAL

Ambient Storage Temperature	Range of -25 to +70C in the protective package
Ambient Service emperature	0 to +40C
Maximum Service Altitude	1500m at 40C without de-rating Maximum 2000m with 1% de-rating per each additional 100m above 1000m
Relative Humidity	5 to 95%, Non-condensing
Elevation	<1500M, without derated
Audible noise	<=65dBA at 1m @ 75% Load (ISO7779)

PHYSICAL CHARACTERISTICS

Dimensions Long Run Model W x D x H (mm)	330*699*521			330*773*972	
Dimensions Sandard Models W x D x H (mm)	500*859*887			500*846*1500	
Weight (kg) Long Run Models	48	48	48	96	96
Weight (kg) Standard Models	134	136	139	239	242

Note: As part of our ongoing commitment to product improvement and innovation, specifications and features may be revised or updated without prior notice to enhance performance and reliability.

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