



MD
15-900 kVA



MD

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High-performance three-phase modular UPS for absolute continuity in all critical applications

Fully scalable and high efficiency (99.6% in ECO mode), the Thor series based on 15, 25 and 75 kVA/kW modules guarantees energy saving and minimum TCO (Total Cost of Ownership).

Applications

- Data centres: from micro to large
- Network Operations Centres (NOC)
- Security operations centres
- Telecommunications systems
- Broadcast and video streaming infrastructure
- Industrial automation control systems
- Remote teaching infrastructure
- Healthcare facilities

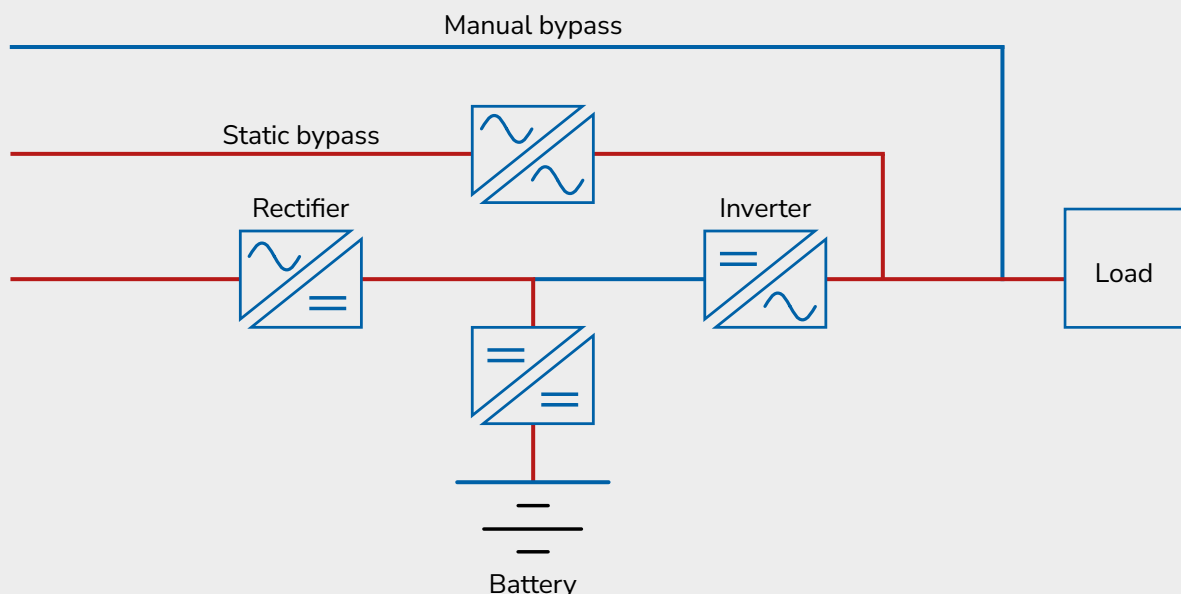
Energy Saver: higher efficiency and lower TCO (Total Cost of Ownership)

The Energy Saver function ensures the modules last a long time by automatically making them work in rotation to balance component wear and increase their life.

ECO Smart mode: higher energy savings and maximum availability of connected systems

In ECO Smart Mode (iECO), the bypass and inverter work together to provide combined energy.

This can achieve greater efficiency (up to 99.3) and ensure a transfer time of 0.



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- The high-density design with full hot-swap technology for both power and bypass modules ensures continuity and protects your load at all times.
- Power factor of 1 (kW = kVA): maximum active power available at all times.
- Very high efficiency (up to 99.3% in ECO Smart mode) for maximum energy saving: bypass and inverter work together to provide combined energy to the load and ensure zero transfer time in the event of a blackout.
- Up to 4 units can be connected in parallel (up to 3.6 MW) for power or redundancy.
- Long component life for a lower TCO (Total Cost of Ownership): the Energy Saver function automatically makes the power modules work in rotation to ensure greater efficiency and duration.
- Designed to minimise impact on generators and avoid overdimensioning them.
- Optimised footprint for maximum installation versatility to make installation possible in any type of environment.
- Easy installation thanks to the central bypass that ensures better load balance and lower risk of system overload.
- Variable battery string configuration can be set from the LCD for maximum installation flexibility.
- Minimum battery voltage can be set according to the discharge current, so the batteries can always be used in the best way to maximise their expected or lifespan life.
- High quality long-life capacitors (up to 10 years under favourable operating conditions).
- Cold start function included.
- Compatible with lithium-ion batteries or other technologies.
- Dual input for main power supply and bypass.
- Internal manual bypass.
- User-friendly LCD touch display with multi-language graphical user interface to have everything under control at all times.
- Event log can be downloaded directly from the LCD via USB port.
- Communication slots for optional card.
- RS485-ModBus, relay card with dry contact and USB port built-in.

Key options

- Input, output and bypass breaker.
- Communication cards: Web SNMP.
- Isolation transformer.
- Additional battery charger for long uptimes.

Contact our offices for a complete list of accessories

60 kVA Combo solution

- Up to 4 internal strings of 40 x 9 Ah batteries.
- Fuses to protect each string.

MD TECHNICAL DATA SHEET

MODEL		MD 15-900									
POWER	kVA	15				25		75			
	kW	15				25		75			
INPUT	Rated voltage	400 Vac three-phase with neutral									
	Voltage tolerance	20% @100% load, -40% ~-20% @50% load									
	Rated frequency	40 – 70 Hz									
	Power factor	≥0.99									
	Current distortion (THDi)	<3%									
OUTPUT	Rated voltage	380/400/415 Vac three-phase with neutral									
	Voltage stability	±1% (static load)									
	Frequency	50/60 Hz									
	Frequency stability	±0.01% (free running)									
	Power factor	1									
	Crest factor	3:1									
	Voltage distortion	≤3% with linear load, ≤6% with distorting load									
	Permissible overload	110% for 60 minutes, 125% for 10 minutes, 150% for 1 second									
BATTERY	Battery cabinet	modular	classic								
	Battery architecture	modular, 4 strings	separate cabinet								
	Number per string (12V)	40	32–44 configurable					32–44 configurable			
	Max. charging current	3 A per module				5 A per module		15 A per module			
EFFICIENCY	VFI mode	up to 95.3%				up to 95.6%		up to 96%			
	ECO Smart mode	99.3%									
	Battery mode	up to 95.2%				up to 95.5%		up to 95.7%			
BYPASS	Rated voltage	380/400/415 V three-phase + neutral									
	Voltage tolerance*	-40% to +20% (selectable)									
	Frequency	50/60 Hz									
	Frequency tolerance	50/60 Hz ±4%						50/60 Hz ±6%			
GENERAL	Cabinet Model	MD COM-BO60-00 cabinet	MD R30-00	MD R60-00	MD R120-00	MD R150-00	MD R250-00	MD R450-00	MD R600-00	MD R900-00	
	Module power (kVA)	15				25		75			
	Power modules that can be installed	up to 4	up to 2	up to 4	up to 8	up to 6	up to 10	up to 6	up to 8	up to 12	
	Parallel connection	up to 4									
	Cabinet dimensions (WxDxH) mm	600x1100x2000	442x800x912.5	442x800x1090	442x800x1578	600x1000x1600	600x1000x2000	900x1000x2000	1200x1000x2000	1800x1000x2000	
	Weight (Kg) **	444	120	164	263	284	410	650	800	1200	
	Protection class	IP20									
CONNECTIVITY	User interface	7" colour LCD touch screen									
	Built-in communication ports	USB, 1 additional slot, EPO, RS485-ModBus, RS232 GEN, BCB, 4 in/8 out relay with dry contacts				USB, 1 additional slot, EPO, BFP, RS485-ModBus, RS232 GEN, BCB, 4 in/8 out relay with dry contacts					
	Optional accessories	Cards: SNMP, battery temperature sensor									
ENVIRONMENTAL PARAMETERS	Operating temperature***	0 – 40°C									
	Altitude (a.s.l.)	<1000 m with no power derating, >1000 m with 1% derating for every 100 m.									
	Relative humidity	0 – 95% (without condensing)									
	Audible noise at 1 m.	<70 dBA									
REGULATIONS	Standards	IEC EN 62040-1, IEC EN 62040-2, IEC EN 62040-3									
	Marking	CE, UKCA									

* Subject to conditions ** Includes empty battery modules for Thor Combo *** To be verified according to the battery parameters

Accessories

Three-phase modular UPS

DUMMY LOADS FOR GLM FUNCTION

	DUMMY 10: dummy load for lift function 3 kW for TAURUS 10kVA.
	DUMMY 20: dummy load for lift function 6 kW for TAURUS 20kVA.
	DUMMY 30: dummy load for lift function 9 kW for TAURUS 30kVA.
	DUMMY 40: dummy load for lift function 12 kW for TAURUS 40kVA.
	DUMMY 60: dummy load for lift function 18 kW for TAURUS 60kVA.
	DUMMY 80: dummy load for lift function 24 kW for TAURUS 80kVA.

REMOTE PANEL for Kronos, Taurus and all single phase double conversion, Monitor up to 64 UPS

COMMUNICATION CARDS

	MD-SNMP: SNMP Card for THOR
	SNMP GEN Mini: SNMP Generex CS141 mini
	TEMPEXT-TH: External Battery Temperature Probe

INPUT BARS

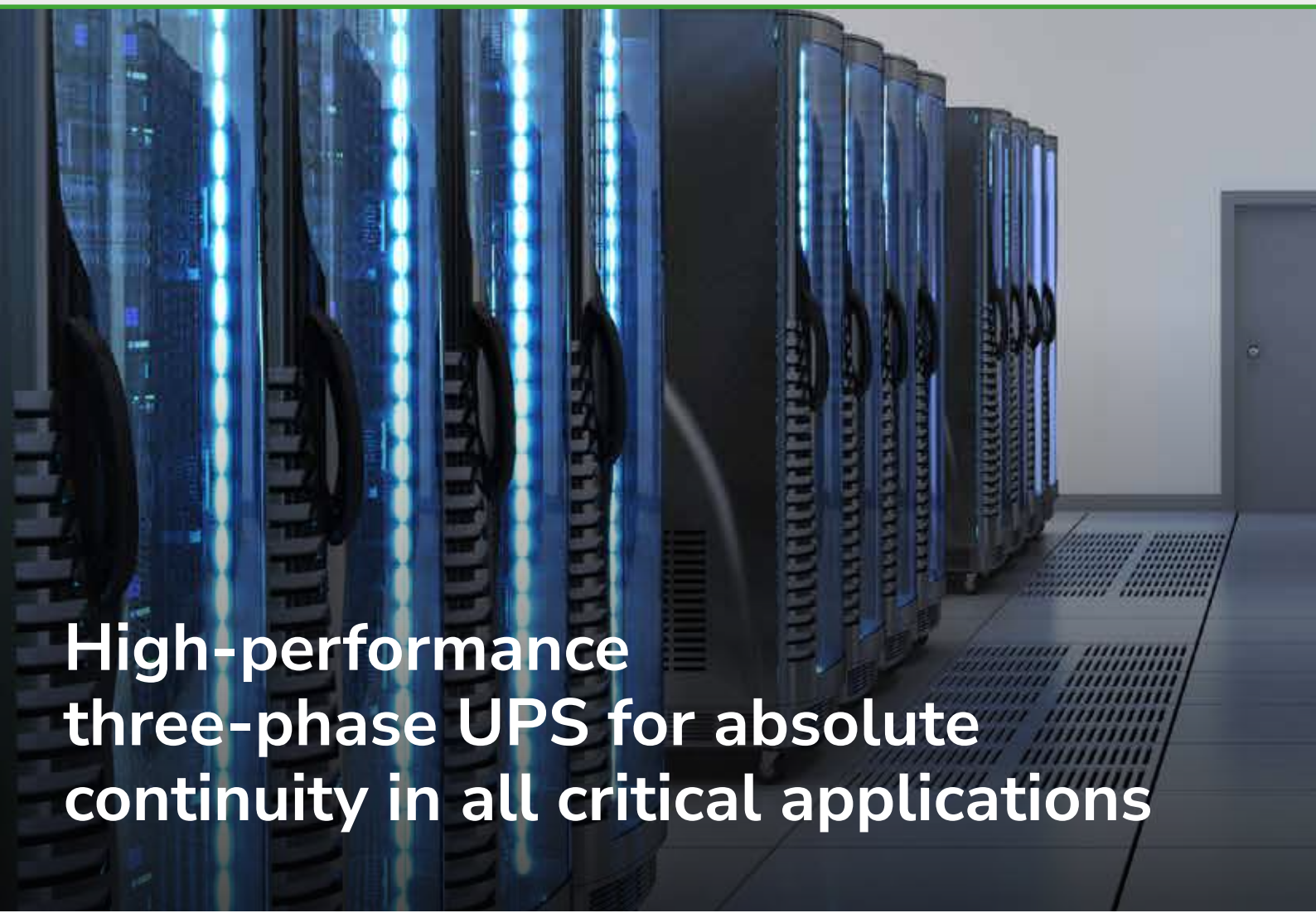
	DUAL-TH-R30: single source 30kVA
	DUAL-TH-R60: single source 60kVA
	DUAL-TH-R120: single source 120kVA
	DUAL-TH-R450: single source 450kVA
	DUAL-TH-R600: single source 600kVA
	DUAL-TH-R900: single source 900kVA

PARALLEL KIT

	PARKIT2-TH: Parallel Kit for 2 pcs UPS parallel
	PARKIT3-TH: Parallel Kit for 3 pcs UPS parallel
	PARKIT4-TH: Parallel Kit for 4 pcs UPS parallel

DISCONNECTORS

	BR-TH-R30: Input/ bypass/output braeker for TH-R30. Dim. 442x800x662
	BR-TH-R60: Input/ bypass/output braeker for TH-R60. Dim. 442x800x840
	BR-THCOMBO-R30: Input/ bypass/output braeker for combo 30KVA. Dim. 442x800x662
	BR-THCOMBO-R60: Input/ bypass/output braeker for combo 60KVA. Dim. 442x800x840
	BR-TH-R150: Input/ bypass/output braeker for 150KVA. Dim. 600x1000x1600
	BR-TH-R250: Input/ bypass/output braeker for 250KVA. Dim. 600x1000x2000
	BR-TH-R450: Input/ bypass/output braeker for 450KVA. Dim. 1200x1000x2000
	BR-TH-R600: Input/ bypass/output braeker for 600KVA. Dim. 1200x1000x2000
	BR-TH-R900: Input/ bypass/output braeker for 900KVA. Dim. 1800x1000x2000

A photograph of a server room with rows of server racks. The racks are illuminated with blue light, and the floor is covered with a grid of perforated metal tiles. A door is visible in the background.

**High-performance
three-phase UPS for absolute
continuity in all critical applications**



THREE-PHASE UPS





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