THREE PHASE ONLINE DOUBLE CONVERSION UPS

20kVA Rack UPS – Long-Run

PRODUCT CODE

TT020ELR

A 20kVA/20kW three-phase online double-conversion UPS in 3RU, for rack or tower installation. It connects to an external ±240 VDC battery bank, configures as 3/3, 3/1 or 1/1, and has a 7-inch touch LCD, Ethernet, RS232, RS485, USB, dry contacts, an intelligent slot and parallel ports.

20kVA
20kW · Output PF 1.0

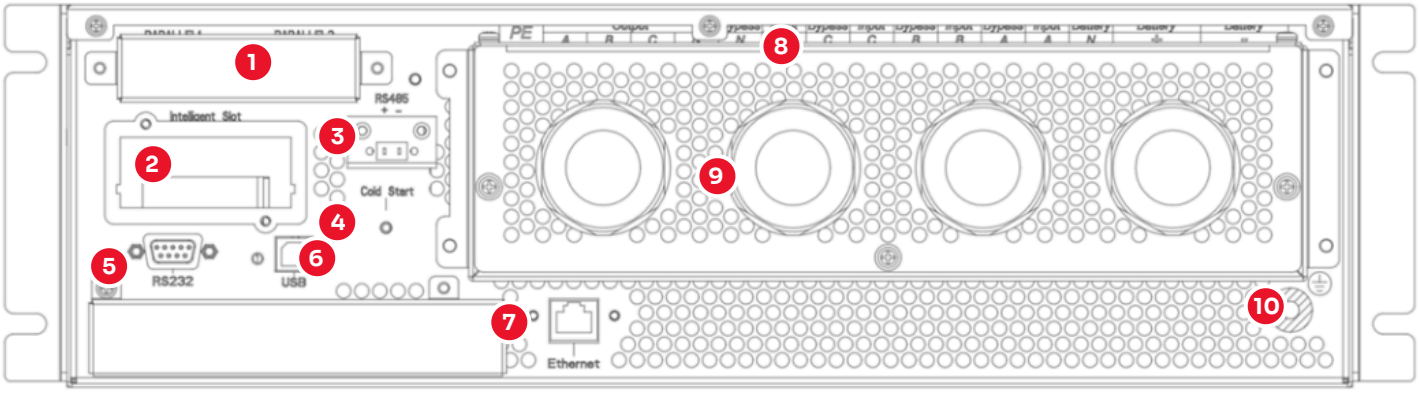
3 / 3
Three-phase in and out

±240 VDC
External battery

Up to 97%
Online efficiency

3RU
Rack or tower

REAR PANEL



1. Parallel ports P1 / P2
2. Intelligent slot
3. RS485 port
4. Cold start button
5. RS232 port (DB9)
6. USB port (type B)
7. Ethernet port
8. Terminals – input, bypass, output, battery, PE
9. Cable entry glands
10. Earth point

KEY FEATURES

- Online double conversion, VFI-SS-111
- Unity output PF – full 20000 W usable
- Up to 97% efficiency in online mode
- 3/3, 3/1 or 1/1 configuration
- 304–478 VAC input, input PF >0.99
- 7-inch touch LCD with status LEDs
- USB, RS232, RS485, Ethernet, dry contacts
- Intelligent slot for SNMP or AS400 card
- Parallel kit option for N+1 or capacity
- 3RU rack mount, or install as tower

Technical specifications

GENERAL	
Model	TT020ELR
Topology	Online double conversion
Rated power	20000 VA / 20000 W
Configuration	3/3, 3/1 or 1/1
Display	LED + 7-inch touch LCD
Form factor	3RU rack; tower with support bases

INPUT	
Connection	3P + N + PE
Rated voltage	380 / 400 / 415 VAC (L-L)
Voltage range	304–478 VAC (full load)
Low-voltage range	228–304 VAC, derates to 50%
Frequency	40–70 Hz
Power factor	>0.99
Current THDi	<2% (linear load)
Max current	38 A per phase

OUTPUT	
Rated voltage	380 / 400 / 415 VAC (L-L)
Frequency	50 / 60 Hz
Power factor	1.0
Rated current	30 A per phase
Voltage accuracy	±1%
Waveform THD	<1% linear; <5% non-linear
Phase accuracy	120° ±0.5°
Crest factor	3:1
Efficiency	Up to 97% (online mode)
Overload	110%: 1 h · 125%: 10 min · 150%: 1 min
Single-phase output	20 kVA

BATTERY (EXTERNAL)	
Internal batteries	None – external bank required
Nominal voltage	±240 VDC (40 × 12 V)
Charger capacity	50% × rated output
Float charge	2.25 V/cell (2.2–2.35)
Max battery current	44 A

COMMUNICATIONS	
Standard ports	USB, RS232, RS485, Ethernet
Dry contacts	Input and output contacts
Remote EPO	NO or NC contact
Intelligent slot	UTTSNMP or UTTAS400 card
Parallel	Parallel kit optional
Cold start	Yes

Specifications may change as products are updated and improved.

Technical specifications (continued)

PHYSICAL	
Dimensions (mm)	400 W × 803 D × 130 H
Net weight	22.4 kg
Heat output	≈619 W (2,111 BTU/h)
Rack height	3RU
Protection	IP20

ENVIRONMENT	
Operating temp.	0–40 °C
Humidity	0–95%, non-condensing
Noise (1 m)	65 dB full load; 62 dB at 45%
Cooling	Front-to-back airflow

INSTALLATION	
Breakers in / byp / out (A)	50 / 50 / 50 (3P)
Battery breaker	DC 50 A
Cables in / byp / out (mm²)	4 / 2.5 / 2.5
Cables batt / PE (mm²)	6 / 4

STANDARDS	
Safety	IEC 62040-1, IEC 60950-1
EMC	IEC 62040-2
Performance	IEC 62040-3
Approval	RCM (AU & NZ)

RELATED ACCESSORIES	
UTTSNMP	SNMP network card
UTTAS400	AS400 dry contact card
Parallel kit	N+1 or capacity parallel
Air filter	For dusty environments
URK02	Sliding rail kit

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