

# E1 Series UPS 10-20 kVA | Three phase

- Three Level Inverter
- Digital Power Factor Correction

## ✓ NEW TECHNOLOGY

- Three level inverter
- High and stable online efficiency (up to 94%)
- High input PF ( $\geq 0.99$ )
- Low input current THD ( $< 5\%$ )
- Low output voltage THD ( $< 2\%$ )
- Short response time ( $< 2\text{ms}$ )
- High input and output performance

## ✓ RELIABLE & USER FRIENDLY

- Parallel option up to 6 units
- Intelligent redundancy management (n, n+1 and n+x)
- Programmable high overload capacity
- Short circuit protection
- Low investment and operation cost
- Short return on investment time
- Highest efficiency eco-mode (up to 98%)
- Reduced weight/volume/footprint
- Wide input voltage tolerances (-25%, +20%)
- Cold start
- Energy-saving sleep mode
- Short circuit, lightning and surge protection
- Remote emergency power off (EPO)
- Generator compatibility
- 1-7A adjustable battery charger
- Extended battery life with intelligent battery management
- Automatic and manual battery test
- LCD interface
- Remote monitoring panel (optional)
- 512 real time event log
- Battery capacity, load percentage and ambient temperature display
- SNMP (optional), RS232, RS485, Modem, MODBUS communication
- Remote monitoring and management software
- Dry contacts and custom inputs
- Smart fan control
- Internal battery
- Manual bypass
- Easy installation and maintenance
- 10 years spare part warranty
- 7/24 technical support and customer service

## ✓ STANDARDS

- EN 62040-1 (Safety)
- EN 62040-2 (EMC)
- CE, ISO 9001:2008, ISO 14001, GOST



**%94**  
Efficiency



## E1 SERIES UPS TECHNICAL SPECIFICATIONS

	10	15	20
<b>INPUT</b>			
Power (kVA)	10	15	20
Voltage	380 / 400 / 415 Vac 3ph + N		
Voltage Tolerances	- 25%, +20% (without downgrading)		
Frequency	50 / 60 Hz		
Frequency Tolerances	± 10%		
Power Factor	≥ 0,99		
THD <sub>i</sub>	< 5%		
<b>OUTPUT</b>			
Voltage	380 / 400 / 415 Vac 3ph + N		
Voltage Tolerances	± 1% (static load), dynamic load in accordance with VFI-SS-11		
Frequency	50 / 60 Hz		
Frequency Tolerances	± 0.1% (self-synchronize), ± 1% (mains-synchronize)		
Power Factor	0,8		
THD <sub>v</sub>	≤ 2% (linear load), ≤ 5% (non-linear load)		
Crest Factor	3:1		
<b>OVERLOAD CAPACITY</b>			
≤ 110%	60 min.		
≤ 130%	10 min.		
≤ 150%	1 min.		
≤ 160%	10 sec.		
<b>EFFICIENCY</b>			
Online	up to 94%		
Eco-mode	up to 98%		
<b>GENERAL</b>			
Technology	Three level inverter, PFC		
Control	Dual-DSP, SPWM		
Paralleling Units	Up to 6 units		
Communication	SNMP(Optional), RS232, RS485, MODEM, MODBUS		
Remote Monitoring	SNMPView, Remote monitoring panel(optional)		
Dry Contacts	Programmable 3 dry contacts		
Custom Inputs	Generator, Remote EPO, Remote Start/Stop		
Cold Start	Standard		
Maintenance Bypass	Standard		
<b>ENVIRONMENT</b>			
Operating Temperature	from 0 °C up to +40 °C (from 20 °C to 25 °C for maximum battery life)		
Relative Humidity	0% - 85% (without condensation)		
Maximum Altitude	≤ 2000 m		
Noise Level	< 55 dB (A)		
<b>UPS CABINET</b>			
Dimensions (W x D x H) (mm)	255 x 730 x 870		
Weight (kg)	48		50
Degree of Protection	IP20		
Colour	RAL7012		
<b>BATTERY</b>			
Internal Battery Quantity	30		
Internal Battery Capacity (Ah)	7-9		
External Battery Cabinet Socket	Standard		
<b>STANDARDS</b>			
Safety	EN 62040-1		
EMC	EN 62040-2		
<b>UPS LIFETIME</b>	10 YEARS		