

# ET SERIES

## 1 kVA – 3 kVA 1:1 Phase

# UNINTERRUPTIBLE POWER SUPPLY

### Introduction

ET series online UPS, 1 – 3 kVA, has adopted highest level DSP control. With advanced DSP technology, it has highest stability and excellent performance. It is perfect for network, data-centre, servers, work stations, control systems, communication systems and office use.

### Constructional Features

- Transformerless UPS technology
- Compact design
- DSP controlled modular structure
- Maintenance bypass switch (optional)
- Output short circuit and overload protection
- Smart RS232 port
- SNMP card (Optional)
- Dry contacts (optional)
- USB port (optional)

### Standards

- IEC EN 62040, EN60950
- EMC (2004/108/EC)
- ISO 9001
- CE conformity
- GOST conformity

### Support

- 2 year product warranty (optional)
- 10 years spare parts availability

### Technical Features

- Online double conversion with DSP control
- Self diagnostics upon UPS startup
- Wide input range
- Cold start function (DC power ON)
- Flexible battery configuration
- Less noise
- ECO function
- Supports generator input
- Lightning and surge protection (1050J)
- Variable fan speed according to load level



## TECHNICAL DATA

Model	ET01	ET02	ET03
Power (kVA)	1	2	3
<b>INPUT &amp; BYPASS</b>			
Wiring	1 Ph + N + PE		
Nominal Voltage (V)	208 / 220 / 230 / 240 VAC		
Low Bypass Transfer Voltage (V)	176V AC $\pm$ 3% @ 100% Load / 130V AC $\pm$ 3% @ 50% Load		
Low UPS Return Voltage (V)	188V AC $\pm$ 3% @ 100% Load / 142V AC $\pm$ 3% @ 50% Load		
High Bypass Transfer Voltage (V)	286V AC $\pm$ 3%		
High UPS Return Voltage (V)	270V AC $\pm$ 3%		
Frequency Range (Hz)	50 Hz (45..55Hz) / 60 Hz (55..65Hz) Auto detect 50Hz / 60 Hz		
Power factor	> 0.98		
Generator input	Support		
Input breaker (Amp)	7A	16A	25A
<b>BATTERY</b>			
DC Nominal Voltage (V)	24V / 36V DC	48V / 72V / 96V DC	72V / 96V DC
Battery type	VRLA-AGM (Sealed Lead Acid Maintenance Free Batteries)		
Number of 12V blocks	2 / 3 Nos.	4 / 6 / 8 Nos.	6 / 8 Nos.
Backup time (Min)	5 - 10 Min	8 - 15 Min	5 - 10 Min
Recharge time to 90% (Hours)	5 hours	5 hours	5 hours
Battery charge current (A)	1 Amp	1 Amp	1 Amp
Protections	Over voltage, overcurrent, low voltage		
<b>OUTPUT</b>			
Wiring	1 Ph + N + PE		
Voltage (V)	208 / 220 / 230 / 240 VAC		
Output wave form	Pure sine wave		
Voltage regulation	$\pm$ 2%		
Power factor	0.8 (0.9 optional)		
Frequency (Hz)	50 Hz / 60 Hz (Auto selection from input)		
Frequency regulation	$\pm$ 2% (Line synchronised) / $\pm$ 0.1% (Free running, adjustable)		
THD	<3% (100% Linear load) / <5% (100% Non-linear load)		
Crest Factor	3 : 1		
Transfer time	0 msec (Mains to Inverter) / 0 msec (Inverter to synchronised mains)		
Overload tolerance	1 Minutes (100% to 125%) / 30 sec (126% to 150%) / Transfer to bypass (>150%)		
<b>GENERAL</b>			
HMI	Alphanumeric LCD, Mimic LED, Vector Buttons, Buzzer		
Communication	Smart RS232 port		
Efficiency	> 89% (AC Mode) / > 86% (Battery Mode) / > 95% (ECO Mode)		
Operating Ambient	0 deg C to +40 deg C, <90% R.H (non-condensing), <1000 m altitude		
Storage Ambient	-20 deg C to +65 deg C, <95% R.H (non-condensing), <2000 m altitude		
Cooling	Forced Air, Smart Fan System		
Ingress Protection	IP20 Standard		
International Standards	IEC-EN 60950-1 (Safety) IEC-EN 62040-1, IEC-EN-62040-2, EMC(2004/108/EC)		
Colour	RAL 7016 Black		
Dimension DxWxH (mm)	420 x 144 x 215	475 x 191 x 340	475 x 191 x 340
Weight (kg)	12	30	30
Noise (dBA)	$\leq$ 55 dBA	$\leq$ 55 dBA	$\leq$ 55 dBA
<b>OPTIONS</b>			
Longer backup time	Additional battery packs and 7.0 Amp battery charger to support longer backup time		
American Version	Input / output voltage of 110 / 120 / 127 VAC		
Communication	USB , dry contact board, SNMP card		
Extended Warranty	1 Year Additional Product Warranty		
Customised System	System in accordance with client specifications, size limitations and operating ambient		

\*\* Specifications are subject to change without notification