



EXPERT SERIES 3/3

**TRUE ON-LINE DOUBLE CONVERSION
HI FREQUENCY LCD UPS**

10kVA - 80kVA

SALIENT FEATURES

*** N+X PARALLEL REDUNDANCY**

The maximum of the built-in parallel mode is 8 UPS without any other external accessories compatible to battery share in the parallel mode

*** HIGH-EFFICIENT DSP CHIP**

The digital Ti DSP controlling chip provide precise data processing capability with excellent performance in output and reliability

*** OUTSTANDING ELECTRIC PROPERTY**

The efficiency of the machine is as high as 93% and reaches over 98% in the ECO mode, the input power factor is as high as 0.99

*** TWIN -CHANNEL LINE INPUT**

The UPS provides customer security in power supply with intelligent choice between two-line input or one-line input according to the actual condition

*** INTELLIGENT MANAGEMENT TO
BATTERY CHARGING AND DISCHARGING**

APPLICATIONS



*Technical Specification on Next Page

Technical Specification:

Product Series		EXPERT SERIES 3/3						
Model		ES-10	ES-15	ES-20	ES-30	ES-40	ES-60	ES-80
Capacity	kVA/kW	10kVA/9kW	15kVA/13kW	20kVA/18kW	30kVA/27kW	40kVA/36kW	60kVA/54kW	80kVA/72kW
Rectifier Input	Rectifier Type	IGBT-based Vector Controlled PFC (PF Corrected)						
	Input Voltage	380 / 400 / 415VAC (Accepted from 305 to 477 without batt. Use)						
	Input Frequency	50 or 60Hz (Accepted range from 40 to 70)						
	Input Current THD	<3% (without any Filter)						
	Input Power Factor	≥ 0.99 (without any Filter)						
	Power Walk-In	5 to 30s (selectable)						
Bypass Input	Input Voltage	380 / 400 / 415VAC						
Battery	Battery Type	VRLA (Valve Regulated Lead Acid) or Wet / Flooded or NiCd						
	End-Cell Voltage	Selectable from 1.60 to 1.90Vdc/Cell (for VRLA)						
	DC Ripple Current (float)	<5% (of C10 AH capacity) RMS value						
	DC Ripple Voltage(float & const V Ch)	<1% (RMS value)						
	Temp. Comp. Charge	Standard (where internal batteries 10, 15, 20, 30, 40 kVA) and Optional (for all other battery configurations)						
Output	Inverter Type	IGBT-based Vector, Repetitive & PI Controlled						
	Output Voltage	380 / 400 / 415VAC ± 0.5 Regulation (3-phase RMS average)						
	Output Frequency	50 or 60Hz with ± 0.05 Regulation						
	Output Voltage THD	1% (max)						
	Max. Load Crest Factor	3:1 (compliant with IEC 62040-3)						
	Transient Volt. Resp.	10ms to recover ± 5% of Nominal Voltage for 0% to 100% or 100% to 0% step load						
	Max. Leading PF Load	Up to 0.9						
	Voltage Displacement	120° ± 10° (with 100% unbalanced load)						
Efficiency		AC-AC up to 96%						
EMC-Class		Class-A (Applicable for both Radiated & Conducted)						
Environmental	Storage Temp.	-20 to 70 °C (UPS) & -20 to 30 (Battery)						
	Operating Temp.	0 to 40 °C (UPS) & 25 ± 5 (Battery)						
	Relative Humidity	0 to 95% (non-condensing)						
	Maximum Altitude above Mean Sea Level	1000m (as per IEC 62040/3)						
Main unit	Dimension(WxDxH)mm	380x685x1030	385x685x1030	385x685x1030	460x785x1235	460x785x1235	673x835x1550	673x835x1550
	Weight(kg)	145	150	155	240	275	451	510
	UPS Enclosure IP	IP 20 (even with open front door)						

STANDARDS

IEC 62040-3	EN 50091-1-1	ANSI C62.41 (IEEE 587)
IEC 62040-2	EN 50091-2	
IEC 62040-1-1	EN 50091-3	
IEC 60146-1-1	EN 60950	
IEC 61000-4-2, 4, 5, 6, 8,11	EN 60529	

Product specification are subject to change without further notice.