

KIRLOSKAR ELECTRIC

LM Series



1 Phase Input / 1 Phase Output
Range 1 - 6 kVA

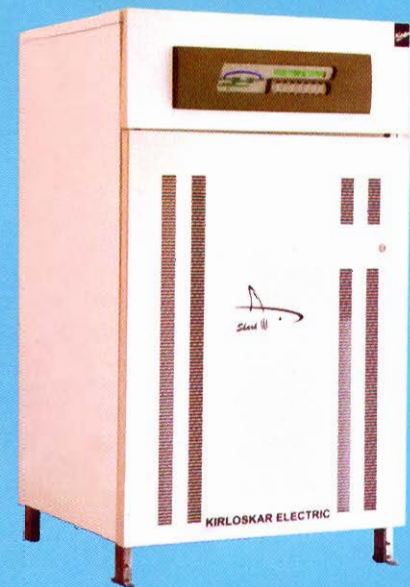
Features

- ◆ TRUE SINWAVE, DOUBLE CONVERSION ONLINE UPS
- ◆ UNITY INPUT POWER FACTOR & WIDE INPUT VOLTAGE RANGE
- ◆ COLD START & AUTOMATIC SELF DIAGNOSTIC FUNCTION
- ◆ L C D DISPLAY & EVENT LOGGING
- ◆ RS 232 COMMUNICATION PORT & OPTIONAL SNMP SLOT
- ◆ U P S MONITORING & AUTO SHUTDOWN SOFTWARE
- ◆ SUPPORTS ANY GENERATOR OUTPUT

Features

- ◆ TRUE SINWAVE, DOUBLE CONVERSION ONLINE UPS
- ◆ DUAL C P U CONTROL
- ◆ STATIC BYPASS & MAINTENANCE BYPASS FACILITY
- ◆ L C D DISPLAY WITH CONTROL PANEL & SELF DIAGNOSIS
- ◆ WIDE INPUT VOLTAGE RANGE
- ◆ PARALLEL OPERATION WITH LOAD SHARING (OPTIONAL)
- ◆ RS 232 COMMUNICATION PORT & OPTIONAL SNMP SLOT
- ◆ U P S MONITORING & AUTO SHUTDOWN SOFTWARE

SHARK Series



3 Phase Input / 3 Phase Output
Range 10 - 160 kVA

Kirloskar

ONLINE UPS SYSTEM
Range : 1kVA - 160kVA

Certified ISO 9001:2000 by

BVQi

TECHNICAL SPECIFICATIONS OF LM SERIES UPS

Parameter/Model	LMS 1000	LMS 2000	LMS 3000	LMS 6000
Output Power (kVA)	1	2	3	6
Battery Voltage (VDC)	36	96	96	240
Nett Weight (Kg)	8.0	15.0	16.0	35.0
Dimensions (WxDxH) in mm	160x400x220	200x450x352		260x717x570

Input Rating	Power Supply	1 Phase with Ground, 230V Nominal AC, (Range120-300V), 50Hz +/-8%
	Power factor	≥0.97
Output Rating	Voltage	1 Phase, 230V AC +/-2%
	Frequency	50Hz +/-0.5%.
	Power factor	0.70 lagging
	Waveform	Pure sine wave
	Crest factor	3:1 (Distortion : ≤ 3% at linear load)
	Inverter Efficiency	≥ 92%
	Overload capacity	150% for 60 seconds
Transfer Time	UPS to Bypass	No Break
	Bypass to UPS	No Break
Indications & Alarms	LED display	Normal , Warning and Fault
	LCD display	UPS status, Input voltage, Output voltage, Input frequency, Output frequency, Load %, Battery voltage, Battery capacity, Temperature & Event Log
	Audible Alarm	AC Failure : Sounds every 4 seconds after mains fails Overload : Sounds twice every second Battery low : Sounds every second when approaches battery low level UPS fault : Continuous alarm
Protection		Over & Under voltage at input, Output short circuit, Surge and lightning
Environmental Conditions	Ambient temperature	0° C to 45° C
	Humidity	90% RH or less (non-condensing)
	Audible noise	< 45 dB @ 1 meter
Connection	Interface port	RS232
	Software	UPS monitoring and Auto shutdown (UPSilon 2000)
	Operating system support	MS Windows 95, 98, 2000, NT and XP, MS Windows Me, Novell Netware LINUX, Free BSD.
Optional	SNMP	Power management from SNMP manager and Web browser

TECHNICAL SPECIFICATIONS OF NANO, PENGUIN & DOLPHIN MK II SERIES UPS

Parameter \ Model	NANO MK II				PENGUIN MK II	DOLPHIN MK II
Output Power (kVA)	5	7.5	5	7.5	10 /12.5 / 15 / 20	25 / 30 / 40 / 50 / 60
Battery Voltage (VDC)	144		240		240	336
Nett Weight (Kg)	45	60	45	60	180 - 280	480 - 580
Dimensions (W x D x H) In mm	400 x 600 x 700		365 x 620 x 700		500 x 750 x 880	1050 x 590 x 1090

Efficiency	Inverter	≥ 92%	≥ 92%	≥ 93%	≥ 94%
	Overall	≥ 87%	≥ 87%	≥ 90%	≥ 90%
Input Rating	Voltage	136-280 V	330-470 V	330-470 V	330-470 V
	Phase	1 Phase	3 Phase	3 Phase	3 Phase
	Frequency	47-53 Hz			
Output Rating	Voltage	230V			
	Phase	1-Phase			
	Regulation	+/-1.5%			
	Power factor	0.8 lagging			
	Frequency	50 Hz +/-0.1%			
	Sync range	48-52 Hz			

TECHNICAL SPECIFICATIONS OF NANO, PENGUIN & DOLPHIN MK II SERIES UPS

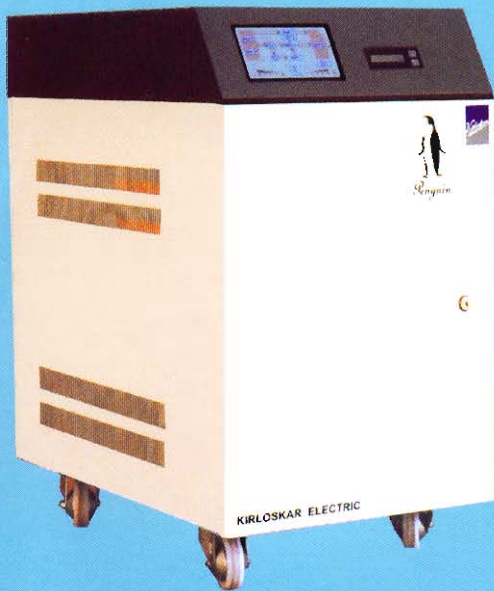
Output Rating	Wave form	Pure sine wave
	Distortion	THD \leq 3%
	Crest factor	3:1
	Over load capacity	150% for 60 seconds
	Transient response (for 100% Step load change)	+/- 5% Change In output voltage, Recovery within 5 milli sec
Bypass	Switch	Static switch line synchronised
	Transfer time	Uninterrupted
	Maintenance	Uninterrupted super bypass facility
Environment	Audible noise	\leq 55 dB @ 1 meter
	Ambient temperature	-10° C to + 45° C
	Humidity	95% RH or less (non-condensing)
	Altitude	\leq 1000 M above MSL
	Protection class	IP - 20
Indication	LED	User friendly MIMIC for power flow & status information along with BAR GRAPH for load & battery
	Metering	Clear text LCD
	Alarm	Battery low (prewarn), Fault, load on bypass
Protection		Input under voltage, Input over voltage, Battery under voltage, DC over current
		Output short circuit, Output over voltage, Over temperature, Output over load
Controls		Input circuit breaker, Bypass circuit breaker, Battery Isolator,
		Bypass transfer switch, Maintenance bypass switch, Inverter ON/OFF switch, Reset switch,
		Alarm acknowledge switch, Sync/Async switch, Parameter scroll switch, Cold start switch

TECHNICAL SPECIFICATIONS OF SHARK SERIES UPS

Parameter \ Model	Shark 3 phase input / 3 phase output									
Output Power (kVA)	10	15	20	30	40	60	80	100	120	160
Battery Voltage (VDC)	384	384	384	384	384	384	384	480	480	480
Nett Weight (Kg)	200	220	230	330	330	520	555	650	750	950
Dimensions (WxDxH)in mm	555 x 720 x 1220					800 x 740 x 1400		1200 x 810 x 1540		

Input Rating	Voltage	320 -480V, 3 Phase, 4 wire and ground
	Frequency	45 -65 Hz
Output Rating	Voltage	415V, 3 Phase with Neutral +/- 1% for balance load
	Frequency	50Hz \pm 0.05%
	Power factor	0.8 lagging
	Waveform	Pure sine wave
	Crest factor	3:1
	Inverter Efficiency	\geq 92%
	Overload capacity	150% for 60 seconds, 125% for 10 minutes
Transfer Time	UPS to Bypass	No Break
	Bypass to UPS	No Break
Environmental Conditions	Ambient temperature	0°C - 45°C
	Humidity	95% RH or less (non-condensing)
	Audible noise	\leq 60 dB
	Altitude	< 1000 M above MSL
	Protection class	IP 20
Communication	RS 232	With UPS Monitoring and Auto Shutdown Software
	SNMP	Power Management from SNMP Manager & Web Browser
Indications	LED	User friendly LED status information
	LCD	Two line LCD for Alarm Message & Parameter Display

NANO, PENGUIN & DOLPHIN Series



3 Phase Input / 1Phase Output
Range 5- 60 kVA

Features

- ◆ TRUE SINEWAVE, TRIPLE CONVERSION ONLINE UPS
- ◆ MICRO COMPUTER BASED DESIGN
- ◆ IGBT BASED HIGH FREQUENCY SPWM TECHNOLOGY WITH INSTANTANEOUS CONTROL
- ◆ HIGH FREQUENCY CHARGER INDEPENDENT OF THE INPUT CONVERTER
- ◆ FORCED SYNCHRONIZATION OR FORCED 50Hz OPERATION POSSIBLE OVER RIDING THE SPECIFIED SYNCHRONOUS RANGE. PROVISION FOR BLOCKING TRANSFER TO ASYNCHRONOUS MODE
- ◆ READY STATUS & FAULT DIAGNOSTICS THROUGH AN USER FRIENDLY MIMIC
- ◆ COLD START FOR ABOVE 7.5 kVA
- ◆ STATIC BYPASS AND MAINTENANCE BYPASS FACILITY
- ◆ SUPPORT ANY GENERATOR OUTPUT
- ◆ MASTER STAND BY APPLICATION

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www.kirloskar-electric.com

The design and manufacture of our products are subject to constant improvement. Hence the above specification/ model may slightly vary from the product illustrated/ supplied.

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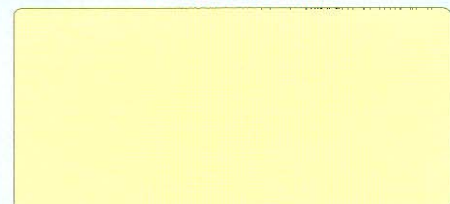
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LOCAL OFFICE



APRIL - 2008