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UNINTERRUPTABLE POWER SUPPLY CATALOGUE

SM SERIES UPS

- Capacity from 50kVA to 500kVA↘ 50 kVA power modules
- Modular architecture for power protection and hot-swap capability without interruption
- Each module is controlled by a separate controller, which reduces the risk of system failure
- An intelligent battery charging system allows to maintain the parameters of the charging current and voltage with high accuracy, ensuring careful operation of the battery and a significant increase in service life

When creating a modular UPS SM series we used the latest and most advanced circuit design and latest component base. The UPS SM series is designed to protect any equipment in medium and large data centers, as well as industrial and corporate infrastructure facilities.

INDEPENDENT LCD DISPLAY

Each power module is equipped with an independent LCD display, this allows the user to get real-time information about the operation status and present errors.

CONVENIENT INTERFACE

All information about system status is displayed on a 7-inch color touch screen, and an intuitive interface allows you to quickly and accurately determine the current status of the system.

SMART SLEEP FUNCTION

The Smart Sleep function improves efficiency and reduces energy and cooling costs. The function activates sleep mode when power modules at low load.

SUITABLE FOR:

- Small and medium business / Corporate networks
- Data centers
- Telecom equipment

MODULAR THREE-PHASE ON-LINE
UPS FOR DATA CENTERS

MAIN FEATURES

Model	100 kVA / 90 kW	200 kVA / 180 kW	300 kVA / 270 kW	500 kVA / 450 kW
Power module capacity	50kVA/45kW			
Modules qty	2	4	6	10
INPUT PARAMETERS				
Rated voltage	380/400/415 V AC, 3-phase, 4-wire with ground			
Voltage range	304 ~ 478 V AC, 50/60 Hz			
Power factor	≥ 0,99			
THDi	<3% (100% linear load)			
OUTPUT PARAMETERS				
Phase	3-phase 4-wire with ground			
Rated voltage	380/400/415 V AC, 50/60 Hz			
Voltage accuracy	±2%			
Power factor PF	0,9			
THD (linear load)	≤ 1,5% (linear load), ≤ 6% (non-linear load)			
Cross ratio	3:1			
Overload capacity	Load ≤ 110% - duration 60 min, ≤ 125% - duration 10 min, ≤ 150% - duration 1 min, ≥ 150% - 200 ms			
Maximum change rate of clock frequency	Adjustable within 0.5Hz/s ~3Hz/s default ±0,5Hz/s			
BATTERY PARAMETERS				
Voltage	±240V DC			
Capacity when batteries with maximum current, kW	10% of UPS capacity (adjustable within 0~20% of UPS capacity)			
Charge current (maximum configuration of power modules), A	31,9	63,8	95,7	159,6
SYSTEM FEATURES				
Interface (communication ports)	RS232, RS485, USB, adjustable «dry» contacts			
Options	Cold start, SNMP card, parallel connection kit, dust filter			
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS				
Operating temperature	0°C ~ 40°C Note. Battery life is shorten in a half for every 10°C increase above 20°C»			
Ambient humidity	0 ~ 95% (without condensation)			
Noise level	65dB at 100% load, 62dB at 45% load			
Chassis size (WxDxH), mm	600x980x1150	650x960x1600	650x960x2000	1300x1100x2000
Chassis weight with power modules, kg	210	350	490	900

CM SERIES UPS

- Capacity from 10kVA to 90kVA
- 10 kVA and 15 kVA power modules
- Rack-mountable, scalable, modular UPS architecture provides power protection and non-disruptive hot-swap capability
- Intelligent control of the battery charge system
- The system controls the entire process of charging and discharging, extending battery life.
- All information about the system status is displayed on the 7-inch color touch screen, intuitive interface allows you to quickly and accurately determine the current status of the system

Optimal power protection solution for large data centers and sensitive electronics. Modular UPSs are suitable for fast-growing small and medium-size businesses: its design allows to expand the configuration up to 90 kVA according to fit expanding business. The modular UPS design includes hot-swap power modules without interrupting the operation of the entire device. The CM series UPS combines state-of-the-art three-level IGBT (Insulated Gate Bipolar Transistor) rectifier technology with DSP control logic of digital signal processors. With high input power factor, low THDi and high system efficiency, these devices can handle any type of load. Universal rack-mountable design suitable for both floor and rack placement.

ADDITIONAL CHARGING MODULE

It is possible to install an additional charging module, with 15A charging current. It helps to charge a large capacity battery with a long battery life. Independent control of modules eliminates the risks associated with failure due to the failure of one element. If one module fails or is disconnected, the system continues to operate and provide uninterrupted power supply, ensuring a high level of reliability and protection.

SUITABLE FOR:

- Small and medium business / Corporate networks
- Data centers
- Telecom equipment

MODULAR THREE-PHASE ON-LINE UPS FOR DATA CENTERS

MAIN FEATURES

UPS capacity	20 kVA	30 kVA	40 kVA	45 kVA	60 kVA	90 kVA
Power module capacity	10 kVA	15 kVA	10 kVA	15 kVA	10 kVA	15 kVA
INPUT PARAMETERS						
Phase	3-x phase, 4-wire with ground					
Voltage range	306 ~ 478 V AC					
Frequency	50/60 Hz					
Power factor	≥ 0,99					
THDi	≤ 3% (100% non-linear load)					
OUTPUT PARAMETERS						
Phase	3-x phase, 4-wire with ground					
Rated voltage	380/400/415 V AC					
Voltage accuracy	1,5 %					
Power factor PF	1					
THD	≤ 1% (linear load), ≤ 5.5 % (non-linear load)					
Cross ratio	3:1					
Overload capacity	Load ≤ 110% - duration 60 min, ≤ 125% - duration 10 min, ≤ 150% - duration 1 min, ≥ 150% - 200 ms					
BATTERY PARAMETERS						
Battery voltage	480 V DC					
Charge current	7,1 A	10,6 A	14,2 A	16 A	21,3 A	31,9 A
SYSTEM FEATURES						
System efficiency	Mains mode - 95 %, ECO mode - 98%, battery mode - 94,5%					
Display	7" LCD+LED, touch screen and keypad					
Protection class	IP20					
Interface (communication ports)	RS232, RS485, EPO					
Options	SNMP card, «dry» contacts					
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS						
Operating temperature	operation 0°C ~ 40°C / storage -25°C ~ 70°C					
Relative humidity	0 ~ 95% (without condensation)					
Chassis weight	42 kg	42 kg	51 kg	55 kg	85 kg	85 kg
Power module weight	15,3 kg	15,5 kg	15,3 kg	15,5 kg	15,3 kg	15,5 kg
Chassis size (WxDxH), mm	485x697x398 (7U)	485x751x575 (11U)	485x697x575 (11U)	485x751x575 (11U)	485x751x1033 (21U)	485x751x1033 (21U)
Power module size	436x590x85 mm (2U)					
Noise level	<62 dB					

CM SERIES UPS

Capacity from 25 kVA up to 200 kVA
25 kVA power modules
Rack-mountable, scalable, modular UPS architecture provides power protection and non-disruptive hot-swap capability
Intelligent control of the battery charge system
The system controls the entire process of charging and discharging, thereby extending battery life.
All information about the system status is displayed on the 7-inch color touch screen, and the intuitive interface allows you to quickly and accurately determine the current status of the system

Optimal power protection solution for large data centers and sensitive electronics. The modular architecture of the UPS enables hot-swappable power modules without interrupting the operation of the entire unit.

Integrated internal thermal sensors directly display the IGBT internal temperature. Cross functional rack and modular design supports both floor and rack placement. In case of error, the UPS records and saves key parameter data for further analysis **automatically**.

The independent control of modules helps to eliminate risks associated with failures due to the malfunction of a single element. If one module fails or is disconnected, the system continues to operate and provide uninterrupted power supply, guaranteeing a high level of reliability and protection. Each power module monitors and displays critical component information in real time, giving customers information about internal status of the system, as well as includes a service reminder. Maintenance service reminder, capacitor and fan runtimes are displayed and recorded.

SUITABLE FOR:

- Small and medium business / Corporate networks
- Data centers
- Telecom equipment

MODULAR THREE-PHASE ON-LINE UPS
FOR DATA CENTERS

MAIN FEATURES

UPS capacity	150 kVA	200 kVA
Power module capacity	25 kVA	
INPUT PARAMETERS		
Phase	3-phase, 4-wire with ground	
Voltage range	306 ~ 478 V AC	
Frequency	50/60 Hz	
Power factor	≥ 0,99	
THDi	≤ 3% (100% non-linear load)	
OUTPUT PARAMETERS		
Phase	3-phase 4-wire with ground	
Rated voltage	380/400/415 V AC	
Voltage regulation	1,5 %	
Power factor PF	1	
THD	≤ 1% (linear load), ≤ 5.5 % (non-linear load)	
Cross ratio	3:1	
Overload capacity	Load ≤ 110% - duration 60 min, ≤ 125% - duration 10 min, ≤ 150% - duration 1 min, ≥ 150% - 200 ms	
BATTERY PARAMETERS		
Battery voltage	±240 V (DC)	
Charge current	53,2 A	70,9 A
SYSTEM FEATURES		
System efficiency	Mains mode - 95 %, ECO mode - 98%, Battery mode - 94,5%	
Display	7" LCD+LED, touch screen and keypad	
Protection class	IP20	
Interface (communication ports)	RS232, RS485, EPO	
Options	SNMP card, «dry» contacts	
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS		
Operating temperature	operation 0°C ~ 40°C / storage -25°C ~ 70°C	
Relative humidity	0 ~ 95% (without condensation)	
Chassis weight	140 kg	160 kg
Power module weight	18 kg	
Chassis size (WxDxH), mm	485x900x1072	482x916x1550
Power module size	436x590x85mm (2U)	
Noise level	<62 dB	

INTELLIGENT SERIES 25 KVA UPS

- Power from 25 kVA
- The rack-tower form factor allows you to install the UPS in a rack (height 3 U) or on the floor
- Supports the possibility of redundancy and power increase according to the scheme up to 3 + 1, providing parallel operation of 4 UPS
- The 5-inch LCD touch screen displays all information about the system status, a user-friendly graphical interface makes it easy to control the UPS
- Flexible configuration of batteries from 32 to 44 pieces

The on-line uninterruptible power supply, 25 kVA (PF 1.0) of the Intelligent series is made according to the double conversion scheme (on-line). Provides a load with a stabilized sinusoidal voltage and is designed to power high-precision measuring and medical equipment, protect servers, telecommunications, network and industrial equipment.

Two mounting modes are available: Tower Mount or Rack Mount, depending on available space and user preferenses. The customers can select the appropriate setting mode according to the actual conditions. Removable support legs for tower installation are optional.

The LCD display can change its orientation according to the case installation type: vertical or horizontal. Extended input voltage range (304 ~ 478V(AC)) allows to use battery power less often, which prolongs battery life. Input power factor equal to 1.0 eliminates the negative impact of the UPS on the input power grid, which, in combination with the unique input frequency range, provides high-quality voltage when powered not only from the most problematic power supply network, but also from generator sets.

SUITABLE FOR:

- Small and medium business / Corporate networks
- Data centers
- Telecom equipment

MAIN FEATURES

Model	SNR-UPS-ONRT-25-INT
Capacity	25 000 VA / 25 000 W
INPUT PARAMETERS	
Phase	380/400/415 V (AC) (3Ph+N+PE)
Voltage	380 V / 400 V / 415 V (three-phase and neutral)
Input voltage range	304 ~ 478 V (AC)
Frequency range	40-70 Hz
Input power factor	≥0,99
OUTPUT PARAMETERS	
Rated voltage (AC)	380 V / 400 V / 415 V
Rated frequency	50/60 Hz
Frequency control	± 1,5 (linear load 0 ~ 100%)
Voltage accuracy	Load ≤ 110 - for 60 minutes, 125% - for 10 minutes, 150% - for 1 minute, > 150%, less than 200 ms
Overload capacity	≤ 1,5% (linear load), ≤ 6% (non-linear load)
Synchronized range	Settable, ± 0,5 Hz ~ ± 5 Hz, default ± 3 Hz
Output power factor	1
Output voltage THDu	<1% from 0% to 100% linear load / <6% full non-linear load in compliance with IEC/EN62040-3
BATTERY PARAMETERS	
Voltage	Rated: ±240 V (DC)
Batteries qty	40 pcs
Charge current	8,9 A
SYSTEM FEATURES	
Efficiency (COP)	in normal mode (double conversion) >95.5, in ECO mode >98, in battery mode>95.5
Display and interface	LCD
Interfaces	Standard:RS232, RS485, Dry Contact Options: SNMP card, Parallel card, USB
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS	
Acoustic noise level at a distance of 1 meter	58 dB at 100% load, 55 dB at 45% load
Height above sea level	≤1000, with 1% load derating per 100m from 1000m and 2000m
Relative humidity	0-95%, without condensation
Operating temperature	0-40°C, Battery life is shorten in a half for every 10°C increase above 20°C
Size (WxDxH)	438x750x130 mm
Weight	30 kg

6 AND 10 KVA INTELLIGENT SERIES UPS

- Capacity 6 kVA and 10 kVA
- Compact UPS: with built-in batteries - 4U, without built-in batteries - 2U
- PFC High output power factor
- Supports redundancy and power expansion up to 2 + 1, enabling parallel operation of 3 UPSs
- Extended off-line operation with up to four additional external battery packs

The Intelligent series uninterruptible power supply with a single-phase input provides a stable sinusoidal voltage to high-precision measuring and medical telecommunication, network and industrial equipment.

TWO MODIFICATIONS:

- UPS with built-in batteries
- Without built-in batteries, charge current 5A

6 and 10 kVA UPS without built-in batteries

SUITABLE FOR:

Small and medium business / Corporate networks

Data centers

Telecom equipment

MAIN FEATURES

Parameters	SNR-UPS-ONRT-6000-INT	SNR-UPS-ONRT-10000-INT	SNR-UPS-ONRT-6000-INTXL	SNR-UPS-ONRT-10000-INTXL
Capacity	6000 VA / 6000 W	10 000 VA / 10 000 W	6000 VA / 6000 W	10 000 VA / 10 000 W
INPUT PARAMETERS				
Phase	Single phase input			
Voltage	200 V / 208 V / 220 V / 230 V / 240 V			
Input voltage range	110V (AC) ~ 288 V (AC), 100% Load > 176 V (AC), 90% Load > 154 V (AC), 75% Load > 132 V (AC), 50% Load > 110 V (AC)			
Frequency range	40-70 Hz			
Input power factor	≥0,99			
Rated current	30 A	49 A	30 A	49 A
OUTPUT PARAMETERS				
Phase	Single phase output			
Rated voltage	220 V (AC) /230 V (AC) /240 V (AC), 200 V (AC) /208V (AC) (PF=0.9)			
Voltage regulation	± 1 %			
Power factor PF	1			
THD	≤ 1% (linear load), ≤ 5% (non-linear load)			
Cross ratio	3:1			
Overload capacity (inverter, transfer to bypass)	Load ≤ 105-110% - duration 10 min, ≤ 111-125% - duration 1 min, ≤ 126-150% - duration 30 sec			
Overload capacity (bypass)	Load ≤ 125% - duration 25 min, ≤ 126-130% - duration 5 min, ≤ 131-150% - duration 1 min, ≥ 150% - 200 ms			
BATTERY PARAMETERS				
Voltage	192			
Battery configuration	12 V / 7 Ah x 16	12 V / 7 Ah x 16	-	-
Charge current	1A	1A	5A	5A
SYSTEM FEATURES				
Display	LED+LCD			
Protection class	IP20			
Interface (communication ports)	RS232, SNMP, USB			
Options	SNMP, «dry» contacts			
ФИЗИЧЕСКИЕ Parameters				
Weight	59 kg	67 kg	17,5 kg	20,5 kg
Size (WxDxH)	440x660x173 mm	440x660x173 mm	440x660x86 mm	440x660x86 mm

6 AND 10KVA ON-LINE MXPL SERIES UPS

- Capacity from 6kVA and 10kVA
- Output power factor 0,9
- Maximum charge current 10A
- Customizable charging current. Possibility of customization maximum charging current depending on the capacity of connected batteries
- To increase battery life, use Intelligent three-stage charging mode
- Additional battery packs
- Flexible battery configuration 16/18/20 (optional)
- Supports redundancy and power expansion up to 3 + 1 enabling parallel operation of 2, 3 or 4 UPS

The MXPL series SNR uninterruptible power supply with three-phase input and single-phase output is ideal almost for any load critical to power quality, like servers, telecommunications, network and industrial equipment. Depending on your needs, you can choose a 3:1 or 1:1 scheme . The UPS features Digital Signal Processing (DSP) technology to provide the highest reliability and performance in a compact package.

SUITABLE FOR:

Servers and network equipment

Security systems

Telecom equipment

MAIN FEATURES

Parameters	SNR-UPS-ONRT-6-MXPL31V2	SNR-UPS-ONRT-10-MXPL31V2
Capacity, VA/W	6000/5400	10000/9000
INPUT PARAMETERS		
Phase	3 фазы + N + PE	
Voltage	400 V (AC) ± 25%	
Frequency range	45 - 55 Hz (50 Hz), 55 - 65 Hz (60 Hz)	
Input voltage range	208 - 478 V (AC)	
Input power factor	≥0,99	
Bypass voltage range	Max. voltage: 230V: +20% (optional +10%, +15%); Min. voltage: -45% (optional -20%, -30%)	
OUTPUT PARAMETERS		
Phase	Single-phase with ground	
Rated voltage	230 V (AC)	
Frequency	50/60 Hz ±1 Hz	
Output power factor	0,9	
Crest Factor	3:1	
Harmonic distortion	≤3% THD(linear load); ≤5% THD(non-linear load)	
Efficiency (COP)	≥ 91%	
Switching time	(Bybass-batteries) - 0 ms; (Bypass-main) - 0 ms	
BATTERY PARAMETERS		
Battery voltage	192 / 216 / 240 V (DC)	
Charge current for UPS with built-in batteries	до 10 А	
PROTECTION		
Overheat	Normal Mode: Switch to Bypass	Battery mode: UPS immediate shutdown
Low battery	Optical and audible alarm and immediate shutdown	
Self-diagnosis	When UPS is turned on and remotely	
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS		
Operating temperature	0°C - 40°C (recommended 15 - 25°C)	
Storage temperature	-25°C - +55°C	
Relative humidity	0 – 90% (without condensation)	
UPS size (WxDxH), mm	443×131(3U)×580	
Weight, kg	23	31
Noise level, dB	<55	

ELEMENT SERIES ON-LINE UPS

- 1000 / 1500 / 2000 / 3000VA UPS
- Output power factor 0,9
- UPS supports work with generators
- Intelligent three-stage charging mode for prolonging battery life
- Standard communication interfaces: one RS-232 communication port, one USB communication port, internal slot for SNMP card or «dry» contacts
- Outlet segment control function to turn off non-critical loads while in battery mode for increasing critical load runtime
- The height of all Element series UPS models is just 2U

SNR's Element Series of Uninterruptible Power Supplies protects sensitive electrical equipment from the most common power problems, including power failures, power surges, line noise, frequency fluctuations, harmonic distortion.

Element series UPSs are ideal for protecting servers, telecommunications, networking and industrial equipment. All important information can be found on the screen of the device: load power and batteries status are displayed in dynamic image mode.

For all Element series UPS powers, models with an increased charge current of 6A or 12A are available. In the article they are indicated by the symbols X (UPS with a charge current of 6A) and XL (UPS with a charge current of 12A).

These UPSs are supplied without built-in batteries. When choosing a UPS, please pay attention to the number of connected batteries. The voltage of the battery line can be found after the letters X and XL.

RECOMMENDED BATTERY CAPACITY:

For X models - from 30 Ah to 60 Ah
For XL models - from 60 Ah to 120 Ah

SUITABLE FOR:

- Servers and network equipment
- Equipment for control and telecommunication systems
- Medical equipment

To increase the autonomy of the equipment up to four additional battery packs can be connected to the UPS with built-in batteries . An additional charger in the battery module can quickly restore the battery capacity after a discharge.

Simple installation of the battery pack in rack mount, just 2U high, also possible to mount vertically using optional support kit or stack. The UPS is equipped with a hot-swappable battery for easy and fast maintenance.

MAIN FEATURES

Parameters	SNR-UPS-ONRM-1000	SNR-UPS-ONRM-1500	SNR-UPS-ONRM-2000	SNR-UPS-ONRM-3000
UPS models with built-in batteries	S24,S36	S36	S48, S72	S72
Capacity, VA/W	1000 / 900	1500 / 1350	2000 / 1600	3000 / 2700
INPUT PARAMETERS				
Phase	Single-phase with ground			
Voltage	230 V (AC) ± 25%			
Frequency range	46 - 54 Hz or 56 - 64 Hz (autodetect)			
Input voltage range	162-290 V (AC)			
Input power factor	≥0,98			
Rated current	4,4 A	6,1 A	8,7 A	13 A
Input connection	IEC320 C14	IEC320 C14	IEC320 C20-16A	IEC320 C20-16A
OUTPUT PARAMETERS				
Phase	Single-phase with ground			
Rated voltage	380/400/415 V AC, 50/60 Hz			
Frequency	50/60 Hz ±1 Hz			
Output power factor	0,9			
Crest Factor	3:1			
Harmonic distortion	≤3% THD(linear load); ≤5% THD(non-linear load)			
Output sockets	(IEC C13-10A)×6	(IEC C13-10A)×6	(IEC C13-10A)×6	(IEC C13-10A)×6; (IEC C19-10A)×1
Efficiency (COP) of mains mode	≥ 87% at full load			
Efficiency (COP) in ECO mode	≥ 94% at full load			
Switching time	(Bybass-batteries)=0ms; (Bypass-main) < 4ms			
BATTERY PARAMETERS				
Battery voltage	24/36 V (DC)	36 V (DC)	48/72 V (DC)	72 V (DC)
Battery configuration	12 V (DC) / 9 Ah 2 pcs. in series 12 V (DC) / 9 Ah 3 pcs. in series	12 V (DC) / 9 Ah 3 pcs. in series	12 V (DC) / 9 Ah 4 pcs. in series 12 V (DC) / 9 Ah 6 pcs. in series	12 V (DC) / 9 Ah 6 pcs. in series
Charge current for UPS with built-in batteries	1,4 A			
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS				
Operating temperature	0°C - 40°C (recommended 15 - 25°C)			
Storage temperature	-20°C - +40°C (for UPS with batteries); -25°C - +55°C (for UPS without batteries)			
Relative humidity	0 – 90% (without condensation)			
UPS size (WxDxH), mm	440x430x86,5	440x430x86,5	440×552×86.5; 440×720×86.5	440×720×86.5
Weight, kg	15,1/ 18,1	18,1 /11,5	26,3/ 33	33
Noise level, dB	<55			

ON-LINE UPS FOR BUSINESS

Parameters	SNR-UPS-ONRM-1000	SNR-UPS-ONRM-1500	SNR-UPS-ONRM-2000	SNR-UPS-ONRM-3000
UPS models without built-in batteries	X24, XL24/ X36, XL36	X24, XL24/ X36, XL36	X48, XL48/ X72, XL72	X72, XL72
Capacity, VA/W	1000 / 900	1500 / 1350	2000 / 1600	3000 / 2700
INPUT PARAMETERS				
Phase	Single-phase with ground			
Voltage	230 V (AC) ± 25%			
Frequency range	46 - 54 Hz or 56 - 64 Hz (autodetect)			
Input voltage range	162-290 V (AC)			
Input power factor	≥0,98			
Rated current	4,4 A	6,1 A	8,7 A	13 A
Input connection	IEC320 C14	IEC320 C14	IEC320 C20-16A	IEC320 C20-16A
OUTPUT PARAMETERS				
Phase	Single-phase with ground			
Rated voltage	380/400/415 V AC, 50/60 Hz			
Frequency	50/60 Hz ±1 Hz			
Output power factor	0,9			
Crest Factor	3:1			
Harmonic distortion	≤3% THD (linear load); ≤5% THD (non-linear load)			
Output sockets	(IEC C13-10A)×6	(IEC C13-10A)×6	(IEC C13-10A)×6	(IEC C13-10A)×6; (IEC C19-10A)×1
Efficiency (COP) of mains mode	≥ 87% at full load			
Efficiency (COP) in ECO mode	≥ 94% at full load			
Switching time	(Bybass-batteries)=0ms; (Bypass-main) < 4ms			
BATTERY PARAMETERS				
Battery voltage	24/36 V (DC)	36 V (DC)	48/72 V (DC)	72 V (DC)
Battery configuration	12 V (DC) / 9 Ah 2 pcs. in series 12 V (DC) / 9 Ah 3 pcs. in series	12 V (DC) / 9 Ah 3 pcs. in series	12 V (DC) / 9 Ah 4 pcs. in series 12 V (DC) / 9 Ah 6 pcs. in series	12 V (DC) / 9 Ah 6 pcs. in series
Charge current for UPS without built-in batteries (X)	6 A			
Charge current for UPS without built-in batteries(XL)	12 A			
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS				
Operating temperature	0°C - 40°C (recommended 15 - 25°C)			
Storage temperature	-20°C - +40°C (for UPS with batteries); -25°C - +55°C (for UPS without batteries)			
Relative humidity	0 – 90% (without condensation)			
UPS size (WxDxH), mm	440x430x86,5	440x430x86,5	440×552×86.5; 440×720×86.5	440×720×86.5
Weight, kg	11,5	11,5	17,5	17,5
Noise level, dB	<55			

SNR-UPS-LIRM-1000-PS

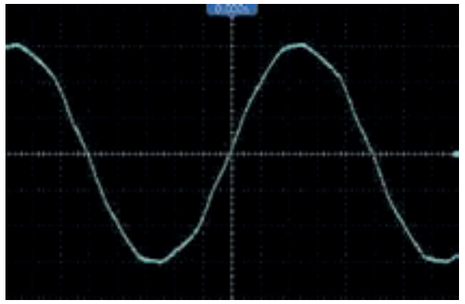
SNR-UPS-LIRM-2000-PS/SNR-UPS-LIRM-3000-PS

LIRM (PURE SINE) SERIES LINE - INTERACTIVE UPS

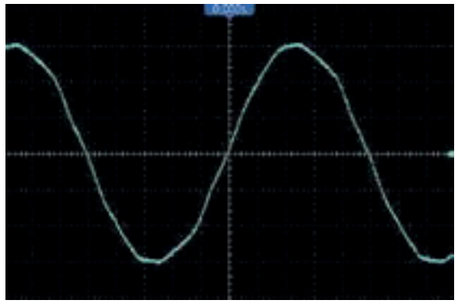
- Wide range automatic input voltage regulation
- Digital microprocessor control
- Multifunctional LCD display
- Transformer thermal protection
- RS232 port for UPS monitoring
- Overcharge, deep discharge protection
- Short circuit and overload protection
- Battery transition time is less than 6ms
- Sinusoidal output voltage in battery mode

The compact size and rackmount design make it possible to place the UPS of the new SNR-UPS-LIRM series in wall cabinets with a 400mm depth only. An important feature of the new models is the location of all connectors on the front panel, which provides convenient and quick access for technical specialists. A wide range of products from 600VA to 3000VA allows to choose the most suitable UPS in terms of budget optimization. Two types of LIRM series UPS are supported - with sine output and with approximated sine output.

BELOW ARE THE SCILLOGRAMS TAKEN AT THE UPS OUTPUT IN THE MAINS AND BATTERY OPERATION MODE



Mains mode



Battery mode

SUITABLE FOR:

Personal computers, office peripheral equipment

Access point equipment

Home appliances

MAIN FEATURES

Parameters	SNR-UPS-LIRM-1000-PS	SNR-UPS-LIRM-2000-PS	SNR-UPS-LIRM-3000-PS
Modules qty	1000 / 600	2000 / 1600	3000 / 2400
INPUT PARAMETERS			
Voltage	230 V (AC) ± 25%		
Frequency range	50/60 Hz ±10% (autodetect)		
OUTPUT PARAMETERS			
Rated Voltage (battery mode)	230 V (AC) ±10%		
Frequency	50/60 Hz (autodetect)		
Switch time to battery	2-6 ms, максимум 10 ms		
Output waveform	Main mode: sine wave, battery mode: sine wave		
Cross ratio	3:1		
Voltage transfer to the battery	160 V (AC)		
Voltage transfer to the main mode	175 V (AC)		
BATTERY PARAMETERS			
Voltage	24 V (DC)	36 V (DC)	48 V (DC)
Configuration	2x12 V (DC) / 7 Ah	3x12 V (DC) / 7 Ah	4x12 V (DC) / 7 Ah
Charging time	6-8 hours		
Protection	Against overload and overcharge, against short circuit		
SYSTEM FEATURES			
Interface (communication ports)	RS232, RS485, USB, adjustable «dry» contacts		
Options	Cold start, SNMP card, parallel connection kit, dust filter		
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS			
Humidity	0~95% at a temperature 0 °C ~ +40°C (without condensation)		
Noise level	<45 dB		
Maximum heat dissipation	72 W/h		
Size (WxDxH), mm	480x350x88	480x410x132	
Weight, kg	12,6	21,3	26,7

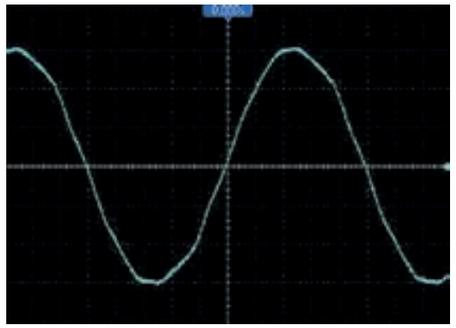
LID SERIES LINE - INTERACTIVE UPS (WITHOUT BATTERIES)

- 600VA / 1000VA / 2000VA UPS
- Without built-in batteries
- Output waveform is pure sine wave
- Cold start function
- Possibility to install SNMP card and remote monitoring
- Customizable ECO mode and no-load shutdown
- Auto power on when mains power is restored
- Charge current 10A

The LID series line-interactive UPS without built-in batteries is ideal for providing long-term autonomous operation of a telecommunications node, as well as almost any critical loads with transfer time up to 4 ms when switching to a battery. SNR-UPS-LID uninterruptible power supplies have a built-in autotransformer.

Connecting to a 500 VA and 600 VA uninterruptible power supply with just one high-capacity external battery, up to 100 Ah, ensures long battery life at minimal cost.

The built-in powerful charger providing 10A charge current guarantees the battery charge necessary for continuous operation of the equipment in the conditions of long absence of the electric power.



THE SCILLOGRAM TAKEN AT THE UPS OUTPUT IN THE BATTERY OPERATION MODE

SUITABLE FOR:

Personal computers, office peripheral equipment

Access point equipment

Home appliances

MAIN FEATURES

Model NAG	SNR-UPS-LID500-XPS	SNR-UPS-LID600-XPS	SNR-UPS-LID1000-XPS	SNR-UPS-LID2000-XPS	SNR-UPS-LID3000-XPS
Capacity	500 VA / 300 W	600 VA / 360 W	1000 VA / 800 W	2000 VA / 1600 W	3000 VA / 2400 W
DC INPUT					
Rated voltage	12 V	12 V	24 V	48 V	48 V
DC input voltage range (default)	10 ~ 15 V				
AC INOUT					
Input voltage range AC (bypass mode)	0 ~ 264 V (AC) ± 10 V (AC)				
Input voltage range AC (main mode)	220 B: 165 ~ 280 V (AC)				
Frequency	50 Hz / 60 Hz (autodetect), 50 Hz / 60 Hz ± 5% ~ 15%				
OUTPUT FEATURES					
Output voltage range in inverter mode	220 V (AC) ± 5% (Settable)				
Output voltage range in mains mode	220 V: 188 ~245 V (AC)				
Frequency	50 / 60 Hz ± 0.3 Hz (Settable)				
Output waveform	Pure sine wave				
Inverter efficiency	75%				
Energy saving mode	Adjustable (load <3%), input after 80 seconds				
Shutdown without load	Adjustable (load <3%), input after 80 seconds				
Switching time	от 4 до 10 ms				
THDV (resistive load)	≤ 5%				
Protection	Overload, short circuit (inverter), low battery voltage, battery overcharging, overheating				
Overload (network mode)	Load ≤ 110% - duration 120 sec, Load ≤ 110% - duration 60 sec, Load ≤ 150% - duration 10 sec, (transfer to bypass mode)				
Overload (inverter mode)	Load ≤ 110% - duration 60 sec, Load ≤ 110% - duration 0 sec, Load ≤ 150% - duration 5 sec, (shutdown)				
BATTERY PARAMETERS					
Charge current	10 A	10 A	15 A	20 A	25 A
Batteries qty	1 pcs	1 pcs	2 pcs	4 pcs	4 pcs
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS					
Communication ports	USB & RJ45 (standard), dry contacts / SNMP (optional)				
Temperature	5°C ~ 40°C				
Humidity	Relative humidity ≤ 93%				
Noise level	≤ 50 dB (1 m)				
Size (WxDxH), mm	144 x 345 x 215	144 x 345 x 215	144 x 345 x 215	144 x 345 x 215	190 x 467 x 335.5
Package size (WxDxH), mm	236 x 427 x 316	236 x 427 x 316	236 x 427 x 316	236 x 427 x 316	320 x 592 x 462
Weight netto, kg	7.0	7.0	11.6	17.8	28.0
Gross weight, kg	8.0	8.0	12.6	18.8	30.0

LIRM SERIES LINE - INTERACTIVE UPS

- Wide range automatic input voltage regulation
- Digital microprocessor control
- UPS modes indication
- Battery transition time is less than 6ms
- «Cold start» function (turn on without mains voltage)
- Multifunctional LCD display
- Transformer thermal protection
- RS232 port for UPS monitoring
- Overcharge, deep discharge protection
- Short circuit and overload protection

The SNR-UPS-LIRM series compact size and rackmount design allow installation in wall-mounted cabinets only 400 mm deep. An important feature of the new models is the location of all connectors on the front panel, which provides convenient and quick access for technicians. The presence of an autotransformer, which provides power stability regardless of power surges in the electrical network, reduces the number of UPS transitions to battery operation, thereby extending their service life. A large range of products with power from 600 VA to 1000 VA allows you to choose the best UPS, according to the tasks and budget of the project.

SNR-UPS-LIRM-500-X RACK-MOUNT UPS

SNR-UPS-LIRM-500-X UPS without built-in batteries. To ensure autonomous operation, it is necessary to connect one battery with a voltage of 12 V (DC). The charging current of 4 Amperes allows to connect high-capacity batteries (recommended batteries with a capacity of: 40 Ah, 50 Ah).

The RS232 port provides remotely control the main parameters of the UPS using the ERD-3, as well as control one outlet, which will allow you to remotely turn off or reboot the device.

SUITABLE FOR:

- Personal computers, office peripheral equipment
- Access point equipment
- Home appliances

MAIN FEATURES

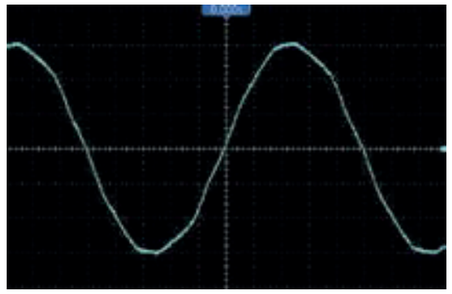
Parameters	SNR-UPS-LIRM-500-X	SNR-UPS-LIRM-600	SNR-UPS-LIRM-1000
Capacity, VA/W	500 VA / 300 W	600 VA / 360 W	1000 VA/600 W
INPUT PARAMETERS			
Voltage	230 V (AC) ± 25%		
Frequency	50/60 Hz ±10% (autodetect)		
OUTPUT PARAMETERS			
Rated voltage (battery mode)	230 V (AC) ±10%		
Frequency	50/60 Hz (autodetect)		
Switch time to battery	2-6 ms, maximum 10 ms		
Output waveform	Main mode: sine wave, battery mode: sine wave		
Cross ratio	3:1		
Voltage transfer to and from the battery	160 V (AC) / 175 V (AC)		
BATTERY PARAMETERS			
Voltage	12 V (DC)	12 V (DC)	24 V (DC)
Configuration	Without built-in batteries	1x12 V (DC) / 7 Ah	2x12 V (DC) / 7 Ah
Charge current	4 A	0,5 A	0,5 A
Charging time	6-8 hours		
Protection	Against overload and overcharge, against short circuit		
SYSTEM FEATURES			
Interface (communication ports)	RS232, RS485, USB, adjustable «dry» contacts		
Options	Cold start, SNMP card, parallel connection kit, dust filter		
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS			
Humidity	0~95% at a temperature 0 °C ~ +40°C (without condensation))		
Noise level	<45 dB		
Maximum heat dissipation	72 W/h		
Size (WxDxH), mm	480x350x88	480x350x88	480x350x135
Weight, kg	7,9	7,9	12,6

LINE - INTERACTIVE LID SERIES UPS

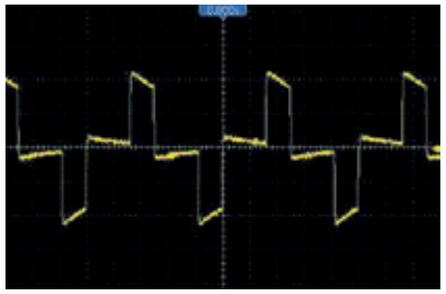
- Wide range automatic input voltage regulation
- Digital microprocessor control
- UPS main operating modes status indication
- Cold start function
- USB port for UPS monitoring
- Overcharge, deep discharge protection
- Short circuit and overload protection
- UPS includes free software for files saving and automatical shut down

SNR-UPS-LID UPSs have a built-in autotransformer that provides a given level of output voltage when the mains voltage fluctuates from the nominal one. A wide range of mains voltages reduces the number of times when the UPS switches to batteries and significantly extends battery life. The SNR LID UPS is equipped with a cold start function that allows to forcibly turn on the UPS in the absence of mains voltage. The built-in USB port supports control the main parameters of the UPS from a computer, as well as correctly shut down the work in automatic mode.

BELOW ARE THE SCILLOGRAMS TAKEN AT THE UPS OUTPUT IN THE MAINS AND BATTERY OPERATION MODE



Mains mode



Battery mode

SUITABLE FOR:

Personal computers, office peripheral equipment

Access point equipment

Home appliances

MAIN FEATURES

Parameters	SNR-UPS-LID-400 SNR-UPS-LID-400-LED	SNR-UPS-LID-600 SNR-UPS-LID-600-LED SNR-UPS-LID-600-LED-C13	SNR-UPS-LID-800 SNR-UPS-LID-800-LED SNR-UPS-LID-800-LED-C13	SNR-UPS-LID-1200 SNR-UPS-LID-1200-LED SNR-UPS-LID-1200-LED-C13	SNR-UPS-LID-1500 SNR-UPS-LID-1500-LED SNR-UPS-LID-1500-LED-C13	SNR-UPS-LID-2000 SNR-UPS-LID-2000-LED SNR-UPS-LID-2000-LED-C13
Capacity	400 VA / 240 W	600 VA / 360 W	800 VA / 480 W	1200 VA / 720 W	1500 VA / 900 W	2000 VA / 1200 W
INPUT PARAMETERS						
Voltage	230 V (AC) ± 25%					
Frequency	50/60 Hz ±10% (autodetect)					
OUTPUT PARAMETERS						
Rated Voltage (battery mode)	230 V (AC) ±25%					
Frequency	50/60 Hz (autodetect)					
Switch time to battery	2-6 ms, maximum 10 ms					
Output waveform	from mains: sine wave, from battery: modified sine wave					
Cross ratio	3:1					
Voltage transfer to the battery and back	160 V (AC) / 175 V (AC)					
BATTERY PARAMETERS						
Voltage	12 V (DC)			24 V (DC)		
Configuration	1x12 V (DC) / 4,5 Ah	1x12 V (DC) / 7 Ah	1x12 V (DC) / 7 Ah	2x12 V (DC) / 7 Ah	2x12 V (DC) / 8 Ah	2x12 V (DC) / 9 Ah
Charging time	6-8 hours					
Protection	Against overload and overcharge, against short circuit					
ENVIRONMENTAL CONDITIONS AND PHYSICAL PARAMETERS						
Humidity	0~95% at a temperature 0 °C ~ +40°C (without condensation))					
Noise level	<45 dB					
Maximum heat dissipation	72 W/h					
Size (WxDxH), mm	100x280x140			140x345x170		125x380x220
Weight, kg	4,3	4,8	5,8	10	11,2	14,8

NAG is a leading telecom and IT solution provider representing a 20-year history of expertise. NAG has been working with a large number of customers in the CIS and around the world since 2004 providing the following solutions:

- full range of equipment for telecom operators;
- L2 and L3 Networking solutions;
- SOHO WiFi Routers and IPTV STB equipment;
- intelligent video surveillance systems with built-in analytics;
- Servers and Storages;
- Infrastructure and Power supply solutions.

With over 650 dedicated employees, including a strong engineering team of 150+ employees, NAG operate offices in Dubai (UAE), Almaty (Kazakhstan) and Tashkent (Uzbekistan). Our logistics centers in Washington (USA) and Shanghai (China) allow working directly with foreign partners and ship out goods with the highest quality and optimized timelines.

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