NETYS RT
from 1100 to 11000 VA
complete solution for IT infrastructures

new

From 5 to 11 kVA

GAMME 110 A

Simple to install

- IEC input and output connections (1100-3000 VA) or terminal input and output connections with built-in magnetothermal input switch (5000-11000 VA).
- Compact footprint for installation in rack cabinets.
- Attractive design.

Easy to use

- No configuration necessary on first startup.
- Wide range of communication protocols for integration into LAN networks or Building Management Systems (BMS).
- Clear LED interface with buzzers that immediately indicate the operating status of the UPS, even for less specialist users (1100-3000 VA).
- LCD display with menu available in 6 languages (5000-11000 VA).

Meets practical needs

- Online double conversion technology with sinusoidal waveform, completely filters out all disturbances from / to the mains power supply and ensures maximum protection of the utility.
- Modular battery extension (EBM) to meet all back-up time requirements, even after installation.
- Possibility of 1+1 parallel redundant configuration to maximise the availability of critical utilities, even in the event of a module breakdown (5000-11000 VA).

socomec UPS
Innovative Power Solutions
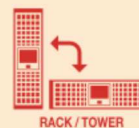
Standard electrical features

- Built-in backfeed protection.
- Protection against atmospheric phenomena (NTP) for telephone / ADSL modems.
- RJ11 connection for Emergency Power Off (EPO).
- Connection for battery extension modules.
- Port for parallel operation (5000-11000 VA).

Electrical options

- 1+1 parallel module (5000-11000 VA).
- Manual bypass without interruption (5000-11000 VA).
- Battery extension modules.

Standard communication features

- LOCAL VIEW: ideal UPS monitoring and shutdown point-to-point solution for Windows® operating system.
- HID: UPS management based on Windows® embedded service - USB interface (1100-3000 VA).
- MODBUS/JBUS RTU.
- RT-VISION: professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems (5000-11000 VA).

Communication options

- RT-VISION: professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems (1100-3000 VA).
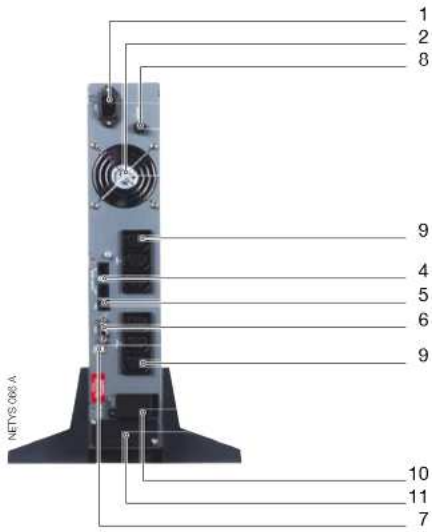- Dry-contact interface.

Technical data

	NeTYS RT							
Sn	1100 VA	1700 VA	2200 VA	3000 VA	5000 VA	7000 VA	9000 VA	11000 VA
Pn	800 W	1200 W	1600 W	2100 W	4500 W	5400 W	7200 W	9000 W
Architecture	online double conversion VFI with input PFC and automatic bypass							
Parallel redundant function	-	-	-	-	1+1	1+1	1+1	1+1
INPUT								
Voltage	230 V (1ph) 160~275 Vac; up to 130 Vac @70% load				230 V (1ph) 181~280 Vac up to 100 Vac @50% load			
Frequency	50/60 Hz +/-10% (Auto-Selectable)							
Power factor / THDi	>0.98 / <6%				>0.99 / <5%			
OUTPUT								
Voltage	230 V (1ph) selectable 200 / 208 / 220 / 240V - 50 or 60 Hz + /- 2 % (+/- 0.05 Hz in battery mode)							
Efficiency	up to 91% online mode				up to 92% online mode			
Overload capability	up to 105% continuously; 125% x 3 min; 150% x 30 sec				up to 105% continuously; 125% x 5 min; 150% x 30 sec			
Output connections	6 x IEC 320-C13 (10 A)	6 x IEC 320-C13 (10 A) + 1 x IEC 320-C20 (16 A)			terminals			
BATTERY								
Standard autonomy*	8	12	8	10	8	6	8	6
Voltage	24 Vdc	48 Vdc	48 Vdc	72 Vdc	192 Vdc	192 Vdc	240 Vdc	240 Vdc
Recharge time	< 6 hr to recover 90% capacity				< 6 hr to recover 90% capacity			
COMMUNICATION								
Mimic panel	LED				LCD 6 languages			
RS232 (DB9 port) Jbus protocol	•	•	•	•	•	•	•	•
USB HID protocol	•	•	•	•	-	-	-	-
WEB/SNMP (Ethernet RJ45 port)	option	option	option	option	•	•	•	•
COMM slot	•	•	•	•	•	•	•	•
Dry contacts card	option	option	option	option	option	option	option	option
EPO input (RJ11 port)	•	•	•	•	•	•	•	•
Modem/ADSL surge protection	•	•	•	•	-	-	-	-
Parallel port	-	-	-	-	•	•	•	•
STANDARDS								
Performance & topology	EN 62040-3 (VFI-SS-111)							
Safety /EMC	EN 62040-1 (TÜV-GS certified) EN 62040-2							
Product certifications	CE, TÜV-GS, C-Tick							
IP rating	IP20							
ENVIRONMENT								
Operating ambient temperature	from 0 °C to +40 °C (from 15 °C to 25 °C for best battery life)							
Storage temperature range	from -15 °C to +50 °C (from 15 °C to 25 °C for best battery life)							
Relative Humidity	0-90% non-condensing							
Noise level (ISO 3746)	< 45 dB				< 55 dB			
DIMENSIONS & WEIGHT								
UPS size std (W x D x H)	88.7 x 332 x 440 mm	88.7 x 430 x 440 mm	88.7 x 430 x 440 mm	88.7 x 608 x 440 mm	177.4 x 670 x 440 mm	177.4 x 670 x 440 mm	261.2 x 623 x 440 mm	261.2 x 623 x 440 mm
UPS size RACK	2U	2U	2U	2U	2U+2U	2U+2U	3U+3U	3U+3U
UPS weight std	13 kg	21 kg	22 kg	31 kg	15.5+40 kg	16+40 kg	19.5+66 kg	20+66 kg
EBM module size (W x D x H)	88.7 x 332 x 440 mm	88.7 x 430 x 440 mm	88.7 x 430 x 440 mm	88.7 x 608 x 440 mm	88.7 x 608 x 440 mm	88.7 x 608 x 440	130.6 x 623 x 440 mm	130.6 x 623 x 440 mm
EBM module RACK	2U	2U	2U	2U	2U	2U	3U	3U
EBM module weight	16 kg	29 kg	29 kg	43 kg	40 kg	40 kg	66 kg	66 kg

* @ 75% of nominal load.
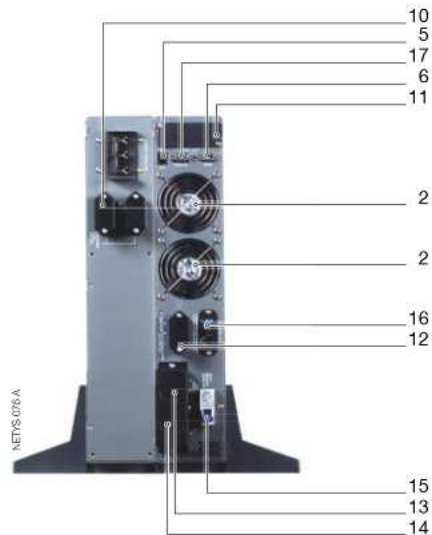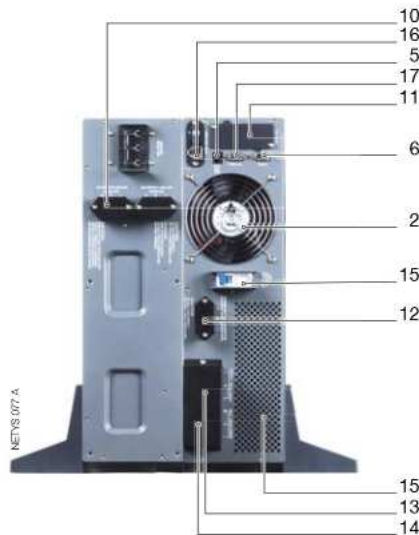
NeTYS RT
from 1100 to 11000 VA
Single-phase UPS

Connections

1100 VA

1700 VA - 2200 VA - 3000 VA

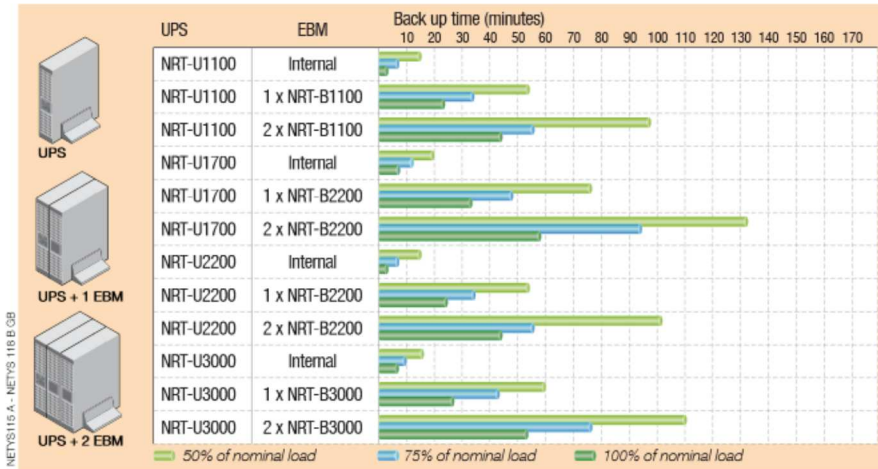5000 VA - 7000 VA + battery

9000 VA - 11000 VA + battery

Converts from Tower to Rack mounted

1. Mains input socket (IEC 320)
2. Fan
3. Output socket (full power)
4. Telephone / modem line protection
5. EPO (Emergency Power Off) input
6. RS232 interface (JBUS protocol)
7. USB port
8. Input protection
9. Output sockets (IEC 320 - 10 A)
10. Battery extension connector
11. Slot for optional communication boards
12. Battery extension connector
13. Output terminals
14. Input terminals
15. Input switch
16. RJ45 LAN ethernet connector
17. Parallel port connector

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NETYS RT 1100-3000 VA - Battery extension

UPS	EBM
NRT-U1100	Internal
NRT-U1100	1 x NRT-B1100
NRT-U1100	2 x NRT-B1100
NRT-U1700	Internal
NRT-U1700	1 x NRT-B2200
NRT-U1700	2 x NRT-B2200
NRT-U2200	Internal
NRT-U2200	1 x NRT-B2200
NRT-U2200	2 x NRT-B2200
NRT-U3000	Internal
NRT-U3000	1 x NRT-B3000
NRT-U3000	2 x NRT-B3000

Back up time (minutes): 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

— 50% of nominal load — 75% of nominal load — 100% of nominal load

UPS / UPS + 1 EBM / UPS + 2 EBM

NETYS RT 5000-11000 VA - Battery extension

UPS	EBM
NRT2-5000K	Standard
NRT2-5000K	1 x NRT-B7000
NRT2-5000K	2 x NRT-B7000
NRT2-7000K	Standard
NRT2-7000K	1 x NRT-B7000
NRT2-7000K	2 x NRT-B7000
NRT2-9000K	Standard
NRT2-9000K	1 x NRT-B11000
NRT2-9000K	2 x NRT-B11000
NRT2-11000K	Standard
NRT2-11000K	1 x NRT-B11000
NRT2-11000K	2 x NRT-B11000

Back up time (minutes): 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170

— 50% of nominal load — 75% of nominal load — 100% of nominal load

UPS (standard) / UPS + 1 EBM / UPS + 2 EBM

Parallel redundant operation for business continuity

To achieve the highest level of availability and to power critical utilities, NETYS RT UPS modules above 3 kVA can be configured for 1:1 redundancy.
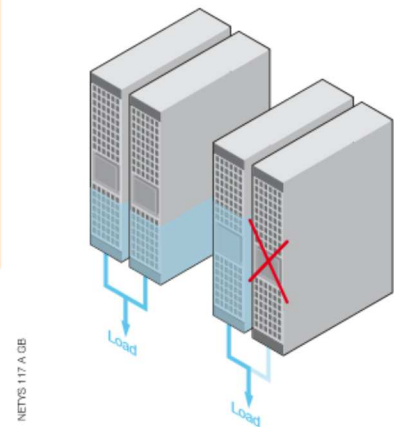
Redundant operation (1+1) means: the system incorporates one more UPS module than is needed to protect the load; in the event of a breakdown, it guarantees sufficient power supply capacity to the load by maintaining online protection.

Parallel technology is based on the principle of load sharing, whereby both units are always kept active.
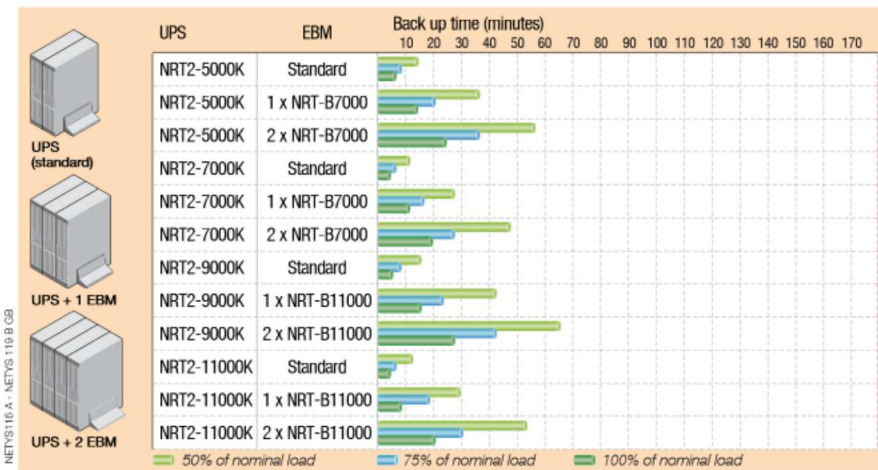
In a redundant configuration, overall system availability is much higher than a conventional UPS system using similar technology.

1+1 redundant configuration does not require additional circuits and can therefore be set up at a later date, simply by using two UPS modules and a collector/manual bypass module which simplifies cabling and maintenance of the UPS installation.

To further streamline the solution, it is also possible to select between operation with separate battery or shared battery, which is extremely useful in the case of applications requiring high levels of autonomy.
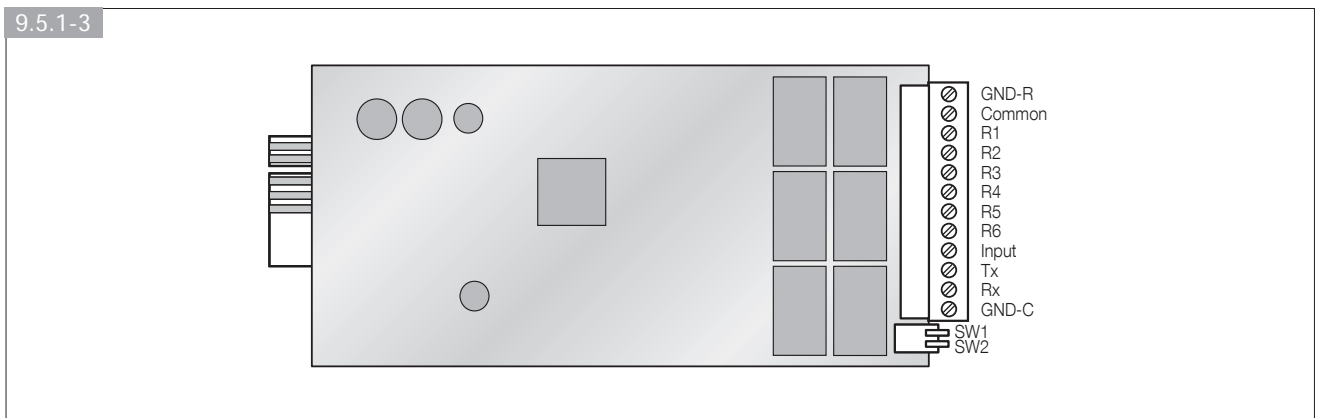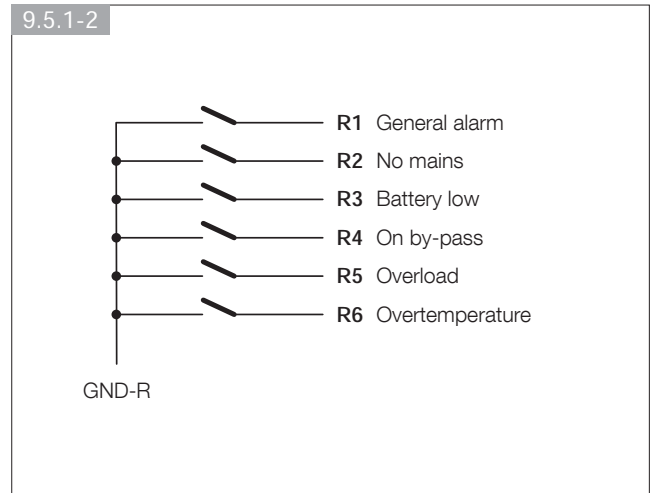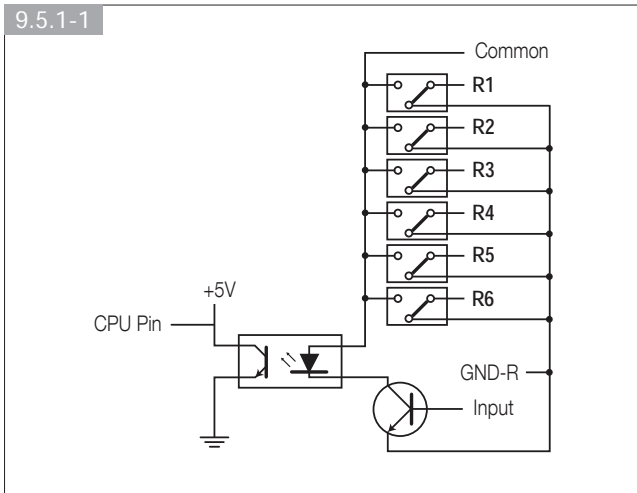
Control panel

1. Yellow LED lit. Operation in bypass mode
2. Green LED lit. Mains healthy
3. OFF button
4. Green LED lit. Normal operation (inverter in-line)
5. ON/TEST and buzzer override button
6. LED bar. Depending on the situation, this indicates either the charge level or the capacity of the battery
7. Navigator buttons
8. Alphanumeric LCD display
9 Green LED lit. Status of the load.

1100 VA - 1700 VA - 2200 VA - 3000 VA

5000 VA - 7000 VA - 9000 VA - 11000 VA

Internal circuit

9.5.1-1

9.5.1-2

R1	General alarm
R2	No mains
R3	Battery low
R4	On by-pass
R5	Overload
R6	Overtemperature

9.5.1-3

GND-R
Common
R1
R2
R3
R4
R5
R6
Input
Tx
Rx
GND-C
SW1
SW2

9.5.2 Standard configuration

SW1	SW2	relay contact
OFF	OFF	NO
ON	OFF	NC

GND-R: Relay ground contact	
Common: 12~24 V DC	
R1	General alarm
R2	No mains
R3	Battery low
R4	On by-pass
R5	Overload
R6	Overtemperature
Input: Remote shutdown or battery test	

Customized configuration for relay and/or input contacts

Connect **Tx** to pin 2, **Rx** to pin 3 and **GND-C** to pin 5 of the computer's RS232 port.

In Windows, start the Hyper-Terminal application and proceed to open the specified COM port.

Set the following properties: Baud rate: 2400, Data Bits: 8, Parity: None, Stop Bit: 1, Flow Control: None.

• Configuration.

Press <Enter> to display the main menu of the relay card.

1. Press '1' to configure the alarms relative to contacts **R1~R6** **(Customize Output Relay)**.

   This menu can be used to assign a customized alarm indication to contacts **R1~R6**.

   Having completed the configuration, shift **SW2** to the ON position to activate the settings. The default settings can be restored by setting **SW2** to OFF.

2. Press '2' to configure the **input** signal.

   The input signal can be used either to shut down the UPS or to test the batteries. The delay preceding shutdown of the UPS can be set up to 9999 seconds maximum.

3. Press '3' to configure NO or NC operation of each relay.

   Shift **SW2** to the ON position to activate the settings.

   If SW2 is returned to the OFF position, SW1 can be used to check the NO or NC position of all the relays.

4. Press '0' to end the configuration session. The system will prompt you to save the new settings.

   Press 'Y' to save, 'N' to cancel.

UPS Relay Card

Firmware Version: Relay Card V1.4
[1] . Customize Output Relay
[2] . Configure Input Signal
[3] . Customize Normal Open or Normal Close
[0] . Quit

Please Enter Your Choice >

Customize Output Relay

Relay Selected Event
[1] . Relay 1:   Summary Alarm
[2] . Relay 2:   Power Fail
[3] . Relay 3:   Battery Low
[4] . Relay 4:   On by-pass
[5] . Relay 5:   Overload
[6] . Relay 6:   Overtemperature
[0] . Back to Previous Menu

Please Enter Your Choice >

Customize Output Relay

Relay Selected Event
[1] . Relay 1:   Normal Close
[2] . Relay 2:   Normal Open
[3] . Relay 3:   Normal Close
[4] . Relay 4:   Normal Open
[5] . Relay 5:   Normal Close
[6] . Relay 6:   Normal Open
[0] . Back to Previous Menu

Please Enter Your Choice >

Configure Input Signal

[1] . Act as Shutdown or Test: Shutdown
[2] . Input Signal Confirm 3 Seconds
[3] . Delay Before Shutdown 30 Seconds
[0] . Back to Previous Menu

Please Enter Your Choice >

ENGLISH

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Innovative Power Solutions UPS

TECHNICAL SPECIFICATIONS

Models	NRT-U1100	NRT-U1700	NRT-U2200	NRT-U3000
UPS power	1100 VA 800 W	1700 VA 1200 W	2200 VA 1600 W	3000 VA 2100 W
Input	Single-phase 230 V (160-275 V); 50/60 Hz with automatic selection			
Input socket	IEC 320-C14 (10 A)	IEC 320-C20 (16 A)		
Output	Single-phase 230 V nominal ±2% (selectable: 200 [3]/208/220/240 V); 50/60 Hz			
Output socket	6 x IEC 320-C13 (10 A)	6 x IEC 320-C13 (10 A) + 1 x IEC 320-C19 (16 A)		
Data line protection [1]	Telephone line / modem / ADSL input/output: RJ11 or RJ45			
Technology	On-line double conversion (VFI-SS-111)			

Batteries				
Type	Maintenance-free sealed lead - life expectancy 3-5 years			
Typical backup	8 minutes	12 minutes	8 minutes	10 minutes

Communication		
Connection interface	USB port and slots for communication cards	
Ethernet	WEB / SNMP interface (Optional)	

| Environment				
Dimensions WxDxH	440x332x88.7 mm 17,3"x13,2"x2U	440x430x88.7 mm 17,3"x19"x2U		440x608x88.7 mm 17,3"x24"x2U
Weight	13 kg	21 kg	22 kg	31 kg
Reference standards	EN 62040-1-1, EN 62040-2 [2], EN 62040-3, EN 61000-4-5/C62.41:1991 (Overvoltage)			

[1] For data line protection, the input and output ports should be connected to the same circuit.

[2] With output cables shorter than 10 m.

[3] @ 200 Vac Pout = 90% Pnom.

NETYS RT 5 - 11 KVA JOHDOTUS
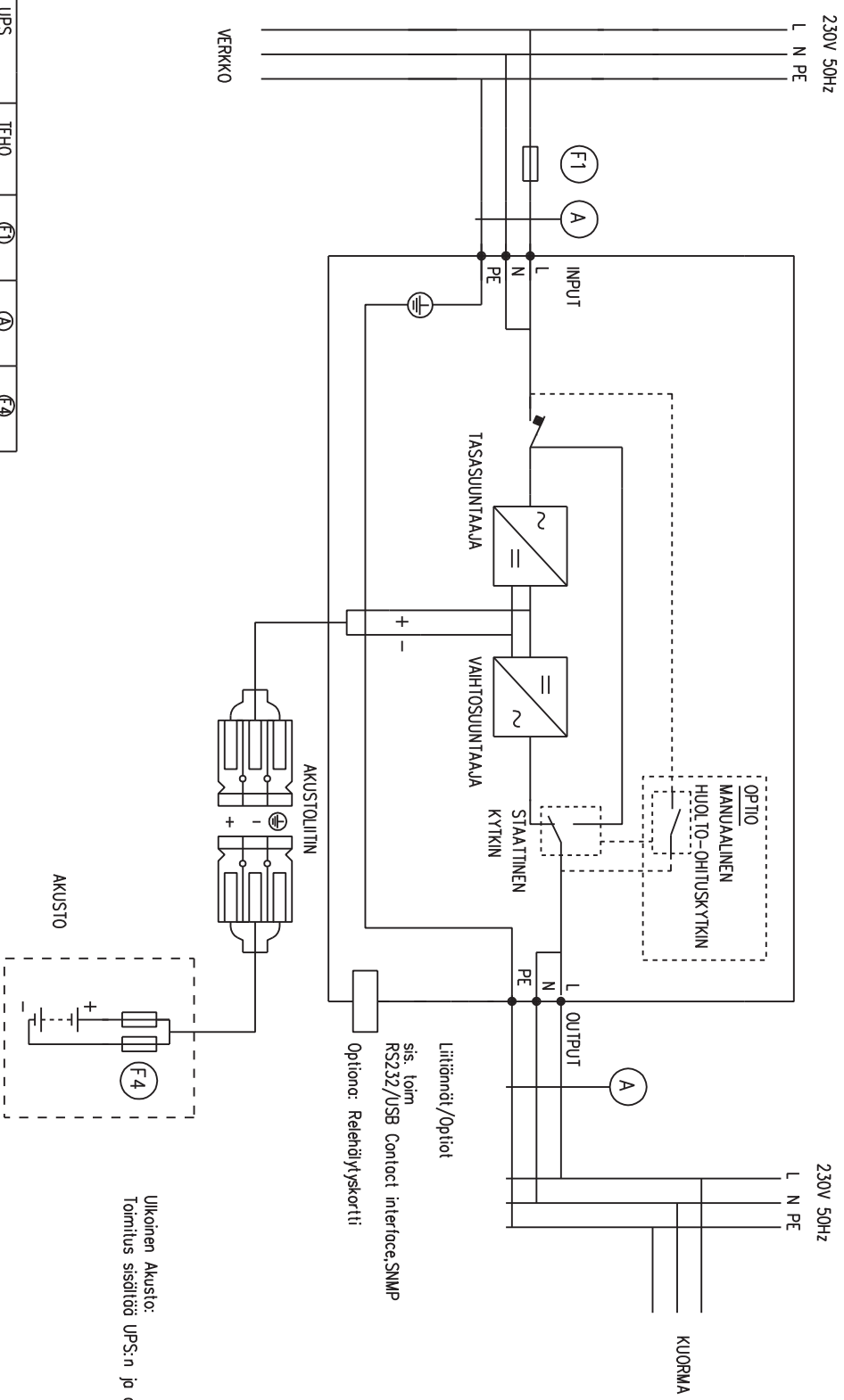
UPS	TEHO	F1	A	F4
NRT-5000K	5,0 kVA	25A	6 mm²	50A
NRT-7000K	7,0 kVA	35A	10 mm²	50A
NRT-5000K	9,0 kVA	40A	10 mm²	50A
NRT-7000K	11,0 kVA	50A	10 mm²	50A

VERKKO

230V 50Hz
L N PE

F1

A

INPUT
PE N L

TASASUUNTAAJA

VAIHTOSUUNTAAJA

STAATTINEN KYTKIN

OPTIO
MANUAALINEN
HUOLTO-OHITUSKYTKIN

AKUSTOLIITIN

AKUSTO

F4

Liitännät/Optiot
sis. toim
RS232/USB Contact interface,SNMP
Optiona: Relehälytyskortti

Ulkoinen Akusto:
Toimitus sisältää UPS:n ja akuston välisen kaapelin

OUTPUT
PE N L

A

230V 50Hz
L N PE

KUORMA

ORIG. SCALE	
DATE	21.1.2010
DRAWN	JR
SHEET	1 / 1
DRAWING No.	NETYS.RT.11-kaavio

NETYS RT 5 - 11 kVA JOHDOTUS

REVISIO