

LABORATORINĖ VARŽINĖ ELEKTROS KROSNIS
ЭЛЕКТРОПЕЧЬ СОПРОТИВЛЕНИЯ
ЛАБОРАТОРНАЯ
LABORATORY RESISTIVE ELECTRIC FURNACE

SNOL 3/1100 SNOL 22/1100
SNOL 8,2/1100 SNOL 39/1100
SNOL 13/1100

PASAS
ПАСПОРТ
INSTRUCTION MANUAL

Gaminys atitinka Europos Sąjungos Žemų įtampų direktyvos 2006/95/EC, Elektromagnetinio suderinamumo direktyvos 2004/108/EC, Mašinų saugos direktyvos 2006/42/EC reikalavimus.

Изделие соответствует требованиям директивы Низковольтной 2006/95/EC, директивы Электромагнитной совместимости 2004/108/EC, директивы Безопасности машин 2006/42/EC Европейского Союза.

The product conforms to the requirements of the European Union Low Voltage Directive 2006/95/EC, Electromagnetic Compatibility Directive 2004/108/EC, and Machinery Safety Directive 2006/42/EC.

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1. PURPOSE




The **SNOL XX/XXXX** electrical resistive-element laboratory furnaces (herein referred to as "furnace") is designed for heating or drying materials and stocks in the ambient air temperatures from T+50°C to 1100°C in static conditions.

2. SYMBOLS AND MARKINGS

Markings

	alternating current
	earth/grounding contact
	danger of electrical shock

Explanation of symbols




	This symbol precedes any important safety instructions. Personal and property safety could be put at risk if these instructions are not followed. Before switching on the low temperature furnace, it is very important to read and follow all the instructions of this manual.
	This symbol precedes manual requirements which must be followed with great care in order to ensure the furnace's correct operation, to prevent damage and to protect the safety operators.
	This symbol precedes important information.


3. SAFETY REGULATIONS

The furnace must be used in accordance with the requirements of the user's technical safety operation rules for electric equipment and local legislation.


The operator working with the electric furnace must be informed about the operational guidelines for electric equipment up to 1000V, acquainted with safety regulations for the operation of an electric furnace, and knowledgeable about the product's operating principles and proper use.

The furnace must be earthed and should only be connected to a mains electrical supply that has an earth/grounding contact. The furnace must be connected to a mains electrical supply of the correct rating, check the label on the rear of the furnace for voltage, frequency and power usage.


	It is prohibited to operate the electric furnace if the earth/grounding is insecure.
	It is prohibited to operate the electric furnace if any of external protective shields are removed.
	If the electric furnace is operated for a longer period of time, the external surfaces and the door may get hot. Wear heat-resistant gloves when opening the door of the hot electric furnace, loading or unloading it, or touching the hot external surfaces.

 Attention !	Combustible or explosive materials or materials that can become combustible or cause explosion during thermal treatment must not be loaded into the low temperature furnace.
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 Attention !	Do not load unknown materials into the furnace.
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	The gas emitted during thermal treatment has to be directed outside through a ventiduct (required by existing regulations).
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	The room where the furnace is operated must have appropriate ventilation.
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	It is forbidden to operate the furnace in a closed, unventilated room.
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	A room in which several furnaces are in operation must have a dedicated means of ventilation.
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	In the event of obvious malfunctions, the furnace must be immediately turned off. Maintenance can be performed by SNOL service operators, an authorized specialist or a user who strictly follows SNOL written maintenance instructions.
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	<p>In the event the furnace ceases normal operations, disconnect it from the power supply (the mains) and take measures to resolve the problem.</p> <p>The manufacturer is not responsible for damages arising from the use of the furnace for purposes for which it was not intended; the user bears all responsibility.</p> <p>Any operations that put at risk the furnace's safety are forbidden.</p> <p>General safety and accident prevention rules should be applied.</p> <p>Only furnaces that are technically sound should be used.</p>
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	Failure to comply with instructions could result in negative consequences for the user.
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The manufacturer's advice cannot cover all issues. Therefore, the user assumes responsibility for the reaction and the impact that heat has on materials and the risks related to conducting tests. Our advice will help to reduce the dangers faced by users as well as protect the furnace and the tested materials from damages.


4. PACKAGE CONTAINS

PRODUCT	Name					
	Furnace	Bottom plate	Feet	Instruction manual	Fuse	Instruction manual of temperature controller
SNOL 3/1100	1	2	4	1	1(12A)	1
SNOL 8,2/1100	1	2	4	1	1(12A)	1
SNOL 13/1100	1	1	4	1	1(12A)	1
SNOL 22/1100	1	1	4	1	2(1A)	1
SNOL 39/1100	1	1	4	1	2(1A)	1

5. REQUIREMENTS FOR SAFE USAGE

The electric furnace should be placed in a closed, ventilated room that meets the following requirements:

	<ul style="list-style-type: none"> - the electric furnace should be placed on a base that is horizontal (an allowed unevenness for a 1m base is ± 1mm.), hard, made of incombustible material; - height above sea level – up to 2000 m; - ambient temperature from +5 to +35°C; - ambient relative air humidity should not exceed 80% at the temperature of +25°C, - the environment should not pose an explosion risk; it also should not contain a large amount of electrically conductive dust, water vapor, aggressive gas; - it is recommended that the furnace be placed under an exhaust ventilation hood; - the electric furnace should not be subjected to vibration and shocks; - it is prohibited to exceed the nominal temperature, otherwise the service life of heating elements will be shortened and the thermocouple could be damaged.
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 <p>Attention !</p>	<p>Working chamber is made of high-quality thermal insulation material which is not resistant to mechanical damages. So using the furnace you must avoid mechanical contact with walls of the electric furnace. During exploitation individual cracks may appear on inner chamber, which do not affect the technical characteristics of the furnace and cannot be the cause of the reclamation.</p>
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6. COMPOSITION AND PRINCIPLE OF OPERATION

The furnace comprises a main frame from sheet steel, working chamber, control panel. Vacuumed fiber chamber is installed in the frame. Heating elements are vacuumed in the fiber around the working chamber. Door with thermo insulation material is mounted in the front section of the frame. The working chamber of furnace consists of the heating element and a door seal. Put the charge on the bottom plate in the chamber. The furnace has a 230 V (400V) power supply, 50/60 Hz frequency. Temperature control and adjustment is effected by an electronic controller operating in combination with a thermoelectric converter mounted in chamber.

Electric diagram is attached.

Additional options by customer request:

1. Over-temperature protection device, which prevents the furnace from overheating. If the maximum temperature of the furnace is exceeded, it prevents the furnace from heating. If this happens, allow the furnace to cold 50-100°C below its maximum temperature, then press the reset button on the front panel. If it does not reset or trips repeatedly contact the manufacture or their agent.
2. Timer; designed for delayed start-up of the furnace.
3. Buzzer; to inform user the temperature controller's program has ended.
4. Chimney; designed to extract the fumes from the chamber. The additional switch on the front panel turns on the chimney's fan.
5. Computer Connection for data collection and management of the temperature controller.

7. ASSEMBLY

Unpack the furnace, remove the packaging from the chamber and remove any dust. Mount separate components: attach fett's, place a bottom plate (-s).

The voltage quoted on the rating plate (rated voltage) must correspond with the nominal supply network voltage.

Insert a plug into the socket outlet. Check the earthing contact and link the furnace to it.

8. PREPARATION FOR USE

Before the first heating cycle or after a long unused period the moisture must be expelled from the furnace thermal insulation. To “burn-off” the furnace insulation it must be heated according to the following schedule with the door closed and the chamber empty:

- without load, heat the furnace until it reaches a temperature ranging from 100-150°C and maintain it for 2-3 hours;
- without load, heat it up to the temperature of 500°C and maintain it for 2-3 hours;
- heat it up to the nominal temperature. Maintain for 1-2 hours.;
- switch-off the furnace and cool down.

The dried furnace can be operated.



While drying, some ‘smoke’ may appear but it has no effect on further operation of the electric furnace.

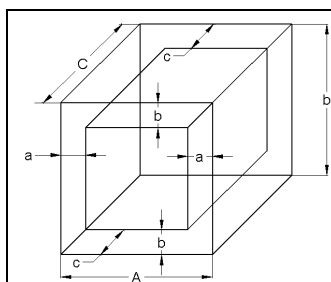
9. OPERATION

Open the door.

Put the load on the bottom plate (-s) at least 1/10 of the space away from the side walls to ensure a better circulation of air.



The data indicated in technical specifications refer to the working space.



A,B,C – dimensions of the chamber;
a, b, c – spaces between the walls and the load;

$$a = A \times 0,1$$

$$b = B \times 0,1$$

$$c = C \times 0,1$$

Working volume (space)

$$V = (A-2a) \times (B-2b) \times (C-2c)$$

Close the electric furnace’s door.

Turn the switch / circuit breaker into the ON (I) position.

Set the desirable operating conditions by following attached controller instruction.

Not leaving the furnace at high temperatures for longer than necessary will prolong its life.

10. MAINTENANCE




The electric furnace should be disconnected from the mains (power supply) and cooled.

Door adjustment	Open the door and loose door hinge fastening screws. Move the door to chamber and clamp the screw. Close the door and check the door position. There must be no gaps between the chamber gasket and the door and should close slightly. In the case if there are gaps repeat the procedure
Change of fuse	Press the holder of the fuse, turn anticlockwise and take out from the socket. Change a burnt-out fuse. Screw in the holder of the fuse in the reverse order. Ensure the fuse holder is firmly tightened.
Once a year	Once a year measure the insulation resistance between the frame and heating elements. Dry the electric furnace. Connect the megohmmeter to the leads of the heating element and frame. The reading of the megohmmeter should not be less than 0,5 MΩ.
Once every six months	Once every six months examine visually the wires and electrical connections. If necessary, tighten the contact screws.
Cleaning	When an operation is completed, clean the external surfaces of the electric furnace, except for the markings, with a water-dampened piece of cloth. Clean out the scale from the heating chamber with a water-dampened piece of cloth.
Cleaning of the fan openings	Clean the vents with a vacuum cleaner.

You are responsible for the correct boot sterilization.

Before cleaning or sterilization (in addition to what is recommended by the manufacturer), the user must make sure that his chosen method of sterilization and cleaning products will not damage the equipment.

11. STORAGE

	<p>Store the electric furnace in its packing in a location that meets the following requirements:</p> <ul style="list-style-type: none"> - heated and naturally ventilated room with an ambient temperature ranging from +5 to +35°C; - atmosphere with sulphurous gas concentration not exceeding 0,13 mg/m³ and chlorine salts concentration not exceeding 0,3 mg/m² per 24 hours; - the ambient relative air humidity should not exceed 80% at the temperature of 25°C.
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	<p>During loading and unloading the furnace, protect it from any shocks.</p>
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12. TRANSPORTATION

The electric furnace can be delivered only in closed means of transport in which the temperature ranges from - 50 to + 50°C. You can transport the electric furnace by any means of closed transport, but protect it from any rough, jarring movements. The packaging does not protect the electric furnace from the effects of improper handling.

13. WARRANTY

The manufacturer guarantees that the electric furnace meets company standards.

The furnace is guaranteed of 12 months from the date of purchase provided that the user follows the instructions regarding the furnace's storage, transportation and usage. However, the guarantee does not extend more than 24 months beyond the furnace's manufacture date.

Manufacture defects that appear during the warranty period shall be repaired at the manufacturer's expense. The manufacturer's address:

AB „Umega“, SNOL Dpt. ,
 Narkūnai LT-28104 Utena, Lithuania;
 Tel +370 389 54586; Fax +370 389 61223;
 E-mail: info@snol.com ; www.snol.com .

14. TROUBLESHOOTING

Problem	Possible Cause	Solution
The furnace doesn't turn on.	There is no rated power supply voltage; The fuse is burnt out.	Check the power supply; Change the fuse.
The furnace doesn't heat up.	The temperature controller is not switched on; Damaged heating element; Damaged thyristor relay.	Switch on temperature controller; Change heating element; Change thyristor relay
Heating time is longer than expected.	Low voltage of the power supply; Door does not maintain a hermetic seal.	Check the power supply's voltage; Tighten the door's closure.
Temperature fluctuation or large over-shoot of the set temperature.	Temperature Controller requires control terms tuning.	Perform an Auto-tune (AT) on the temperature controller (look at temperature controller instructions).

15. ASSESSMENT TECHNIQUE OF THE LABORATORY ELECTRIC FURNACE'S PARAMETERS

The values in the Technical Specification were produced by the manufacturer from an assessment performed on this model after the temperature controller had been auto-tuned (see instruction manual temperature controller).

The parameters that were tested:

1. Testing of the nominal temperature and temperature stability without load and shelves when the low temperature laboratory electric furnace is heated to the nominal temperature.
2. Temperature distribution in the working space without load and shelves when the low temperature laboratory electric furnace is heated to the nominal temperature.

TESTING METHODS

All tests are performed when the low temperature laboratory electric furnace is heated to the nominal temperature and works in the mode of steady temperature, i.e. when the temperature of the furnace corresponds to the nominal temperature and temperature fluctuations reach minimal values (e.g. $1100\pm 2^{\circ}\text{C}$).

Before measuring the temperature stability it is necessary to choose an electronic microprocessor temperature controller PID parameters (see electronic microprocessor temperature controller manual).

1. The testing of the nominal temperature and temperature stability without load when the low temperature laboratory electric furnace is heated to the nominal temperature is performed as following: in the cold furnace the pilot thermocouple is fixed as closely as possible to the working thermocouple. The time period of the testing of the nominal temperature and temperature stability is 1 hour. The readings of the control device have to be registered, for example, every 10 minutes.

The estimation of the nominal temperature: the sum of all registered temperature values is divided by the number of records made. The result must be from 1098°C to 1102°C . The temperature stability is estimated at the same time. If during the temperature testing the result is positive, that means that the temperature stability conforms to the requirement $1100\pm 2^{\circ}\text{C}$.

2. The testing of the temperature distribution in the working space without load when the low temperature laboratory electric furnace is heated to the nominal temperature is performed with the help of pilot thermocouples and the device showing temperature. No fewer than five thermocouples should be used. Thermocouples have to be arranged at the distance of $1/10$ (for example, if the length of the wall is 390 mm, the thermocouple has to be not closer than 39 mm from the wall) from each wall and one thermocouple has to be put in the centre of the chamber. For fixing of thermocouples we recommend to make a welded frame. The results are estimated according to the formula.

The estimation of the temperature distribution in the working space: maximum testing temperature from one point minus minimal temperature from another point divided by two.

The temperature distribution must be not higher than $\pm 10,0^{\circ}\text{C}$ (according to the technical parameters of the furnace).

All instruments and thermocouples used for testing must be assessed, undergo metrological testing and have a level of accuracy no lower than the first class.

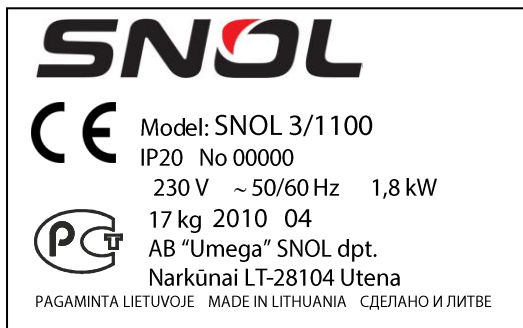
16. TECHNICAL SPECIFICATIONS



	Measure	SNOL 3/1100	SNOL 8,2/1100	SNOL 13/1100	SNOL 22/1100	SNOL 39/1100	
Rated power	kW	1,8			3,0	6,0	
Rated supply voltage	V	230				400	
Rated frequency	Hz	50/60					
Rated temperature	°C	1100					
Number of phases		1				3	
Working chamber surroundings		air					
Heat - up time (without load), not more	min	35	50				
Furnace temperature stability at rated temperature in thermal steady state without charge not more than	°C	±2					
Furnace temperature uniformity at rated temperature in thermal steady state without load not more than	°C	±10					
Furnace working chamber dimensions	width	mm	120	200	230	260	315
	length	mm	175	300	350	480	495
	height	mm	100	133	180	145	240
Furnace outside dimensions	width	mm	345	440	500	600	650
	length	mm	500	620	670	890	900
	height	mm	430	510	550	620	740
Weight	kg	17	28	36	59	75	



If added other completion technical parameters could be change.

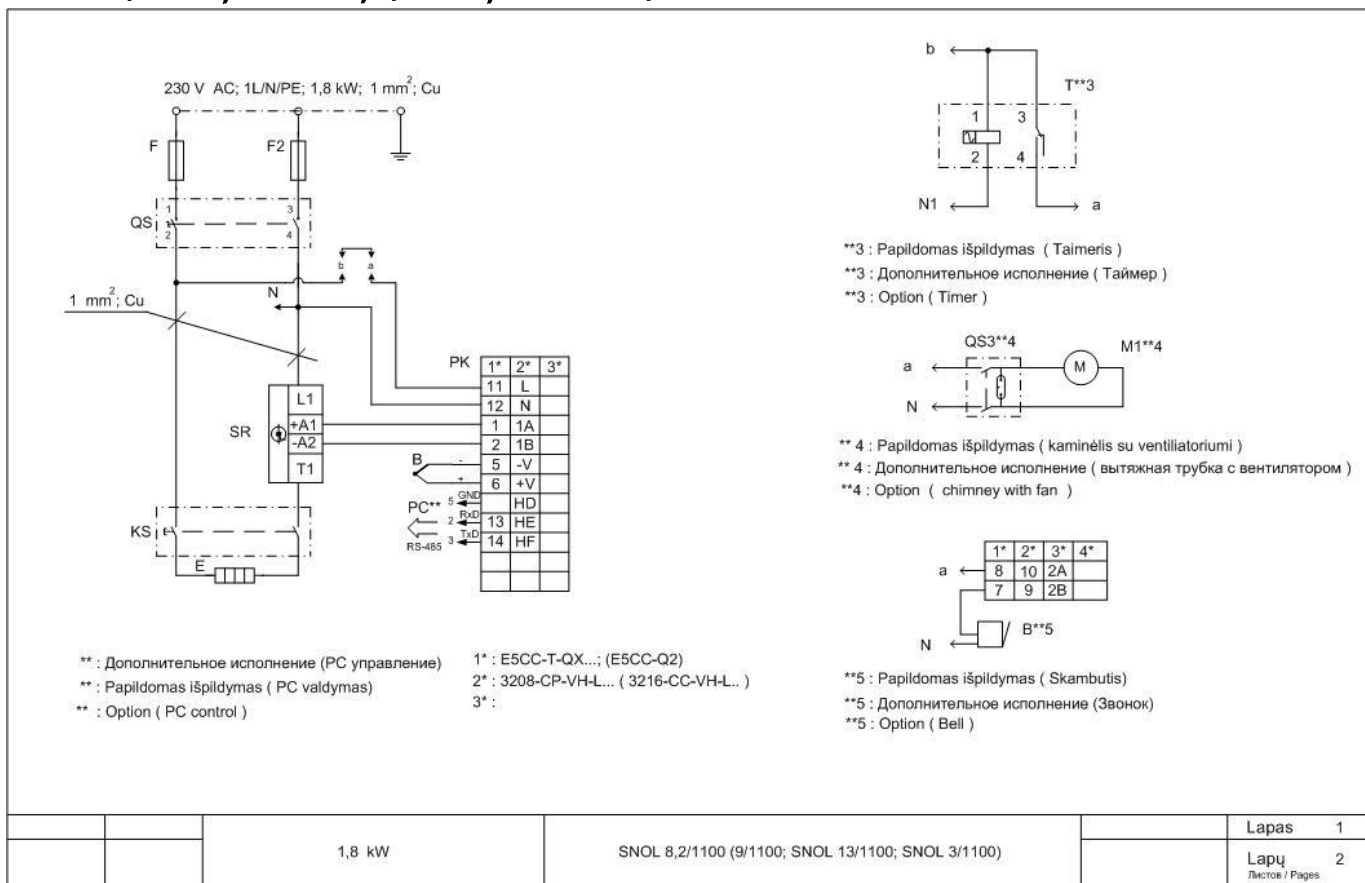
Meaning of markings on the product label



Identification on the label	Meaning
Model : SNOL 3/1100	Type of furnace, 3– total chamber volume (3 dm ³); 1100 – nominal temperature (1100°C).
IP 20	Degrees of protection provided by enclosures EN60529
No 0000	Product serial number
230V	Voltage of power supply 230 V
~50/60 Hz	Frequency of electrical current, Hz
1,8 kW	Nominal power, kW
17 kg	Weight of the product, kg
2010 04	Date of manufacture (year, month)
	Mark of conformity with EU requirements
	Mark of conformity with Russia requirements

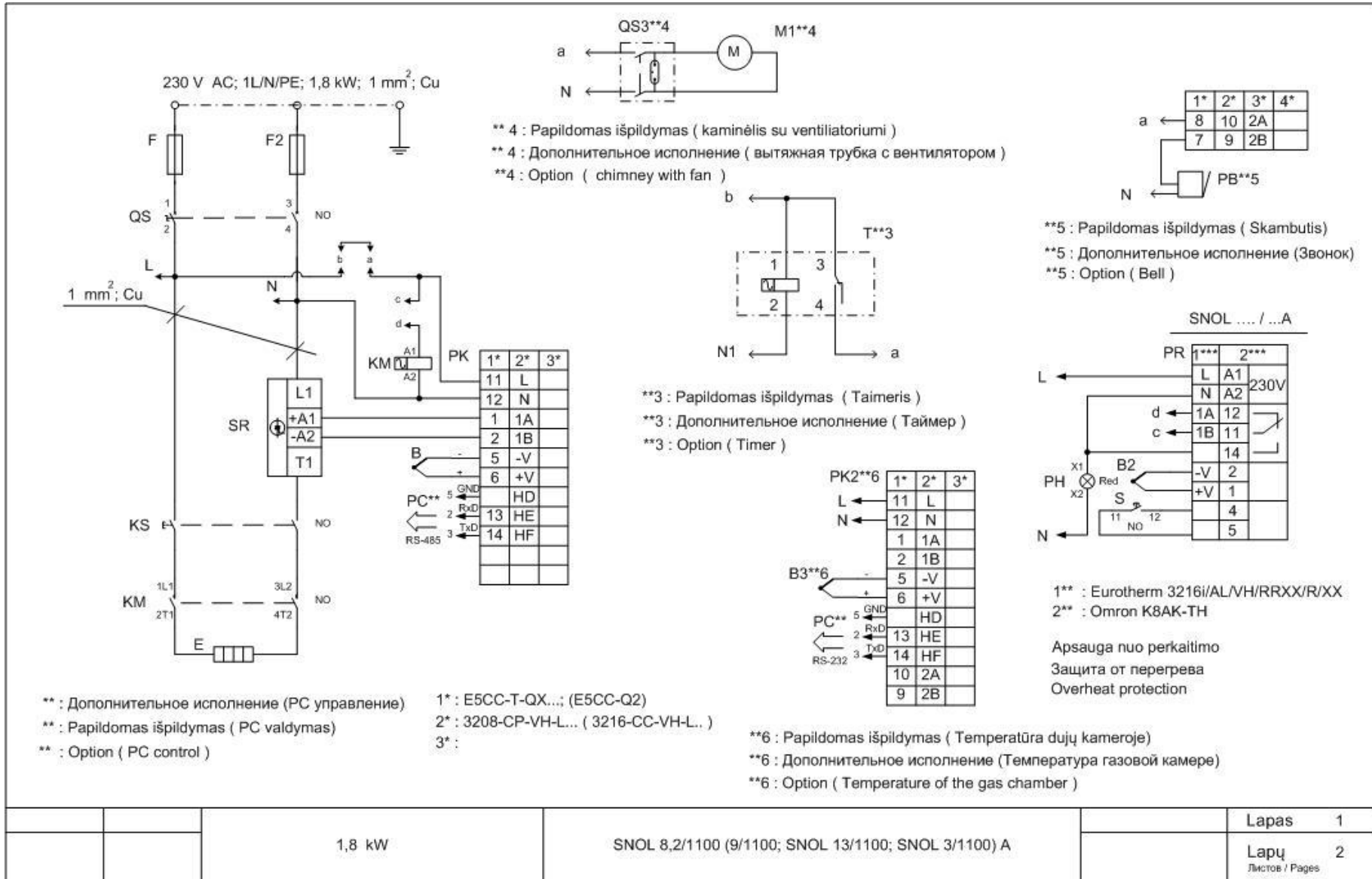
17. ELEKTRINĖ PRINCIPINĖ SCHEMA
17. СХЕМА ЭЛЕКТРИЧЕСКАЯ ПРИНЦИПИАЛЬНАЯ
17. ELECTRICAL DIAGRAM

SNOL 3/1100; SNOL 8,2/1100; SNOL 13/1100

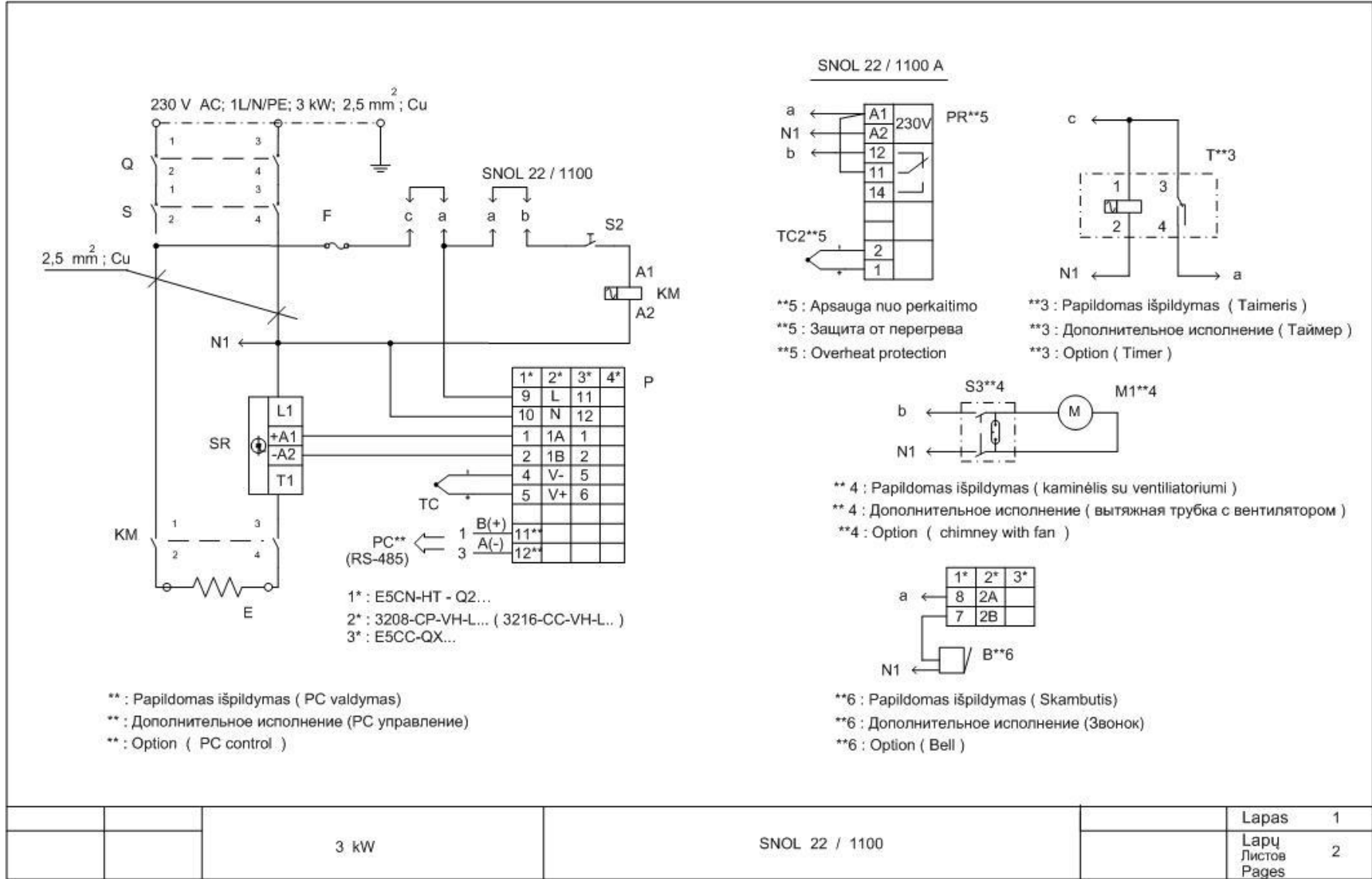


Žymėjimas Обозначение Name of component	Kiekis Кол. Qty	Pavadinimas Название Article identification	Tipas Тип Type	Gamintojas Производитель Manufacturer	Pastabos Примечания Remark
F1, F2	2	Saugiklis / Предохранитель Fuse, 12A, M;			
QS, QS3**4	1	Jungiklis/ Выключатель /Switch	R595KMET2F		
PK	1	Temperatūros reguliatorius/ Регулятор температуры/ Temperature controller	E5CC-T (E5CC; 3208; 3216)	Omron, Eurotherm	
SR	1	Tiristorinė relė/ Тиристорное реле/ Solid-state relay	G3PB225BVD 1224DC		
KS	1	Jungiklis/ Выключатель /Switch 10A, 250V	D2D-3104	Omron,	
B	1	Termopora / Термопара / Thermocouple, "K"	TC-Y1 (K)	Thermo-Est	
E	1	Kaitintuvas / Нагреватель / Heating element			
T**3	1	Taimeris/ Таймер/ Timer	GLX72Q41D	Galax	
B**5	1	Skambutis / Звонок / Bell	Bu3	Auer	
M1**4	1	Ventiliatorius/Вентилятор / Ventilator	DP200A		

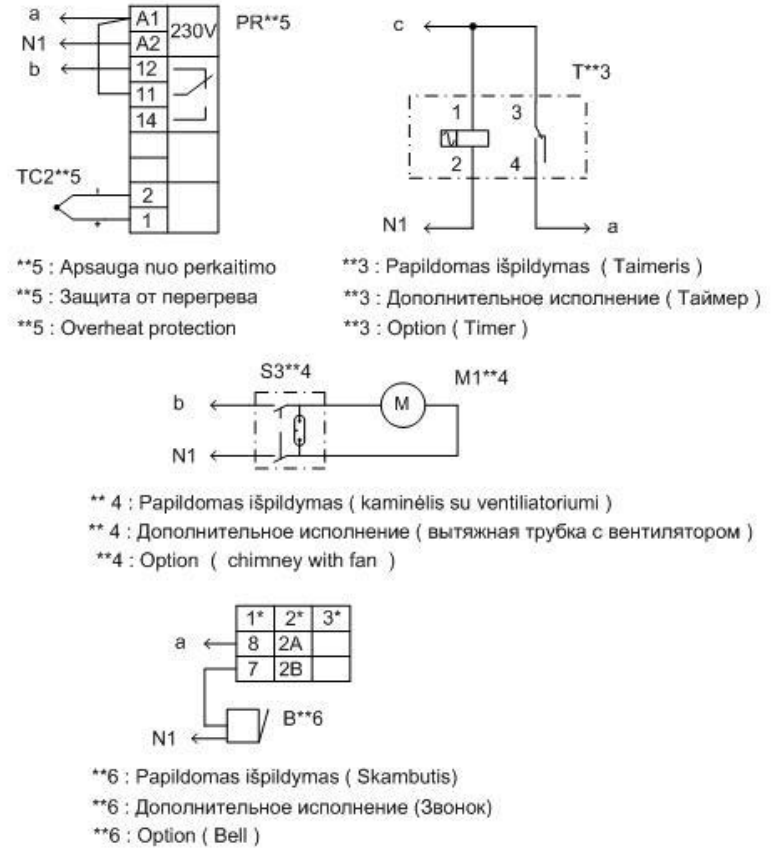
SNOL 3/1100; SNOL 8,2/1100; SNOL 13/1100



SNOL 22/1100

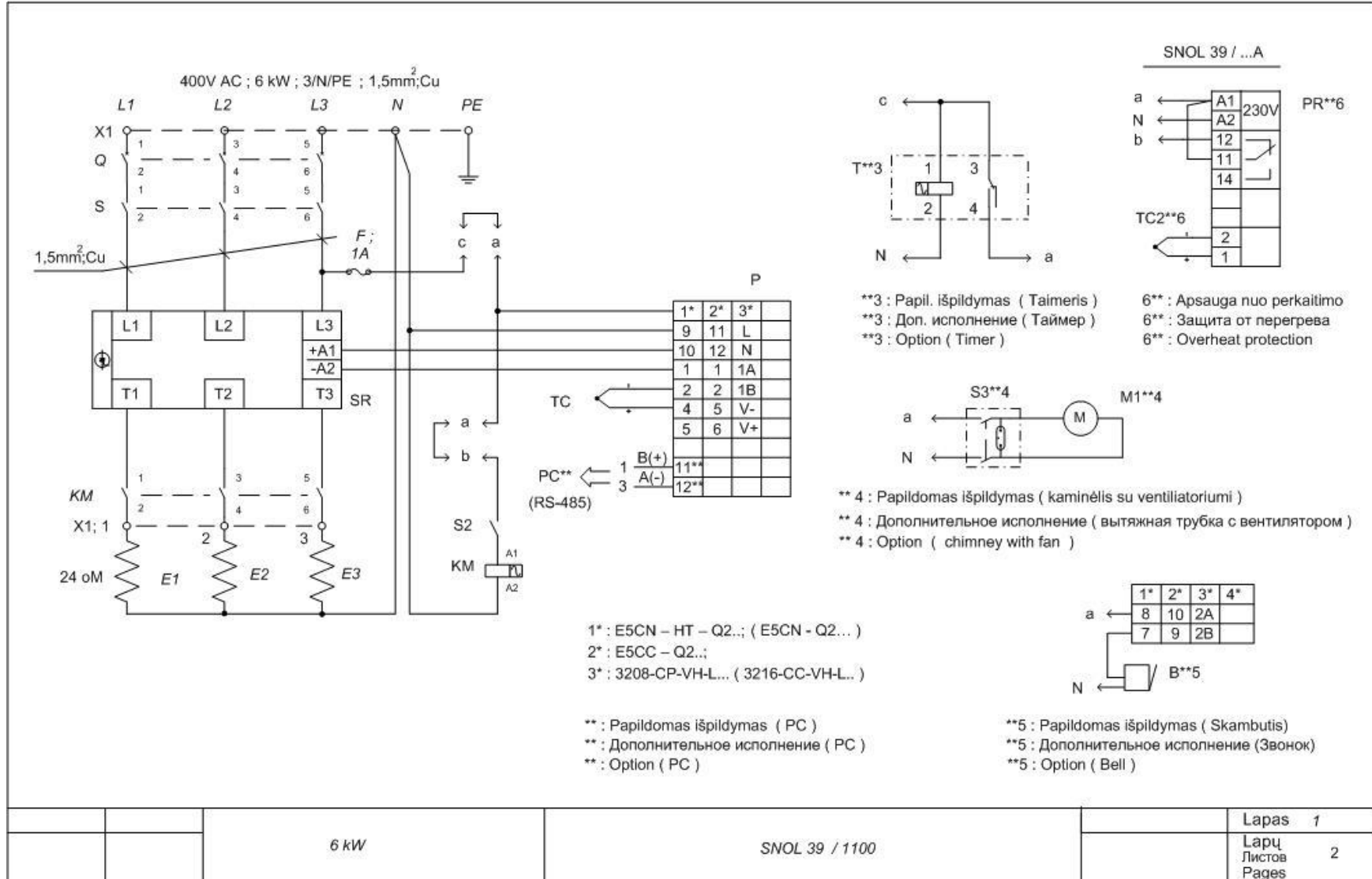


SNOL 22 / 1100 A

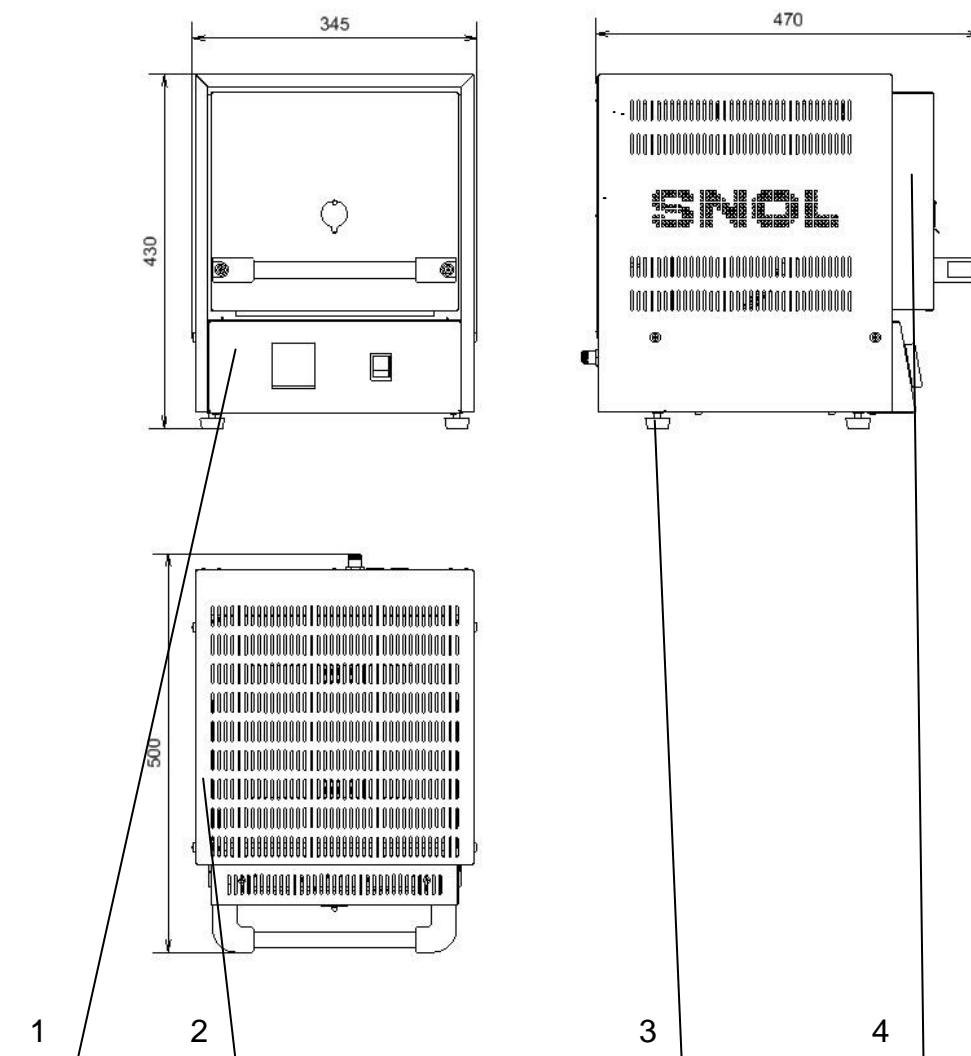


		3 kW	SNOL 22 / 1100	Lapas	1
				Ларц	2
				Листов	
				Pages	

SNOL 39/1100

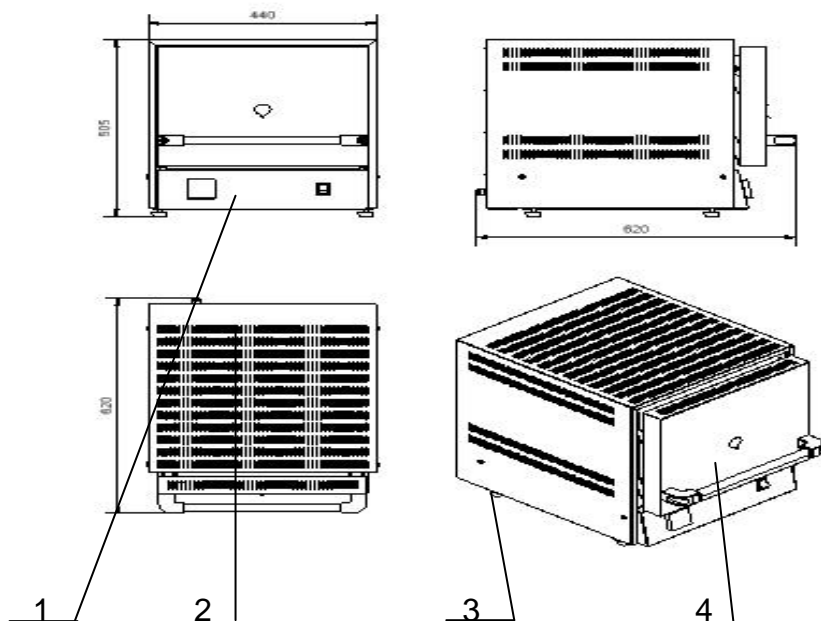


SNOL 3/1100



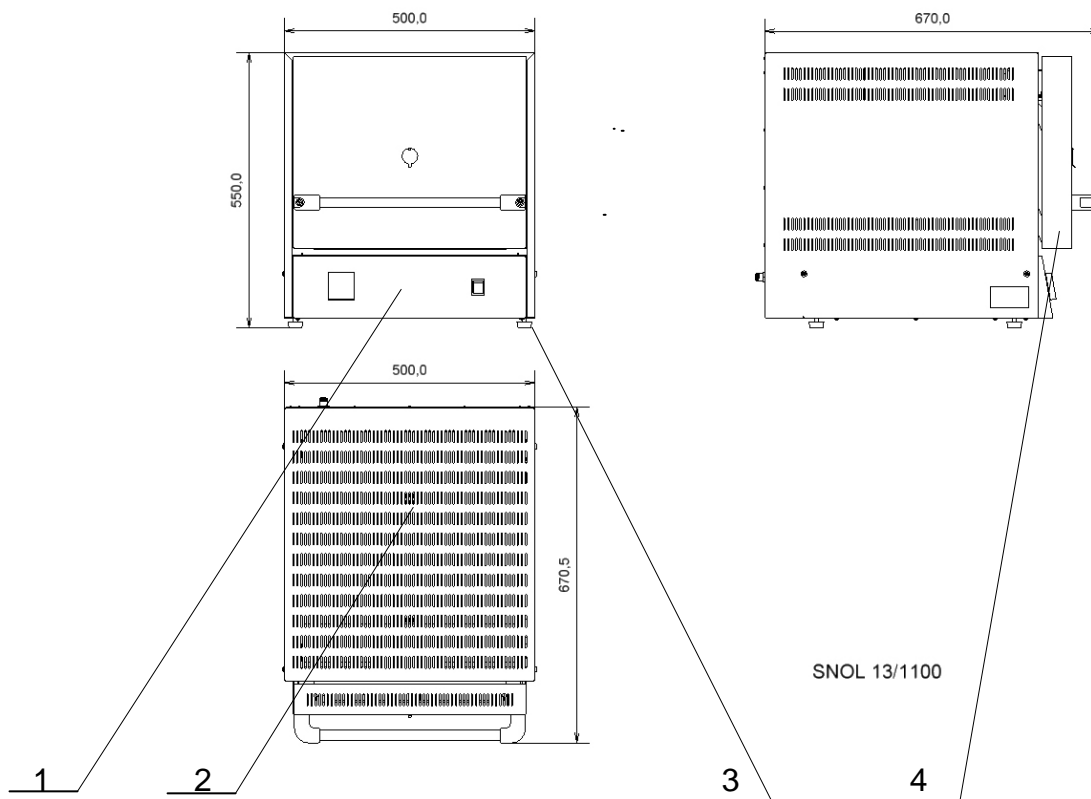
1.	Valdymo pultas	Пульт управления	Control panel
2.	Karkasas	Каркас	Frame
3.	Atramos	Опоры	Feet
4.	Durys	Дверь	Door

SNOL 8,2/1100



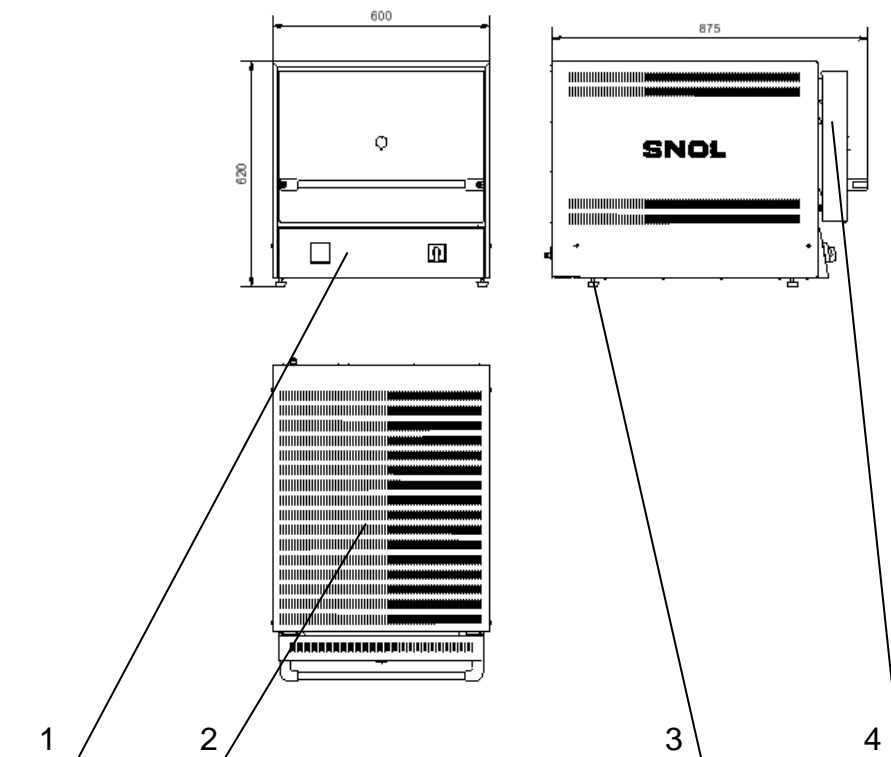
1.	Valdymo pultas	Пульт управления	Control panel
2.	Karkasas	Каркас	Frame
3.	Atramos	Опоры	Feet
4.	Durys	Дверь	Door

SNOL 13/1100



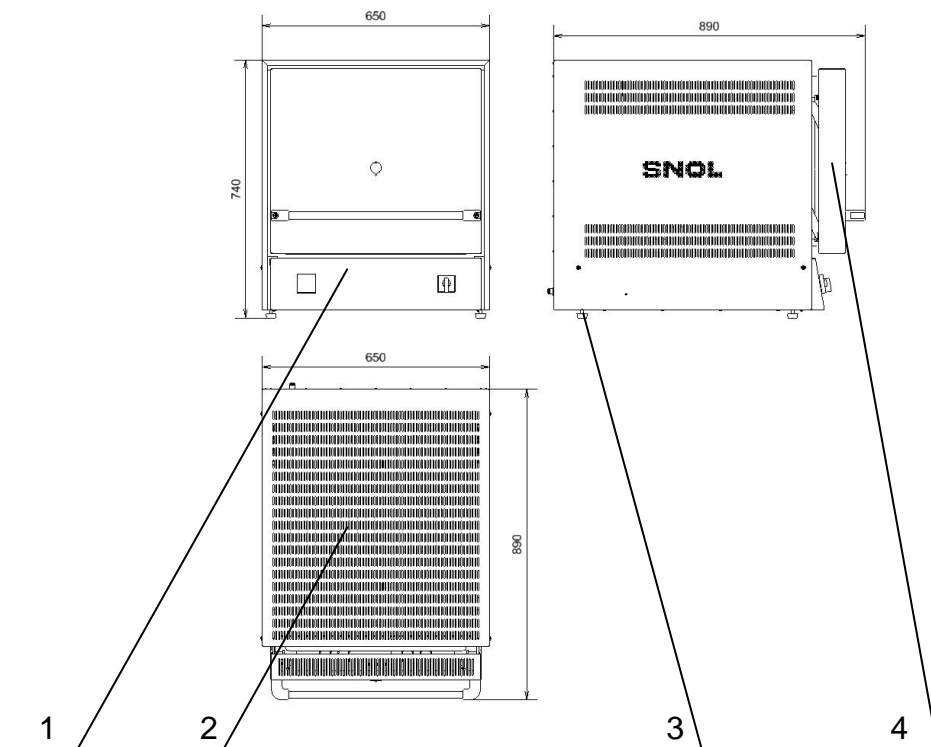
1.	Valdymo pultas	Пульт управления	Control panel
2.	Karkasas	Каркас	Frame
3.	Atramos	Опоры	Feet
4.	Durys	Дверь	Door

SNOL 22/1100



1.	Valdymo pultas	Пульт управления	Control panel
2.	Karkasas	Каркас	Frame
3.	Atramos	Опоры	Feet
4.	Durys	Дверь	Door

SNOL 39/1100



1.	Valdymo pultas	Пульт управления	Control panel
2.	Karkasas	Каркас	Frame
3.	Atramos	Опоры	Feet
4.	Durys	Дверь	Door

LT. Papildomas elektros krosnies išpildymas
RU. Дополнительное исполнение электропечи
EN. Furnace options
PL. Dodatkowe elektryczne obudowy pieca

1.	Apsauginis prietaisas	Защита от перегрева	Overheat device	<input type="checkbox"/>
2.	Taimeris	Таймер	Taimer	<input type="checkbox"/>
3.	Skambutis	Звонок	Buzzer	<input type="checkbox"/>
4.	Ištraukiamoji ventilacija	Вытяжная вентиляция	Pull ventilation	<input type="checkbox"/>
5.	Kompiuterinė jungtis	Подключение к компьютеру	Computer connection	<input type="checkbox"/>

DĖMESIO!

Elektros krosnies konstrukcija pastoviai tobulinama, todėl kai kurie elementai gali nepilnai atitikti šį aprašymą, bet tai nekeičia elektros krosnies techninių charakteristikų.

ВНИМАНИЕ!

В связи с постоянным совершенствованием конструкции отдельные элементы электропечи могут не полностью соответствовать описанию и изображению в паспорте, что не ухудшает показатели.

ATTENTION!

In the line of continuous improvement insignificant design amendments may be introduced without notice in this publication.

LT. Elektros krosnis su kaminėliu yra skirta darbams, kai išsiskiria didesnis dūmų kiekis, atliekant deginimo ar peleningumo nustatymo procesus.

Atliekant krosnies remontą, prieš nuimant krosnies gaubtą, reikia atlikti sekančius veiksmus:

1. Atsukti šešis savisriegius poz. 3, nuimti detalę poz. 5.
2. Atsukti keraminio vamzdelio tvirtinimo sraigta, ištraukti keraminį vamzdelį.
3. Atjungti jungtį poz. 4.
4. Nuimti krosnies gaubtą.

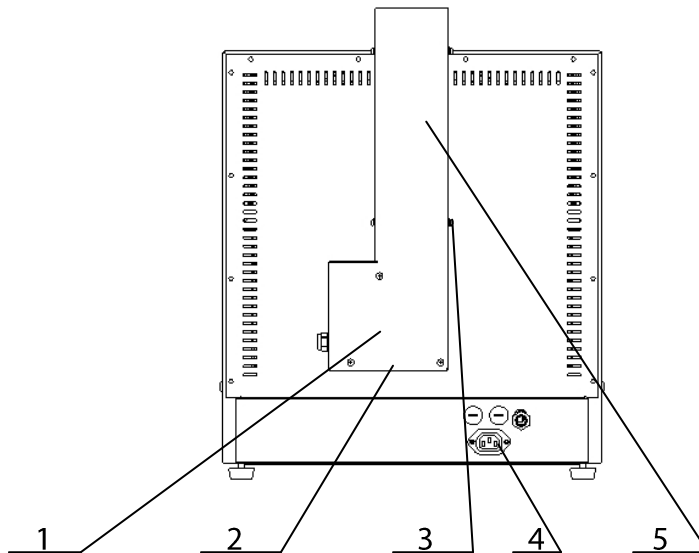
RU. Электропечь с вытяжной трубкой предназначена для работ, когда выделяется большое количество дыма, при сжигании или установления зольности.

При ремонте электропечи, перед снятием кожуха, надо выполнить следующее:

1. Открутить шесть саморезов поз. 3, снять деталь поз.5.
2. Открутить винт для крепления керамической трубки, вынуть керамическую трубку.
3. Отсоединить разъем поз. 4.
4. Снять кожух.

EN. Electric furnace is designed for ashing process. Chimney permits to eliminate smokes from chamber. Ventilator of chimney starts to work after turning the switch on. On purpose to take a furnace cover out; first of all it needs to take the chimney out. In order to take the chimney out, following steps must be done:

1. Unscrew six screw pos. 3, remove component pos. 5.
2. Unscrew ceramic tube fixing screw and take the ceramic tube out.
3. Disconnect connector pos. 4.
4. Remove the furnace cover.



1.	kaminėlis	вытяжная трубка	chimney
2.	ventiliatorius	вентилятор	ventilator
3.	savisriegis	саморез	screw
4.	jungtis	разъем	plug
5.	keraminio vamzdelio tvirtinimo sraigtas	винт для крепления керамической трубки	screw for fixing a ceramic tube
6.	kaminėlio detalė	деталь вытяжной трубы	detail of chimney

18. PAŽYMA APIE PRIĖMIMĄ

18. СВИДЕТЕЛЬСТВО О ПРИЁМКЕ

18. FURNACE CONFORMITY CERTIFICATION

Laboratorinė varžinė elektros krosnis atitinka įmonės standarto reikalavimus ir pripažinta tinkama naudojimui.

Электропечь сопротивления лабораторная соответствует требованиям стандарта предприятия и признана годной для эксплуатации.

The laboratory resistive model was tested and correspond company standards requirements.

Elektros krosnis/Gamyklinis Nr.
Электропечь/Заводской номер
Furnace /Serial No.

Pagaminimo data/ Gaminio kodas
Дата выпуска/ Код изделия
Produced / Code of the product

Kontrolės atžyma
Контроль мастера
Control department seal and signature



**ATITIKTIES DEKLARACIJA
ДЕКЛАРАЦИЯ СООТВЕТСТВИЯ
DECLARATION OF CONFORMITY
KONFORMITÄT SERKLÄRUNG
AB "Umega"**

Metalo 5, LT-28216 Utena, Lietuva (Литва, Lithuania, Litauen)

Laboratorinės varžinės elektros krosnys SNOL 0,1÷5000/600÷1800 naudojamos terminių ir analitinių darbų atlikimui laboratorijose.

Электропечи сопротивления лабораторные SNOL 0,1÷5000/600÷1800 применяется для аналитических работ и термообработки материалов в лабораториях

Laboratory resistive electric furnaces SNOL 0,1÷5000/600÷1800 are used for laboratory analytical in and thermal treatment processes for different materials.

Die Labor-Widerstands-Elektroöfen SNOL 0,1÷5000/600÷1800 werden für analytische Arbeiten und thermische Bearbeitung von verschiedenen Materialien in Labors verwendet.

Laboratorinės varžinės elektros krosnys SNOL 0,1÷5000/600÷1800 atitinka Europos Sąjungos Žemų įtampų direktyvos 2006/95/EC reikalavimams - standartams LST EN 61010-1, LST EN 61010-2-010, Europos Sąjungos Mašinų saugos direktyvos 2006/42/EC reikalavimams - standartams LST EN ISO 12100-1, LST EN ISO 12100-2, Europos Sąjungos Elektromagnetinio suderinamumo direktyvos 2004/108/EC reikalavimams - standartui LST EN 55011.

Электропечи сопротивления лабораторные SNOL 0,1÷5000/600÷1800 соответствует требованиям Низковольтной директивы Евро Союза 2006/95/EC - стандартам LST EN 61010-1, LST EN 61010-2-010, директивы Безопасность машин Евро Союза 2006/42/EC - стандартам LST EN ISO 12100-1, LST EN ISO 12100-2, директивы Электромагнитной совместимости Евро Союза 2004/108/EC - стандарту LST EN 55011.

Laboratory resistive electric furnaces SNOL 0,1÷5000/600÷1800 are conforming to the requirements of EU Low Voltage Directive 2006/95/EC and the standards LST EN 61010-1, LST EN 61010-2-010, EU Machinery Directive 2006/42/EC and the standards LST EN ISO 12100-1, LST EN ISO 12100-2, EU Electromagnetic Compatibility Directive 2004/108/EC and the – standard LST EN 55011.

Die Labor-Widerstands-Elektroöfen SNOL 0,1÷5000/600÷1800 erfüllen die Vorschriften der Niederspannungsrichtlinie 2006/95/EG – der Normen LST EN 61010-1, LST EN 61010-2-010; der Maschinenrichtlinie 2006/42/EG – der Normen LST EN ISO 12100-1, LST EN ISO 12100-2 und der EMV-Richtlinie 2004/108/EG – der Norm LST EN 55011.

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SNOL department Director
Direktor des Departements SNOL

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V. Nemura
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Data Дата Date Datum 2014-08-27

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