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STAFOR

NEW GENERATION HEATING SYSTEMS

ION BOILERS

IONEN HEIZKESSEL

JONU KATLI

ИОННЫЕ КОТЛЫ

ΛΕΒΗΤΑ-ΙΟΝΤΩΝ

PRODUCT CATALOG

Year 2013






ION BOILER (HEATER) STAFOR 3-5 COMPLETE SET

No	Parameter	Unit	Data
1.	Rated voltage single-phase AC In	V	230 ± 10%
2.	The minimum frequency of the AC	Hz	50
3.	Operating current, not more than	A	25
4.	Nominal power	kW	5
5.	Applied operating power, at a temperature of +15°C	kW	3-5
6.	Heat carrier STATERM EKO E40 with conductivity not more than	μS	205
7.	The maximum temperature at the outlet of the ion boiler	°C	90
8.	The work temperature at the outlet of the ion boiler	°C	70
9.	The size, length / height / diameter	mm	260/95/40
10.	Weight, not more than	kg	2,00
11.	Class of protection against electric shock	-	I
12.	The degree of protection from moisture	-	IP44



Ion boiler STAFOR power	Heating area (ceiling height till 3m and heat loss 80W on 1m ²)		Work current on one phase (without home appliances)	Sum of allowed heating equipment kCal	Max heat carrier volume in system, not more than
	Without connected sanitary water boiler	With sanitary water boiler (till 150 l)			
3 kW	37,5 m ²	-	15 A	3,49 kCal	24 l
4 kW	50 m ²	-	20 A	4,65 kCal	32 l
5 kW	62,5 m ²	-	25 A	5,81 kCal	40 l

Ion boiler (heater) STAFOR 3-5 complete set includes

				
Ion boiler (heater) STAFOR 3-5	Triac control panel 3-5 (with integrated protection)	Emergency thermostat (shutdown on 90°C)	Start-on thermostat (heat carrier temperature)	Thermostat-programmer (weekly room temp. programmer)

Transport details

EAN code	4751005613332
TARIC code	84031090
Package type	Carton box
Package weight	3.6kg
Package volume	0.0149m ³

EXW Riga, Latvia, STAFOR special distributor price – **314.32 EUR**

ION BOILER (HEATER) STAFOR 5-10 COMPLETE SET

No	Parameter	Unit	Data
1.	Rated voltage one-phase AC In	V	230 ± 10%
2.	The minimum frequency of the AC	Hz	50
3.	Operating current, not more than	A	50
4.	Nominal power	kW	10
5.	Applied operating power, at a temperature of +15°C	kW	5-10
6.	Heat carrier STATERM EKO E40 with conductivity not more than	μS	230
7.	The maximum temperature at the outlet of the ion boiler	°C	90
8.	The work temperature at the outlet of the ion boiler	°C	70
9.	The size, length / height / diameter	mm	115/405/62
10.	Weight, not more than	kg	5,00
11.	Class of protection against electric shock	-	I
12.	The degree of protection from moisture	-	IP44



Ion boiler STAFOR power	Heating area (ceiling height till 3m and heat loss 80W on 1m ²)		Work current on one phase (without home appliances)	Sum of allowed heating equipment kCal	Max heat carrier volume in system, not more than
	Without connected sanitary water boiler	With sanitary water boiler (till 150 l)			
5 kW	62,5 m ²	50 m ²	25 A	5,81 kCal	40 l
6 kW	75 m ²	60 m ²	30 A	6,98 kCal	48 l
7 kW	87,5 m ²	70 m ²	35 A	8,14 kCal	56 l
8 kW	100 m ²	80 m ²	40 A	9,30 kCal	64 l
9 kW	112,5 m ²	90 m ²	45 A	10,47 kCal	72 l
10 kW	125 m ²	100 m ²	50 A	11,63 kCal	80 l

Ion boiler (heater) STAFOR 5-10 complete set includes



Ion boiler (heater)
STAFOR 5-10



Triac control panel 5-10
(with integrated protection)



Emergency thermostat
(shutdown on 90°C)



Start-on thermostat
(heat carrier temperature)



Thermostat-programmer
(weekly room temp. programmer)

Transport details

EAN code	4751005614476
TARIC code	84031090
Package type	Carton box
Package weight	6.5kg
Package volume	0.0159m ³

EXW Riga, Latvia, STAFOR special distributor price – 428.23 EUR



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ION BOILER (HEATER) STAFOR 6-9 COMPLETE SET

No	Parameter	Unit	Data
1.	Rated voltage three-phase AC In	V	400 ± 10%
2.	The minimum frequency of the AC	Hz	50
3.	Operating current, not more than	A	15
4.	Nominal power	kW	9
5.	Applied operating power, at a temperature of +15°C	kW	6-9
6.	Heat carrier STATERM EKO E40 with conductivity not more than	μS	230
7.	The maximum temperature at the outlet of the ion boiler	°C	90
8.	The work temperature at the outlet of the ion boiler	°C	70
9.	The size, length / height / diameter	mm	235/160/125
10.	Weight, not more than	kg	4,00
11.	Class of protection against electric shock	-	I
12.	The degree of protection from moisture	-	IP44



Ion boiler STAFOR power	Heating area (ceiling height till 3m and heat loss 80W on 1m ²)		Work current on three phase (without home appliances)	Sum of allowed heating equipment kCal	Max heat carrier volume in system, not more than
	Without connected sanitary water boiler	With sanitary water boiler (till 150 l)			
6 kW	75 m ²	60 m ²	10 A	6,98 kCal	72 l
7 kW	87,5 m ²	70 m ²	12 A	8,14 kCal	84 l
8 kW	100 m ²	80 m ²	14 A	9,30 kCal	96 l
9 kW	112,5 m ²	90 m ²	15 A	10,47 kCal	108 l

Ion boiler (heater) STAFOR 6-9 complete set includes

				
Ion boiler (heater) STAFOR 6-9	Triac control panel 6-9 (with integrated protection)	Emergency thermostat (shutdown on 90°C)	Sharp-on thermostat (heat carrier temperature)	Thermostat-programmer (weekly room temp. programmer)

Transport details

EAN code	4751005613349
TARIC code	84031090
Package type	Carton box
Package weight	6.5kg
Package volume	0.0159m ³

EXW Riga, Latvia, STAFOR special distributor price – 454.23 EUR



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ION BOILER (HEATER) STAFOR 10-20 COMPLETE SET

No	Parameter	Unit	Data
1.	Rated voltage three-phase AC In	V	400 ± 10%
2.	The minimum frequency of the AC	Hz	50
3.	Operating current, not more than	A	34
4.	Nominal power	kW	20
5.	Applied operating power, at a temperature of +15°C	kW	10-20
6.	Heat carrier STATERM EKO E40 with conductivity not more than	μS	330
7.	The maximum temperature at the outlet of the ion boiler	°C	90
8.	The work temperature at the outlet of the ion boiler	°C	70
9.	The size, length / height / diameter	mm	340/160/125
10.	Weight, not more than	kg	6,00
11.	Class of protection against electric shock	-	I
12.	The degree of protection from moisture	-	IP44



Ion boiler STAFOR power	Heating area (ceiling height till 3m and heat loss 80W on 1m ²)		Work current on three phase (without home appliances)	Sum of allowed heating equipment kCal	Max heat carrier volume in system, not more than
	Without connected sanitary water boiler	With sanitary water boiler (till 150 l)			
10 kW	125 m ²	100 m ²	17 A	11,63 kCal	120 l
11 kW	137,5 m ²	110 m ²	19 A	12,79 kCal	132 l
12 kW	150 m ²	120 m ²	20 A	13,95 kCal	144 l
13 kW	162,5 m ²	130 m ²	22 A	15,12 kCal	156 l
14 kW	175 m ²	140 m ²	24 A	16,28 kCal	168 l
15 kW	187,5 m ²	150 m ²	25 A	17,44 kCal	180 l
16 kW	200 m ²	160 m ²	27 A	18,60 kCal	192 l
17 kW	212,5 m ²	170 m ²	29 A	19,77 kCal	204 l
18 kW	225 m ²	180 m ²	30 A	20,93 kCal	216 l
19 kW	237,5 m ²	190 m ²	32 A	22,09 kCal	228 l
20 kW	250 m ²	200 m ²	34 A	23,26 kCal	240 l

Ion boiler (heater) STAFOR 10-20 complete set includes



Ion boiler (heater)
STAFOR 10-20



Triac control panel 10-20
(with integrated protection)



Emergency thermostat
(shutdown on 90°C)



Sharp-on thermostat
(heat carrier temperature)



Thermostat-programmer
(weekly room temp. programmer)

Transport details

EAN code	4751005612922
TARIC code	84031090
Package type	Carton box
Package weight	7.9kg
Package volume	0.0196m ³

EXW Riga, Latvia, STAFOR special distributor price – 596.38 EUR



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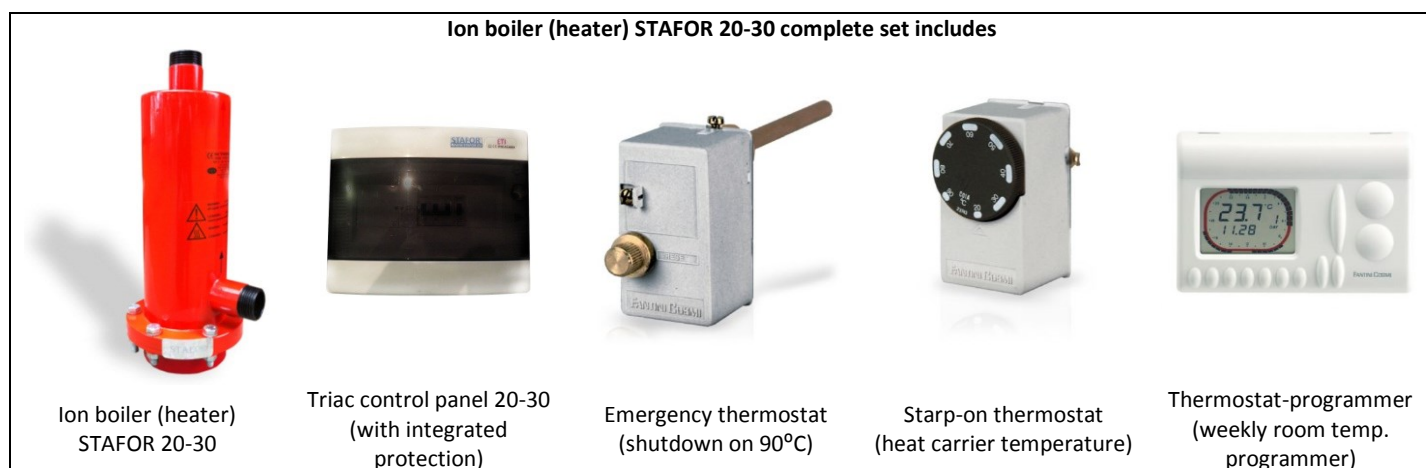
ION BOILER (HEATER) STAFOR 20-30 COMPLETE SET

No	Parameter	Unit	Data
1.	Rated voltage three-phase AC In	V	400 ± 10%
2.	The minimum frequency of the AC	Hz	50
3.	Operating current, not more than	A	50
4.	Nominal power	kW	30
5.	Applied operating power, at a temperature of +15°C	kW	20-30
6.	Heat carrier STATERM EKO E40 with conductivity not more than	μS	450
7.	The maximum temperature at the outlet of the ion boiler	°C	90
8.	The work temperature at the outlet of the ion boiler	°C	70
9.	The size, length / height / diameter	mm	420/160/125
10.	Weight, not more than	kg	10,00
11.	Class of protection against electric shock	-	I
12.	The degree of protection from moisture	-	IP44



Ion boiler STAFOR power	Heating area (ceiling height till 3m and heat loss 80W on 1m ²)		Work current on three phase (without home appliances)	Sum of allowed heating equipment kCal	Max heat carrier volume in system, not more than
	Without connected sanitary water boiler	With sanitary water boiler (till 150 l)			
21 kW	262,5 m ²	210 m ²	35 A	24,42 kCal	252 l
22 kW	275 m ²	220 m ²	37 A	25,58 kCal	264 l
23 kW	287,5 m ²	230 m ²	39 A	26,74 kCal	276 l
24 kW	300 m ²	240 m ²	40 A	27,91 kCal	288 l
25 kW	312,5 m ²	250 m ²	42 A	29,07 kCal	300 l
26 kW	325 m ²	260 m ²	44 A	30,23 kCal	312 l
27 kW	337,5 m ²	270 m ²	45 A	31,40 kCal	324 l
28 kW	350 m ²	280 m ²	47 A	32,56 kCal	336 l
29 kW	362,5 m ²	290 m ²	49 A	33,72 kCal	348 l
30 kW	375 m ²	300 m ²	50 A	34,88 kCal	360 l

Ion boiler (heater) STAFOR 20-30 complete set includes



Transport details

EAN code	4751005613356
TARIC code	84031090
Package type	Carton box
Package weight	10.36kg
Package volume	0.0216m ³

EXW Riga, Latvia, STAFOR special distributor price – 668.29 EUR









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ADDITIONAL (OPTIONAL) DEVICES FOR ION HEATING SYSTEM

№	Name	EXW Riga, Latvia, price	Picture
1.	Digital room thermostat-programmer Intellitherm C55	54.07 EUR	
2.	Simistor max power controller STAFOR MPC - allows the ion boiler to operate in rooms with limited electric power input. Beyond maximum load of domestic consumption (for example, when the electric range, or electric water boiler in gear) it disables ionic boiler, and when drop the load - turn on the boiler automatically. Thus, the possibility of overload electrical network and operation of protective devices (protective automatic, fuse) are excluded.	35.57 EUR	
3.	Wireless set (additional block) for digital room thermostat-programmer Intellitherm C55	78.26 EUR	
4.	GSM controller – allows you to manage the work of ion heating system with help of short messages (SMS) on your mobile phone	213.43 EUR	
5.	Mechanical (strap-on) thermostat – regulates maximum temperature of heat carrier in heating system	11.38 EUR	
6.	Emergency thermostat – switch off ion heating boiler when there is emergency case and temperature in heating system reaches 90°C	24.19 EUR	





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SPECIAL HEAT CARRIER (COOLANT) FOR ION HEATING SYSTEMS

№	Name	EXW Riga, Latvia, price	Picture
1.	STATERM EKO E40 heat carrier for ion boilers, 20L pail (base heat carrier)	25.61 EUR	
EAN code		4751005613301	
TARIC code		2905399590	
Package type		Plastic pail with lid	
Package weight		20.28kg	
Package volume		0.0356m ³	
2.	STATERM POWER ion boiler output power regulation additive, 1L bottle (regulating additive)	2.85 EUR	
EAN code		4751005613745	
TARIC code		2905399590	
Package type		Plastic bottle with lid	
Package weight		1.028kg	
Package volume		0.0010m ³	

IMPORTANT NOTICE!

Only allowed liquid in STAFOR ion heating system for stable and economical work of ion boiler is special heat carrier liquid STATERM EKO E40. For ion boiler output power regulation we recommend to use only special additive STATERM POWER. If you use our heat carrier and regulating additive we can guarantee stable, low cost, effective and long term work of system.

STATERM EKO E40 heat carrier with STATERM POWER additive guarantees:

- Stable and economical work of ion boiler,
- Protects from formation of scale and biological deposits on the surfaces of heating equipment,
- Prevents corrosion of heating equipment,
- Contains balanced set of corrosion inhibitors to protect steel, cast iron, copper, brass, duralumin,
- Resistant to heating and oxidation of propylene glycol,
- Do not freeze at temperatures up to -40°C,
- Boiling point of heat carrier +124°C,
- Ecological cleanliness and safety.

All heating system (radiators, "heat floors" etc.) must be filled with STATERM EKO E40 heat carrier. If you are planning to connect ion boiler in small circuit with heat exchanger, please, have consultation with STAFOR official distributor or write email info@stafor.lv.

Using of water, distilled water or salt, and soda is prohibited. Salt or soda will settle on pipes and in boiler as chalk deposits, which will cause malfunction of ion heating system. That will rapidly change electrical parameters of ion heating system. That's why we strictly prohibit using water instead of special heat carrier.

Regulating of ion heating system must be done by specialized plumber and/or electrical master in accordance of STAFOR regulating table. Ion boiler output power is regulated by adding of STATERM POWER additive.



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STRONG POINTS OF STAFOR PRODUCTS!

EFFICIENCY.

STAFOR ion heating system is only one that have increased rate of energy conversion from electrical to thermal with COP from 1 (100%) to 2.04 (204%), depending on the model of boiler and operation mode. From other manufacturers, this parameter is less than 1. This means that if you use the boiler STAFOR, the electric current makes a greater job and, respectively, heating costs are reduced. By using 1kW of electrical energy STAFOR ion boiler (heater) produces till 2.04kW of heat energy.

Do not overpay for heating! Use high-efficiency boilers STAFOR!

ELECTRICAL SAFETY.

The original, patented design of the boiler is fundamentally different from the designs of other manufacturers. It enables to use a principle of the separation of working and protective field ("Faraday cell").

To date, it is the only ion (electrode) boiler of a flow type that is entirely consistent with the requirements of the European Community Low Voltage Directive № 73/23/EEC on electrical safety and authorized for sale and use in the EU member states.

Do not expose your life, and lives of other people to danger. Use electrical safety ion boilers STAFOR!

Boilers of other manufacturers can have a dangerous leak of electric current on the body of the boiler!

QUALITY AND RELIABILITY.

A large margin of safety for materials is incorporated into the ion boiler STAFOR during its design. The use of high-tech alloys and plastics (with heat resistance up to 700 ° C, with enhanced dielectric properties) provides high quality and reliability of the boiler STAFOR, making it preferable in comparison with other manufacturer's products.

All materials used in the manufacture of the boiler have European quality certificates.

Boiler construction and used materials exclude manifestations of destructive processes in the boiler (electrolysis, chemical reactions, etc.), which, unfortunately, some other manufacturers have. Such manifestations may result the premature erosion of the electrodes and other elements of boiler's design, up to their complete destruction, unstable operation of the boiler, the increased power consumption, lowering COP (coefficient of performance).

Experience in the use of ionic boilers STAFOR indicates that the equipment, used more than 5 years, shows no signs of erosion of electrodes and other elements of the boiler's construction, the boiler operating parameters are stable.

The service life of the ion boiler STAFOR subject to the rules of installation and operation is at least 10 years.

Effective and reliable automation of ion boilers STAFOR, unlike the products of other manufacturers, has protection functions from overload, from misalignment phases of current, failure of one phase of current. It provides stable and energy-efficient boiler operation.

Heat career STATERM EKO E40 used for the ion boiler STAFOR provides a stable ionic composition, stability of electrical parameters of the boiler and high COP.

Do not skimp on quality, use reliable boilers STAFOR!

UNIVERSAL AND ADAPTABLE.

Original ion heating system STAFOR can be used as main heat source for heating systems with radiators, "heat floors". It can be used to heat up only hot sanitary water boiler or fan coil unit.

STAFOR ion heating system can be connected and can work together with:

- **Solid fuel boilers,**
- **Liquid fuel boilers,**
- **Solar collectors,**
- **Smart house technology,**
- **Photovoltaic systems,**
- **Wind generators,**
- **All other heating and energy saving systems.**



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