Energy-saving + comfort

UIT

"UKRINTERM"

ISO 9001
ISO 14001

Modulare boiler installation

Main functions:

- generation, qualitative control and supply of heating for buildings, consractions, housing and communal services, etc.

- sanitary domestic hot water supply

UKRINTERM
307-a, Zaporozhtsya str., 09114, Bila Tserkva, Ukraine
tel. + 38 0456333996, e-mail: uit@ukrinterm.com.ua
www.ukrinterm.com.ua

Modular boiler installation

Modular boiler installation system "Ukrinterm" is intended for heating and hot water supply of the industrial, residential and communal buildings and constructions.
Boiler systems are mounted from the manufactured modules in quantity and mix ordered by customer and may be arranged in built-in accommodations, additions, bulkheads and apart buildings in accordance with current building code.

Heating boiler system consists of the defined by particular project quantity of heating modules MN and may compounds the next equipment:
- module for heating system regulation AR, ARD,
- permanent temperature module ATS, ATSD,
- domestic hot water supplying module MHW
- additional equipment for mounting of separate modules into the heating boiler system.

ADVANTAGES OF THE SYSTEM

- possibility to change the heat power of the condensation boiler system with invariable efficiency factor (98%) subject to the ambient temperature.
- the module installation construction enables to repair the equipment without heating boiler system stopping to increase the safety and reduce the repair cost.
- the equipment ease enables to mount it without special lifting equipment.
- the roof location excludes costs for the boiler foundation and enables to reduce the flue height.
- low emissions:
  CO – 50 mg/m^3, NOx – 15 mg/m^3.

UKRINTERM 307-a, Zaporozhtsya str., 09114, Bila Tserkva, Ukraine tel. + 38 0456333996 e-mail: uit@ukrinterm.com.ua www.ukrinterm.com.ua

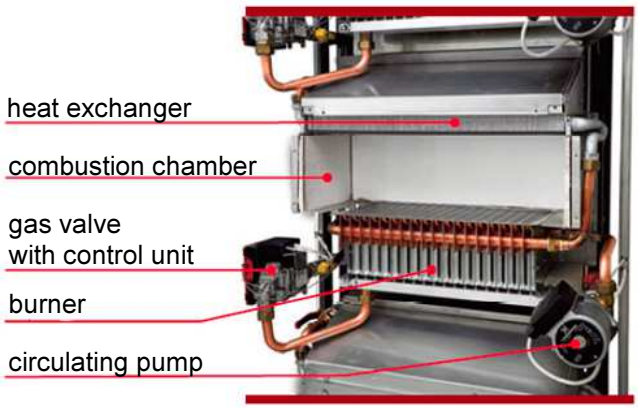
Heating module MN

Heating module is instantaneous water heater in cabinet performance which generates heating energy in system.
Heating module MN-Eco consists of two (MN-80) or three (MN-100,120) heating elements. The elements are installed one above another and connected parallel to water and gas net. Each element has the burner and circulation pump for internal water circulation. Module is equipped with a system of automatic control and safety automation. Maximum temperature of water in the heating module can be up to 95°C.

Using of special burner and new heat exchanger in heating modules MN eco allows to increase heat power, coefficient of efficiency and also considerably to reduce environment emissions.

Advantages:
- improved reliability: each of the heating elements works independently.
- improved temperature output control (modulation 15 - 120 kW)
- module works more steady with modulation of burner.
- free access to the Honeywell control units makes it possible to organize module control through various communication channels.

Characteristics		Model		
		MN 80	MN100	MN120
1. Nominal output, ± 10%	Kw	80	100	120
2. Nominal gas pressure	Pa	1960		
3. Maximum gas consumption (t=20°C, atmospheric pressure 760 mm of mercury column, Qн. p.= 8000 kcal/m3)	m^3	9.4	11.6	14,0
4. Thermal efficiency	%	92		
5. Hydraulic working pressure	Mpa	0.6		
6. Flow water temperature	^oC	95		
7. Adjustment range of flow water temperature	^oC	50-95		
8. Exhaust gas emission temperature	^oC	110		
9. Electricity power	W	300	400	400
10. Electricity supply	V/Hz	$220^{+10\%}_{-15\%}$ / 50_{-1}		
11. Dimensions: - height - width - depth	mm	 1697 711 500	 2200 711 500	 2200 711 500
12. Dry weight	kg	170	170	170



Module control unit

UKRINTERM 307-a, Zaporozhtsya str., 09114, Bila Tserkva, Ukraine tel. + 38 0456333996 e-mail: uit@ukrinterm.com.ua www.ukrinterm.com.ua

Hot water supply modules MHW

Hot water supply module MHW is intended for preparation of sanitary hot water up to 55°C.
The heating water is circulating in the primary circuit of the heat exchanger.
This water transmits its heat to water, circulating in the second-stage circuit of heat exchanger and then dispatching to customer.
Tap water and returned from the hot water system water are sent to the input of the second-stage circuit.
Each circuit of the module has its circulating pump.
The pump is ruled by frequency transformer subject to hot water supply pipe (T3) temperature sensor in the primary circuit.
Thereby the set point temperature of the hot water is supported via speed instability of the heating water in the primary circuit of the heat exchanger.

The control unit of MHW module provides the operation in the following modes:
- mode "Comfort": permanent hot water supply of 40 - 60°C;
- mode "Summer": hot water supply of 40 - 60°C for the consumer in the certain intervals.
- mode "Winter" (on default): the module operates 24 hours.

Characteristics		Model				
		MHW 2P	MHW 3P	MHW 4P	MHW 5P	MHW 6P
1. Nominal output	Kw	244	366	488	537	611
2. Maximum hot water flow rate at $\Delta t=35^{O}C$	l/min	100	150	200	220	250
3. Maximum hot water flow rate at $\Delta t=45^{O}C$	l/min	78	116	155	171	195
4. Maximum hot water flow rate at $\Delta t=55^{O}C$	l/min	64	95	127	140	159
5. Maximal temperature of hot water	^{O}C	55				
6. Hydraulic working pressure	MPa	0,6				
7. Electricity power	Kw	1,3	1,3	1,68	1,68	2,0
8. Electricity supply (50Hz)	V	380 (+38V -57V)				
9. Protection class		IP22				
10. Dimensions: - height - width - depth	mm	1950 1005 355				
11. Dry weight	kg	260	270	280	290	300

Sanitary modules ARD, ATSD

Module-regulator of temperature is intended for regulating of water temperature in heating system depending of external whether conditions.
The module includes the pump that produces water circulation in heating system.
Principle of automatic temperature regulation is that three-way valve of distributive type realizes the adulteration some returned water into the supply line passing by the heating modules.

Module of constant temperature is intended for supply water with fixed temperature, on which heating modules are adjusted in heating system.
Modules of constant temperature differ from modules-regulators because of three-way valve with executive device lack.

Modules-regulators of ARD types are applied on location of heating modules MN120, MN100 for double-sided service.

There are such basic dimension types of modules-regulators ARD (AR, FRD):
ARD32, ARD40, ARD50, ARD65, ARD80 (figures in designation indicate internal diameter).
Other versions can be produced according special order.

Modules of constant temperature has the same overall and port dimensions and the same dimension types as the modules ARD.