



Kotlovi **TK-Profesional 120-240kW** su kompaktni uređaji namenjeni za zagrevanje većih stambenih ili poslovnih objekata. Sud kotla je izrađen od čeličnog lima, ispitan na pritisak od 6 bara, dok je maksimalni radni pritisak 4 bara. Prirubnice pomoću kojih se kotao povezuje na grejnu instalaciju nalaze se sa zadnje strane kotla. Na povratnoj cevi kotla (donjoj) se nalazi slavina za punjenje i pražnjenje, a na potisnoj cevi (gornjoj) sigurnosni ventil i automatsko odzračno lonče. Donja vrata pokrivaju razvodnu tablu sa kompletnom automatikom kotla i rednim stezaljkama za priključenje napojnog kabela, kao i pomoćnim klemama za povezivanje komande za cirkulacionu pumpu i sobnog termostata. Kotlovi su opremljeni sa "Multistage protection" sistemom zaštite, koji permanentno prati temperaturu i pritisak u sistemu. U slučaju približavanja pritiska ili temperature nedozvoljenim vrednostima prikazuje na displeju odgovarajuća upozorenja, a u slučaju prekoračenja graničnih vrednosti pritiska ili temperature isključuje sve grejače, odnosno u trećem stepenu zaštite isključuje kompletno napajanje uređaja pomoću naponskih okidača, čime je garantovana bezbednost. Kotlovi TK-Profesional 120-240kW opciono se mogu povezati na centralizovani sistem nadzora i upravljanja (BMS, SCADA,...), preko RS485 RTU modula, pomoću ModBus protokola. Mogućnost povezivanja do 10 kotlova u kaskadnom režimu uz dodatni kaskadni regulator.

Boilers **TK-Profesional 120-240kW** are compact devices intended for heating larger residential or commercial buildings. The boiler vessel is made of (sheet) steel, tested at a pressure of 6 bar, while the maximum working pressure is 4 bar. The flanges used to connect the boiler to the heating system are located on the back of the boiler. On the return pipe of the boiler (lower) there is a tap for filling and emptying, and on the pressure pipe (upper) there is a safety valve and a valve for automatic deaeration. The lower door covers the switchboard with boiler automation and clamps for connecting the power cable, as well as auxiliary clamps for connecting the circulation pump and the room thermostat. The boilers are equipped with a "Multistage protection" protection system, which permanently monitors the temperature and pressure in the system. If the pressure or temperature approaches the impermissible values, it displays the appropriate warnings on the display, and in the event that the pressure or temperature limit values are exceeded, it switches off all heaters. In the third level of protection, it switches off the complete power supply of the device with the help of voltage triggers, which guarantees safety. TK-Profesional 120-240kW boilers can optionally be connected to a centralized monitoring and control system (BMS, SCADA,...), via an RS485 RTU module, using the ModBus protocol. The possibility of connecting up to 10 boilers in cascade mode with an additional cascade regulator.



kW 120÷240

m² ≤2400 floor heating
≤1600 radiator heating

za objekte u skladu sa/for buildings in accordance with
EN ISO 52016-1:2017

% 99

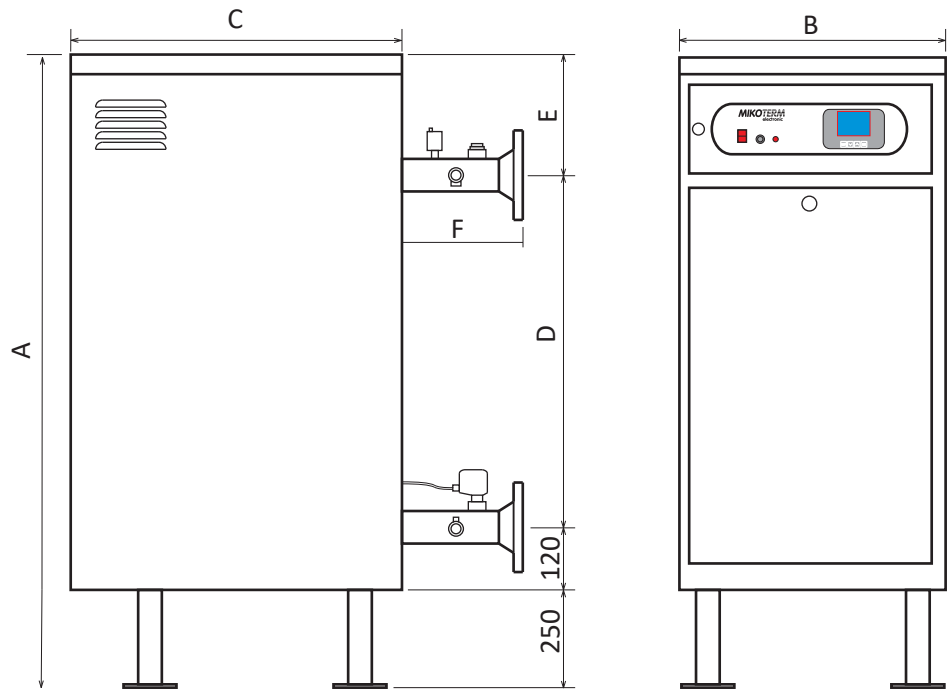
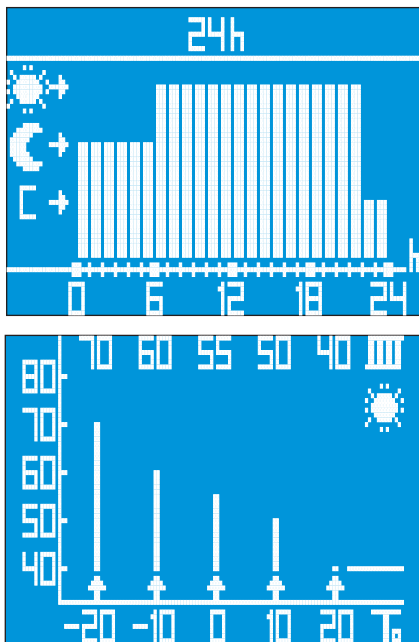
IP 20

KG 150÷270

Pregled prednosti / overview of advantage:

- > **Dugi vek eksploatacije, jednostavna montaža, zaštita od smrzavanja pomoću zasebnog programa / Long service life, easy installation, frost protection using a separate program.**
- > **Daljinski nadzor i upravljanje preko RS485 RTU modula, pomoću ModBus protokola / Remote monitoring and management via RS485 RTU module, using ModBus protocol.**
- > **Svi parametri sistema prikazani na korisničkom interfejsu. Jednostavno podešavanje temperature i snage sistema grejanja / All system parameters displayed on the user interface. Easy adjustment of temperature and power of the heating system.**
- > **Vodenje temperature kotla prema spoljnoj temperaturi - O.T.C. režim rada (opciono) / Boiler temperature control according to outdoor temperature - O.T.C. operating mode (optional).**
- > **Digitalno merenje temperature i precizna regulacija. Digitalni senzor pritiska vode u sistemu, daljinsko upravljanje preko sobnog termostata / Digital temperature measurement and precise control. Digital water pressure sensor in the system, remot control via room thermostat.**
- > **Zaštitni elementi: Sigurnosni temostat, Sigurnosni ventil, Indikator protoka-nije dozvoljen rad grejača bez protoka vode / Safety elements: Safety thermostat, Safety valve, Flow indicator-heater operation without water flow is not allowed.**
- > **Sigurnosni sklopovi za potpunu bezbednost - isključivanje napajanja na signal sigurnog termostata "Multistage protection" sistem zaštite sa 3 stepena zaštite / Safety circuits for complete safety - switching off the power supply to the signal of the safe thermostat "Multistage protection" protection system with 3 levels of protection.**

Postignite optimalan komfor na ekonomičan način uz O.T.C. režim rada / Achieve optimal comfort in an economical way with O.T.C. operating modes



Tehničke karakteristike/Technical characteristics

Model		TK-Pro.120W	TK-Pro.140W	TK-Pro.160kW	TK-Pro.180kW	TK-Pro.200kW	TK-Pro.240kW
grejne grupe	heating groups	6 × 20 kW	7 × 20 kW	8 × 20 kW	9 × 20 kW	10 × 20 kW	6 × 40 kW
osigurači grejača	heater fuses	6 × 3P C40A	7 × 3P C40A	8 × 3P C40A	9 × 3P C40A	10 × 3P C40A	12 × 3P C40A
maksimalna nazivna struja	maximum required current	3 × 174A	3 × 203A	3 × 232A	3 × 261A	3 × 290A	3 × 248A
potrebni glavni osigurači	main circuit breakers	3 × 200 A	3 × 250 A	3 × 250 A	3 × 300 A	3 × 315 A	3 × 400 A
potreban mrežni kabl	power cable	2 kabela Cu 3 × 50 mm ²	2 kabela Cu 3 × 70 mm ²	2 kabela Cu 3 × 70 mm ²	3 kabela Cu 3 × 50 mm ²	3 kabela Cu 3 × 70 mm ²	3 kabela Cu 3 × 70 mm ²
potreban zaštitni vod	protective platoon required	Cu 1 × 50 mm ²	Cu 1 × 50 mm ²	Cu 1 × 50 mm ²	Cu 1 × 70 mm ²	Cu 1 × 70 mm ²	Cu 1 × 70 mm ²
težina	weight	150kg	170kg	190g	220kg	240kg	270kg
zapremina vode u kotlu	volume of water in the boiler	130 l	130 l	170 l	170 l	170 l	170 l
priključak na hidrauličnu mrežu	hydraulic connection	DN65(2½");PN16	DN80(3");PN16	DN80(3");PN16	DN80(3");PN16	DN80(3");PN16	DN80(3");PN16
ventil sigurnosti	safety valve	2 × ½" 4 bar	2 × ½" 4 bar	2 × ¾" 4 bar	2 × ¾" 4 bar	2 × ¾" 4 bar	2 × ¾" 4 bar
dimenzija DxExF	dimension DxExF	810×330×210mm	765×365×270mm	765×365×270mm	765×365×270mm	765×365×270mm	765×365×270mm
preporučena grejna * površina-podno/radijat.	recommended heating* surface-floor/radiator	≤1200m ² f.h. ≤1000m ² r.h.	≤1400m ² f.h. ≤1150m ² r.h.	≤1600m ² f.h. ≤1300m ² r.h.	≤1800m ² f.h. ≤1450m ² r.h.	≤2000m ² f.h. ≤1600m ² r.h.	≤2400m ² f.h. ≤2000m ² r.h.
dimenzija AxBxC	dimension AxBxC	1500×600×750mm					
priključni napon	power supply	3N ~ 400V 50Hz					
indikator protoka min/max protok za rad grejača	flow switch min/max flow for enabled heating	3m ³ /h ÷ 9m ³ /h					
min i max radni pritisak	min and max pressure	0,4 bar ÷ 4 bar					
stepen zaštite	Ingress Protection rating	IP 20					
radna temperatura	working temperature	10 ÷ 90 °C					
sigurnosni termostat	security thermostat	95 °C					

*za objekte u skladu sa / for buildings in accordance with EN ISO 52016-1:2017, f.h.-podno grejanje/floor heating, r.h.-radijatorsko grejanje/radiator heating