

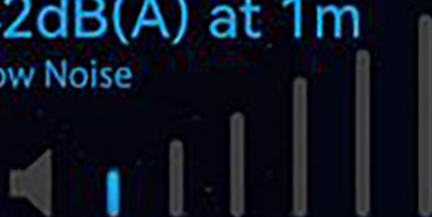
MIKOTERM
electronic

TOPLOTNE PUMPE
HEAT PUMPS





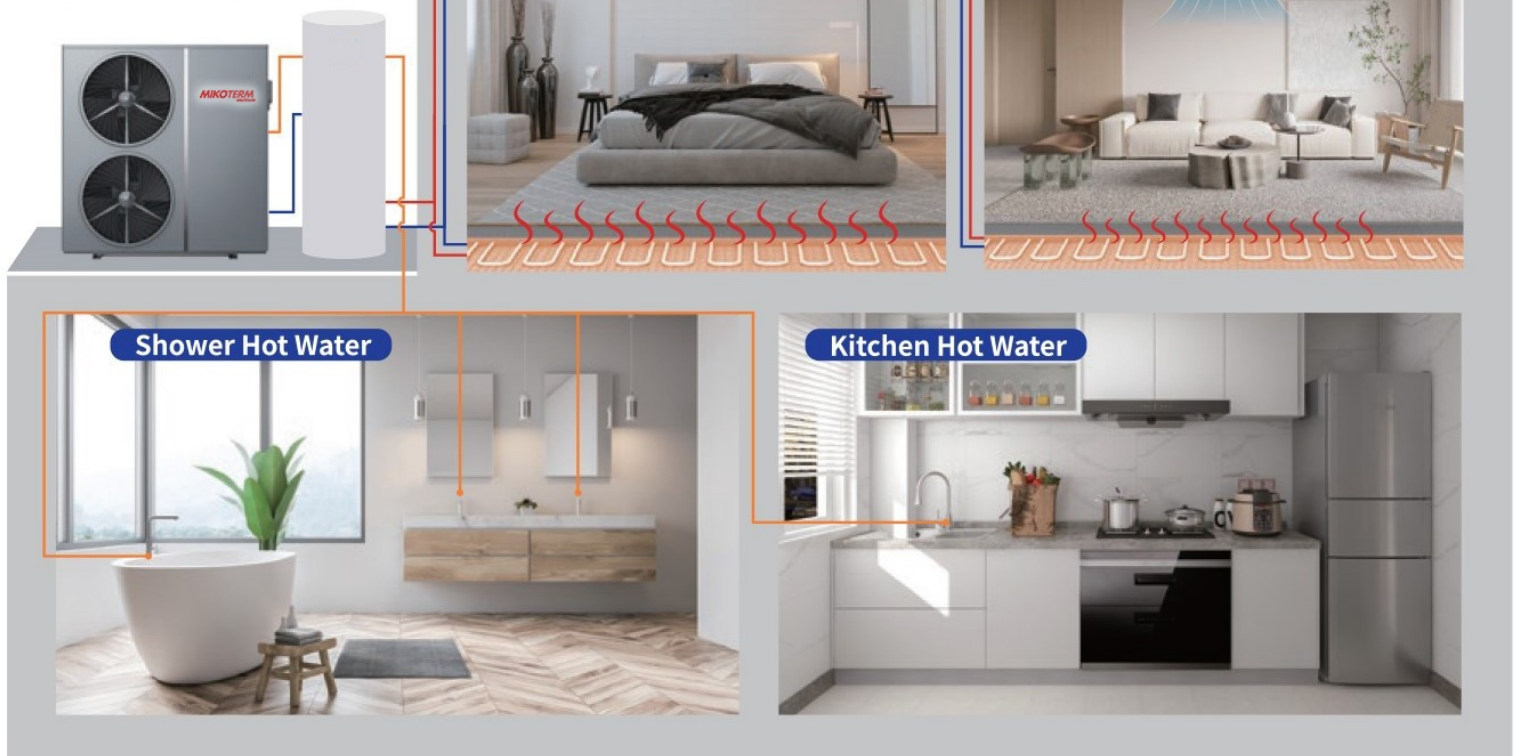
42dB(A) at 1m
Low Noise



Monobloc R32 EVI Heat Pump



**Heating & Cooling
Heat Pump
Residential
EVI inverter**



Obezbedite udobnost i komfor

Provide comfort

Jedinica / Unit
9kW, 13kW



monofazna / trofazna
single-phase / three-phase

Jedinica / Unit
16kW, 20kW, 26kW



trofazna
three-phase

EVI tehnologija **EVI technology**

EVI je skraćenica za "Enhanced Vapor Injection" i predstavlja tehnologiju koja se koristi na našim niskotemperaturnim toplotnim pumpama za postizanje većih performansi na nižim temperaturama do -25°C . Sa EVI tehnologijom i inverterskim kompresorom, Mikoterm toplotne pumpe mogu da rade stabilno i da ostvare visoku efikasnost.

EVI stands for "Enhanced Vapor Injection" and is a technology used on our low-temperature heat pumps to achieve higher performance at lower temperatures as down as -25°C . With EVI technology and inverter compressor, the Mikoterm heat pumps can work stably and achieve high efficiency.



Zagarantovana bezbednost **Guaranteed Safety**

Rashladno sredstvo R32 se smatra ekološki prihvatljivim, ali nepravilno rukovanje i skladištenje mogu dovesti do potencijalnih bezbednosnih problema. Sve ovo se može izbeći korišćenjem Mikoterm toplotne pumpe R32 DC inverter, jer su dizajnirane sa sigurnosnim merama koje garantuju bezbednost.

The refrigerant R32 is considered to be environmentally friendly, but improper handling and storage might lead to potential safety issues. All of this can be avoided by using the Mikoterm heat pump R32 DC inverter since they are designed with safety measures to guarantee security.

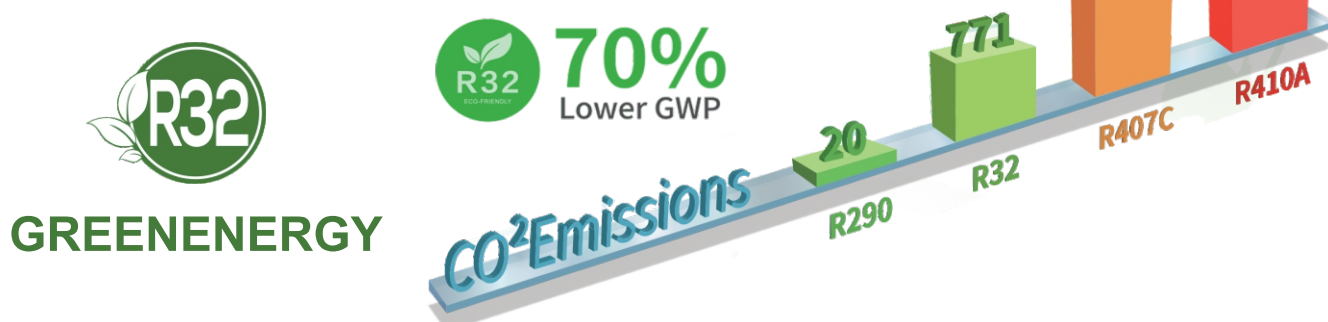


R32 sa niskim GWP

R32 Low GWP Refrigerant

U poređenju sa rashladnim sredstvima koja se danas široko koriste, kao što su R-410A i R407C, R32 ima mnogo manji potencijal globalnog zagrevanja, što utiče na očuvanje životne sredine.

Compared to the refrigerant widely used today, such as R-410A and R407C, R32 have much lower global warming potential, which affects the preservation of the environment.

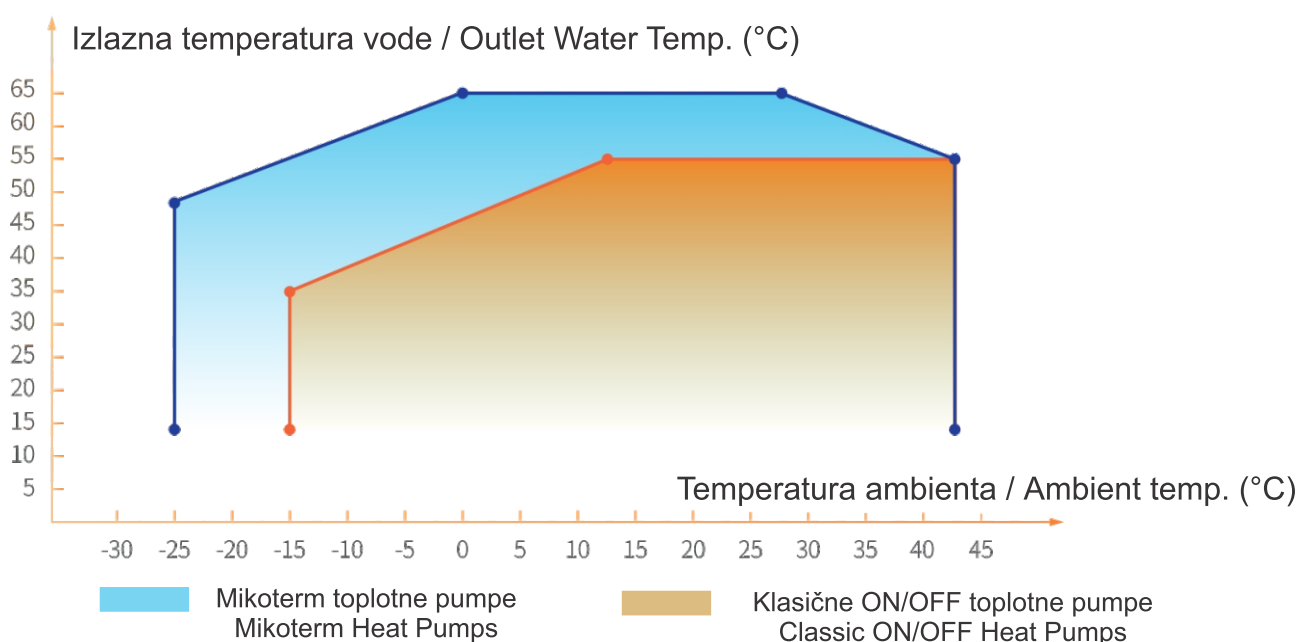


Širi opseg rada

Wider Running Range

Zahvaljujući inverteru i EVI tehnologiji, Mikoterm toplotne pumpe imaju širok raspon radnih temperatura za grejanje, hlađenje i toplu vodu za domaćinstvo. Može da dostigne visoku temperaturu vode u hladnom okruženju i stabilno radi na temperaturama okoline do -25°C.

Thanks to the inverter and EVI technology, the Mikoterm Heat Pumps features a wide operating temperature range to provide space heating, cooling, and domestic hot water. It can reach the high water temperature in a cold climate and work stably at ambient temperatures as low -25°C.

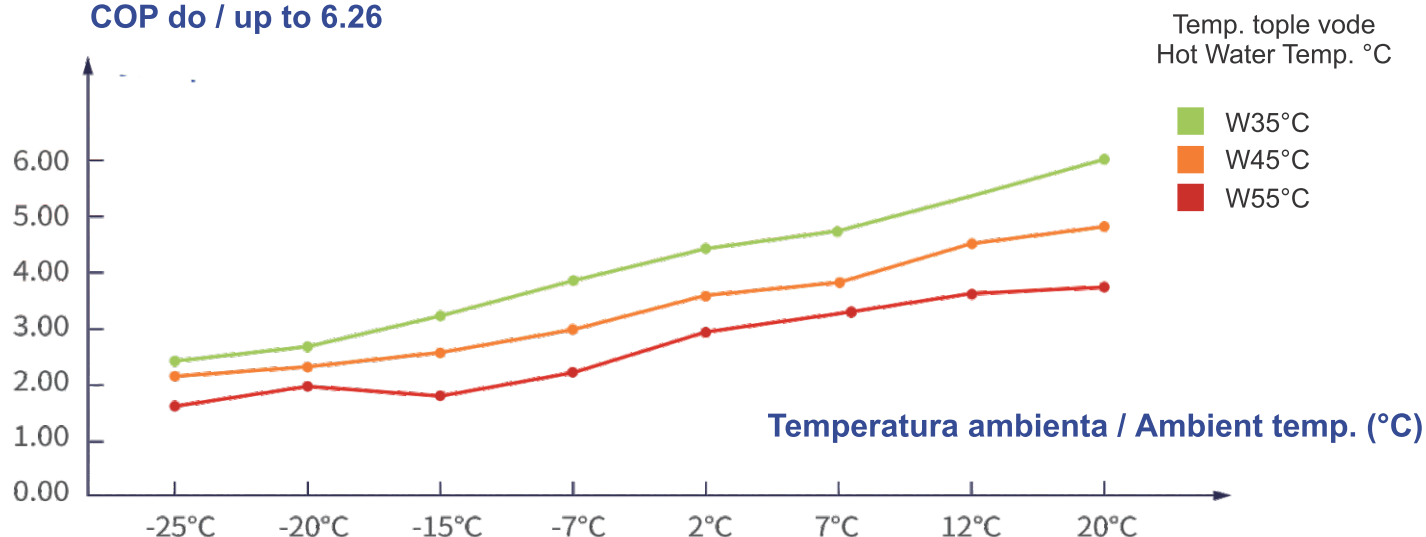


Povećana efikasnost Increased efficiency

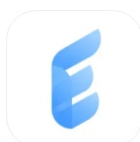
Sa maksimalnim COP-om od 6.26 i ErP ocenom A+++, Mikoterm EVI DC inverterska toplotna pumpa troši manje energije i stoga pomaže potrošačima da smanje račune za grejanje.

With a maximum COP of 6.26 and an ErP rating of A+++, the Mikoterm EVI DC inverter heat pump consumes less energy and therefore helps consumers reduce heating bills.

COP do / up to 6.26



IoT Funkcija IoT Function



Upravlajte svojom pumpom preko Eco-Home aplikacije
Control your pump via the Eco-Home app

Uz pomoć IoT funkcije, korisnici kontrolišu toplotnu pumpu bilo gde i bilo kada.

With IoT function, the users control the heat pump anywhere and anytime.



Kontrolišite sve jedinice preko e-home aplikacije

Controlling all units from E-home



Daljinsko uključivanje/isključivanje

Turn ON/OFF remotely



Izbor režima rada

Select working modes

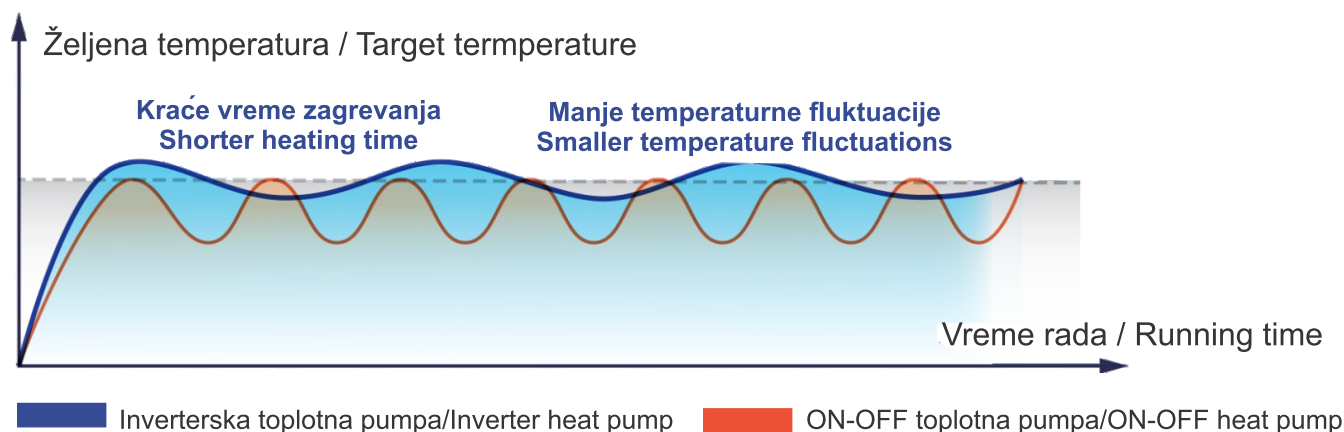


Potpuna DC inverter tehnologija

Full DC Inverter technology

Mikoterm toplotna pumpa kombinuje potpuni DC inverter sa dvostrukim rotacionim kompresorom sa inverterskim motorom bez četkica, tako da jedinica može automatski da cilja temperaturu, kako bi korisnicima pružila maksimalnu udobnost uz najniže troškove.

The Mikoterm heat pump combines a full DC inverter twin-rotary compressor with an inverter brushless motor, so the unit can target temperature automatically, to bring users maximum comfort at the lowest costs.

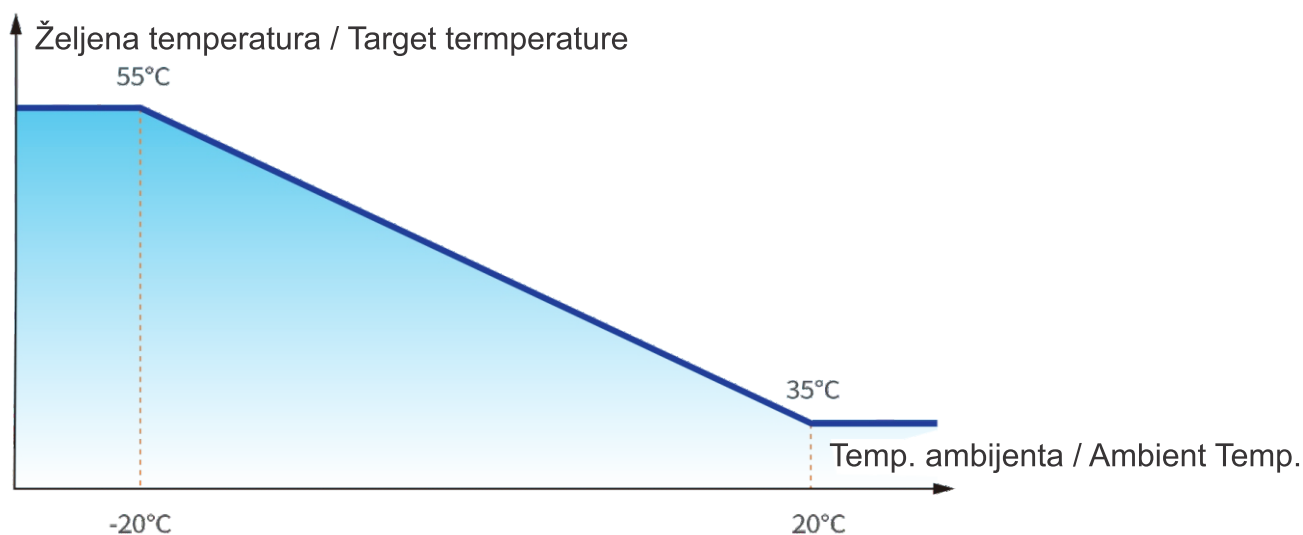


Intelligentno podešavanje temp. vode

Intelligent Water Temp. Adjustment

Jedinstvena logika upravljanja omogućava Mikoterm toplotnim pumpama da inteligentno podese temperaturu izlazne vode, u skladu sa temperaturom okoline u realnom vremenu. Zbog toga toplotna pumpa može da greje, hladi i obezbeđuje toplu vodu za domaćinstvo na konstantnoj temperaturi.

The unique control logic enables Mikoterm to adjust the outlet water temperature intelligently, according to the real-time ambient temperature. Therefore, the heat pump can deliver, cooling, and domestic hot water at a constant temperature.



LCD ekran u boji - na dodir

Color LCD Display - Touch

Mikoterm toplotna pumpa kombinuje potpuni DC inverter sa dvostrukim rotacionim kompresorom sa inverterskim motorom bez četkica, tako da jedinica može automatski da cilja temperaturu, kako bi korisnicima pružila maksimalnu udobnost uz najniže troškove.

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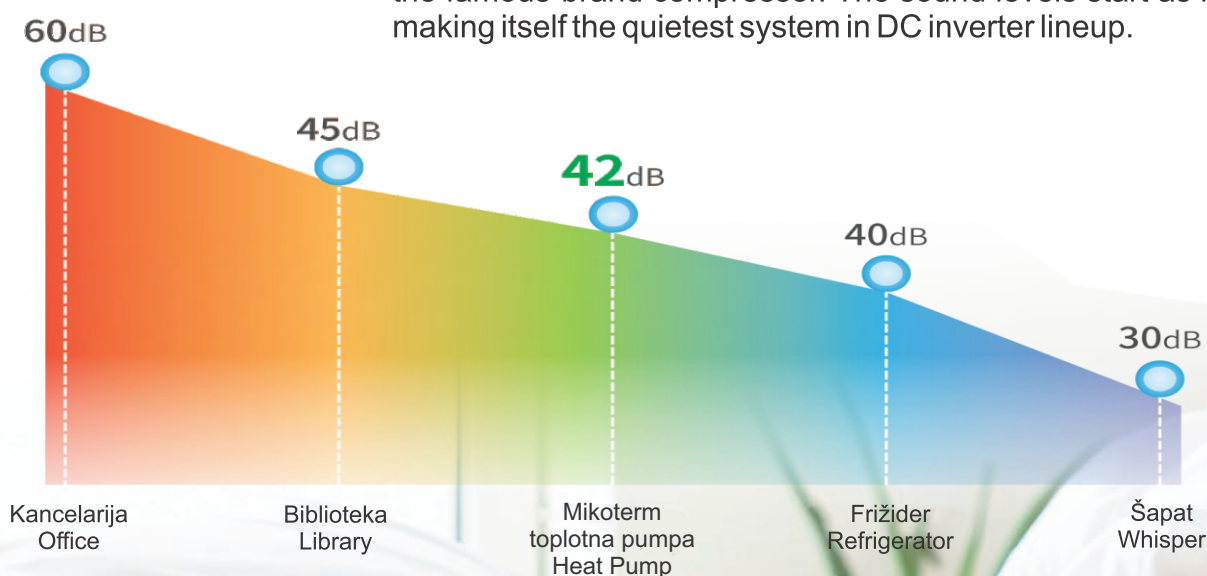


Nizak nivo buke

Low Noise

Pored DC invertera bez četkica, Mikoterm EVI toplotna pumpa koristi pojačane mere smanjenja zvuka kao što je dvostruka apsorpcija udara kompresora poznatog brenda. Nivoi zvuka počinju od 42 dB(A), što ga čini najtišim sistemom u liniji DC invertera.

In addition to brushless DC inverter, the Mikoterm EVI heat pump adopts reinforced sound reduction measures such as the dual shock absorption by the famous-brand compressor. The sound levels start as low as 42dB(A), making itself the quietest system in DC inverter lineup.



Karakteristike / Characteristics

MODEL	mHP09M/02 mHP09T/02	mHP13M/02 mHP13T/02	mHP16T/02	mHP20T/02	mHP26T/02
[Space Heating/Grejanje prostora] Ambient Temp./Temp. ambijenta (DB/WB): 7°C/6°C, Water Temp./Temp vode (Inlet-ulaz/Outlet-izlaz): 30°C/35°C					
Max Heating Capacity/Max kapacitet grejanja (kW)	2.32~9.13	4.32~13.15	4.81~15.88	6.36~20.49	8.54~26.08
Power Input /Ulazna snaga (kW)	0.38~2.04	0.71~2.90	0.81~3.91	1.08~4.89	1.46~6.26
COP/Koeficijent iskorišćenja	6.11~4.48	6.08~4.53	5.94~4.06	5.89~4.19	5.85~4.17
[Space Heating/Grejanje prostora] Ambient Temp./Temp. ambijenta (DB/WB): 7°C/6°C, Water Temp./Temp vode (Inlet-ulaz/Outlet-izlaz):50°C/55°C.					
Max Heating Capacity/Max kapacitet grejanja (kW)	1.81~8.35	3.63~11.91	3.90~15.99	3.41~18.8	4.67~25.9
Power Input /Ulazna snaga (kW)	0.43~2.92	0.87~4.26	1.03~5.92	0.89~7.13	1.04~9.62
COP/Koeficijent iskorišćenja	4.21~2.86	4.17~2.80	3.79~2.70	3.83~2.64	4.49~2.69
[Space Cooling/Hladjenje prostora] Ambient Temp./Temp. ambijenta (DB/WB): 35°C / -, Water Temp./Temp vode (Inlet-ulaz/Outlet-izlaz): 12°C/7°C.					
Max Heating Capacity/Max kapacitet grejanja (kW)	1.43~7.93	4.06~9.52	2.63~13.66	3.31~17.4	4.37~21.4
Power Input /Ulazna snaga (kW)	0.32~2.48	1.05~3.62	0.59~4.81	0.76~6.14	1.02~7.32
EER/Koeficijent energetske efikasnosti	4.47~3.20	3.87~2.63	4.46~2.84	4.36~2.83	4.28~2.92
[Hot Water/Topla voda] Ambient Temp./Temp. ambijenta (DB/WB): 20°C/15°C, Water Temp. from/Temp. vode od 15°C to/do 55°C					
Max Heating Capacity/Maks. kapacitet grejanja (kW)	10.31	12.86	16.81	23.97	26.98
Power Input /Ulazna snaga (kW)	2.43	3.01	3.94	5.65	6.47
COP/Koeficijent iskorišćenja	4.25	4.27	4.27	4.24	4.17
Electric Heater Rated Input/Snaga el. grejača (kW)	3		3/6/9(optional)		
Max. Power Input/Maksimalna snaga (kW)	6.1(3.1+3)	7.4(4.4+3)	9.6(6.6+3) 12.6(6.6+6) 15.6(6.6+9)	10.5(7.5+3) 13.5(7.5+6) 16.5(7.5+9)	14.5(11.5+3) 17.5(11.5+6) 20.5(11.5+9)
Max. Running Current/Maks. struja (A)	27.8(14.1+13.7)	33.7(20+13.7)	25.2(11.5+13.7) 20.6(11.5+9.1) 25.2(11.5+13.7)	26.4(12.7+13.7) 21.8(12.7+9.1) 26.4(12.7+13.7)	33.2(19.5+13.7) 28.6(19.5+9.1) 33.2(19.5+13.7)
Max. Outlet Water Temp./Maks. temp. vode na izlazu (°C)	60				
Operation Range/Radni opseg temperature (°C)	-25~43				
Power Supply/Napajanje (V/Ph/Hz)	220-240V~/50Hz		380~415V/3N~/ 50Hz		
Rated Water Flow/Nazivni protok vode (m³/h)	1.6	2.1	2.7	3.4	4.4
Compressor Brand/Marka kompresora	Panasonic		Mitsubishi		
Circulating Pump Brand/ Marka cirkulacione pumpe	Shinhoo				
Expansion Tank/Ekspanziona posuda (L)	2		5		
ErP Level/Stepen energetske efikasnosti (35°C)	A+++				
ErP Level/Stepen energetske efikasnosti (55°C)	A++				
Refrigerant Type/Tip gasa	R32				
Sound Pressure Level at 1m/Nivo zvučnog pritiska na 1m (dB(A))	43~54	43~55	44~55	45~58	46~59
Water Pipe Connection/Hidraulični priključak (inch)	G1 1/4"				
Cable cross section/Presek kabla	3x6mm²/5x1,5mm²	3x6mm²/5x2,5mm²	5x4mm²	5x4mm²	5x6mm²
Fuse/Osigurač	40(A)/25(A)	40(A)/25(A)	32(A)	32(A)	40(A)
Dimensions (L×W×H)/Dimenzije (D×Š×V) (mm)	1263 × 440 × 875		1263 × 440 × 1377		

☐ M Monofazna struja / Single-phase current
☐ T Trofazna struja / Three-phase current

VENTILATOR SA DC MOTOROM
Motor ventilatora bez četkica obezbeđuje visoku efikasnost i nizak nivo buke

FAN WITH A DC MOTOR
Brushless fan motor provides high efficiency and low noise level

SPECIJALNI SLOJ ZAŠTITE POVRŠINA
Omogućava brzo i pravilno odmrzavanje

HYDROPHILIC STEAMER SUR-FACE
Provides quick and correct defrosting

UNUTRAŠNJE SPIRALNO OREBRENJECEVI
Značajno povećava efikasnost grejanja

RIBBED STEAMER PIPES WITH A SPIRAL INNER STRUCTURE
Considerably increases heating efficiency

INTEGRISANI TERMINALNI BLOK
Obezbeđuje brzo povezivanje kablova za napajanje

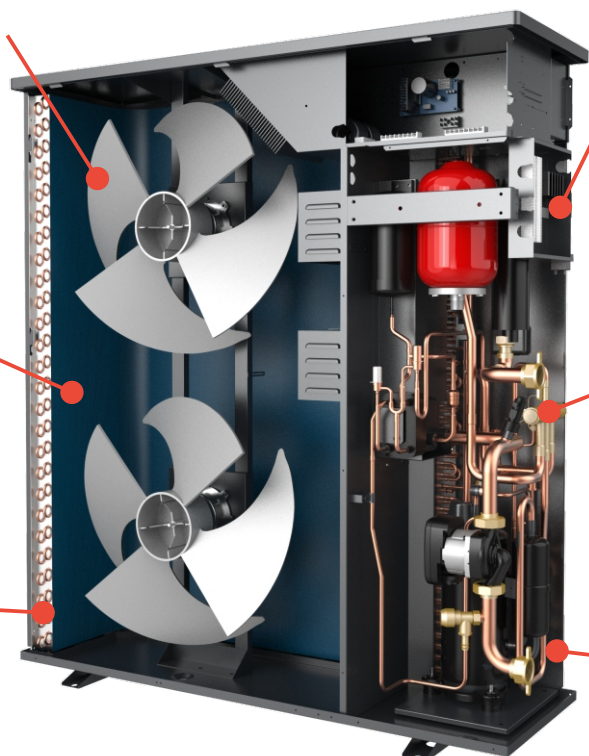
INTEGRATED TERMINAL BLOCK
Assures quick connection of supply cords

UGRAĐEN ELEKTRIČNI GREJAČ
Pružna podršku i zaštitu od ekstremno niskih temperatura

BUILT-IN ELECTRIC HEATER
Provides support and protection from extremely low temperatures

PAMUČNA ZAŠTITNA MREŽICA
Dodatno smanjenje buke pri radu

COTTON RITECTIVE MESH
Additional reduction of operation noise



Komponente / Components



Inverter kompresor
Inverter Compressor
Panasonic-Mitsubishi



DC inverter motor bez četkica
Brushless DC Inverter motor



Pametna Wi-Fi kontrola
Smart Wi-Fi Control



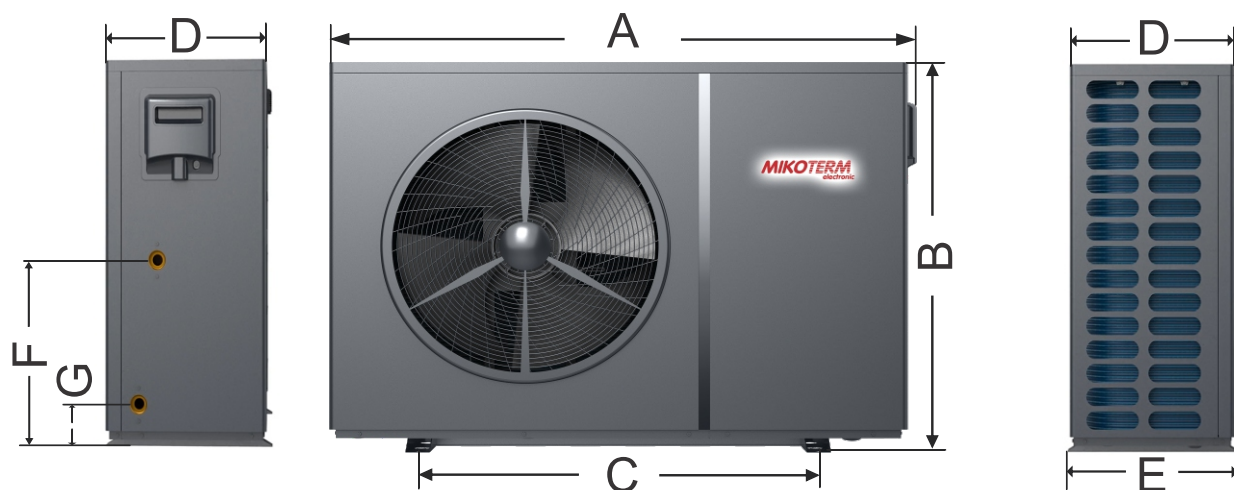
Jedinstvena zaštita ventilatora
Unique Fan Guard



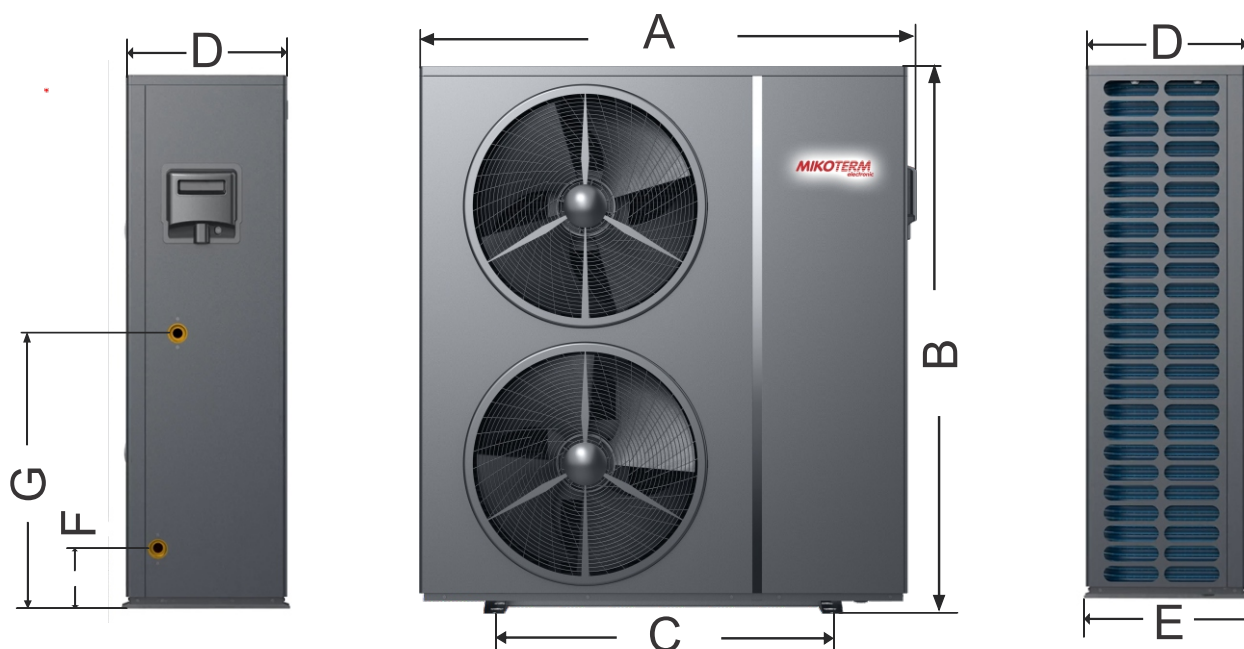
4-inčni ekran osetljiv na dodir
4-inch Touch Screen Display



Dizajn skrivenih vijaka
Hidden Screw Design



Model	A	B	C	D	E	F	G
mHP09M/02	1263	875	848	410	440	429	109
mHP09T/02							
mHP13M/02							
mHP13T/02							



Model	A	B	C	D	E	F	G
mHP16T/02	1263	1377	848	410	440	173	722
mHP20T/02							
mHP26T/02							



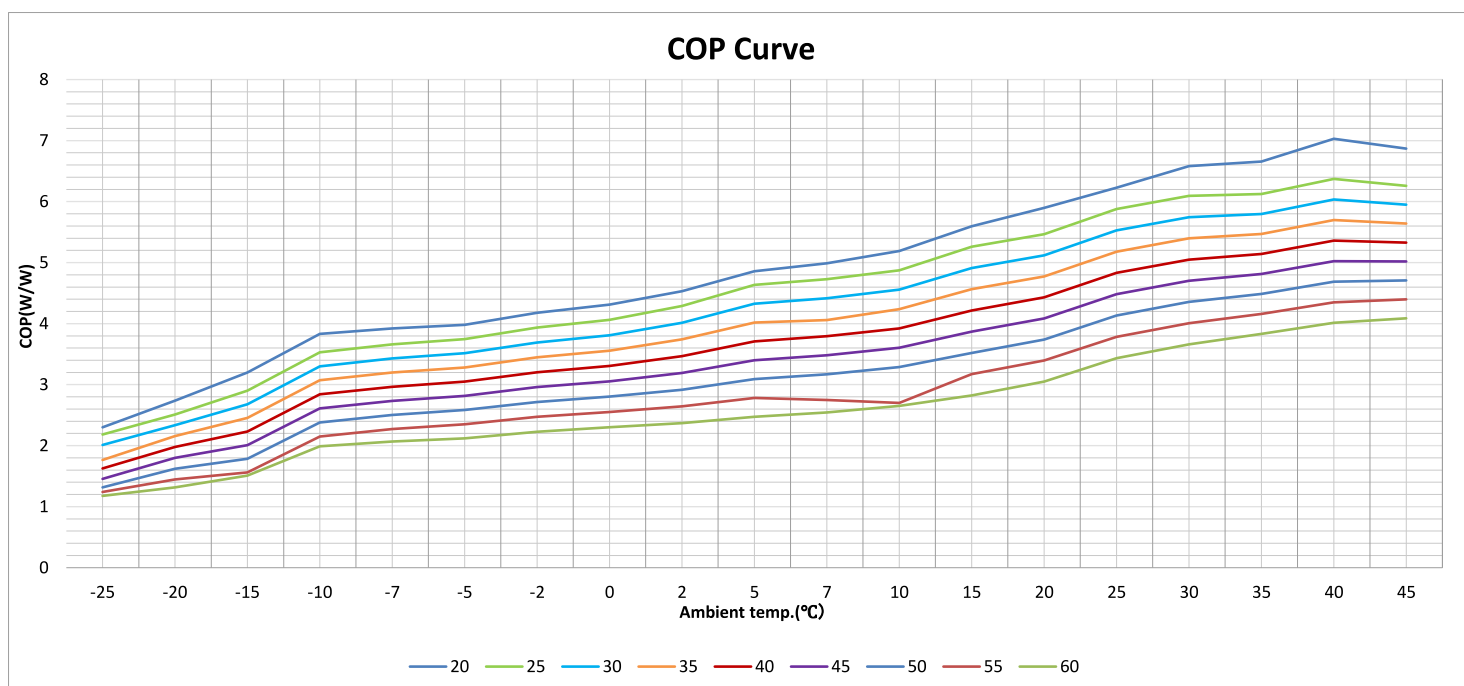
Pokretanje i rad na
veoma niskim temperaturama.

-25°C

Starting and working
at very low temperatures.

COP do / up to 6.26

Zadržavanje visokog COP-a na niskim temperaturama. Minimalna radna temperatura -25°C
Retention of high COP at low temperatures. Minimum working temperature -25°C



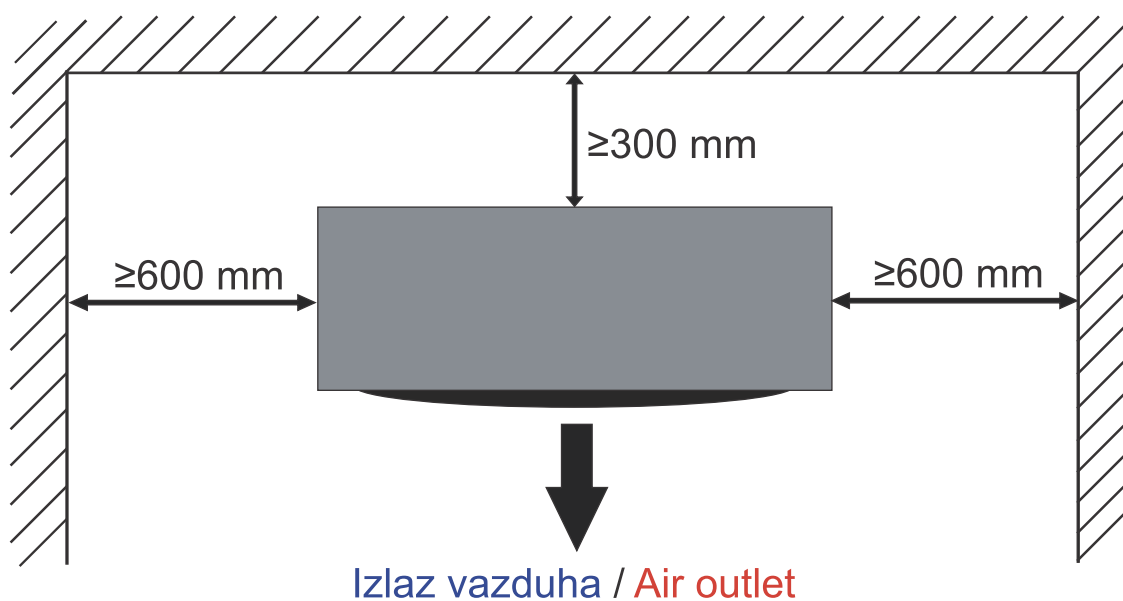
Primer / example:

Temp. ambienta/ambient temp. -7°C, temp. vode u sistemu / temp.water in system 35°C, COP 3,2

Temp. ambienta/ambient temp. 7°C, temp. vode u sistemu / temp.water in system 35°C, COP 4,1



Rastojanja za ugradnju / Distances for installation



*Smanjimo globalno zagrevanje
čuvajmo životnu sredinu*

*Reduce global warming
save the environment*



GREENENERGY

9÷26kW



Beleške / Notes

[illegible]

MIKOTERM
electronic

SCAN ME



Website



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office@mikoterm.com / prodaja@mikoterm.com

Proizvođač zadržava pravo svake promene nad proizvodima/
The manufacturer reserves the right to make any changes to the products



PREDUZEĆE MIKOTERM
DOO ALEKSANDROVO

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