



## Why TOYOTOMI Heat Pump?

The hydria+ heat pump is designed to offer maximum performance in extreme conditions and at the same time save electricity. The outlet water up to 65°C makes it ideal for installation in existing heating installations.



Outlet Water  
Temperature up  
to 65°C



Economizer



Golden Fin  
anticorrosion  
protection



R32 Refrigerant



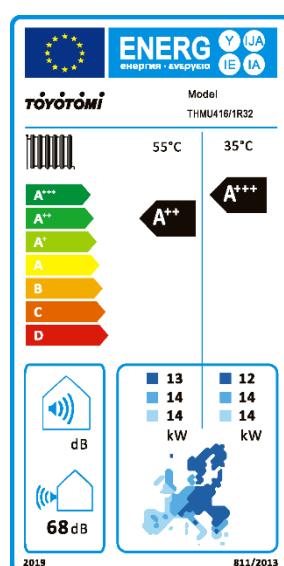
Long distance  
monitoring



Wi-Fi Standard  
Input current  
limitation

MODEL	THMU416/1R32
EAN BAR CODE OUTDOOR UNIT	5205022020981
COUNTRY OF ORIGIN	CHINA

Product Code	Product Description
20.22THMU416/1R32	THMU416/1R32 ATW MONO 16kW (1PH) TOYOTOMI



**Monobloc TOYOTOMI hydria<sup>+</sup> THMU416/1R32**

Air 7°C db - Water 30°C/35°C	Floor Heating	Heating Capacity	kW	15.70
		Input Power	kW	3.45
		COP <sup>1</sup>		4.55
Air 7°C db - Water 40°C/45°C	Fan Coils - Radiators	Heating Capacity	kW	16.20
		Input Power	kW	4.49
		COP <sup>1</sup>		3.61
Air 2°C db - Water 50°C/55°C		Heating Capacity	kW	13.35
		Input Power	kW	5.42
		COP <sup>1</sup>		2.46
Sound Pressure Lever <sup>2</sup>			dB(A)	59
Air 35°C db - Water 12°C/7°C	Fan Coils	Cooling Capacity	kW	13.80
		Input Power	kW	5.09
		EER <sup>1</sup>		2.71
Air 35°C db - Water 23°C/18°C	Floor Cooling	Cooling Capacity	kW	15.50
		Input Power	kW	3.60
		EER <sup>1</sup>		4.31
dB(A)			dB(A)	56
Minimum Water Content			L	5lit/kW
Nominal Water Flow Rate			L/min	46
Hydraulic Connection				25mm/1"
Electrical Characteristics			Ph/Hz/V	1/50/220-240
Maximum Operating Current (MOC)			A	30,00
Unit Dimensions (Length-Height-Depth)			mm	1206x878x445
Net Weight			kg	138
Factory Refrigerant Charge			kg	R32 – 2.20
GWP				675

**Seasonal Energy Efficiency TOYOTOMI hydria<sup>+</sup>**

Water outlet 35°C according EN14825 Average Climate	Pdesing (EN 14825) <sup>3</sup>	kW	14.00
	Seasonal heating Efficiency ( $\eta_s$ ) <sup>4</sup>	%	184
	Annual energy consumption	kWh	6072
	SCOP <sup>3</sup>		4.68
	Energy Class <sup>4</sup>		A+++
Water outlet 55°C according EN14825 Average Climate	Pdesing (EN 14825) <sup>3</sup>	kW	14.00
	Seasonal heating Efficiency ( $\eta_s$ ) <sup>4</sup>	%	144
	Annual energy consumption	kWh	7768
	SCOP <sup>3</sup>		3.71
	Energy Class <sup>4</sup>		A++

**Operation Limits TOYOTOMI hydria<sup>+</sup>**

	Ambient Temperatures	Water Temperatures
<b>Heating</b>	-25°C ~ +35°C	+20°C ~ +65°C
<b>Cooling</b>	-15°C ~ +48°C	+5°C ~ +25°C
<b>Hdw</b>	-25°C ~ +45°C	+25°C ~ +55°C



## Features

Energy class A+++  
 R32 eco -friendly refrigerant  
 Twin rotary 2-stage high efficiency compressor  
 Inverter single fan motor design  
 Golden fin anticorrosion protection  
 Smart defrost function  
 Danfoss plate heat exchanger with integrated antifreeze protection  
 Integrated inverter water pump  
 Increased efficiency with Economizer  
 Additional heating source control (oil or gas boilers)  
 Wide electrical operation range (1ph models 185V-264V & 3ph models 320V-460V)  
 4.3" High resolution touch screen  
 DHW Anti-legionella treatment  
 Wi-fi standard for ios/android  
 Air purge operation  
 Whether dependant operation (compensation)  
 Fast DHW  
 Floor Drying Operation  
 Holiday operation  
 Dry Contact Control  
 Input Current limitation  
 Modbus RTU interface  
 Quiet mode  
 Daily & weekly heating/cooling & domestic hot water schedule  
 Control board Anticorrosion protection  
 BMS connectivity  
 Self – diagnosis malfunctions  
 Wired controller  
 Lock function  
 Auto restart  
 Smooth Start Operation  
 PWM secondary water pump control  
 Additional room sensor for precise calculation of room temperature  
 Small dimensions & silent operation  
 Display of all operation parameters for troubleshooting

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|--|--|
|  | Energy Class A+++                          |
|  | Outlet Water temperature up to 65°C        |
|  | R32 eco – friendly Refrigerant             |
|  | Twin Rotary high efficiency compressor     |
|  | Inverter single fan motor design           |
|  | Golden Fin anticorrosion protection        |
|  | Smart Defrost Function                     |
|  | Antifreeze function                        |
|  | Integrated Inverter water pump             |
|  | Economizer                                 |
|  | Additional heating source control          |
|  | Wide electrical operation range            |
|  | 4.3" High resolution touch screen          |
|  | DHW Anti-legionella treatment              |
|  | Wi-Fi Standard for IOS/Android             |
|  | Air purge operation                        |
|  | Weather dependent operation (compensation) |
|  | Fast DHW operation                         |
|  | Floor Drying Operation                     |
|  | Holiday operation                          |
|  | Dry Contact Control                        |
|  | Input current limitation                   |
|  | Modbus RTU                                 |
|  | Quiet operation                            |
|  | Daily & weekly operation schedule          |
|  | Control board anticorrosion protection     |
|  | BMS Connectivity                           |
|  | Self – diagnosis malfunctions              |
|  | Wired Controller                           |
|  | Lock function                              |
|  | Auto restart                               |
|  | Smooth start operation                     |
|  | PWM secondary water pump control           |