

## 4 Seasons Full Performance

## **HEATING & COOLING & HOT WATER**

HEAT PUMPS







## For a cleaner World

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## WHAT IS HEAT PUMP?

## 5 Ws and H with TommaTech

### WHAT IS A HEAT PUMP?

TommaTech heat pumps transfer the energy it draws from the air, which is considered an infinite resource, indoor. In this way, it meets heating, cooling and hot water needs without harming the environment.

### HOW DOES A HEAT PUMP WORK?

The heat pump basically works with the carnot cycle prozess. The basic heating-cooling cycle is based on the refrigerant in the system storing energy during state change.

#### WHY HEAT PUMP?

With a heat pump, you can meet high amounts of energy with applications such as heating, cooling and hot water with a single unit at low costs. In addition, it is environmentally friendly as no fossil fuel is used in the heat pump.

#### WHERE ARE HEAT PUMPS USED?

We can use the heat pumps in our apartments, workplaces, detached houses and pools with appropriate calculations.

#### WHEN TO USE?

You can use our heat pumps for 4 seasons with peace of mind. You can heat the cold days of winter with TommaTech heat pumps and refresh the hot days of summer with our heat pumps.

#### WHO USES IT?

Anyone who wants uninterrupted comfort in their home and pool can use our heat pumps.



35.30kWh Monthly Yield 35.30kWh













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## HEAT PUMP MAJOR COMPONENTS



#### Aluminum Fin Evaporator

It is the part of the refrigeration cycle where the refrigerant absorbs heat and changes from liquid to gaseous.

#### **DC Fan Motor**

The brushless DC fan motor is equipped for higher efficiency and low noise operation.

#### Plate Heat Exchanger

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It allows R32 fluid and water to transfer heat without the fluids coming into contact with each other with the help of plates.

#### 4 4

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4-Way Valve

Makes cooling mode, heating mode and defrosting (defrost) operations.

#### DC Inverter Rotary Compressor

It ensures that the temperature and pressure of the fluid in the compressor is increased by circular movements of the gaseous fluid.

#### 6 Ele

#### **Electronic Expansion Valve**

It controls the flow and regulates the pressure of the refrigerant with smart control mentality.





## **BALANCED SOLUTION FOR REFRIGERANTS R-32**

R-32 offers an eco-friendly solution to the systems with its low global warming potential and no damage to ozone layer. R-32, which emerges with a high heat transfer coefficient compared to conventional gases, makes it possible to reduce the amount of refrigerant. With less pressure losses, thinner piping is possible for the same capacity. With this data, R-32 gas systems;

- Do not damage the ozone layer (ODP=0)
- Have high energy efficiency. This allows for more compact designs.
- Provides high efficiency in use with high energy efficiency and low electricity consumption.
- Operates quieter, which does not affect our comfort zone.
- Are easy to recycle and reuse as it is a single component refrigerant.
- Are chemically and thermally stable. This increases the range of use in system designs.

## **ECO-FRIENDLY R-290**

Known for its very low greenhouse effect and not damaging the ozone layer, R-290 is a very eco-friendly refrigerant by minimizing our carbon footprint. R-290 gas, which has a very high compressor outlet temperature, is an excellent alternative to systems running on fossil fuels. In addition, R-290 gas systems, known for their low operating noise, operate in library silence.





EOPLE

## **BENEFITS OF HEAT PUMPS**

- Heat pumps can operate integrated with solar panels. In this way, it is possible to reach the zero-carbon footprint target.
- Heat pumps can increase hot water efficiency by operating together with solar collectors.
- Conventional fossil fuel heating systems (coal, oil, natural gas) damage the atmosphere due to their high carbon dioxide emissions. Heat pumps are the biggest alternative to these fuels.
- Heat pumps provide cooling as well as heating and hot water.
- Fossil fuels are only used in heating systems because they are formed as a result of the combustion of fuel by chemical reaction. But as heat pumps operate with mechanical compression refrigeration cycle logic, they can do both heating and cooling in a reversible cycle.
- Chemical wastes such as dust, smoke, odor caused by the burning of fossil fuels do not occur in the heat pump.
- Heat pumps are much more efficient and safer than electric heaters.
- While the COP value of the standard electric heater is 1, the COP values of heat pumps can reach up to 6.15.
- Heat Pumps are devices that transfer the energy taken from the air, which is seen as an infinite energy source depending on the season, to indoor with the help of electrical energy. Each 1kW of energy drawn from the network provides the need for heating up to 6kW with the help of refrigerant. The refrigerant used here provides the remaining energy by absorbing the latent energy (heat) in the air by state change in a closed cycle.

The most important investment is investment in **NATURE AND PEOP** 



## **EVI TECHNOLOGY**

The TommaTech heat pump can operate with high efficiency even in low temperature weather conditions thanks to its enhanced vapor injection (EVI) technology. EVI Technology increases efficiency by 27%-30% compared to other technologies. The evaporator saturation temperature is reduced thanks to the economizer and a second expansion valve placed in the system. The increased temperature difference between the outdoor and the refrigerant allows it to extract more heat from the ambient air at lower climatic conditions.



Can operate up to -25° outside.





Heating & Cooling & Hot Water Monoblock Heat Pump



## RESIDENTIAL

## **R32 EVI DC FULL INVERTER**

## Heating & Cooling & Hot Water Monoblock Heat Pump



### **ENVIRONMENTAL GAS**

Compared to refrigerants such as R-410A and R407C, which are widely used today, R32 has much lower global warming potential, helping to accelerate their popularity in the heat pump industry.



#### **HIGH EFFICIENCY**

With a maximum COP of 6,15 and an ErP rating of A++++ TommaTech Series EVI DC inverter heat pump operates more efficiently. Consumes less energy and therefore reduces electricity bills for home heating/cooling/hot water.



#### WIDER OPERATING RANGE

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



#### WI-FI SMART CONTROL

With the Wi-Fi function, users can remotely control the heat pump anywhere and anytime.



#### FULL DC INVERTER TECHNOLOGY

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



#### TOUCHSCREEN

The 4-inch color LCD display can be mounted on the wall. It is very user-friendly with features such as 0,5°C precise temperature control, water temperature curve display, easy timing, one-button mute, one-button faster heating, etc.



#### SMART WATER TEMPERATURE ADJUSTMENT

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



#### LOW SOUND LEVEL

In addition to brushless DC inverter fans, the TommaTech Series EVI heat pump starts with sound levels as low as 42dB(A), the TommaTech DC inverter series heat pump operates quieter than the environmental noise at the library.



#### **EVI TECHNOLOGY**

EVI stands for "Enhanced Vapor Injection" and is a technology used to achieve higher performance at temperatures as low as -25°C. With EVI technology and an inverter compressor, the TommaTech Series operates stably and maintains high efficiency.



#### **ALL NEEDS IN ONE DEVICE**

With the above features, TommaTech Series Heat Pumps are used for heating/cooling/hot water needs.



**SAFETY WARRANTY** 2-year system and heat pump product warranty.



## **SMART GRID**

Can operate integrated with PV panel (SPP).





## RESIDENTIAL

## **R32 EVI DC FULL INVERTER**

Heating & Cooling & Hot Water Monoblock Heat Pump





## **Product Package Contents**

- Control Panel
- User manual
- Rubber feet
- System outlet water temperature sensor
- Underfloor heating inlet water temperature sensor
- Hot water tank temperature sensor
- Solar water temperature sensor

- **R32 MF / 16kW**
- R32 TF / 16kW R32 - TF / 20kW R32 - TF / 26kW

## **R32 EVI DC FULL INVERTER**

This device, which has a monoblock design, does not have an internal unit. For this reason, it is easy to install and does not take up space in the house.

- Residential heat pumps are classified into two types: 13 kW and 16 kW single-phase and 16 kW, 20 kW and 26 kW three-phase.
- Heating, cooling and hot water needs can be met.
- Full DC Inverter technology.
- 3- / 1-phase options.
- Has an energy efficiency value of A+++ ErP rating according to the temperature values.
- The heating temperature is in the range of -25°C ~ +43°C.
- EVI stands for "enhanced vapor injection" and is a technology used to get higher performance at temperatures as low as -25°C.
- New generation eco-friendly R32 refrigerant is used.
- Mitsubishi compressor is used.
- LCD touch screen provides ease of control.
- Remote control can be provided with Wi-Fi control.
- Can work integrated with PV panel (SPP).
- Low noise level (42 dB).



## Residential

## R32 EVI DC Full Inverter Heating & Cooling & Hot Water Monoblock Heat Pump



**R**32 - MF / 13kW



R32 - MF / 16kW R32 - TF / 16kW R32 - TF / 20kW R32 - TF / 26kW

Model	HP-EVI-TT-013-MF	HP-EVI-TT-016-MF	HP-EVI-TT-0016-TF	HP-EVI-TT-0020-TF	HP-EVI-TT-0026-TF
Power Supply (V/Ph/Hz)	220-240V~/50Hz		380-415V/3N~/ 50Hz		
Refrigerant Type	R	32	R32		
[Space Heati ng] Ambient Temperature	(DB/WB): 7°C/6°C, Water	r Temperature (Inlet/Outle	t): 30°C/35°C.	-	
Max. Heati ng Capacity	4.32~13.15	4.81~15.88	4.81~15.88	6.36~20.44	8.54~25.93
Power Input (kW)	0.71~2.90	0.81~3.91	0.81~3.91	1.08~4.61	1.46~6.08
COP	6.08~4.53	5.94~4.06	5.94~4.06	5.87~4.33	5.82~4.26
[Space Heati ng] Ambient Temperature	(DB/WB): 7°C/6°C, Water	r Temperature (Inlet/Outle	t): 50°C/55°C.		
Max. Heati ng Capacity	3.63~11.91	3.90~15.99	3.90~15.99	3.41~17.69	4.67~22.27
Power Input (kW)	0.87~4.26	1.03~5.92	1.03~5.92	0.89~7.04	1.04~8.66
COP	4.17~2.80	3.79~2.70	3.79~2.70	4.32~2.51	4.28~2.57
[Space Heati ng] Ambient Temperature	(DB/WB): 35°C/ -, Water	Temperature (Inlet/Outlet)	: 12°C/7°C.		
Max. Cooling Capacity (kW)	4.06~9.52	2.63~13.66	2.63~13.66	3.31~16.82	4.37~21.85
Power Input (kW)	1.05~3.62	0.59~4.81	0.59~4.81	0.76~6.44	1.02~8.40
EER	3.87~2.63	4.46~2.84	4.46~2.84	4.32~2.61	4.25~2.60
[Hot Water] Ambient Temperature (DB/	WB): 20°C/15°C, Water Te	emperature 15°C to 55°C			
Max. Heati ng Capacity	12.86	16.81	16.81	23.95	31.07
Power Input (kW)	3.01	3.94	3.94	5.05	6.52
COP	4.27	4.27	4.27	4.74	4.76
ErP Level (35°C)	A+++ A+++				
ErP Level (55°C)	A++		A++		
Electric Heater Nominal Input (kW)	:	3	3		
Max. Power Input (kW)	7.4(4.4+3)	9.6(6.6+3)	9.6(6.6+3)	10.2(7.2+3)	12.7(9.7+3)
Max. Operati ng Current (A)	33.7(20+13.7)	42.4(28.7+13.7)	42.4(28.7+13.7)	26(12.3+13.7)	30.4(16.7+13.7)
Circulati on Pump	Built-in		Built-in		
Fan Motor Type	DC motor		DC motor		
Water Side Heat Exchanger	Plate Heat	Heat Exchanger Plate Heat Exchanger			
Air Side Heat Exchanger	Fin Heat Exchanger Fin Heat Exchanger				
Expansion Tank Volume (L)	2	5	5		
Screen	4 inch Color Touch Screen		4 inch Color Touch Screen		
Wi-Fi Functi on	Yes		Yes		
Nominal Water Flow Rate (m³/h)	2.1	2.7	2.7	3.4	4.4
Water Pressure Drop (kPa)	22	24	24	28	31
Water Pipe Connecti on	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"
Sound Pressure Level at 1m dB (A)	43~55	44~55	44~55	45~58	46~59
Operati ng Range (°C)	-25~43 °C		-25~43 °C		
Max. Outlet Water Temperature (°C)	60 60				
Waterproof Class	IPX4 IPX4		IPX4		
Electric Shock Resistance		I	I		
Net Dimensions (W/D/H) (mm)	1263 x 440 x 875		1263 x 44	40 x 1377	





POOL TYPE R32 DC FULL INVERTER Heating & Cooling Monoblock Heat Pump

TOMMATECH



## POOL TYPE R32 DC FULL INVERTER

Heating & Cooling Monoblock Heat Pump



#### HIGH EFFICIENCY

Thanks to the full DC in verter technology, DC compressor and DC fan motor, the TommaTech Series has a much higher effi ciency than ON/OFF heat pumps, thus contributi ng to further energy bill savings for you.



#### SOFT START

The TommaTech Series provides a completely smooth transiti on from 0A to 28A (maximum) during the start-up phase. Normal ON/OFF heat pumps start at a current density three ti mes higher, which greatly aff ects the ability to draw electrical energy from the grid.



#### FAST HEATING

Using brushless DC f an mo tors and in verter compressors, the TommaTech Series can intelligently adjust the speed of the compressors and fan motors according to air and water temperatures, allowing the heat pumps to heat your pool quickly.



#### **QUIET OPERATION**

Thanks to its careful and noise-reducing design, TommaTech Series Pool Heat Pumps can operate as quiet as 35dB(A) in silent mode.



#### SMART WATER TEMPERATURE ADJUSTMENT

The unique control logic allows the TommaTech Series to adjust the outlet water temperature in real ti me according to the pool water temperature.



#### **ECO-FRIENDLY**

With R32, it provides excellent heating performance especially at low ambient temperature while reducing carbon emissions with less fl uid.



**SAFETY WARRANTY** 2-year system and heat pump product warranty.



#### WIDER OPERATING RANGE

TommaTech pool heat pumps are capable of full performance operation in the air temperature range of  $-10^{\circ}$ C to  $+43^{\circ}$ C.

## **4 Seasons** Full Performance



## POOL TYPE R32 DC FULL INVERTER

Heating & Cooling Monoblock Heat Pump





## **Product Package Contents**

- User manual
- Rubber feet
- Drain pipe
- Apparatus for the drain pipe
- Connection fittings

- 📕 R32 POOL MF 21kW
- R32 POOL TF 28kW

## **R32 DC FULL INVERTER**

This device, which has a monoblock design, does not have an internal unit. For this reason, it is easy to install and takes up little space thanks to its compact design.

- Pool type heat pumps are classified into two types: 21 kW single-phase and 28 kW three-phase.
- Heating and cooling needs of pools can be met.
- Full DC Inverter technology.
- 3- / 1-phase options
- Has an energy efficiency value of A+++ ErP rating according to the temperature values.
- The heating temperature is in the range of -10°C ~ +43°C.
- With soft start, it affects the electrical energy draw from the grid by drawing low amperes.
- New generation eco-friendly R32 refrigerant is used.
- Mitsubishi compressor is used.
- LCD display provides ease of control.
- Remote control can be provided with Wi-Fi control.
- Low noise level (35 dB).





## Pool Type

## R32 DC Inverter Heating & Cooling Monoblock Heat Pump



**R32 - POOL - MF 21kW** 

R32 - POOL - TF 28kW

Model		HP-POOL-TT-021-MF	HP-POOL-TT-028-TF	
Ambient Tem	perature: (DB/WB) 27°C/2	4.3°C; Water Inlet/Outlet Temperature:26°C/28°C.		
Heati ng Cap	acity (kW)	4.72~21.2	4.95~28.1	
Power Input (	kW)	0.33~3.59	0.35~5.1	
COP		14.3~5.91	14~5.51	
Boost Mode	Heati ng Capacity (kW)	21.2	28.1	
	COP	5.91	6.15	
Smart Mode	Heati ng Capacity (kW)	17	22.61	
	COP	7.85	7.42	
O'least Marala	Heati ng Capacity (kW)	10.2	13.91	
Silent Mode	COP	10.1	11.8	
Ambient Tem	perature: (DB/WB) 15°C/1	2°C; Water Inlet Temperature: 26°C.		
Heati ng Capacity (kW)		3.5~14.2	4.05~18.5	
Power Input (	kW)	0.47~2.88	0.537~3.737	
COP		7.45~4.93	7.54~4.95	
Boost Mode	Heati ng Capacity (kW)	14.2	18.5	
DOOST MODE	COP	4.93	4.95	
Smart Mode	Heati ng Capacity (kW)	11.2	14.63	
Smartwoode	COP	5.8	5.72	
Silent Mode	Heati ng Capacity (kW)	7.5	9.31	
	COP	6.5	6.51	
Power Supply (V/Ph/Hz)		220-240V / 1Ph / 50Hz	380-415V / 3Ph / 50Hz	
Max. Power I	Max. Power Input (kW) 4.1		5.4	
Max. Current	nt (A) 18.8		10.2	
Operating Temperature Range (°C)		-10~+43 °C		
Heating Temperature Range (°C)		+15~+40 °C		
Refrigerant Type		R32		
Compressor	Brand	Mitsubishi		
Sound Pressure at 1m dB(A)		35~52	36~55	
Water Flow (m3/h)		9.1	12	
Water Pressure Drop (kPa)		32	38	
Net Dimensions ( L*W*H)(mm)		1130 x 445 x 775		
Net Weight (kg)		75 90		
Water Pipe Connecti on (mm)		50		

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## POOL TYPE R32 DC FULL INVERTER Heating & Cooling Monoblock Heat Pump

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## POOL TYPE R32 DC FULL INVERTER

Heating & Cooling Monoblock Heat Pump



#### HIGH EFFICIENCY

Thanks to the full DC in verter technology, DC compressor and DC fan motor, the TommaTech Series has a much higher effi ciency than ON/OFF heat pumps, thus contributi ng to further energy bill savings for you.



#### SOFT START

The TommaTech Series provides a completely smooth transiti on from 0A to 28A (maximum) during the start-up phase. Normal ON/OFF heat pumps start at a current density three ti mes higher, which greatly aff ects the ability to draw electrical energy from the grid.



#### FAST HEATING

Using brushless DC f an mo tors and in verter compressors, the TommaTech Series can intelligently adjust the speed of the compressors and fan motors according to air and water temperatures, allowing the heat pumps to heat your pool quickly.



#### **QUIET OPERATION**

Thanks to its careful and noise-reducing design, TommaTech Series Pool Heat Pumps can operate as quiet as 35dB(A) in silent mode.



#### SMART WATER TEMPERATURE ADJUSTMENT

The unique control logic allows the TommaTech Series to adjust the outlet water temperature in real ti me according to the pool water temperature.



#### **ECO-FRIENDLY**

With R32, it provides excellent heating performance especially at low ambient temperature while reducing carbon emissions with less fl uid.



**SAFETY WARRANTY** 2-year system and heat pump product warranty.



#### WIDER OPERATING RANGE

TommaTech pool heat pumps are capable of full performance operation in the air temperature range of  $-10^{\circ}$ C to  $+43^{\circ}$ C.

## **4 Seasons** Full Performance



## POOL TYPE R32 DC FULL INVERTER

Heating & Cooling Monoblock Heat Pump





## **Product Package Contents**

- User manual
- Rubber feet
- Drain pipe
- Apparatus for the drain pipe
- Connection fittings

- **R32 POOL MF 20kW**
- **R32 POOL MF 28kW**

## **R32 DC FULL INVERTER**

This device, which has a monoblock design, does not have an internal unit. For this reason, it is easy to install and takes up little space thanks to its compact design.

- Pool type heat pumps are classified into two types: 20 kW single-phase and 28 kW three-phase.
- Heating and cooling needs of pools can be met.
- Full DC Inverter technology.
- 1-phase option
- Has an energy efficiency value of A+++ ErP rating according to the temperature values.
- The heating temperature is in the range of -7°C ~ +43°C.
- With soft start, it affects the electrical energy draw from the grid by drawing low amperes.
- New generation eco-friendly R32 refrigerant is used.
- Mitsubishi compressor is used.
- LCD display provides ease of control.
- Remote control can be provided with Wi-Fi control.
- Low noise level (43 dB).





## Pool Type

## R32 DC Full Inverter Heating & Cooling Monoblock Heat Pump

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R32 - POOL - MF 20kW
R32 - POOL - MF 28kW

Model	HP-POOL-TT-MF-20-PW	HP-POOL-TT-MF-28-PW			
Recommended pool volume (m3)	55~100	60~120			
Operating air temperature (°C)	-7 ~43				
Operating water temperature (°C) *heating	9 ~40				
Operating water temperature (°C) *cooling	9~35				
Performance Conditions: Air 27°C, Water 26°C, Humidity	y 80%				
Heating capacity (kW)	20.00~4.00	28.0~5.6			
Heating Capacity (Btu)	68000~13600	95500~19100			
Power consumption (kW)	3.33~0.27	4.75~0.37			
COP	6.0~14.8	6.0~15.0			
COP at 50% capacity	11,00	11,00			
Performance Conditions: Air 15°C, Water 26°C, Humidity 70%					
Heating capacity (kW)	15.6~2.85	21.8~4.36			
Heating Capacity (Btu)	53040~9690	74380~14880			
Power consumption (kW)	3.25~0.40	4.54~0.62			
СОР	4.8~7.0	4.8~7.0			
COP at 50% capacity	6,50	6,50			
Performance Conditions: Air 35°C, Water 28°C, Humidity	y 80%				
Cooling capacity (kW)	10,1	13,8			
Sound pressure at 1m dB(A)	43~53	45~56			
Sound pressure at 50% capacity at 1m dB(A)	44	48			
Sound pressure at 10m dB(A)	24~31	26~34			
Heat exchanger	Spiral titanium heat exchanger				
Power source	230V/1 Ph/50Hz				
Refrigerant	R32				
Water Connection (mm)	Ø50				
Nominal input power in air at 15°C (A)	14.3~1.8 20.8~2.8				
Recommended water flow (m <sup>3</sup> /h)	8~10 10~14				
Water Pressure Drop (max) kPa	6 20				
Net weight/Gross weight (kg)	81/91	110/122			
Product dimensions (mm)	1107*503*760	1187*503*900			
Package dimensions (mm)	1148*571*869	1190*535*1020			

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# experience the COMFORT OF THE FUTURE





## **TommaTech PORTAL & WIRELESS THERMOSTAT**

## **Easy Access**

Allows you to make a wireless connecti on between TommaTech Portal and any wireless room thermostat, TommaTech heat pump you use. It responds to your different temperature needs on a room basis without creati ng a cable crowd. You can adjust the heat requirement of any room you want through TommaTech Portal without having to be at home, or you can block unnecessary air or water heati ng / cooling needs via your phone.

## **High Energy Efficiency**

With TommaTech portal and room thermostats, you can experience constant temperature comfort by controlling the temperature change of your pool and domesti c water, while you can heat economically at the level you want. While TommaTech Portal, which works behind TommaTech Heat Pump and thermostats, provides high energy effi ciency, you can experience the comfort of heati ng and water temperature at the desired temperature value in all areas of your home. You will know how many trees you will save every minute you use it and you will learn how you contribute to nature thanks to TommaTech Portal.

## Easy to Use

You can maximize your comfort with TommaTech portal infrastructure and easy access and userfriendly interface of TommaTech wireless room thermostats. TommaTech Portal, which off ers the ability to manage all wireless thermostats including TommaTech Heat Pump Panel, off ers the most important soft ware infrastructure of TommaTech Smart Home Technology systems. Whatever the design and structure of your home, it will easily adapt to your living spaces with its operati ng structure that provides compati bility with all devices.



mail@tommatech.de







## TOMMATECH TOPCON MONOCRYSTALLINE

## **108TN10 SOLAR PANEL**

## 415Wp/ 420Wp/ 425Wp/ 430Wp/ 435Wp





**High Conversion Effi ciency** High panel effi ciency to guarantee high power output.



Self-Cleaning And Anti -Refl ecti on Glass Coati ng glass for self-cleaning reduces surface dust.



Outstanding Low Irradiati on Glass Outstanding panel performance even in weak light conditi ons.



**Excellent Durability** Wind load up to 2400 Pa, Snow load up to 5400 Pa



0~+5W Positi ve Power Tolerance







## **TOMMATECH TRIO HYBRID K-SERIES INVERTER**

## **Three Phase Hybrid Inverter**

5.0/6.0/8.0/10.0/12.0/15.0kWh





## Simple. Reliable. Efficient.

TommaTech®'s Trio-Hybrid K-Series three phase inverters are the preferred soluti on for both residenti al and commercial projects as they support unbalanced phase output, are equipped with dual protecti on for the BMS and can be controlled remotely through multi ple communicati on opti ons. The inverters, which are available in six power opti ons between 5.0kW and 15.0kW can be equipped with up to 46kWh storage, each. Furthermore, they can be installed in parallel allowing for soluti ons of up to 150kWh and 460kWh storage.





## **TOMMATECH LITHIUM BATTERY**

## **Hightech Power**

3.0/6.0/9.0/12.0kWh



3 Phase / 1 Phase







LiFePO4 Technology



**Remote Monitoring** 



## Simple. Reliable. Efficient.

Maximize your solar benefits with our durable and scalable battery solutions. The safest LiFePO4 technology ensures long term and high-performing operation with more than 6000 life cycles at 90% DoD with marginal self-consumption. Up to 4 of our TT-3.0kWh batteries can be equipped effortlessly with a BMS for maximal customization.





## TOMMATECH SMART EV CHARGER

## **Uno-Trio Electric Vehicle Charger**

## 22 kWh

## Simple. Reliable. Efficient.

TommaTech EV Chargers allow quick and simple charging of electric vehicles with diff erent charging standards via Type II connectors in Eco-Mode, Fast-Charging and Custom- Mode. Based on their smart design, the EV Chargers can be installed indoor and outdoor and operated within a high temperature range, which makes TommaTech EV Chargers the preferred choice for residenti al, office or public applications. Additionally, the compatibility with TommaTech Trio and Uno Hybrid Inverters allow the charging of stored solar electricity from the battery at night thus enabling highest utilization of charging assets.



without cable







## TOMMATECH SMART METER

## **3 Phase Smart Meter**

## 5.0kW-15.0kW



3 Phase Input Output



RS485 Communication





Data Traceability



Bidirectional Meter





## Simple. Reliable. Efficient.

Trio Smart Meter, fully compati ble with TommaTech Trio Series inverters (On-Grid & Hybrid), enables the system to operate in self-consumpti on mode with the possibility of limiti ng the energy fed into the grid by the inverter, and also measuring the total energy generati on and consumpti on.





## FAN COIL HEATING & COOLING

## Cassette • Cassette-less • High Wall • Cassette Flooring

## Experience the comfort of the future

- Enjoy the comfort of a heat pump in your home with a fancoil.
- Enjoy the breeze you want in your home in every season.
- It is used for cooling in summer and heating in winter.
- First, the air in the environment is sucked through the filters in the fancoil devices.
- Then the air is transmitt ed through the pipe to the coil, which is the main source of the device.
- •The air collected in the coil is conditi oned as hot or cold according to the space temperature and demand.
- After the temperature of the air is adjusted, it is blown back to the area where the device is located through the pipe.



4-way Blowing Cassette Fan Coil Unit



High Wall Fan Coil Unit









## **UNDERFLOOR HEATING**

## Experience the comfort of the future

- Appliable to any ground.
- It can also be applied to old buildings with trenching method by cutting the floor.
- Provides comfortable warmth with homogeneous heat distributi on.
- Easy to clean, wet floors dry quickly.
- As the ambient temperature is low, there will be less dust in the air.
- The pipes that provide heating pass completely under the screed. Thus, there is no situation that will spoil the appearance inside the house.
- It saves a great deal of energy because it operates at low temperatures.







## WARM WATER





Low Legionella Risk



Can be combined fl exibly (e.g. heat pump, solar thermal, etc.)

Separati on of Drinking

Water and Heating Water





Reducing Heat Losses

## **Energy Save**

• The high temperature operati on technique can be used to increase the system temperature to 60°C, preventing the growth of Legionella Bacteria and providing hygienic domestic hot water suitable for use.

• Solar thermal energies use heat from the sun to heat domestic hot water, helping to reduce the electrical energy required by the heat pump to prepare domestic hot water.

• A heat pump boiler stores hot water from a heating source, such as a heat pump or solar thermal, and provides hot water for showers and taps, all in one device.

• By uti lizing natural energy sources such as earth, air or water for hot water, a lot of heat energy can be obtained with a small amount of electricity consumption.

• Thanks to accumulati on or balance tanks, excessive fluctuati ons in the water temperature sent to the places of use can be prevented and thus the risk of sudden increase in water temperature is prevented, increasing the comfort and safety of use.



## SOLAR THERMAL PANEL

## Experience the comfort of the future

In some areas, thermal solar panels provide up to 90% domestic water and support the heating system up to 60%. When it is not enough, the heat pump kicks in.

Unlike typical hot water storage tanks, buffer storage tanks are used to support heating and have significantly better thermal insulati on at 10 to 50 cm. The purpose of the buffer tank is to store the heat generated from the sun and then add it to the heating water circuit.

- 1. Solar Panel
- 2. Hot Water Tank
- 3. Heati ng Pump Group
- 4. Hygienic Hot Water Pump Group
- 5. Solar Thermal Pump Group









- 1. Thermal Panel Supported Warm Water and Heater
- 2. Fireplace Support
- 3. Boiler or Heat Pump Support
- 4. IInstant Domestic Warm Water
- 5. Heating Pump Groups
- 6. Underfloor Heating Collector
- 7. Fancoil
- 8. Towel Pan
- 9. Accumulation Tank
- 10. PV Panel







Our Products

EVI DC INVERTER HEAT PUMP MONOBLOCK TYPE







## **R32 EVI DC FULL INVERTER (RESIDENTIAL)**







## **R32 DC FULL INVERTER (POOL)**





## HP-EVI-TT-021-MF | HP-EVI-TT-028-TF

## 1 PHASE | 3 PHASE 〈A++) ⑪ 〈A+++) 登 禁 谇 ②1 kW ②8 kW

## HP-POOL-TT-MF-20-PW HP-POOL-TT-MF-28-PW



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## **BUFFER TANK 40 LT**



- Increases efficiency by consolidating multiple heat sources into a single system.
- The compact module (440 x 890 x 220 mm) takes up little space.
- Capacity: 40 liters.
- High insulation with EPP (Expanded Polypropylene Foam).
- Automatic air purger; comes with a sensor pocket (on top) and a temperature sensor holder.

## ENERGY-EFFICIENT HYGIENIC HOT WATER 100 LT



• Activates the system above 58°C to make the water ready for use.

- Prevents the formation of bacteria causing Legionnaire's disease.
- Adjusts the inlet water temperature to the plate heat exchanger to prevent limescale formation.
- Includes a control panel, two circulation pumps, and a 3-way valve.

## INSULATED DISTRIBUTION PUMP GROUP



- Ensures compactness for taking up less space.
- High insulation with EPP (Expanded Polypropylene Foam).
- Includes a 3-way Distribution Manifold and three pump groups.

• The pump groups includes a three-way, actuated, and standard pump group in the thermal distribution box.

## SOLAR THERMAL ASSISTED PUMP GROUP



• Adjusts the inlet water temperature with the control panel for solar thermal panels. Circulates the heated fluid to the tank.

- Includes a control panel, two circulation pumps, and a two-way valve.
- Protects the heat exchanger from freezing by measuring the temperature of the water from solar thermal energy with a temperature sensor and controlling the opening/ closing of the two-way valve.
- Suitable for 150 m<sup>2</sup> solar thermal panels.



## **3 CONNECTED** DISTRIBUTION MANIFOLD



- Available in 2, 3, and 5 connections.
- Ensures the circulation of fluids by connecting pump groups to different heat emitters
- Includes record connections and insulation.

## **BALANCE TANK**



- Reduces the temperature difference between the supply and return water, preventing damage to the heat pump.
- Integrated with an air purger, insulation, and dirt collector in the balance tank.

## **COMPACT PUMP GROUP**



- Includes circulation pump, valve, and thermometers.
- Facilitates the movement of the fluid against the resistances for reaching heat emitters.
- Has a low-temperature protection function.

## **THREE-WAY PUMP GROUP**



- Includes circulation pump, insulation, 3-way valve, and actuator.
- Facilitates the movement of the fluid against the resistances for reaching heat emitters.
- For floor heating applications, the temperature degree can be adjusted with the pump group to ensure that the temperature does not exceed 40°C.



## SOLAR THERMAL ASSISTED PUMP GROUP



• Connects to the solar thermal panel and sends the heated fluid to the tank to ensure continuous supply of hot water in the tank.

• Includes connection fittings for the expansion tank, pressure gauge, and air vent apparatus.

• Includes circulation pump, insulation, thermometers, and valves.

## ELECTRONIC CIRCULATION PUMP



- Used to enhance the system's efficiency in heating and cooling lines.
- It is a frequency converter pump for energy savings.
- Prevents noise by operating at different speeds in mechanical installations.

## HOT WATER CIRCULATION PUMP



• Ensures that the circulating domestic hot water remains at the desired temperature.

- Prevents the formation of bacteria causing Legionnaire's disease.
- Easy to use and provides high efficiency.



- Used to enhance the system's efficiency in heating and cooling lines.
- It is a frequency converter pump for energy savings.
- Prevents noise by operating at different speeds in mechanical installations.



## CIRCULATION PUMP 25/8/180



## FLOW-METERED COLLECTOR GROUP



- Flow-adjustable collectors made of stainless steel.
- The flow rate for each heating circuit can be adjusted in L/min.
- On the supply line, there is hydraulic balancing with adjustable flow indicators at each outlet.
- Includes collector valves, actuators, thermometers, and drain valves.
- Available in 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12 connections

600 kg/Pair Carrying Capacity

RUBBER FEET

- Piece dimensions 600 x 190 x 95mm, Aluminum Length: 560 mm
- Piece weight 6 kg

## **AUTOMATIC AIR PURGER**



• Automatically removes air from the system, ensuring efficient operation.

- Reduces flow noise, circulation problems, and performance declines.
- Helps prevent corrosion damage.
- Reduces maintenance requirements.

## **MAGNETIC DIRT SEPARATOR**



- Separates harmful substances in the fluid, preventing damage to the heat exchanger and other equipment.
- Ensures the long life of the heat pump.
- Facilitates quiet operation by reducing the flow noise of the passing fluid.
- Reduces resistance losses and increases energy efficiency.
- Minimizes maintenance and repair costs.





Date :....







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