M-TEC
ENERGY FOR FUTURE

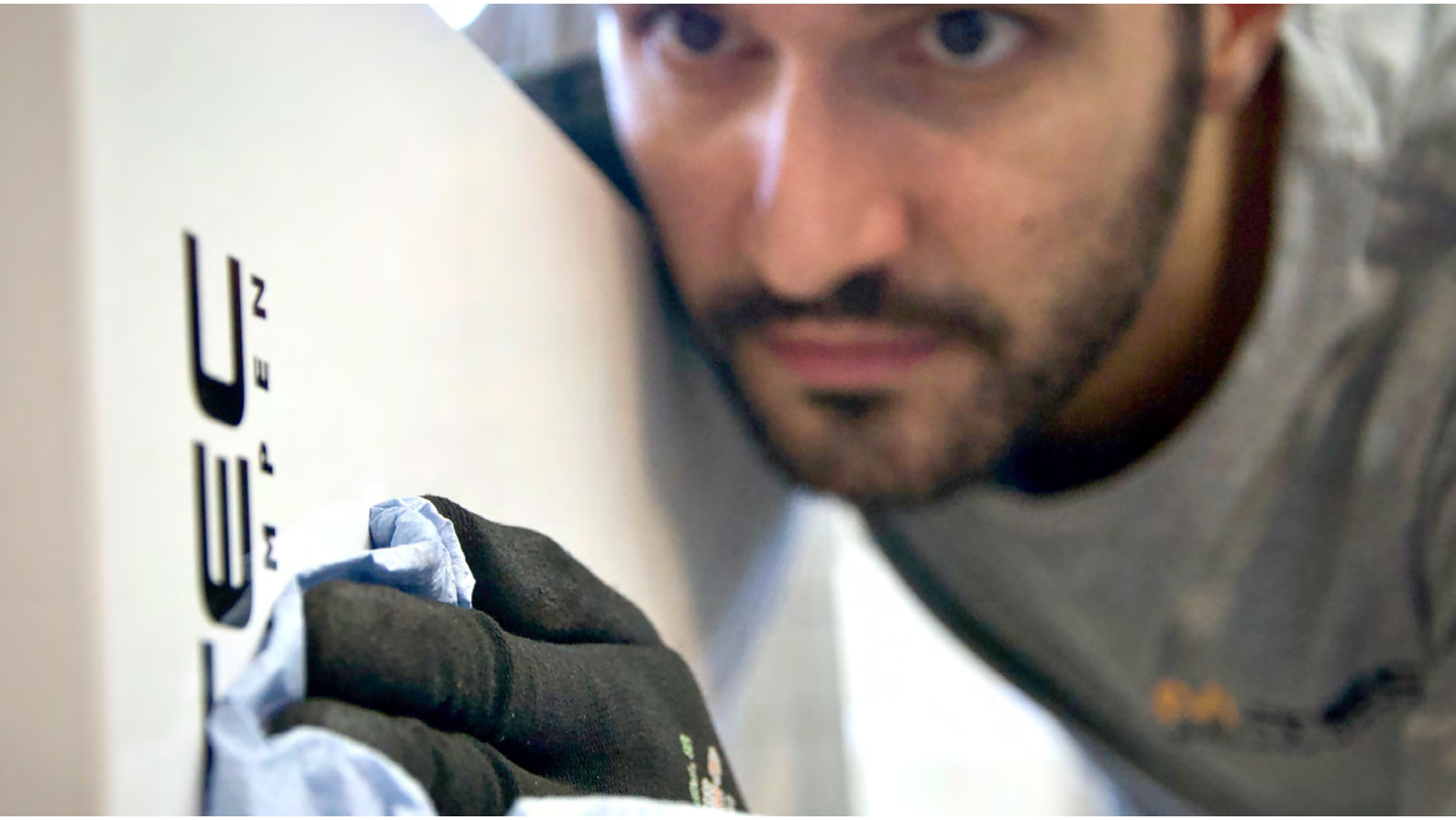
PRODUCTS FOR A SUCCESSFUL ENERGY TRANSITION

The clever construction kit for renewable energy

3 IN ONE
1 MANUFACTURER
1 SYSTEM
1 SERVICE

The complete energy solutions from a single source

www.mtec-systems.com



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We develop and produce products for a complete energy solution as a modular system for our customers. The use of renewable energy is our mission, which we also realise ourselves at our own site using 100% energy from photovoltaics and our own hydropower plant.

DI (FH) PETER HUEMER
M-TEC ENERGY FOR FUTURE

ENERGY FOR FUTURE

DEVELOPER, MANUFACTURER AND SERVICE PARTNER FOR RENEWABLE ENERGY

Over 5 decades of experience, more than 30,000 installed systems and the continuous development of our technology are fundamental cornerstones of our solutions. M-TEC, based in Austria, is a "Green-Tech" company with a particular focus on the development and production of highly efficient heat pumps.

AS A SPECIALIST IN INTELLIGENT CONTROL TECHNOLOGY AND SUSTAINABLE ENERGY MANAGEMENT, WE DEVELOP CROSS-SYSTEM SOLUTIONS FOR.

- The sustainable production of heat and cooling with heat pumps
- Own power supply through photovoltaics
- Storing energy with our ENERGY-BUTLER
- Excess charging of electric cars with our ENERGY-CHARGER

TOTAL ENERGY SOLUTION

PRODUCTS AND SERVICES FOR A SUCCESSFUL ENERGY TRANSITION

A simple and clear visualisation makes both energy consumption and energy production visible.

In addition to electricity for households and businesses, we will need more electricity for mobility or for heating and cooling in the future. Renewable energy sources can be used for all these consumers.

By using modern storage solutions, we can shift consumption independently from production time. M-TEC offers a comprehensive modular system of harmonised products for these tasks. These components can be combined with each other according to the plug & play principle. This saves time and reduces interfaces during implementation or subsequent expansion.

Together with architects, property developers, planners, installers and other experts, we are working on realisable solutions for the energy transition. In addition to innovative solutions, M-TEC also offers a wide range of training courses and workshops for our system partners.

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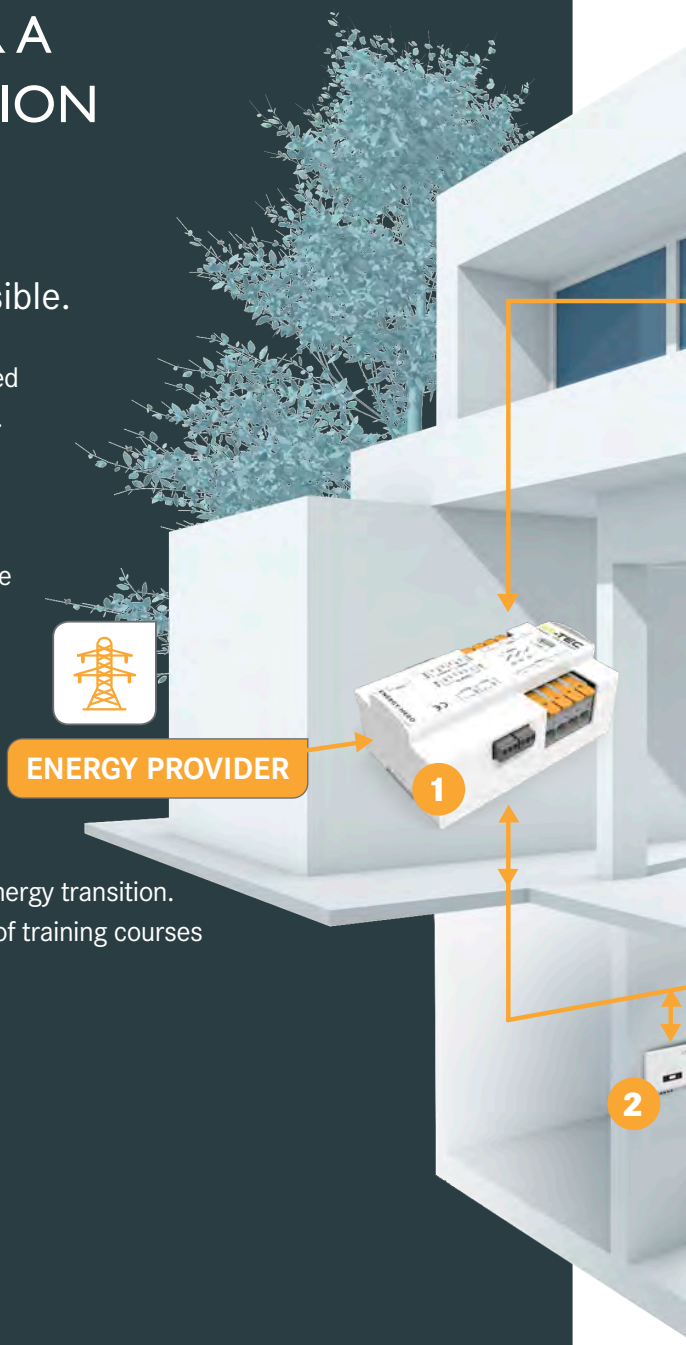

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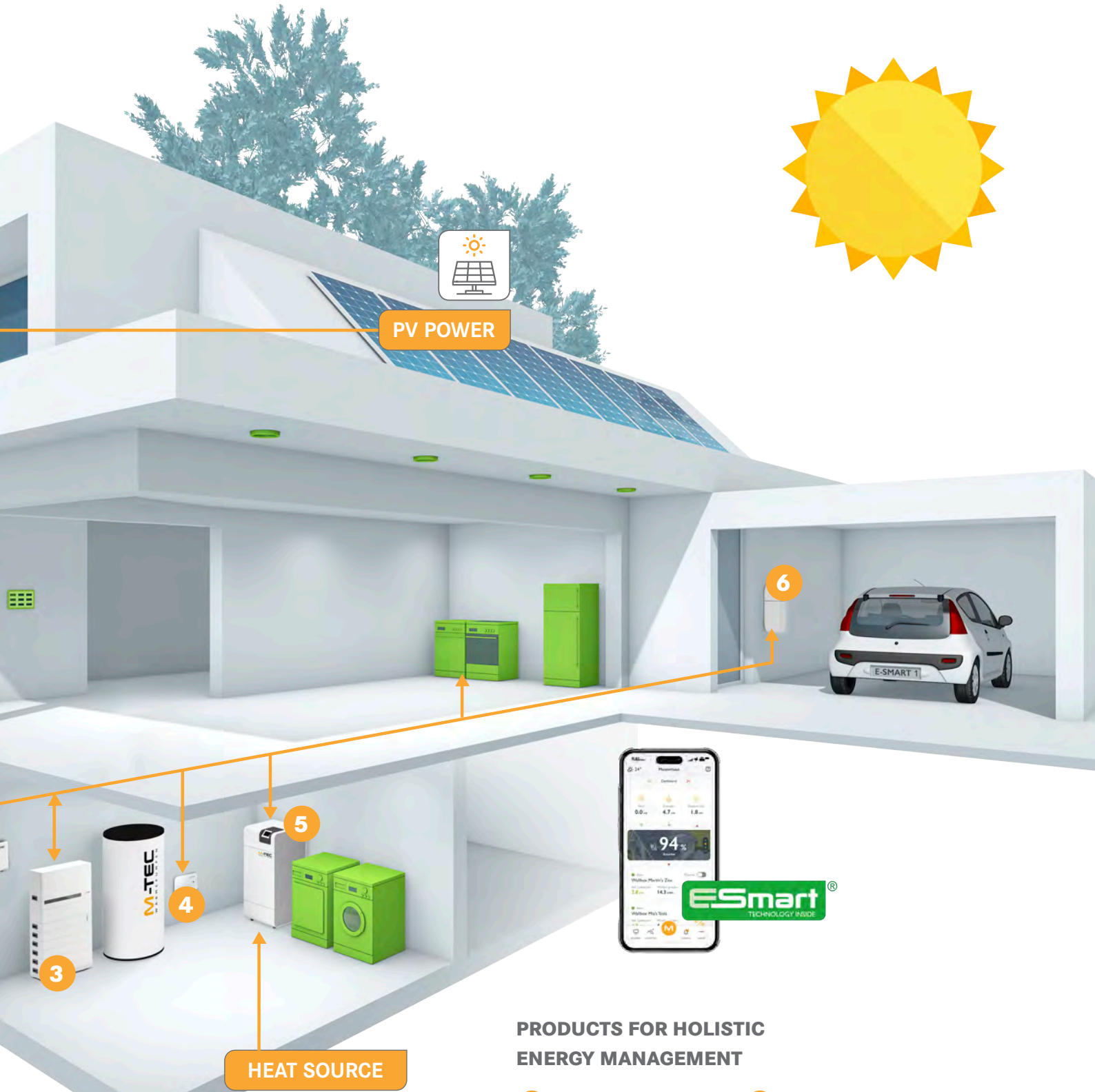


3 IN ONE
1 MANUFACTURER
1 SYSTEM
1 SERVICE

PRODUCTS FOR HOLISTIC ENERGY MANAGEMENT

1. ENERGY-HERO®
2. ENERGY-WIZARD
3. ENERGY-BUTLER
4. ENERGY-HEATER
5. HEATPUMP
6. ENERGY-CHARGER

TOTAL ENERGY SOLUTIONS FROM A SINGLE SOURCE

M-TEC offers products and services for the production and management of electricity, heat and mobility. Our products and services enable modern sector coupling directly on site.

Energy management

ENERGY-HERO®

The 2-in-1 solution: The smart meter manages the distribution of energy in the building. It combines the functions of an energy meter and an energy management system (EMS) in a single device. This saves costs and space.

Storage and inverters

ENERGY-WIZARD

Single-phase and three-phase PV INVERTERS from 3.6 to 25 kW. Quick and easy installation thanks to plug & play design. Impresses with high production during operation.

ENERGY-BUTLER

7.7 to 30.7 kWh, the ALL-IN-ONE STORAGE SOLUTION with integrated hybrid inverter, equipped with full emergency power capability as well as stand-alone and black start capability.

ENERGY-BLOCK

The powerful multifunctional storage unit from 38 kWh to 1.8 MWh for a very high charging and discharging capacity, full emergency power operation and quick and easy installation.

Mobility solutions

ENERGY-CHARGER

Robust charging station for 11 kW or 22 kW. Developed, designed and manufactured in Austria. Available with integrated 1p - 3p phase switching, RFID, LAN, WLAN and including measurement and calibration rights. Simple installation and configuration.

Water heating

ENERGY-HEATER

Stepless power control for heating elements up to 9 kW for simple hot water preparation using PV surplus. Connection of 1-phase and 3-phase heating elements possible.

Heating and cooling with heat pumps

AIR

Heat pump from 2 to 31 kW with maximum efficiency of up to 5.5. Propane technology for optimum performance. No technical room necessary. Minimal noise emissions.

GEOTHERMAL

The 2 to 52 kW heat pump guarantees up to 20 % higher efficiency thanks to intelligent output control.

GROUNDWATER

The groundwater heat pump from 3 to 70 kW impresses with its excellent efficiency and low operating costs.

M-TEC heat pumps are particularly suitable for refurbishments due to their small footprint and efficiency.

ENERGY-HERO®

DIRECT METER WITH INTEGRATED ENERGY MANAGEMENT

- The 2-in-1 solution
- Three-phase for up to 65 A
- Quick, tool-free connection simplifies installation
- Communication talent with XXL-connection options
- Licences for all M-TEC products included

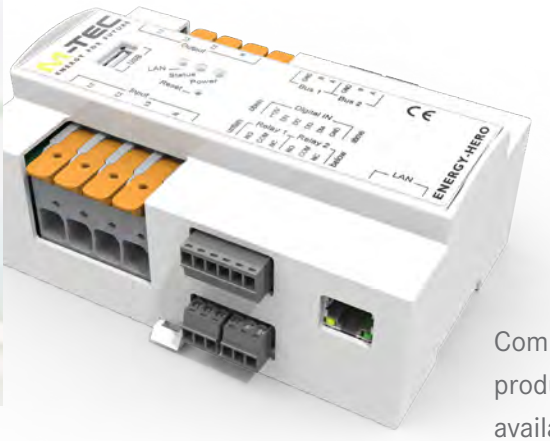
Keep an eye on all consumers with just one meter.

COMING SOON

Available from Q4 2024

SELF-POWERED FUNCTION:
ENERGY-HERO® can be operated without external power supply, which increases the reliability and independence of the system.

THE 2-IN-1 SOLUTION
Combines the functions of an energy meter and the energy management system (EMS) in a single device. This saves costs and space.



Compatible with all M-TEC products and a selection of devices available on the market.

THE ENERGY-HERO®: THE ALL-IN-ONE SOLUTION FOR HOLISTIC ENERGY MANAGEMENT

The ENERGY-HERO® represents the new generation of holistic energy management. The innovative system makes it possible to maximise the energy self-consumption rate. Ready for the future without additional software licences for M-TEC products. Simple and user-friendly to operate via the E-SMART APP, the ENERGY-HERO® sets new standards in energy management.

TECHNICAL DATA OF THE CONNECTIONS

- Cage clamp system from Wago
- USB interfaces
- 2 RS485 interfaces
- 2 potential-free switching contacts
- 4 digital inputs
- Ethernet (LAN)
- Modbus-TCP/RTU
- 4-pole connection (L1, L2, L3, N)
- 8 dividing units
- Connection cross-section 0.75 to 16 mm^2
- Rated voltage 230/400 VAC
- Dimensions in mm (W x H x D) 142 x 91 x62
- DIN rail mounting

PROFESSIONAL TIP

PERFECT SOLUTION FOR PROFESSIONALS

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- Push-in technology for tool-free connection
- Online & offline update capability
- Cloud-based evaluation of consumption data
- 2-in-1 solution: energy meter and energy management system (EMS) in a single device.

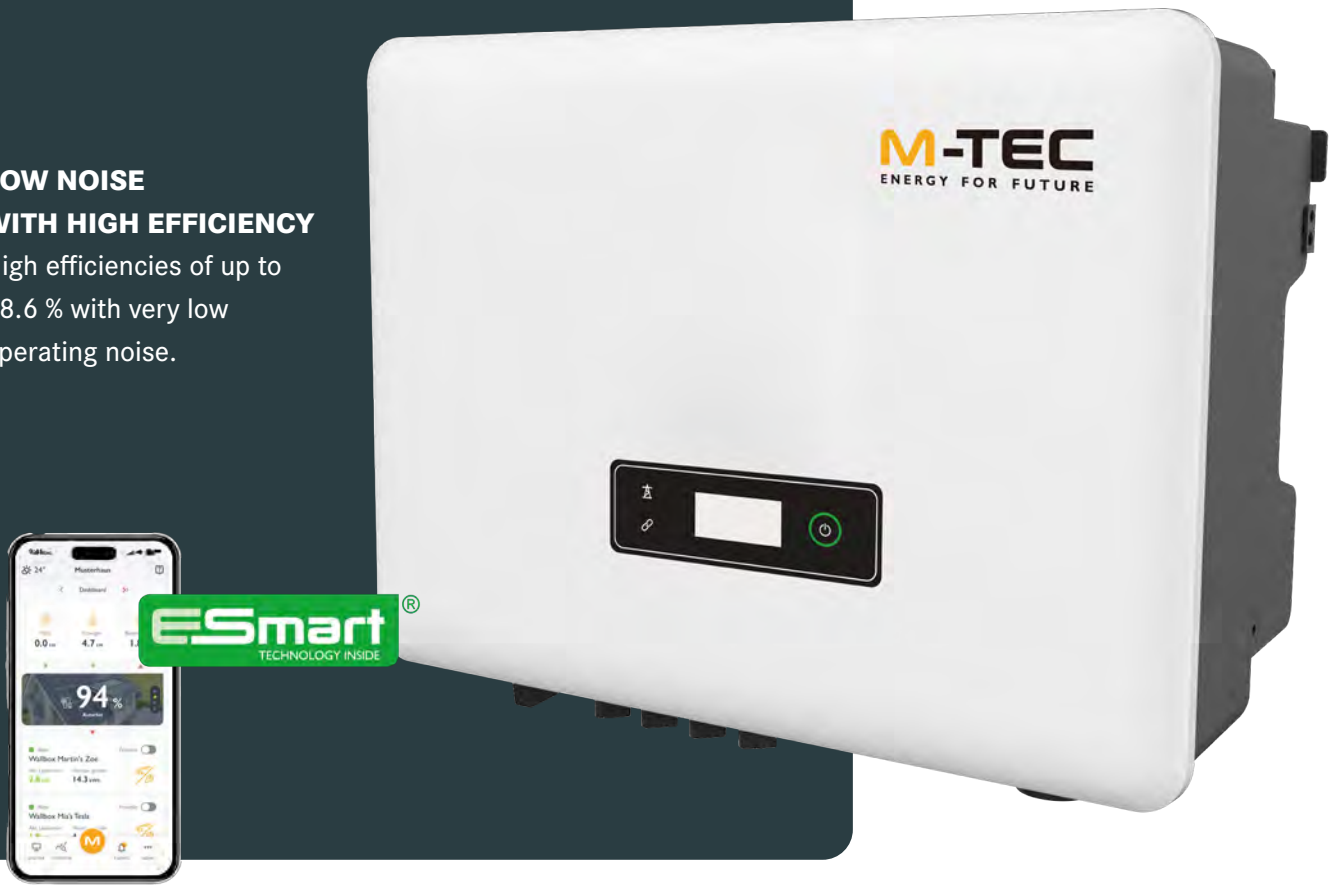
ENERGY-WIZARD

1- AND 3-PHASE PV INVERTER FROM 3.6 TO 25 KW

- 3.6 to 6 kW (1-phase) and 5 to 25 kW (3-phase)
- Up to 3 MPPT with 30 A
- Integrated display for simple and quick commissioning
- Up to 110 % output for higher yields (model: 1-phase)

MINIMUM CONSUMPTION OF LESS THAN 1 W IN STANDBY MODE.

LOW NOISE WITH HIGH EFFICIENCY
High efficiencies of up to 98.6 % with very low operating noise.



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ALWAYS EVERYTHING IN VIEW
Through remote access via APP and web interface

THE ENERGY WIZARD: POWERFUL INVERTER IN MANY POWER RANGES

With its compact size and elegant design, the ENERGY-WIZARD blends seamlessly into any environment. It can of course be combined with the M-TEC ENERGY-BUTLER.*

TECHNICAL DATA

Modell	1-phases	3-phases	
	3.6 - 6 kW	5 - 10 kW	12 - 25 kW
Dimensions in mm (W x H x D)	358 x 300 x 158	465 x 335 x 200	
Weight in kg	9.8	19 - 24	
Cooling type	PASSIV	PASSIV	INTELLIGENT FAN
Certifications	CE, IT, VDE	CE, AT, VDE, IT	
max. PV input power kW	3.6 - 6	5 - 10	12 - 25
Number of MPP trackers	2	3	
Entrance per MPPT	1/1	1/1/1	1/1/2
MPPT operating range V	50 - 550	160 - 950	
MPPT nominal operating voltage V	360	620	

*Required accessories: Data logger

PROFESSIONAL TIP

PERFECT SOLUTION FOR PROFESSIONALS

- Commissioning within a few minutes
- Monitoring of all PV systems
- Maximum flexibility in PV planning due to high input currents (up to 30A)
- Simple integration into SmartHome
- Systems can be networked via Modbus TCP + RTU

DOWNLOAD TECHNICAL INFORMATION

ENERGY-BUTLER

THE ALL-IN-ONE MULTI-FUNCTIONAL STORAGE SOLUTION

- Very high charge and discharge capacity
- Fully-fledged emergency power operation incl. PV recharging
- Island and black start capable
- Quick and easy installation
- Safe and powerful LFP cell technology

1-PHASE SOLUTION
Also available with a single-phase hybrid inverter in the sizes 3, 4.2 and 6 kW. Perfect for off-grid systems such as mountain huts or forestry cabins.

THE FLEXIBLE ELECTRICITY STORAGE SYSTEM
Integrated hybrid inverter in sizes 6, 8, 10, 12, 15 and 20 kW as well as stackable battery modules from 7.7 kWh to 30.7 kWh

WARRANTY
for 10 years

EXPANDABLE
Up to 10x cascadable to a total of 307 kWh

ESmart® TECHNOLOGY INSIDE

PROFESSIONAL TIP

PERFECT SOLUTION FOR PROFESSIONALS

- Simple assembly thanks to modular design
- Plug & Play: Inverter already integrated
- Intelligent networking with heat pumps and all other E-SMART products such as charging stations, heating elements and external PV inverters

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ENERGY FOR FUTURE

GRID INDEPENDENT EMERGENCY BACK-UP INTEGRATED

In the event of a complete power grid failure, the island-compatible ENERGY-BUTLER is suitable as a safe back-up.

THE ENERGY BUTLER: UTILISE YOUR OWN ENERGY PRODUCTION AROUND THE CLOCK

The modular concept of the ENERGY-BUTLER is not only suitable for detached houses, but can also be expanded for companies or for multi-storey residential buildings up to 307 kWh. The integrated inverter saves time during installation and space in the technical room.

TECHNICAL DATA

Hybrid inverter	6kW-3P-3G25	8kW-3P-3G25	10kW-3P-3G40	12kW-3P-3G40	15kW-3P-3G40	20kW-3P-3G40
Max. usable DC input power kWp	9	12	15	18	22.5	30
Max. AC output power kW	6.6	8.8	11.0	13.2	16.5	22
Max. DC input voltage* V	950 V					
MPPT voltage range* V	120 - 950	200 - 950				
Min. DC starting voltage V	135					
Max. DC starting voltage* V	950					
MPP tracker / string connections per MPPT	2/1		2/2			
Rated current MPPT	15 A		30 A			
Max. DC charging and discharging current	25 A		40 A			
Max. DC charging and discharging power	6.0 kW	8.0 kW	10,0 kW	12.0 kW	15.0 kW	20.0 kW
Emergency current switching time	< 10 mS					
Dimensions without battery in mm (WxDxH)	698 x 356 x 613					
Weight in kg	55		59		62	

Battery moduls	2***	3	4	5	6	7	8
Storage capacity**	7.7 kWh	11.5 kWh	15.3 kWh	19.2 kWh	23 kWh	26.8 kWh	30.7 kWh
Max. usable storage capacity	6.9 kWh	10.4 kWh	13.8 kWh	17.3 kWh	20.7 kWh	24.1 kWh	27.6 kWh
Nominal voltage	153 V	230 V	307 V	384 V	460 V	537 V	614 V
Dimensions in mm (698 x 356 x H) including BMS and inverter	1117	1255	1393	1531	1669	1807	1945
Weight in kg	159	201	243	285	327	369	411

*Valid for inverters from 07.2023 ** Max. Discharge depth 90% DOD *** Available from 04.2024

ENERGY-BLOCK-HYBRID

THE POWERFUL MULTIFUNCTIONAL STORAGE SOLUTION 38 kWh TO 1.8 MWh

- Very high charge and discharge capacity
- Fully-fledged emergency power operation incl. PV recharging
- Island and black start capable
- Quick and easy installation
- Safe and powerful LFP cell technology
- Maximum safety thanks to perfect contact protection
- 10-year warranty and 10.000 cycles
- CASCADABLE
  Model ECO = 10x
  Model PERFORMANCE = 25x

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Inverters up to 50 kW

PROFESSIONAL TIP

PERFECT SOLUTION FOR PROFESSIONALS

- Quick and easy to install
- Free monitoring of all systems
- Maximum flexibility in PV planning thanks to high input currents (4x 30 A)
- Emergency power solution thanks to integrated double grid disconnection
- Simple integration into SmartHome systems via Modbus TCP + RTU

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ENERGY BLOCK AC-COUPLED

- Inverter 50 or 80 kW
- Storage capacity from 61.4 to 80.6 kWh
- Can be cascaded up to 25x

A STRONG PARTNER FOR COMPANIES

TECHNICAL DATA:	ENERGY-BLOCK-HYBRID			ENERGY-BLOCK AC-COUPLED	
	30kW-3P-3G100	40kW-3P-3G100	50kW-3P-3G100	50	80
Dimensions in mm (W x H x D)	800 x 620 x 300			673 x 692 x 484	
Weight in kg	72			69	
Emergency back-up	yes			No	
Switching time msec	20			-	
Island and black start capable	yes			No	
PV recharging in emergency power mode	yes			not available	
PV connection DC					
max. PV input power kWp	45,0	60,0	75,0	not available	
Number of MPP trackers	4				
Entrance MPPT	2 / 2 / 2 / 2				
Max. Input current per MPPT A	30 / 30 / 30 / 30				
MPPT operating range V	200 - 850				
MPPT Nominal operating voltage V	620				
Min. MPP starting voltage V	200				
Max. MPP starting voltage V	850				
Battery connection DC					
Supported battery	M-TEC LFP Batterystorage commercial (10 - 19modules)			M-TEC LFP Batterystorage commercial (16 - 21 modules)	
Operating range V	135 - 850			585 - 900	
Max. Charging/discharging current A	100 / 100			100 / 100	
Max. Charging/discharging power	30	40,0	50,0	50	80

TECHNICAL DATA BATTERY STORAGE

Storage capacity*	38,4	42,2	46,1	49,9	53,8	57,6	61,4	65,3	69,1	73,0	76,8	80,6
Number of battery modules	10	11	12	13	14	15	16	17	18	19	20	21
Number of battery packs	1	2										
Dimensions in mm (without WR) (BxHxT)	600x2000x780	1200 x 2000 x 780										
Weight in kg (without WR)	480	572	614	656	698	740	782	824	866	908	950	992
Batterietyp	LFP (Lithium- Eisenphosphat)											
Certifications	UN38.3, IEC62619:2022											
Max. Charging and discharging current	100 / 100											
Discharge depth %	90											
Max. usable storage capacity kWh	34,6	38,0	41,5	44,9	48,4	51,8	55,3	58,6	62,2	65,7	69,1	72,6
Nominal voltage V	384	422	461	499	538	576	614	653	691	730	768	806

*Max. Discharge depth 90% DOD

ENERGY-CHARGER

ROBUST CHARGING STATION FOR 11 KW OR 22 KW

- Integrated phase switch
  1p - 3p for PV-optimised charging
- Integrated residual current monitoring Type A
- Developed, designed and manufactured in Austria
- Easy to install & configure
- Easy to connect with energy management system for digital control
- Low maintenance

COMING SOON*

CLIMATE PARTNER CERTIFIED - MADE IN AUSTRIA:
Energy-Charger is one of the Energy-Charger is one of the most sustainable wallboxes on the market. The modular design ensures future security: upgrades or any repairs can be carried out in a particularly uncomplicated manner.

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HARD SHELL. SOFT CORE.
Efficient installation, robust components and elegant design. Sophisticated, simple handling and an interface, which not only looks good, but is also easy to use.

THE ENERGY-CHARGER: THE SOLUTION FOR CONVENIENCE, SAFETY AND SUSTAINABILITY WHEN CHARGING

The ENERGY-CHARGER is easy to install and operate. Both models can be connected directly to the M-TEC E-SMART energy management system via a network. The environmentally friendly charging solution for electric vehicles, optimised with functions such as integrated phase switching and optionally with measurement and calibration rights.

TECHNICAL DATA

Model	11 KW PERFORMANCE *Available from Q3.2024	22 KW COMMERCIAL *Available from Q4.2024
Application	For single-family and multifamily homes	For charging in the commercial sector
Dimensions in mm (H x W x D)	476 x 221 x 142	
Power kW	11	22
RCD Type	A + DCL	Type A + DCL
Cables	6 m Type 2 cable (EN 62196-1, VDE-AR-E 2623-2-2)	
Communication	Bluetooth, WLAN, Ethernet 2 x potential-free inputs (X1 + X2), 1 x potential-free output (X3) RS485, Modbus TCP/RTU, OCPP, Rest API	
Energy meter	Integrated energy meter	
Measure calibrated	NO	YES
Phase switching	Integrated, 1p - 3p for PV-optimised charging	
Operation	RFID & Touch Button	

PROFESSIONAL TIP

PERFECT SOLUTION FOR PROFESSIONALS

- Modular concept and 3-point mounting
- Integrated residual current monitoring Type A
- Simple implementation of repairs and upgrades

DOWNLOAD TECHNICAL INFORMATION

ENERGY-HEATER

USE SURPLUS PV ELECTRICITY FOR HEATING OR HOT WATER

- Infinitely variable power control of heating elements up to 9 kW
- Simple hot water heating using PV surplus
- Simple installation thanks to Plug & Play
- Can be combined with all M-TEC products and many third-party products via the E-Smart energy management system

1- AND 3-PHASE
Connection of 1- and 3-phase heating elements possible. This means that all standard heating elements can be integrated with the ENERGY-HEATER.

ELEGANT DESIGN AND LOW NOISE:
The ENERGY-HEATER impresses with its compact design and low operating noise thanks to passive cooling.

ZERTIFIZIERUNGEN
CE, EN 61000-6-2,
EN 61000-6-3, EN 61000-3-2,
EN 61000-3-3, EN 300 328

M-TEC
ENERGY FOR FUTURE

EFFICIENT & EASY:
UTILISE PV SURPLUS

The efficient and cost-effective water heating system.
This way you make the most out of your surplus power.

THE ENERGY-HEATER: OPTIMISING SELF-CONSUMPTION THROUGH INTELLIGENT CONTROL OF AN ELECTRIC ROD

With a control range of 0 to 9 kW, high solar yields can be utilised for heating and hot water. As a standalone device or in conjunction with a heat pump, free solar power can be converted into heat. This saves money and protects the environment.

TECHNICAL DATA

Dimensions in mm (W x H x D)	338 x 258 x 90
Weight in kg	4.0
Cooling type	passive
Installation	Wall mounting

Grid connection	**AC INPUT**	**AC OUTPUT**
Rated input power kW	9.0	9.0 (L1: 0-3 kW, L2 + L3: 3.0 kW)
Max. Input current	13.0 A	13.0 A
Grid frequency	50 / 60 Hz	50 / 60 Hz
Operating voltage	1P, 230V AC / 3P, 400V AC	
Grid connection	3L*/N/PE(max. 4mm², F)	3L*/N/PE(max. 4mm², F)

*Single-phase or three-phase connection possible, neutral conductor must be present.

PROFESSIONAL TIP

PERFECT SOLUTION FOR PROFESSIONALS

- Remote maintenance via web interface
- Server solution for remote maintenance overview
- Integration in third-party systems via Modbus TCP
- Commissioning within a few minutes

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HEATPUMP

HIGHEST QUALITY AND RELIABILITY FOR HEAT PUMPS

With the knowledge and experience of over 50 years and 30,000 systems, we utilise natural resources for buildings. Economically and safely, 365 days a year. As a pioneer in heat pump production, our solutions stand for the highest quality, as confirmed by independent testing institutes.

M-TEC stands for

- Highest efficiencies
- Suitability for new and old buildings
- Variety of models and performance classes
- Durable products with high quality
- Low-noise operation
- Service quality, training and marketing support
- Sustainable product production. M-TEC heat pumps are produced in Upper Austria using 100% renewable energy

ENERGY FOR FUTURE

ECO

PERFORMANCE

COMMERCIAL

MODEL VARIETY FOR ALL REQUIREMENTS

M-TEC heat pumps can be perfectly customised to the technical requirements, not only in terms of performance, but also in terms of configuration. From ECO to COMMERCIAL, M-TEC offers a complete modular system of connected heat pumps.

DOWNLOAD TECHNICAL INFORMATION

M-TEC TECHNOLOGY: WHETHER EARTH, AIR OR (GROUND)WATER - UTILISE NATURAL RESOURCES EFFICIENTLY AND SUSTAINABLY

NEW INJECTION TECHNOLOGY: Due to the constantly changing parameters of an inverter heat pump, special attention must be paid to overheating control. The model-based control is the result of many years of experience. It reacts proactively to future speed changes, thereby maximising the efficiency of the heat pump.

INTELLIGENT POWER CONTROL: The M-TEC Power Inverter is an innovation in heat pump technology. The principle is simple: the inverter adapts the energy used to the actual demand of your building. This improves efficiency by around 20 % and extends the service life of the compressor by significantly reducing the number of switch-on cycles.

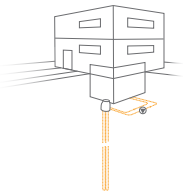
INTEGRATION OF EXTERNAL SYSTEMS: The intelligent control of the M-TEC heat pump enables the integration of photovoltaic systems, solar systems and building management systems.
This means that the electricity generated can be used for space heating and hot water preparation. Only when the hot water tank is charged and the house is comfortably warm the electricity fed into the grid. The integration of battery storage systems and communication with e-charging stations is also possible.

12x

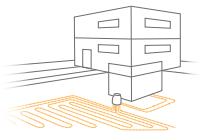
CAN BE CASCADED UP TO 12 TIMES TO OVER 600 KW: During consumption peaks, the system switches on additional devices. This flexible output adjustment improves the annual coefficient of performance and therefore the efficiency of the entire system. This makes M-TEC heat pumps the best choice even for high heating outputs.

ENERGY SOURCES

UTILISE NATURAL RESOURCES WITH SOLUTIONS FROM M-TEC.



DEEP BOREHOLE BRINE PROBE: With geothermal probes, a frost-proof liquid, the brine, circulates in a closed circuit through a plastic pipe. A geothermal probe only requires a small area of land. As the temperature is almost constant all year round from a depth of 10 metres and is therefore independent of seasonal fluctuations, the geothermal probe is particularly effective in winter when temperatures are low. In summer, they are ideal for cooling. The required length of the probe, and therefore the depth of the borehole, depends on the heat requirement of the building and the thermal conductivity of the subsoil. For an average new-build detached house, the depth is around 120 metres.

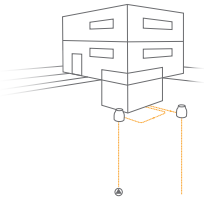


SURFACE COLLECTOR DIRECT EVAPORATION: Flat-plate collectors work with a horizontal pipe system in the ground, which is laid in coils at a depth of around 1.3 metres, similar to underfloor heating. The required collector area depends on the heat requirement of the building and the thermal conductivity of the ground. For an average new-build detached house, it is around one and a half times the heating surface. Direct evaporation technology is 20 % more efficient than conventional surface collectors.

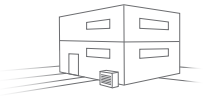
GROUND HEAT BASKETS: Ground heat baskets are a new method of extracting geothermal energy for heating and cooling purposes. They are an alternative to deep drilling for smaller heating capacities or where no official authorisation can be obtained for deep drilling. In conjunction with our WPS26 heat pump, only 3 geothermal baskets and therefore a garden area of only around 130 m² are required.

As a developer, manufacturer and service partner, M-TEC offers a comprehensive modular system for renewable energy. Combined with its in-house energy management system including an app, professional partners can access an intelligently connected product package including software solutions.

Solutions that incorporate the experience and expertise from around 50 years of development work.



GROUNDWATER: If groundwater is available in sufficient quantity and depth, it is an excellent source of heat, as the temperature is constantly between 7 and 12°C. The constant temperature of the groundwater means that maximum efficiency can be achieved even at very low outside temperatures. The two wells required take up little space and are therefore ideal for small properties. This system can not only be used for heating, but also for cooling. This also ensures a pleasant indoor climate in summer.



AIR AS A HEAT SOURCE: Air source heat pumps extract the energy for heating your building from the ambient air. They are mainly used when ground source heat pumps are not possible or economically viable. The efficiency of an air source heat pump depends heavily on the ambient temperature (the higher, the better).

PVT SYSTEM: With photovoltaic thermal collectors (PVT), PV modules and solar thermal collectors are combined in one housing. The former convert solar radiation into electricity, while the latter utilise the resulting waste heat as a heat source for the heat pump. This heat source is often used in combination with other heat sources such as geothermal or air heat. In warmer, snow-free areas, it is also often used as the sole heat source. A new source management system has been developed for these systems, which always selects the best/warmest heat source and thus optimises the annual efficiency of the system.

EARTH AND GROUNDWATER

EMOTION MODELS 4-70 KW WITH HIGHEST EFFICIENCIES

- Tested annual efficiency of 6.0
- Quick and easy to install
- Large variety of models and heat sources
- Modulating, stepless operation

FULL POWER FROM THE EARTH OR GROUNDWATER

The heat pump guarantees maximum efficiency and can be cascaded up to 12 times. This enables outputs up to 840 kW.

PROFESSIONAL TIP

PERFECT SOLUTION FOR PROFESSIONALS

- Remote maintenance via web interface
- Server solution for remote maintenance overview
- Integration of third-party systems via Modbus TCP
- Commissioning within a few minutes

M-TEC
ENERGY FOR FUTURE

WPS 412-V2 AND WPS618-V2

The established WPS concept is now also available with additional integrated features such as two circulation pumps, a 3-way valve for hot water, a brine expansion vessel, an 8.8 kW electric heating element, a heat meter (Vortex sensor) and a safety thermostat.

THE GEOTHERMAL AND GROUNDWATER HEAT PUMP: ALL HEAT PUMPS HAVE AN INTEGRATED ENERGY MANAGEMENT SYSTEM

With a tested annual efficiency of 6.0, the M-TEC geothermal and groundwater heat pump is one of the best in its class. Geothermal energy, the energy supplier for generations.

TECHNICAL DATA DIRECT VAPORISER

Models	WPD412	WPD618
	PERFORMANCE	
Power range kW	3 - 13	5 - 20
Energy class	A+++	A+++
Dimensions mm (H x L x W)	1.300 x 600 x 650	1.300 x 600 x 650
SCOP EN14825	5,81 (35°C)	6,03 (35°C)

- Heating & cooling possible
- Integration of photovoltaics
- Operation via smartphone

TECHNICAL DATA GEOTHERMAL ENERGY

Models	WPS412 + WPS412-V2	WPS618 + WPS618-V2	WPS1036-AK	WPS1052-AK
	PERFORMANCE		COMMERCIAL	
Power range kW	3 - 11	4 - 16	10 - 36	10 - 52
Energy class	A+++	A+++	A+++	A+++
Dimensions mm (H x L x W)	1.300 x 600 x 650	1.300 x 600 x 650	1.465 x 600 x 650	1.465 x 600 x 650
SCOP EN14825	5.29 (35°C)	5.51 (35°C)	5.21 (35°C)	5.42 (35°C)

TECHNICAL DATA GROUNDWATER

Models	WPS-W412	WPS-W618	WPS-W1036-AK	WPS-W1052-AK
	PERFORMANCE		COMMERCIAL	
Power range kW	3 - 12	5 - 19	13 - 49	13 - 70
Energy class	A+++	A+++	A+++	A+++
Dimensions mm (H x L x W)	1.300 x 600 x 650	1.300 x 600 x 650	1.465 x 600 x 650	1.465 x 600 x 650
SCOP EN14825	6.71 (35°C)	6.63 (35°C)	5.21 (35°C)	7.35 (35°C)

GROUND SOURCE AND PVT

THE SMALLEST MODULATING BRINE HEAT PUMP

- Optimised for geothermal and PVT systems
- Control for source mixers down to -15 °C
- Several sources such as PVT and geothermal borehole can be integrated
- Latest overheating control
- Photovoltaic self-consumption optimisation and third-party systems can be integrated
- LAN interface for remote maintenance
- Active source regeneration

VERSATILE POWERHOUSE

In addition to the heat pump and the energy management system, the circulation pumps, a changeover valve for hot water, an expansion vessel, electric rod and a source mixer for PVT systems are installed in just 0.25 m³.

M-TEC
ENERGY FOR FUTURE

HEATING COOLING

This unique heat pump can cool actively and optionally passively.

THE GROUND SOURCE AND PVT HEAT PUMP: ALL INNOVATIONS FROM M-TEC HEAT PUMP DEVELOPMENT ARE PACKED INTO JUST 0.25 m³

This can reduce heating costs by up to 50 %. With a tested annual efficiency of 5.81, the M-TEC geothermal heat pump is one of the best in its class.

TECHNICAL DATA

Models	WPS26-V2	WPS26-AK	WPS26-PVT	WPS26-AK-PVT
	PERFORMANCE			
Power range kW	2 - 6.5	2 - 6.5	2 - 6.5	2 - 6.5
Energy class	A+++	A+++	A+++	A+++
Dimensions mm (H x L x W)	612 x 610 x 430	612 x 610 x 430	612 x 610 x 430	612 x 610 x 430
Sound Power level	56 db	56 db	56 db	56 db
SCOP EN14825	5.13 (35°C)	5.13 (35°C)	5.13 (35°C)	5.13 (35°C)

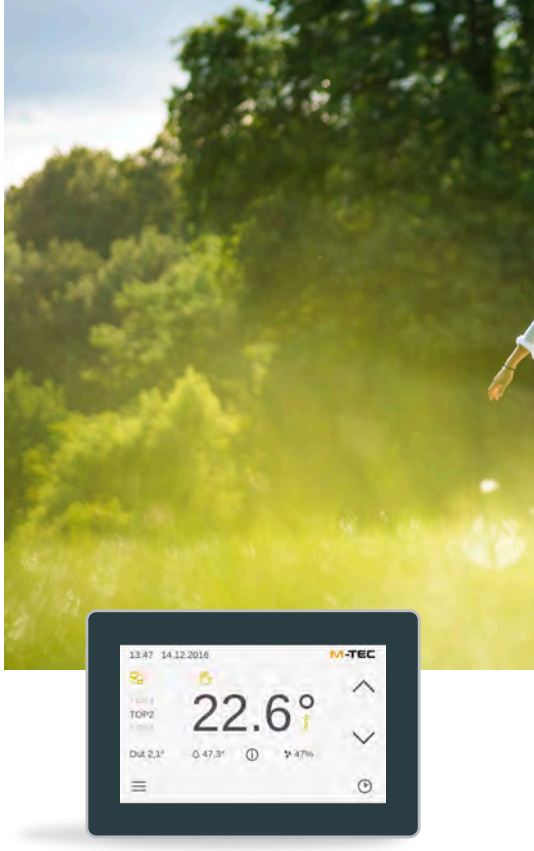
- Heating & cooling possible
- Integration of photovoltaics
- Operation via smartphone

PROFESSIONAL TIP

PERFECT SOLUTION FOR PROFESSIONALS

DOWNLOAD TECHNICAL INFORMATION

- 2 circulation pumps
- Hot water 3-way valve
- Source mixer
- 1 electric heating element
- Incl. safety thermostat
- Flexible source management



AIR

COMPACT HEAT PUMP 2-31 KW WITH MAXIMUM EFFICIENCY

- Tested annual efficiency of up to 5.5
- Top efficiency thanks to propane technology
- Innovative control technology
- Quick and easy to install
- No technical room required
- Minimal noise emissions
- Modulating, stepless operation

ELEGANT DESIGN
Perfect visual design
For outdoor installation.

SUSTAINABLE AND PRODUCED IN AUSTRIA.

M-TEC
ENERGY FOR FUTURE

COMMERCIAL

WHEN BIG THINGS ARE ON THE HORIZON

Now all M-TEC heat pumps can be cascaded up to twelve devices. This means that a power range from 2 to over 370 kW can be utilised.

THE COMPACT AIR SOURCE HEAT PUMP: QUIET OPERATION WITH SILENT MODE, ALSO SUITABLE FOR DENSELY BUILT AREAS

The design and technology make M-TEC air source heat pumps a perfect source of heat even at low temperatures and ensure a pleasant indoor climate in summer.

TECHNICAL DATA

Models	AHPC27	AHPA412	AHPA413	AHPA618	WPLK722	WPLK1030
	ECO		PERFORMANCE		COMMERCIAL	
Power range kW	2 - 7	4 - 12	4 - 13	6 - 18	4-22	8 - 31
Refrigerant	R290				R410a	
Energy class	A+++	A+++	A+++	A+++	A+++	A+++
Dimensions mm (H x L x W)	800 x 1150 x 410	1040 x 1552 x 552	1202 x 1747 x 622		1433 x 1965 x 755	
Nom. Sound according to EN12102*	49 dB(A)	44 dB(A)	46 dB(A)	53 dB (A)	53 dB(A)	53 dB(A)
SCOP EN14825	4.7	5.1 (35°C)	5.5 (35°C)	5.2 (35°C)	5.5 (35°C)	5.2 (35°C)

* Nom. Sound Power level according to EN12102

- Heating & cooling possible
- Integration of photovoltaics
- Operation via smartphone

PROFESSIONAL TIP

PERFECT SOLUTION FOR PROFESSIONALS

DOWNLOAD TECHNICAL INFORMATION

- Remote maintenance via web interface
- Server solution for remote maintenance overview
- Integration in third-party systems via Modbus TCP
- Commissioning within a few minutes

AIR

SPLIT 2-17 KW MODELS FOR FLEXIBLE INSTALLATION

DOWNLOAD TECHNICAL INFORMATION

Modulating, stepless operation for a confirmed annual efficiency of 4.59 and minimised noise emissions.

THE SPLIT AIR SOURCE HEAT PUMP: PERFECTLY ADAPTED TO THE CLIMATIC CONDITIONS OF OUR REGIONS

The split air source heat pump requires little space for installation. In the split version, the evaporator is located outside and the heat pump inside the building. Available in the sizes modulating from 4-11 kW and 6-17 kW.

TECHNICAL DATA SPLIT MODELS

Models	WPL412	WPL618
	PERFORMANCE	
Power range kW	2 - 12	4 - 17
Energy class	A+++	A+++
Dimensions mm (H x L x W)	1300 x 600 x 650	1300 x 600 x 650
Sound Power level*	45 dB(A)	46 dB(A)
SCOP EN14825	4,59 (35°C)	4,55 (35°C)

* Nom. Sound Power level according to EN12102

M-TEC
ENERGY FOR FUTURE

BOOSTER

THE HEAT PUMP WITH 5 KW FOR HOT WATER

The booster heat pump works in combination with every M-TEC heat pump and ensures hygienic domestic hot water preparation by heating the buffer cylinder with fresh water module or individual cylinder to 65°C.

Refrigerant propane with less than 150g and therefore can be installed in the building.

PROPANE TECNOLOGY

THE BOOSTER HEAT PUMP: GENERATING HEAT FOR SPACE HEATING AND HOT WATER

The M-TEC booster heat pump ensures that the statutory domestic hot water temperatures are reached without a conventional heat generator or electric rod. A flow temperature of 75°C prevents the spread of legionella.

TECHNICAL DATA HEAT PUMP BOOSTER

Models	HW5 Booster
	PERFORMANCE
Power kW	5.1
Dimensions mm (H x L x W)	710 x 600 x 580
Sound Power level*	56 dB(A)
COP according to EN14511	6.7 (W20/W45)

* Nom. Sound Power level according to EN12102

DOWNLOAD TECHNICAL INFORMATION

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