



AIR
SOURCE
HEAT PUMPS
2 - 31 KW

5 DECADES USE EXPERIENCE



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M-TEC HEAT PUMPS

M-TEC, based in Austria, is a "green tech" company with a special focus on the development and production of highly efficient heat pumps.

As a specialist in intelligent control technology and for a sustainable Energy management, we develop cross-system solutions for heating, cooling, ventilation, water heating, photovoltaics and solar thermal energy.

More than five decades of experience with over 20.000 heat pumps, patents in the field of innovative complete heat pump systems and the constant further development of heat pump technology are important cornerstones of the corporate strategy.

M-TEC Technology

HEATING

COOLING



DR. HANNES JAKOB, MBA
CEO -EXECUTIVE PARTNER

"M-TEC stands for honesty, trust and the highest quality for more than 5 decades. As managing director, I see it as my task not only to support you in your heat pump project, but also to inspire you with our cooperation."



100 % SUSTAINABLE:

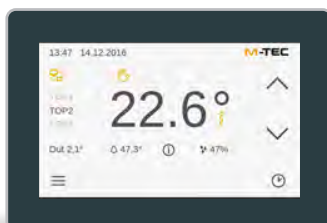
M-TEC International heat pumps are produced in Upper Austria with 100% renewable energy - 100% energy generated from our own photovoltaic system and our own hydropower plant.

Our mission is people's independence in the energy supply of their homes through Heat pump, photovoltaic, storage and E-mobility, controlled by our innovative Energy management system E-Smart.



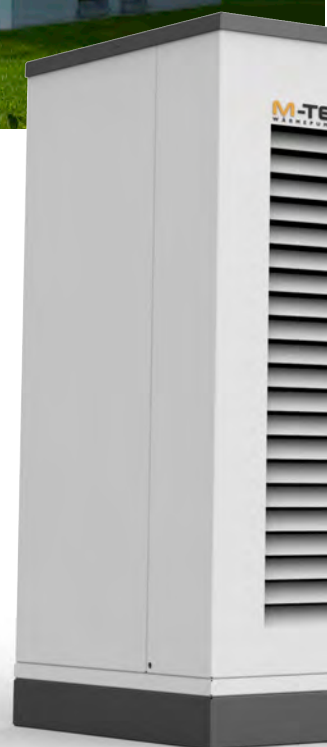
HOW THE M-TEC HEAT PUMP WORKS

In principle, the heat pump works like a refrigerator: the same technique, only reversed utility. The heat pump receives energy from the heat source side (earth, water or air) at a low temperature and releases heat with a higher temperature on the heating side.



INTELLIGENT POWER CONTROL

The M-TEC International Power Inverter is a true innovation in the field of heat pump technology. The principle is very simple: The inverter adjusts the energy used to the actual needs of your home. The efficiency is thereby improved by approximately 20% and the life span of the compressor is prolonged due to significantly less switch-on cycles.



NATURAL SOURCES FOR ENERGY GENERATION

"The heat pump uses solar energy that is stored in the air." This energy is available at any time, day or night, summer or winter. With air source heat pumps, on the one hand, it is important that they are designed for our cold climate in order to be able to ensure maximum efficiency and, on the other hand, attention must be paid to the lowest possible noise emissions. Our heat pumps have been optimised for these criteria.



M-TEC air heat pump from 4 to 124 kW.
Ideal for use in single-family houses, but also for
residential complexes and businesses premises.



NEW INJECTION TECHNOLOGY

Due to the constantly changing parameters of an inverter heat pump, special attention must be paid to the overheating control. The new, model-based control is a product of years of experience. Proactive reactances are made to future speed changes and therefore the efficiency of the heat pump is maximised.

HEATING

COOLING



The first heat pump with integrated energy management. With the E-Smart functions, you can turn your M-TEC heat pump into the energy concept of the future..

REFRIGERANT
R410A

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M-TEC Technology

HEATING COOLING

AIR SOURCE HEAT PUMP FROM 2 TO 31 kW

All M-TEC heat pumps can be cascaded with up to four devices. In this way, a power range **of 2 to 370 kW** can be used for the largest heat pump..

TOP SYSTEM CONCEPT

The best heat pump is only as good as the designed system concept. M-TEC is always optimally oriented to this development!

This results in heating systems with maximum efficiency, which is permanently tested and confirmed by independent authorised testing institutes



REFRIGERANT
R452B



display model Premium

ADVANTAGES

- Maximum efficiency of heat pump systems
- High innovative power also in the field of control technology
 - Inverter technology
 - Latest overheating control
 - PV Self-consumption optimization
 - Advanced "Smart Grid" functionality
 - External systems can be integrated
 - LAN interface in each heat pump
 - Easy to use touch screen technology, tablets or smartphones
- Energy-Managementsystem **E-SMART*** for best integration of photovoltaics, Battery storage, e-mobility, ...

* optionally included in the E-Smart Premium package



CONNECT ALL THE DEVICES IN YOUR HOME EASILY AND EFFICIENTLY

Thanks to "Internet Inside", M-TEC heat pumps have been able to take advantage of current developments for years. The advantages of digital networking are obvious. Maintenance and fault diagnosis can be carried out quickly and easily via remote maintenance. Travel costs and time are eliminated. In addition, you can control your heating from anywhere: Whether smartphone or tablet - use the various options to manage your room temperatures..

SMART GRID



M-TEC International heat pumps are already "Smart Grid Ready" today.

With this function, you can use the cost savings of future electricity networks. In times where generally less power is consumed, electricity is also cheaper. Therefore the operating time of the heat pump should be shifted to this period. This is fully automated by M-TEC International's intelligent control system..

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INTERNET INSIDE

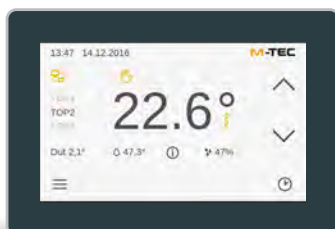
All M-TEC heat pumps are already equipped with the future technology of "Internet Inside". This allows you as a customer to control your heat pump from your mobile phone, tablet or PC. If the heat pump is no longer working optimally, the heat pump automatically signals the problem to your selected heat pump installer. Via "Internet Inside", these adjustments can be made to the control settings, without having to be on site. This saves your time and money.



INTEGRATION OF EXTERNAL SYSTEMS

The integration of a photovoltaic system, solar system or house management system are possible thanks to the intelligent control of the M-TEC heat pump.

Photovoltaic integration can use the self-generated electricity for space heating as well as hot water preparation, preferably for own consumption. Feeding your own PV electricity to the grid will only occur when the hot water storage tank is charged and the house is comfortably warm.



Whether touch operation, M-TEC control or control via smartphone - networked Technology makes your heat pump versatile to use.



THE PHOTOVOLTAIC AIR SOURCE HEAT PUMP

Outstanding features of M-TEC heat pumps are their efficiency and future-oriented control technology. Compared to conventional heating systems, this results in exceptionally low operating costs for heating and hot water. Solar Thermal and Solar Photovoltaic systems can easily be integrated with the heat pump both enhancing and complementing the heat pump to attain even higher levels of efficiency, reducing energy consumption and cutting emissions.



Thanks to the sophisticated M-TEC controller with TouchScreen, self-generated electricity from the photovoltaic system can be used for heating and cooling of the house.

The speed control of the heat pump adapts itself to the photovoltaic power independently. The free photovoltaic electricity can thus be used as best as possible to heat the house, hot water and swimming pool.



ADVANTAGES

- Maximum self-consumption of free photovoltaic power
- High degree of comfort
- Long-term security of supply at the lowest cost
- Low maintenance
- Ready for that with the **E-SMART** Energy management system of the future.

ADVANTAGES

- Increase the lifetime
- Maintenance by certified specialists
- Flat rate per year

INDIVIDUAL WARRANTY EXTENSIONS

Benefit from a specialist in geothermal energy with modern heat pump technology. M-TEC International heat pumps are the product of over 40 years experience in heat pumps and a cooperation in the field of control technology with the global company KEBA. Due to the high quality requirements, it is easy for us to offer extended warranties in addition to the guarantees.



It can be chosen between

**3 years, 5 years or
10 years Warranty-Extension**

on all materials. *

* Prices according to valid M-TEC International price list and valid warranty conditions

Technical Specifications

Air/Water-Heat Pumps							
Models				WPLK 412	WPLK 618	WPLK 722	WPLK 1030
Power Range [kW]				2-12 kW	4-17 kW	4-22 kW	8-31 kW
Energy Class 35 °C				A+++	A+++	A+++	A+++
Energy Class 55 °C				A+++	A+++	A+++	A+++
Dimensions H x W x D [mm]				1040 x 1560 x 560	1205 x 1750 x 625	1433 x 1965 x 755	
Weight [kg]				215	275	400	405
Refrigerant				R452b		R410a	
Sound power level acc. EN12102:2018-1 [dB(A)]				45,0	49,9	52,6	53,3
Sound level add. for low-frequency noise characteristics Lz				0 dB			
Fuse Main Current [A]				3 x C16		3 x C32	
Fuse Controller [A]				1 x B13			
Hydraulic Connection [Zoll]				1" External Thread		5/4" External Thread	
Max. Flow temperatur [°C]				up to 62			
PERFORMANCE DATA ACCORDING EN 14825							
Climate: average		SCOP 35°C		4,95	4,92	5,49	5,2
		η s 35°C [%]		195	194	214	204
		SCOP 55°C		3,82	3,78	4,19	3,92
		η s 55°C [%]		150	148	163	152
PERFORMANCE DATA ACCORDING EN 15879							
Heating Output/COP	A7/W35 acc. EN14511	Partial Load	kW/COP	4,80 / 5,18	7,20 / 4,99	13,80 / 5,58	20,40 / 5,11
	A7/W55 acc. EN14511	Partial Load	kW/COP	5,40 / 3,20	8,10 / 3,07	14,00 / 3,41	20,90 / 3,07
	A2/W35 acc. EN14511	Partial Load	kW/COP	6,60 / 4,56	9,00 / 4,31	10,50 / 4,93	15,90 / 4,54
	A2/W42 acc. EN14511	Partial Load	kW/COP	5,79 / 3,90	8,78 / 3,92	9,92 / 4,20	14,90 / 3,92
	A-7/W34 acc. EN14511	Full Load	kW/COP	9,10 / 3,22	12,90 / 3,21	17,2 / 3,25	23,90 / 3,14
	A-7/W52 acc. EN14511	Full Load	kW/COP	9,00 / 2,45	13,40 / 2,36	16,30 / 2,45	23,80 / 2,25
	A-10/W35 acc. EN14511	Full Load	kW/COP	8,23 / 3,12	12,45 / 3,13	15,90 / 3,06	22,10 / 2,89
	A-10/W55 acc. EN14511	Full Load	kW/COP	8,30 / 2,22	12,53 / 2,23	15,10 / 2,13	22,00 / 1,96
Heating Output	A7/W35	min. / max.	kW/kW	2,20 / 13,80	3,20 / 19,90	4,90 / 25,20	9,30 / 34,20
	A7/W55	min. / max.	kW/kW	4,40 / 12,70	6,00 / 20,00	4,30 / 24,10	8,60 / 33,80
	A2/W35	min. / max.	kW/kW	1,90 / 12,10	2,70 / 17,00	4,20 / 21,80	8,10 / 26,50
	A2/W35 Power*	min. / max.	kW/kW	-	-	-	8,10 / 31,00
	A2/W55	min. / max.	kW/kW	3,80 / 11,00	5,10 / 17,10	3,90 / 20,60	7,80 / 26,10
	A2/W55 Power*	min. / max.	kW/kW	-	-	-	7,80 / 30,50
	A-7/W35	min. / max.	kW/kW	2,80 / 9,40	4,10 / 13,20	3,70 / 16,80	7,50 / 22,80
	A-7/W55	min. / max.	kW/kW	3,60 / 8,70	5,20 / 13,40	3,70 / 16,50	7,50 / 22,40
	A20/W35	min. / max.	kW/kW	6,00 / 21,10	9,00 / 32,40	6,10 / 30,30	13,20 / 42,10
Cooling Capacity A35/W18		min. / max.	kW/kW	3,90 / 8,10	5,90 / 12,50	5,60 / 14,40	10,90 / 25,20
Cooling Capacity A35/W7		min. / max.	kW/kW	2,90 / 5,60	4,40 / 8,60	3,80 / 10,90	8,10 / 20,40
Sound Power (A-7/W55)		Night / max.	db(A)	54,10 / 59,70	56,40 / 62,10	57,20 / 67,10	58,90 / 68,00
Sound Power acc. EN12102			db(A)	45	49,90	52,60	53,30

All data include any defrosting that may be necessary.

* All power values with 100 rps (compressor speed) can be activated in the software, but these were not tested in the test center according to EN14511.

Compressor-related power deviations of up to 10% are possible. All Rights Reserved. Typesetting and printing errors reserved. *

THE E-SMART GENERATION



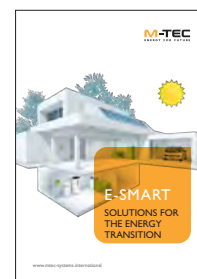
More and more companies are recognizing the opportunities of an independent energy cycle. This smart Combination opens up considerable savings potential

- Own power supply
- sustainable production of heat and cooling
- Kcost reduction through electromobility

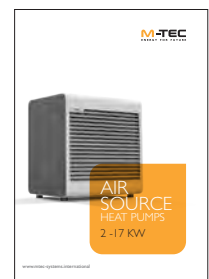
With M-TEC Energy Systems you use a complete system for the production and management of energy.

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