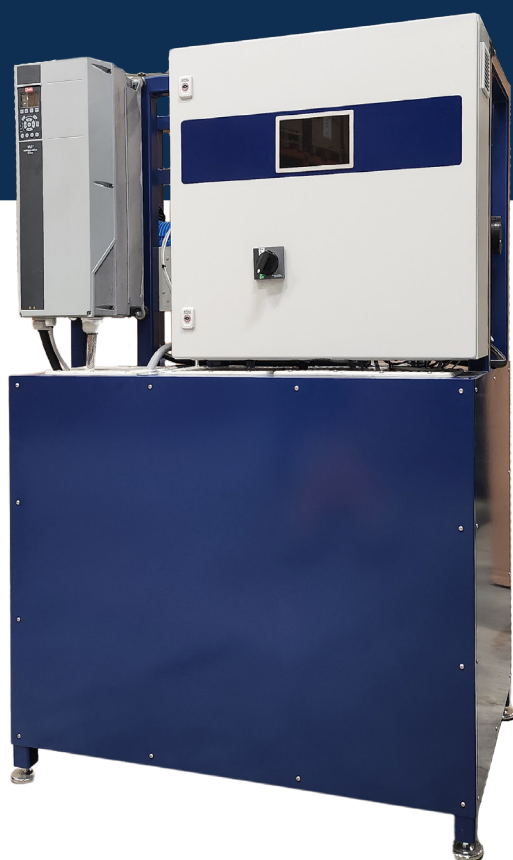


Efficient optimization of heating
and hot water systems



Performance range
eXm-max (100 kW)

**Using heat more efficient.
With the eXergy machine!**



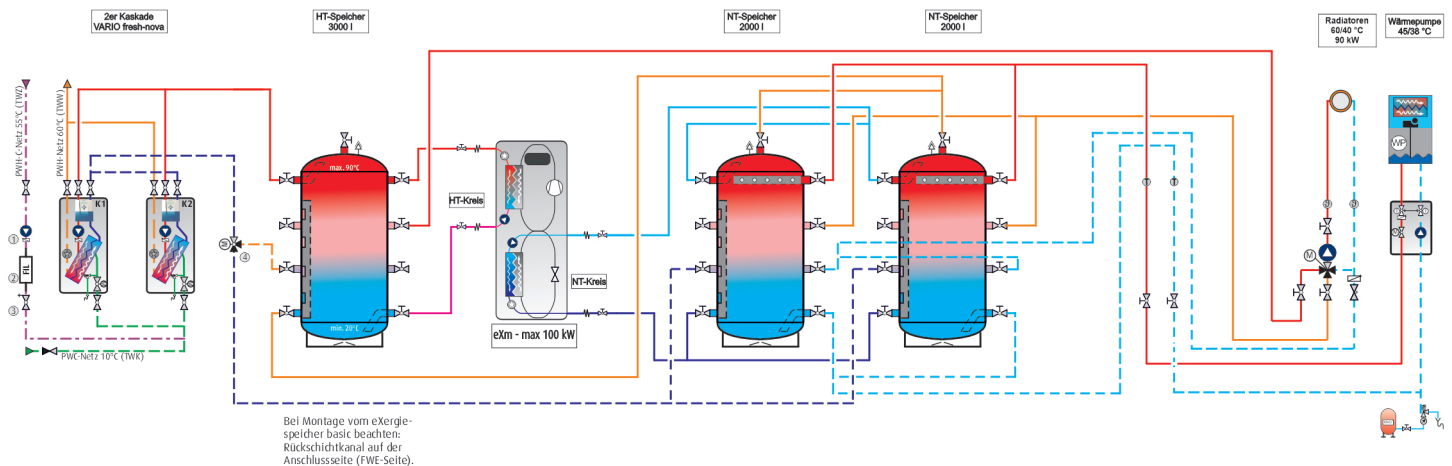
www.exergiemaschine.com

Areas of application

Heating support with the eXm-max

The eXergiemaschine-max, with a heating capacity of 100 kW, provides an efficient solution for selectively increasing the supply temperature when the primary heat generator is unable to deliver the required temperature. This ensures that, for example, a heat pump can operate within its optimal performance range. The eXm-max demonstrates its advantages particularly in existing buildings, where radiators often require higher supply temperatures. It can reliably handle the base load for domestic hot water production and also provide supplemental heating during peak demand periods.

The result is efficient heat generation at the necessary temperature level — ideal for a sustainable and high-performance heat supply system.



Additional use cases for large-scale facilities

- Increase of supply temperature in heating centers
- Waste heat utilization and heat recovery
- Industrial plants
- Local heating networks
- Hybrid collectors
- etc.



Dimensions and performance range

Technical data	Type eXergie machine eXm-max 100 kW
Nominal Heating Capacity (kW) at W40-30/W50-65	100
COP Value (W45-35/W50-65)	5,9
Application Fields	
Inlet Temperature – LT Side (°C) (min–max)	25-60
Outlet Temperature – HT Side (°C) (min–max)	45-80
Maximum operating pressure on the heating side (bar)	6
Permissible ambient temperature (installation room) (°C)	40
Refrigerant	R513a
GWP (Global Warming Potential)	631
Safety class	A1
Practical limit (kg/m ³)	0,32
LFL (Lower Flammability Limit)	NF (non-flammable)
Water hazard class (WGK)	1 (slightly hazardous)
Refrigerant charge (kg)	8,4
Electrical power input Pel, approx. (kW)	28
Power supply / upstream fuse	400V/63A/Typ C
Maximum operating current (MCC) in A	69,6
Operating current per phase in A	25,2
Starting current (locked rotor LRA) in A	245
Pipe connections (4 pieces)	2"ÜM
Housing dimensions W/D/H (mm)	790 / 1200 / 1900
Weight (kg)	560
Sound power level LW (dB/A) at 1 m distance	69
Footprint for maintenance work approx.	Approximately 50 cm clearance around the unit / 100 cm at the front



Dimensions and performance range

Technical data	Type eXergie machine eXm-max 100 kW	
Leistungsdaten		
Type	eXm-max 100 kW	
Nominal conditions	W45-40 / W50-75	
Q _{HT} (kW)	100	
HT-volume flow at $\Delta T=15$ K in (m ³ /h)	5,73	
LT-volume flow at $\Delta T=10$ K (m ³ /h)	7,31	
	KW	COP
COP at W25-20/W50-65	89	3,7
COP at W35-30/W50-65	115	4,8
COP at W40-35/W50-65	98	5,8
COP at W45-40/W50-75	105	5,3
COP at W50-45/W55-70	104	6,1
COP at W58-53/W58-80	82	6,0

Legende: Q_{HT} = thermal transfer capacity | HT = high-temperature / condenser side |
LT = low-temperature / evaporator side



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