

VOLTA W H 90

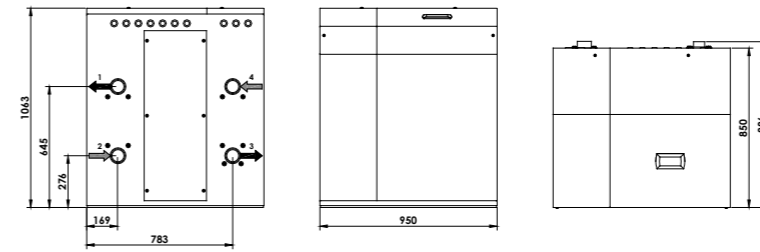
- Modulating thermal power control within a wide range (25-100%) and modulating flow rate control of both brine and production circuits (20-100%).
- Inverter technology and scroll compressor.
- Integrated management of up to 5 different emission temperatures, 2 buffer tanks (heating and cooling), 1 DHW tank, 1 pool and hourly control of DHW recirculation.
- Management of atherothermal collection modulating units, in case of air source or hybrid configurations by means of the VOLTA S-Source.
- Integrated management of external On/Off or modulating auxiliary systems, such as electrical heaters, On/Off boilers or modulating boilers.
- Management of cascade systems up to 6 units by means of the VOLTA S-Supervisor.
- Integrated management of simultaneous cooling/heating systems according to scheme.
- Free cooling (Passive cooling) management.
- Integrated active cooling in models 3.
- Three-phase version available.
- Integrated photovoltaic hybridisation.
- Integrated energy meters to measure the electrical consumption, the heating/cooling thermal power, the COP and the monthly and annual SPF.

SPECIFICATIONS VOLTA W H 90		UNITS	W H H	W H A
APPLICATION	Place of installation	-	Indoors	
	Type of brine system ¹	-	Ground source / Air source / Hybrid source	
	DHW with external tank	-	✓	✓
	Heating and Pool	-	✓	✓
	External Passive cooling management	-	✓	✓
	Integrated Active cooling	-	-	✓
PERFORMANCE	Modulation range of the compressor	%	25 to 100	
	Heating power output ¹ , B0W35	kW	21,1 to 86,7	
	COP ¹ , B0W35	-	4,5	
	Active cooling power output ¹ , B35W7	kW	-	22,3 to 90,3
	EER ¹ , B35W7	-	-	4,6
	Max. DHW temperature without / with support	°C	60 / 70	
	Noise power emission level ³	db	59 to 72	
	Energy label / ηs / SCOP W35 average climate control	-	A+++ / 199% / 5,08	
	Energy label / ηs / SCOP W55 average climate control	-	A++ / 147% / 3,78	
	OPERATION LIMITS	Distribution / Set heating outlet temperature range ²	°C	10 to 60 / 20 to 60
Distribution / Set cooling outlet temperature range ²		°C	5 to 35 / 7 to 25	
Brine inlet temperature range in heating applications ²		°C	-20 to 35	
Brine inlet temperature range in cooling applications ²		°C	10 to 60	
Minimum / Maximum refrigerant circuit pressure		bar	2 / 45	
Production / Pre-load circuit pressure		bar	0,5 to 5,0	
WORKING FLUIDS	Brine / Pre-load circuit pressure	bar	0,5 to 5,0	
	R410A Refrigerant load	kg	8,5	9,1
	Compressor oil type / load	kg	POE 160SZ / 7,7	
	Nominal primary flow rate, B0W35 ¹ (ΔT = 3 °C)	l/h	4765 to 19360	
CONTROL ELECTRICAL DATA	Nominal secondary flow rate, B0W35 ¹ (ΔT = 5 °C)	l/h	3625 to 14935	
	1/N/PE 230 V / 50-60 Hz ⁵	-	✓	
	Maximum recommended external protection ⁷	-	C1A	
	Transformer primary circuit fuse	A	0,63	
	Transformer secondary circuit fuse	A	4,0	
	ELECTRICAL DATA: THREE-PHASE	3/N/PE 400 V / 50-60Hz ⁵	-	✓
Maximum recommended external protection ⁷		-	C63A	
Maximum consumption ² , B0W35		kW / A	20,3 / 31,8	
Maximum consumption ² , B0W55		kW / A	29,6 / 45,1	
Maximum consumption		kW / A	33,7 / 52,9	
Minimum / Maximum starting current ⁴		A	10,8 / 16,7	
DIMENSIONS/WEIGHT	Correction of cosine Ø	-	0,96 / 1	
	Height x width x depth	mm	1063x950x886	
	Empty weight (without assembly)	kg	450	465

1. In compliance with EN 14511, this includes the consumption of the circulation pumps and the compressor driver.
 2. With variable speed circulating pumps, managed by the VOLTA W H heat pump.
 3. According to EN 12102.
 4. Starting current depends on working condition of the hydraulic circuits.
 5. The admissible voltage range for proper operation of the heat pump is ±10%.
 6. Maximum consumption can vary significantly according to working conditions, or if the compressor's range of operation is restricted.
 7. External protection exclusively regarding the VOLTA W heat pump controller electrical consumption. This protection should be updated in case of using the controller single-phase electrical supply to wire other equipments depending on the features of such equipments.
 8. In case of air source or hybrid source configuration, it is required to combine the VOLTA W H heat pump with the VOLTA S-Source.
 Note: primary circuit and secondary circuit circulation pumps not included.

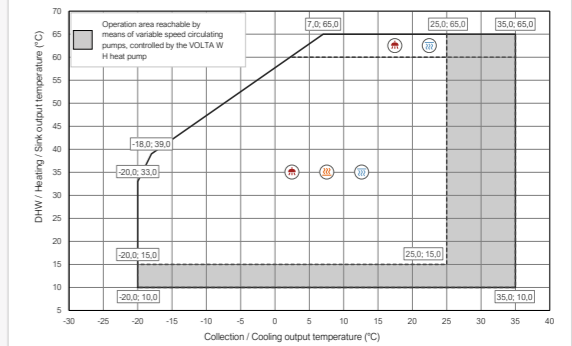
Dimensions and hydraulic connections

VOLTA W H

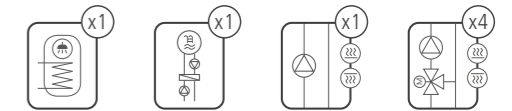


1. Secondary Outlet - 2 1/2" M
2. Secondary Inlet - 2 1/2" M
3. Primary Outlet - 2 1/2" M
4. Primary Inlet - 2 1/2" M

Operational chart

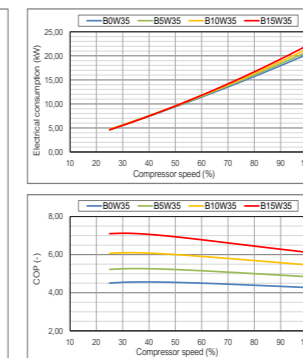
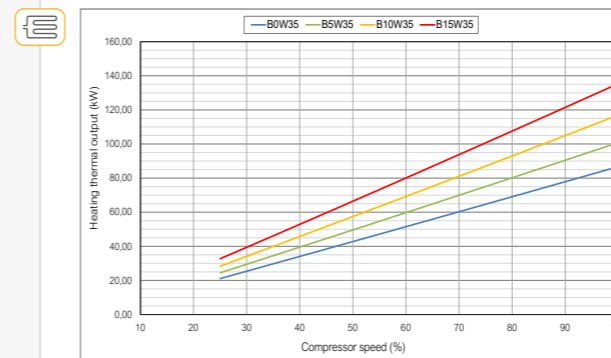


Installation management



Performance curves

Thermal performance



Hydraulic performance

