

ONE SYSTEM FOR ALL APPLICATIONS

Estia R410A 16



Symbol photo



Highlights

- Heating and cooling function
- Compressor control range 10 to 100%
- Operation without backup heating up to the standard outdoor temperature

Air/Water heat pumps in a split design for flow temperatures up to +55°C, in the power range of 5 to 16 kW, for generating hot or cold water. Combination of outdoor unit and hydro unit for supplying all applications such as hot water tanks, fan coils, radiators, or underfloor heating.



Attractive and economical

- Very high energy efficiency (A++)
- COP efficiency up to 4.90
- Low investment, installation, and operating costs
- Exceptionally high efficiency in the partial load range
- Suitable for monovalent heating
- For heating and process water generation
- Can be connected to existing heating systems
- Reliable heating with an outdoor temperature down to -20°C
- Corresponds to the ECODESIGN Lot 1 Directive
- Master/Slave control for up to 8 ESTIA systems



Resource-friendly

- Inverter control minimizes electricity consumption
- Pre-filled with environmentally-friendly refrigerant R410A
- Air used as energy source in heating mode
- Unobtrusive design fits any interior
- Compact & quiet outdoor unit
- "Night operation" whisper operating mode



Easy operation

- Control unit integrated into the hydro unit
- Additional remote control available
- Easy icon-guided operation
- Integrated 2-zone temperature control
- Automatic restart after power outage
- Weekly timer
- Frost protection function
- Hot water boost
- Night set-back function



Technical details

- Direct current hybrid inverter technology
- Twin-rotary compressor
- Pipe lengths up to 30 m
- Flow temperature heating up to +55°C
- Six-stage A-class water pump



Estia R410A 16 / SET

Outdoor unit			HWS-1605H8-E
Heating capacity @ A+7/W+35 (nom.)	kW	☀	16,00
Power consumption @ A+7/W+35 (nom.)	kW	☀	3,72
Energy efficiency COP @ A+7/W+35 (nom.)	W/W	☀	4,30
Heating capacity @ A+2/W+35 (max.)	kW	☀	11,61
Power consumption @ A+2/W+35 (max.)	kW	☀	3,46
Energy efficiency COP @ A+2/W+35 (max.)	W/W	☀	3,36
Energy efficiency class		☀	A++
Seasonal space heating efficiency (ns), low temperature (35 °C), average climate	%		159
Cooling capacity @ A+35/W+7 (nom.)	kW	❄	13,00
Power consumption @ A+35/W+7 (nom.)	kW	❄	4,80
Energy efficiency EER @ A+35/W+7 (nom.)	W/W	❄	2,71
Energy efficiency class		❄	A++
Compressor type			Twin-Rotary
Power supply	V/Ph+N/Hz		380-400/3+N/50
Running current (max.)	A		14,60
Starting current	A		Softstart
Recommended power supply line type			H07RN-F 5G2,5
Recommended fusing	A		3 x 16
Communication line			H07RN-F 4G1,5
Outdoor temperature operating range (min.-max.)	°C	☀	-20 / +43
Outdoor temperature operating range (min.-max.)	°C	❄	+15 / +43
Liquid pipe diameter	mm (inch)		9,5 (3/8)
Suction gas pipe diameter	mm (inch)		15,9 (5/8)
Pipe length (min.)	m		5
Pipe length (max.)	m		30
Height difference (max.)	m		30
Sound pressure level (low/med/high)	dB(A)	☀	53
Sound pressure level (low/med/high)	dB(A)	❄	53
Sound power level	dB(A)	☀	69
Sound power level	dB(A)	❄	69
Sound pressure level (night operation)	dB(A)	❄	46
Sound power level (night operation)	dB(A)	☀	61
Sound power level (night operation)	dB(A)	❄	60
Refrigerant			R410A
Refrigerant charge	kg		2,7
CO2 equivalent	t		5,638
Pre-charged up to	m		30
Dimensions (HxWxD)	mm		1340 x 900 x 320
Weight	kg		93

❄ Cooling ☀ Heating



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Indoor unit			HWS-1405XWHT6-E
Supply water temperature (min.-max.)	°C	☀	20/55
Supply water temperature (min.-max.)	°C	❄	7/25
Compatible outdoor units			1105/1405/1605
Backup heater, capacity	kW		6
Backup heater, connection	Ph+N		380-400/3/50
Backup heater, recommend fusing	A		2x 16
Water pump			Non-self-suction centrifugal pump
Water flow rate (min.)	m ³ /h		1,05
Water flow rate (nom.)	m ³ /h		2,748/2,238
Water pump, power consumption (max.)	kW		0,190
Water pump, energy efficiency class			A
Water pump, discharge head (max.)	m		8,8
Expansion vessel	l		12
Water connection (inlet/outlet)	Inch		1 1/4
Sound pressure level (low/med/high)	dB(A)	☀	32
Sound pressure level (low/med/high)	dB(A)	❄	32
Sound power level	dB(A)	☀	43
Sound power level	dB(A)	❄	43
Dimensions (HxWxD)	mm		925 x 525 x 355
Weight	kg		52

❄ Cooling ☀ Heating

The measuring conditions for this product can be found at <https://www.toshiba-aircondition.com/en/measuring-conditions.html>

