

# Compact-Y NF Plus THAETY 115÷127 NF



Cooling capacity: 15.5÷26.6 kW - Heating capacity:  
16.6÷30.4 kW

- √ Hot water up to  $-15^{\circ}\text{C}$  outdoor air
- √ Temperature of the produced water up to  $60^{\circ}\text{C}$
- √ Plug&Play unit with integrated hydraulic module
- √ Included evaporating/condensing control
- √ Integrated MASTER/SLAVE control



Web code: CYP11

**Packaged reversible air-cooled heat pumps with axial fans. Range with scroll hermetic compressors and R410A refrigerant gas.**

## Construction features

- Compressor: hermetic, rotary scroll compressor, complete with thermal protection and casing heater for mod. 127.
- Water side heat exchanger: adequately insulated stainless steel plates, complete with antifreeze heater and water flow differential pressure switch.
- Air side heat exchanger: featuring finned coil with copper pipes and aluminium fins with hydrophilic treatment and complete with protection grille.
- Fan: external rotor axial type electric fans equipped with internal thermal protection, accident protection grilles and proportional electronic device for continuous fan rotation speed regulation.
- Control: microprocessor electronic control with Adaptive Function Plus logic.
- Structure: made of galvanised and painted steel plate, complete with condensate drain pan and unit base antifreeze heater.
- The unit is also complete with:
  - outdoor air temperature probe for compensation of the set-point;
  - display of cooling circuit high and low pressure;
  - Master/Slave control up to 4 units in parallel;
  - clock board.

## Version

- T - High efficiency/temperature version.

## Models

- THAETY: heat pump unit.

## PUMP set-up

- Pump unit complete with: circulator or electric circulation pump, membrane expansion tank, manual air vent valve, safety valve and pressure gauge.

### TANK&PUMP set up

- Pump unit complete with: inertial buffer tank, circulator or electric circulation pump, membrane expansion tank, manual air vent valve, automatic air vent valve, safety valve, and pressure gauge.

## Factory fitted accessories

- Soft-start device.
- Silenced set up.
- Antifreeze heater on the tank.
- Compressor casing heater (mod. 115-124).
- Digital input for double set-point.
- 4-20 mA analogue signal for shifting set-point.
- Low water set-point temperature.

## Separately supplied accessories

- 3-way valve for the production of domestic hot water, managed by regulation.
- Additional electrical resistance for heat pump, managed by regulation.
- Outdoor air temperature probe for set-point compensation.
- Rubber anti-vibration mounts.
- Water filter.

- Remote keypad with display.
- Interfaces for serial communication with other devices.
- Serial converter (RS485/USB).
- Rhoss supervisors for unit monitoring and remote management.

## Technical Data

THAETY NF MODEL		115	117	122	124	127
① Heating capacity	kW	16,6	17,7	23,4	25,9	30,4
① Absorbed power	kW	5,72	6,32	8,18	9,08	10,03
① C.O.P.		2,9	2,8	2,86	2,85	3,03
② Heating capacity	kW	18	19	24,8	27,8	32,3
② Absorbed power	kW	4,33	4,53	5,9	6,59	7,58
② C.O.P.		4,16	4,19	4,2	4,22	4,26
③ Heating capacity	kW	11,7	12	15,7	17,9	20,8
③ C.O.P.		2,77	2,77	2,8	2,77	2,84
④ Cooling capacity	kW	15,5	17,6	22,5	23,9	26,6
④ Absorbed power	kW	5,81	6,62	8,14	9,45	10,11
④ E.E.R.		2,67	2,66	2,75	2,53	2,63
⑤ Sound pressure	dB(A)	50	50	52	52	53
⑤ Silenced setup sound pressure	dB(A)	46	46	49	49	50
Scroll/step compressor	no.	1/1	1/1	1/1	1/1	1/1
Buffer tank water content	l	35	35	45	45	45
① P0 circulator/P1 electric pump nominal available head	kPa	75/155	64/136	66/131	68/130	63/120
Electrical supply	V-ph-Hz	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50
<b>DIMENSIONS AND WEIGHT</b>		<b>115</b>	<b>117</b>	<b>122</b>	<b>124</b>	<b>127</b>
L - PUMP width	mm	1230	1230	1230	1230	1535
L - TANK&PUMP width	mm	1522	1522	1522	1522	1822
H - Height	mm	1090	1090	1280	1280	1510
P - Depth	mm	580	580	600	600	695
⑥ Weight	kg	215	225	278	288	350
<b>SEASONAL ENERGY PERFORMANCE</b>		<b>115</b>	<b>117</b>	<b>122</b>	<b>124</b>	<b>127</b>
<b>THAETY NF MODEL SEASONAL PERFORMANCE IN HEATING MODE</b>						
③ Pdesignh (EN 14825)	kW	18	18	24	27	32
③ SCOP (EN 14825)		3,62	3,74	3,72	3,74	3,68
④ $\eta_s$	%	142	146	146	146	144
④ Energy class		A+	A+	A+	A+	A+

Data at the following conditions:

① Air: 7°C D.B. - 6°C W.B. - Water: 40/45°C.

② Air: 7°C D.B. - 6°C W.B. - Water: 30/35°C.

③ Air: -7°C D.B. - Water: 30/35°C.

④ Air: 35°C D.B. - Water: 12/7°C.

⑤ In open field (Q = 2) at 5 m from the unit.

⑥ Weight refers to the most complete setup.

Performance according to EN 14511. Setup with circulator.

Important note:

- With circulator (P0/ASP0 setup) the units are not suitable for radiant cooling operation.

- Permissible heat exchanger thermal gradient  $\Delta T = 4-8^\circ\text{C}$ .

③ In Average climatic conditions, low temperature application (35°C)

④ Seasonal energy efficiency: low temperature heating in Average climate (EU Regulations No.811/2013 and No.813/2013)

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