

CERTIFICATE of Conformity



Certificate No.: MK 69268181 0001

Test Report No.: HU25ABCT 001
HU25HVLR 001
HU25YCZX 001

Certificate Holder: UAB Refra
Darius ir Gireno str. 179, LT - 02189, Vilnius,
Lithuania

Product: Air/water reversible R290 Heat pump/Chiller

Identification: Flamma, Ignis, Solis, Galaxy families
AB-CDEFGHIJ XXXXXX (FLM ZZZ)Flamma family
AB-CDEFGHIJ XXXXXX (IGN ZZZ)Ignis family
AB-CDEFGHIJ XXXXXX (SOL ZZZ)Solis family
AB-CDEFGHIJ XXXXXX (GAL ZZZ)Galaxy family
Ratings: 400V AC, 3 phase, 50 Hz

Trademark: Refra

(See further details in Annex to this Certificate)

Tested according to: IEC 60204-1:2016+AMD1:2021
AS/NZS 5149.2:2016
AS/NZS 4024.1204:2019

This certificate refers to the above mentioned product. This is to certify that the test sample is in conformity with the requirements stated above. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity.

Certification Body

Date of Issue:
Budapest, 2025-11-12

A handwritten signature in blue ink that reads 'Péter SZABÓ'.

Péter SZABÓ

TÜV Rheinland InterCert Kft. – Product Certification Body — H-1143 Budapest, Gizella út 51-57. — www.tuv.com

Validity of certificate can be checked on www.CERTIPEDIA.com

Meaning of characters in type reference:

Type designation:

AB-CDEFGHIJ XXXXXX (FLM ZZZ)

AB-CDEFGHIJ XXXXXX (IGN ZZZ)

AB-CDEFGHIJ XXXXXX (SOL ZZZ)

AB-CDEFGHIJ XXXXXX (GAL ZZZ)

where:

FLM, IGN, SOL and GAL: name of family

FLM: Flamma family

IGN: Ignis family

SOL: Solis family

GAL: Galaxy family

ZZZ, 3 numbers:

First number: number of compressors in the unit

Second and third number: unit's capacity in draft design status (multiplied by 10 and rounded off) in the early design stages. Two numbers no longer have any meaning.

A:Reserved symbol: C

B:Frame type:

I: Unit in type I frame, looks like I letter, viewed from the back

H: Unit in type H frame, looks like H letter, view from side.

J: Unit in type J frame, looks like J letter, view from side.

W: Unit in type W frame, looks like W letter, view from side

C:Application:

C: Cooling unit

H: Heating unit

R: Reversible version

D: Circuits: refrigerant hydraulic circuit amounts in unit

E: Compressors q-ty (total): compressor quantity total in unit

F: Compressor type:

S: Scroll compressor

R: Reciprocating compressor

C: Screw compressor

G: Specification of the design heating/cooling capacity (kW) (2 digits)

H: Fan q-ty: Fan quantity in unit × 2

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I: Calculation mode (design temperature range):

- A: +20°C...+15°C
- B: +15°C...+10°C
- C: +12°C...+7°C
- D: +10°C...+5°C
- E: +5°C...+0°C
- F: +0°C...-5°C
- G: -4°C...-8°C
- I: -9°C...-12°C
- J: < -15°C

J: Refrigerant:

P: R290

If unit is assembled with additional equipment like as meters, pumps, then after model nomenclature number is added extra number with 6 digits.

Meaning of XXXXXX:

1 digit:

Type of Pump	Symbol
N/A	0
PSO1 Pump on/of 10 m head	1
PSO2 Pump on/of 20 m head	2
PSI1 Pump inverter 10 m head	3
PSI2 Pump inverter 20 m head	4
PTO2 Twin Pump on/of 20 m head	5
PTI2 Twin Pump inverter 20 m head	6

2 digit:

Meter	Symbol
N/A	0
FM Flow meter	1
EEM El. Energy meter	2
TEM Thermal energy meter	3

3 digit:

Extra for Efficiency	Symbol
N/A	0
E Trace heating	1
CVW Check valve	2
DH Desuperheater	3
E+CVW Trace heating + Check valve	4
E+DH Trace heating + Desuperheater	5
CVW+DH Check valve + Desuperheater	6
E+CVW+DH Trace heating + Check valve + Desuperheater	7

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4 digit:

Controller	Symbol
N/A	0
FIV Varipack	1
VI Vacon inverter	2
FS Flow switch	3
FIV+FS Varipack + Flow switch	4
VI+FS Vacon inverter + Flow switch	5

5 digit:

Tool for Data Input	Symbol
N/A	0
TS Touch screen	1
KP Keypad	2
CLD Siemens cloud + Modem GSM	3
SGR Smart grid ready	4
TS+CLD+SGR Touch screen + Siemens cloud+ Modem GSM + Smart grid ready	5
TS+CLD Touch screen + Siemens cloud + Modem GSM	6
TS+SGR Touch screen + Smart grid ready	7
KP+CLD+SGR Keypad + Siemens cloud+ Modem GSM+ Smart grid ready	8
KP+CLD Keypad + Siemens cloud+ Modem GSM	9
KP+SGR Keypad + Smart grid ready	A
CLD+SGR Siemens cloud + Modem GSM + Smart grid ready	B

6 digit:

Frame accessories	Symbol
N/A	0
CAA Aqua Areo	1
T Thick insulation frame	2
AVM Antivibration mounts	3
CG Coil guard	4
LNF Low-Noise Fan	5
CAA+T Aqua Areo + Thick insulation frame	6
CAA+AVM Aqua Areo + Antivibration mounts	7
CAA+CG Aqua Areo + Coil guard	8
CAA+LNF Aqua Areo + Low-Noise Fan	9
T+AVM Thick insulation frame + Antivibration mounts	A
T+CG Thick insulation frame + Coil guard	B
T+LNF Thick insulation frame + Low-Noise Fan	C
AVM+CG Antivibration mounts + Coil guard	D
AVM+LNF Antivibration mounts + Low-Noise Fan	E
CG+LNF Coil guard + Low-Noise Fan	F
CAA+T+AVM Aqua Areo + Thick insulation frame + Antivibration mounts	G
CAA+T+CG Aqua Areo + Thick insulation frame + Coil guard	H

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CAA+T+LNF Aqua Areo + Thick insulation frame + Low-Noise Fan	I
CAA+AVM+CG Aqua Areo + Antivibration mounts + Coil guard	J
CAA+AVM+LNF Aqua Areo + Antivibration mounts + Low-Noise Fan	K
CAA+CG+LNF Aqua Areo + Coil guard + Low-Noise Fan	L
T+AVM+CG Aqua Areo + Thick insulation frame + Coil guard	M
T+AVM+LNF Thick insulation frame + Antivibration mounts + Low-Noise Fan	N
T+CG+LNF Thick insulation frame + Coil guard + Low-Noise Fan	O
AVM+CG+LNF Antivibration mounts + Coil guard + Low-Noise Fan	P
CAA+T+AVM+CG Aqua Areo + Thick insulation frame + Antivibration mounts + Coil guard	Q
CAA+T+AVM+LNF Aqua Areo + Thick insulation frame + Antivibration mounts + Low-Noise Fan	R
CAA+T+CG+LNF Aqua Areo + Thick insulation frame + Coil guard + Low-Noise Fan	S
CAA+AVM+CG+LNF Aqua Areo + Antivibration mounts + Coil guard + Low-Noise Fan	T
T+AVM+CG+LNF Thick insulation frame + Antivibration mounts + Coil guard + Low-Noise Fan	U
CAA+T+AVM+CG+LNF Aqua Areo + Thick insulation frame + Antivibration mounts + Coil guard + Low-Noise Fan	V

Model list and ratings:

Model	Heating capacity (kW)	Refrigeration capacity (kW)	Refrigerant	Power supply (V/Ph/Hz)	Max. power consumption (A)	Number of compressors
FLM 103	40,8	35,8	R290	400/3/50	26,8	1
FLM 104	46,6	41,8	R290	400/3/50	28,9	1
FLM 105	52,9	46,3	R290	400/3/50	32,8	1
IGN 107	68,1	62,2	R290	400/3/50	36,5	1
IGN 108	75,1	67,9	R290	400/3/50	41,0	1
IGN 109	86,7	78,2	R290	400/3/50	47,9	1
IGN 110	98,5	87,5	R290	400/3/50	55,2	1
IGN 111	111,2	97,5	R290	400/3/50	65,2	1
IGN 209	93,4	81,4	R290	400/3/50	51,4	2
IGN 210	105,1	93,6	R290	400/3/50	59,2	2
IGN 212	115,8	103,6	R290	400/3/50	66,2	2
IGN 213	123,6	108,8	R290	400/3/50	75,2	2
IGN 216	149,6	132,2	R290	400/3/50	82,0	2
IGN 217	173,6	155,4	R290	400/3/50	95,8	2
IGN 219	197,2	175,1	R290	400/3/50	110,4	2
IGN 220	223,8	195,4	R290	400/3/50	130,4	2
SOL 219	236,2	204,4	R290	400/3/50	129,6	2
SOL 225	246,6	215,2	R290	400/3/50	137,0	2
SOL 226	271,2	235,2	R290	400/3/50	160,4	2
SOL 229	298,2	249,6	R290	400/3/50	201,0	2
SOL 335	356,1	312,3	R290	400/3/50	194,4	3
SOL 336	370,5	327,9	R290	400/3/50	205,5	3
SOL 340	421,5	362,1	R290	400/3/50	240,6	3

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Model	Heating capacity (kW)	Refrigeration capacity (kW)	Refrigerant	Power supply (V/Ph/Hz)	Max. power consumption (A)	Number of compressors
SOL 344	462,6	382,2	R290	400/3/50	301,5	3
GAL 101	-	27,9	R290	400/3/50	27,0	1
GAL 102	-	33,2	R290	400/3/50	29,1	1
GAL 103	-	38,1	R290	400/3/50	33,0	1
GAL 106	-	48,4	R290	400/3/50	36,5	1
GAL 108	-	63,4	R290	400/3/50	47,9	1
GAL 109	-	72,3	R290	400/3/50	55,2	1
GAL 110	-	85,4	R290	400/3/50	65,2	1
GAL 112	-	94,4	R290	400/3/50	75,7	1
GAL 113	-	108,8	R290	400/3/50	87,4	1
GAL 114	-	124,5	R290	400/3/50	107,7	1
GAL 210	-	81,2	R290	400/3/50	66,0	2
GAL 212	-	94,8	R290	400/3/50	73,0	2
GAL 215	-	123,2	R290	400/3/50	95,8	2
GAL 217	-	144,2	R290	400/3/50	110,4	2
GAL 219	-	165,8	R290	400/3/50	130,4	2
GAL 222	-	182,6	R290	400/3/50	144,6	2
GAL 224	-	206,6	R290	400/3/50	168,0	2
GAL 227	-	241,6	R290	400/3/50	208,6	2
GAL 323	-	190,2	R290	400/3/50	143,7	3
GAL 326	-	216,9	R290	400/3/50	165,6	3
GAL 331	-	256,2	R290	400/3/50	195,6	3
GAL 335	-	283,2	R290	400/3/50	227,1	3
GAL 339	-	326,4	R290	400/3/50	262,2	3
GAL 343	-	373,5	R290	400/3/50	323,1	3
GAL 430	-	246,4	R290	400/3/50	191,6	4
GAL 434	-	288,4	R290	400/3/50	220,8	4
GAL 439	-	331,6	R290	400/3/50	260,8	4
GAL 444	-	365,2	R290	400/3/50	289,2	4
GAL 448	-	413,2	R290	400/3/50	336,0	4
GAL 454	-	483,2	R290	400/3/50	417,2	4

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