

FRIGA-BOHN®

# NOVA

Cubic unit cooler  
Commercial and semi-industrial range

A2L

CO2 60bar

CO2 80bar

WG

HFC



|||| 1 - 30 kW



## # Easy installation/maintenance:

- Quick access to individual components
- Simple, intuitive electrical connection using
- Wago terminals and cable identification.
- Fans with external electrical box, bridged together.

# The optimized coil design, high-efficiency motors, and the ability to select an EC motor (optional) allow an improved **energy efficiency**.

# The complete redesign of the defrosting system introduces **significant improvements** that not only increase **efficiency and reliability**, simplify maintenance and reduce power consumption by up to 30%.

## CASING

- # Easy to clean: galvanized sheet steel, fully pre-painted white.
- # Pivoting, hinged drain pan with rounded corners, made from pre-painted aluminium, eliminating retention zones and ensuring complete safety through the absence of sharp corners.

### OPTIONS

- CIN** 316L stainless steel casing.
- EIS** Insulated drain pan.
- DPK** Intermediate drain pan (NOVA .. R/L).

**KIT TO INSTALL**



## VENTILATION

- # High-performance, factory-wired motors.
- # Axial motor fans not requiring systematic maintenance:

	models	fan	voltage	freq.	IP	class
Ø 310 mm 4P - 1,350 rpm	<b>NOVA 3XXX</b>	Standard	<b>230V/1</b>	<b>50-60Hz</b>	<b>54</b>	<b>F</b>
Ø 450 mm* 4P/6P - 1,320/1,070 rpm	<b>NOVA 4XXX</b>	Standard	<b>400V/3</b>	<b>50Hz</b>	<b>54</b>	<b>F</b>

\* Two-speed motor fans, high-speed wired (Δ) by default.

### OPTIONS

- MP5** Air pressure motor fan (available pressure 100 Pa - Ø 450 mm).
- RFA** Shell / airflow straightener (streamer). **KIT TO INSTALL**
- VGT** RFA + fixing parts for textile duct (Ø 450 mm). **KIT TO INSTALL**
- VPM** VGT + flexible defrost cuff. (Ø 450 mm). **KIT TO INSTALL**
- EC2** EC motor (electronic commutation) 0-10V - Ø 450 mm.
- EC3** EC motor (electronic commutation) 2 speeds - Ø 300 mm.

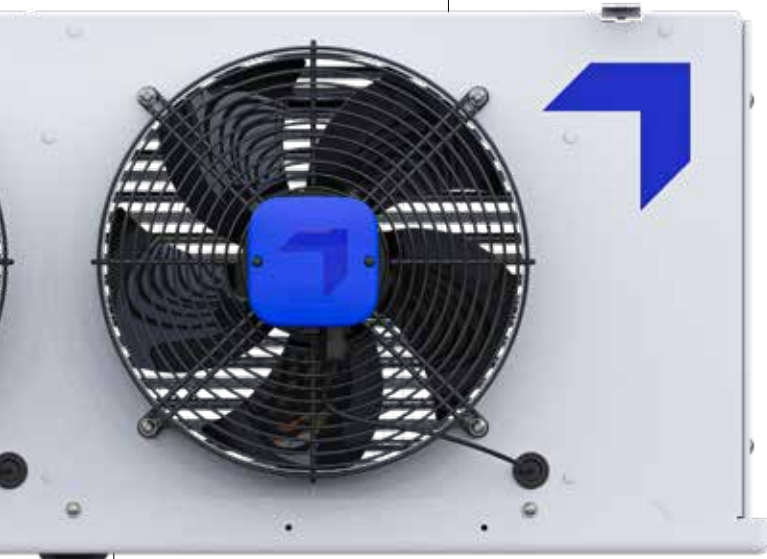
### OPTIONS

- EXT** Electronic expansion valve fitted.
- DMP** Expansion valve fitted.
- EVL** DMP + Solenoid valve fitted.
- EEC** EVL + copper siphon equipped with a ball valve delivered not fitted.



## COILS

- # Aluminium fins with 4, 6 and 8mm spacing.
- # Combined with grooved copper tubes, the coils are very efficient and compact.
- # Versions available:
  - Multi-refrigerant HFCs and A2L,
  - CO<sub>2</sub> (60 bar),
  - CO<sub>2</sub> (80 bar),
  - WCO (glycol water, coolant).



Select your coil treatment to extend your unit cooler's lifespan!  
Contact us.

## DEFROST

- # Two defrost modes for the coil: electric (230V/1 or 400V/3), Hot gas.
- # Quick defrosting of the condensate pan thanks to a heater under the intermediate drain pan.
- # Use of bent resistors for effective defrosting of expansion valve, distributor and manifold.
- # Use of fixation points to ensure that electrical heaters return to position, thus limiting the risk of failure.
- # Color coding for easy identification of electrical heaters connections.

### OPTIONS

<b>HG1</b>	Hot gases (coil: hot gases, drain pan: electric heaters).	
<b>HGT</b>	Hot gases (coil and drain pan).	<b>CONTACT US</b>
<b>RVU</b>	Shell defrost heaters (Ø 450 mm).	
<b>RVK</b>	Shell defrost heaters (Ø 450 mm).	<b>KIT TO INSTALL</b>
<b>RCS</b>	Blower heater.	<b>KIT TO INSTALL</b>
	- 1,300 W or 2,300 W (Ø 315 mm).	
	- 2,500 W or 4,500 W (Ø 450 mm).	
<b>HDA</b>	Suction defrost hood.	<b>KIT TO INSTALL</b>
<b>2TH</b>	Defrost and safety thermostats (5709L + 5708L).	
<b>THD</b>	Defrost thermostat (5709L).	
<b>E1U</b>	Lightweight electric de-icing, pre-assembled and factory-wired.	
<b>E1K</b>	Light electric defrost.	<b>KIT TO INSTALL</b>
<b>E3K</b>	Complete electric de-icing for low-temperature applications.	<b>KIT TO INSTALL</b>

	+10	+2	-5	-10	-25°C
tA1	NOVA .. R/L	+E1K / E1U		+E3K	
				NOVA .. E/C/S	

## ELECTRICAL CONNECTIONS

- # Large electrical boxes positioned on the battery guard plate to simplify electrical connections.
- # Use of WAGO terminals with levers or springs to simplify installation and eliminate the risk of disconnection.
- # Use of ICOTEK cable glands to ensure the IP44 protection of the electrical boxes.

# NOVA 3<sup>(A)</sup>1<sup>(B)</sup>42<sup>(C)</sup>-R<sup>(D)</sup>

(A) Fan diameter: 3 = Ø 315 mm - 4 = Ø 450 mm

(3) Number of fans

(C) Model

(D) Fin spacing: R = 4 mm (positive) E = 4 mm (negative)

L = 6 mm (positive) C = 6 mm (negative) S = 8 mm (negative)

The NOVA is available with CO<sub>2</sub>, A2Ls, HFCs and glycol water. For more information, please consult our software.

## NOVA (1/2)

 4 mm

CONDITIONS	REFRIGERANTS	NOVA ... -R	3152	3153	3154	3155	3156	3243	3245	3343	3344	3345
SC2 (1)	CO <sub>2</sub> - 60 bar (2)	kW	2,24	2,87	3,23	3,38	3,4	4,66	5,92	7,34	8,14	8,39
	R455A	kW	1,51	2,18	2,66	3,07	3,38	3,81	5,25	5,81	7,08	7,96
	R454C	kW	1,47	2,13	2,55	2,96	3,22	3,7	5,05	5,64	6,87	7,65
	R448A/R449A	kW	1,76	2,49	3	3,39	3,64	4,36	5,78	6,63	7,88	8,79
	R1234yf	kW	2,06	2,52	2,67	3,3	3,25	4,24	5,65	6,19	7,72	7,97
	R513A	kW	1,98	2,54	2,74	3,28	3,26	4,3	5,61	6,31	7,71	8,05
	R134a	kW	1,8	2,36	2,65	3,04	3,15	4,07	5,21	6,05	7,25	7,65
	R404A*	kW	1,98	2,59	2,91	3,34	3,46	4,47	5,73	6,65	7,97	8,41
CONDITIONS	REFRIGERANTS	NOVA ... -E	3152	3153	3154	3155	3156	3243	3245	3343	3344	3345
SC3 (1)	CO <sub>2</sub> - 60 bar (2)	kW	1,84	2,38	2,7	2,88	2,82	3,71	4,92	5,96	6,54	7,46
	R455A	kW	1,04	1,48	1,84	2,12	2,37	2,56	3,66	3,95	4,89	5,44
	R454C	kW	0,97	1,39	1,75	2,01	2,24	2,43	3,47	3,8	4,63	5,09
	R448A/R449A	kW	1,21	1,73	2,1	2,38	2,62	3	4,1	4,6	5,59	6,15
	R404A*	kW	1,45	1,87	2,29	2,57	2,7	3,21	4,37	5,16	6,07	6,11
Surface area		m <sup>2</sup>	5,1	7,7	10,3	12,8	15,4	12,3	20,5	18,5	24,6	30,8
Circuit volume		dm <sup>3</sup>	0,8	1,3	1,7	2,1	2,5	2	3,3	3	4	5
Airflow		m <sup>3</sup> /h	2000	1900	1790	1680	1580	3510	2920	5260	4800	4380
Air throw (3)		m	20	19	18	17	16	20	18	24	22	21
		nb	1	1	1	1	1	2	2	3	3	3
		Ø	315	315	315	315	315	315	315	315	315	315
Fan 1,350 rpm	230/1/50hz	W max	90	90	90	90	90	180	180	270	270	270
		A max	0,4	0,4	0,4	0,4	0,4	0,8	0,8	1,2	1,2	1,2
	400/3/50hz	W max	-	-	-	-	-	-	-	-	-	-
		A max	-	-	-	-	-	-	-	-	-	-
		nb	1 + 1	1 + 1	2 + 1	2 + 1	2 + 1	2 + 1	3 + 1	2 + 1	2 + 1	3 + 1
NOVA...-R		W total	860	860	1290	1290	1290	1545	2060	2310	2310	3080
Electric defrost EIK (5)	230/1/50hz	A total	3,74	3,74	5,61	5,61	5,61	6,72	8,96	10,04	10,04	13,39
		A total	-	-	-	-	-	-	-	-	-	-
	Coil + drain pan	nb	1 + 1	2 + 1	3 + 1	3 + 1	4 + 1	2 + 1	4 + 1	2 + 1	3 + 1	4 + 1
NOVA...-E		W total	860	1290	1720	1720	2150	1545	2575	2310	3080	3850
Standard electric defrost	230/1/50hz	A total	3,74	5,61	7,48	7,48	9,35	6,72	11,2	10,04	13,39	-
		A total	-	-	-	-	-	-	-	-	-	5,56
Connections HFC	Inlet (6)	Ø OD	1/2" -	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
	Outlet (6)	Ø ODF	10mm	5/8"	5/8"	5/8"	5/8"	7/8"	7/8"	7/8"	7/8"	7/8"
Net weight		kg	20	21	23	23	24	30	34	44	46	48

(1) Standard conditions:

SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DTI = 8K

SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DTI = 7K

(2) Operating pressure - Specific coil - Connection diameters to be defined when ordering.

(3) Residual air speed: 0.25 m/s.

(4) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.

(5) Electric defrost option.

(6) OD: Male connection - ODF: female to receive the tube of the same diameter.

**R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).**

# NOVA 3<sup>(A)</sup> 4<sup>(B)</sup> 44<sup>(C)</sup> -R<sup>(D)</sup>

(A) Fan diameter: 3 = Ø 315 mm - 4 = Ø 450 mm

(3) Number of fans

(C) Model

(D) Fin spacing: R = 4 mm (positive) E = 4 mm (negative)  
L = 6 mm (positive) C = 6 mm (negative) S = 8 mm (negative)

The NOVA is available with CO<sub>2</sub>, A2Ls, HFCs and glycol water. For more information, please consult our software.

## NOVA (2/2)

 4 mm

CONDITIONS		NOVA... -R	4165	4166	3444	4263	4264	4265	4266	4364	4366
SC2 (1)	CO2 - 60 bar (2)	kW	8,65	9,41	11,06	12,72	15,4	17,42	18,89	23,14	27,97
	R455A	kW	6,5	6,86	9,53	9,03	11,25	13,07	15,29	17,09	22,81
	R454C	kW	6,28	6,63	9,26	8,84	10,92	12,73	14,72	16,64	22
	R448A/R449A	kW	7,87	8,23	10,59	11,19	13,77	15,89	17,64	20,9	26,12
	R1234yf	kW	7,48	8,14	10,47	11,61	14,22	15,97	15,94	21,26	24,14
	R513A	kW	7,45	8,03	10,44	11,53	13,95	15,79	16,37	21,11	24,67
	R134a	kW	7,03	7,32	9,73	10,51	12,71	14,4	15,25	19,26	22,57
	R404A*	kW	7,73	8,04	10,69	11,55	13,97	15,82	16,76	21,16	24,8
CONDITIONS		NOVA... -E	4165	4166	3444	4263	4264	4265	4266	4364	4366
SC3 (1)	CO2 - 60 bar (2)	kW	7,15	7,73	8,9	10,31	12,56	14,29	15,57	18,9	22,28
	R455A	kW	4,36	5,17	6,63	6,44	7,91	9,51	10,53	12,22	16,33
	R454C	kW	4,14	4,89	6,33	6,16	7,51	9,04	10,01	11,72	15,59
	R448A/R449A	kW	5,48	6,24	7,54	8	9,74	11,57	12,59	15,01	19,49
	R404A*	kW	5,98	6,51	8,07	8,83	10,56	12,31	13,01	16,2	20,03
Surface area	m <sup>2</sup>	23,1	27,7	32,8	27,7	37	46,2	55,4	55,4	83,1	
Circuit volume	dm <sup>3</sup>	3,8	4,5	5,4	4,5	6	7,5	9	9	13,5	
Airflow	m <sup>3</sup> /h	5160	4130	6400	11740	10990	10310	8270	16480	12400	
Air throw (3)	m	25	24	26	32	31	30	29	35	33	
	nb	1	1	4	2	2	2	2	3	3	
	Ø	450	450	315	450	450	450	450	450	450	
Fan 1,350 rpm	230 V/1/50-60 Hz	W max	-	-	360	-	-	-	-	-	-
		A max	-	-	1,6	-	-	-	-	-	-
	400 V/3/50 Hz	W max	500	500	-	1000	1000	1000	1000	1500	1500
		A max	1	1	-	2	2	2	2	3	3
3C-A ... -R	nb	4 + 1	4 + 1	2 + 1	2 + 1	3 + 1	4 + 1	4 + 1	3 + 1	4 + 1	
Electric defrost EIK (5)	230 V/1/50 Hz	W total	2200	2200	2940	2640	3520	4400	4400	5280	6600
		A total	9,57	9,57	12,78	11,48	15,3	-	-	-	-
	400 V/3/50 Hz	A total	-	-	-	-	-	6,35	6,35	7,62	9,53
3C-A ... -E	Coil + drain pan	nb	5 + 1	6 + 1	3 + 1	3 + 1	4 + 1	5 + 1	6 + 1	4 + 1	6 + 1
		W total	2640	3080	3920	3520	4400	5280	6160	6600	9240
	Electric defrost standard	230 V/1/50 Hz	A total	11,48	13,39	-	15,3	-	-	-	-
400 V/3/50 Hz		A total	-	-	5,66	-	6,35	7,62	8,89	9,53	13,34
Connections	Inlet (6)	Ø OD	7/8"	7/8"	5/8"	7/8"	1"1/8	1"1/8	1"1/8	1"1/8	1"3/8
HFCs	Outlet (6)	Ø ODF	7/8"	7/8"	7/8"	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8	2"1/8
Net weight	kg	41	43	58	58	62	65	69	84	95	

(1) Standard conditions:

SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DT1 = 8K

SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DT1 = 7K

(2) Operating pressure - Specific coil - Connection diameters to be defined when ordering.

(3) Residual air speed: 0.25 m/s.

(4) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.

(5) Electric defrost option.

(6) OD: Male connection - ODF: female to receive the tube of the same diameter.

R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).

# NOVA 3<sup>(A)</sup>1<sup>(B)</sup>43<sup>(C)</sup>-L<sup>(D)</sup>

(A) Fan diameter: 3 = Ø 315 mm - 4 = Ø 450 mm

(3) Number of fans

(C) Model

(D) Fin spacing: R = 4 mm (positive) E = 4 mm (negative)

L = 6 mm (positive) C = 6 mm (negative) S = 8 mm (negative)

The NOVA is available with CO<sub>2</sub>, A2Ls, HFCs and glycol water. For more information, please consult our software.

## NOVA (1/2)

6 mm

CONDITIONS	FLUIDES	NOVA ... -L	3152	3153	3154	3155	3156	3243	3244	3245	3343	3344
SC2 (1)	CO <sub>2</sub> - 60 bar (2)	kW	1,89	2,44	2,86	3,14	3,26	4,06	4,66	5,51	6,32	7,33
	CO <sub>2</sub> - 80 bar (2)	kW	1,76	2,33	2,78	3,07	3,24	3,96	4,57	5,42	6,13	7,21
	R455A	kW	1,41	1,86	2,33	2,73	3,06	3,29	4,18	4,72	5,03	6,22
	R454C	kW	1,38	1,83	2,26	2,66	2,96	3,22	4,08	4,6	4,9	6,09
	R448A/R449A	kW	1,64	2,13	2,64	3,01	3,35	3,74	4,7	5,22	5,7	6,94
	R1234yf	kW	1,52	2,22	2,4	3,01	3,07	3,8	4,8	5,23	5,61	7,02
	R513A	kW	1,56	2,22	2,45	3	3,08	3,81	4,78	5,31	5,65	7,14
	R134a	kW	1,52	2,05	2,38	2,79	2,98	3,56	4,42	4,84	5,33	6,54
R404A*	kW	1,67	2,25	2,62	3,07	3,28	3,91	4,86	5,32	5,86	7,19	
CONDITIONS	FLUIDES	NOVA ... -C	3152	3153	3154	3155	3156	3243	3244	3245	3343	3344
SC3 (1)	CO <sub>2</sub> - 60 bar (2)	kW	1,56	1,99	2,34	2,56	2,7	3,24	4,19	4,59	5,18	6
	CO <sub>2</sub> - 80 bar (2)	kW	1,37	1,82	2,17	2,38	2,49	3,06	3,89	4,29	4,81	5,62
	R455A	kW	0,92	1,29	1,62	1,9	2,17	2,26	2,91	3,32	3,43	4,35
	R454C	kW	0,87	1,22	1,54	1,8	2,05	2,16	2,78	3,16	3,32	4,17
	R448A/R449A	kW	1,1	1,49	1,84	2,16	2,41	2,62	3,33	3,72	3,97	4,97
	R404A*	kW	1,09	1,64	2,05	2,28	2,55	2,86	3,59	4,06	4,5	5,35
Surface area		m <sup>2</sup>	3,5	5,3	7,1	8,9	10,6	8,5	11,4	14,2	12,8	17
Circuit volume		dm <sup>3</sup>	0,8	1,3	1,7	2,1	2,5	2	2,7	3,3	3	4
Airflow		m <sup>3</sup> /h	2050	1970	1890	1810	1730	3730	3490	3250	5600	5240
Air throw (3)		m	20	20	19	18	17	21	20	19	25	24
Fan	230 V/1/50-60 Hz	nb	1	1	1	1	1	2	2	2	3	3
		Ø	315	315	315	315	315	315	315	315	315	315
		W max	90	90	90	90	90	180	180	180	270	270
		A max	0,4	0,4	0,4	0,4	0,4	0,8	0,8	0,8	1,2	1,2
1,350 rpm	400 V/3/50 Hz	nb	-	-	-	-	-	-	-	-	-	-
		W max	-	-	-	-	-	-	-	-	-	-
		A max	-	-	-	-	-	-	-	-	-	-
		nb	1 + 1	1 + 2	2 + 1	2 + 2	2 + 3	1 + 1	2 + 1	3 + 1	1 + 1	2 + 1
NOVA ... -L	Electric defrost	W total	860	860	1290	1290	1290	1030	1545	2060	1540	2310
		A total	3,74	3,74	5,61	5,61	5,61	4,48	6,72	8,96	6,7	10,04
		A total	-	-	-	-	-	-	-	-	-	-
NOVA ... -C	Standard electric defrost	nb	1 + 1	2 + 1	2 + 1	3 + 1	4 + 1	2 + 1	3 + 1	4 + 1	2 + 1	3 + 1
		W total	860	1290	1290	1720	2150	1545	2060	2575	2310	3080
		A total	3,74	5,61	5,61	7,48	9,35	6,72	8,96	11,2	10,04	13,39
Connections	Inlet (6)	Ø OD	12mm	12mm	12mm	12mm	12mm	12mm	5/8"	5/8"	5/8"	5/8"
	HFCs	Outlet (6)	Ø ODF	10mm	10mm	10mm	10mm	10mm	10mm	5/8"	5/8"	5/8"
Net weight (7)		kg	20	21	22	22	23	30	31	32	42	44

(1) Standard conditions:

SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DT1 = 8K

SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DT1 = 7K

(2) Operating pressure - Specific coil - Connection diameters to be defined when ordering.

(3) Residual air speed: 0.25 m/s.

(4) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.

(5) Electric defrost option.

(6) OD: Male connection - ODF: female to receive the tube of the same diameter.

(7) Standard net weight - Specific net weight for CO<sub>2</sub> 80 bar: contact us.

**R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).**



# NOVA 4<sup>(A)</sup>1<sup>(B)</sup>66<sup>(C)</sup>-L<sup>(D)</sup>

(A) Fan diameter: **3** = Ø 315 mm - **4** = Ø 450 mm

(3) Number of fans

(C) Model

(D) Fin spacing: **R** = 4 mm (positive) **E** = 4 mm (negative)

**L** = 6 mm (positive) **C** = 6 mm (negative) **S** = 8 mm (negative)

The NOVA is available with CO<sub>2</sub>, A2Ls, HFCs and glycol water. For more information, please consult our software.

## NOVA (2/2)

6 mm

CONDITIONS	FLUIDES	NOVA... -L	4165	3345	4166	3444	4263	4264	4266	4364	4366
SC2 (1)	CO <sub>2</sub> - 60 bar (2)	kW	7,73	7,89	8,6	9,92	10,91	13,49	17,26	20,26	25,74
	CO <sub>2</sub> - 80 bar (2)	kW	-	-	-	-	-	-	-	-	-
	R455A	kW	5,75	7,23	6,63	8,37	7,91	10,13	13,68	15,64	20,82
	R454C	kW	5,59	7,02	6,42	8,2	7,79	9,92	13,31	15,27	20,27
	R448A/R449A	kW	6,92	7,96	7,88	9,33	9,77	12,2	16	18,64	24,31
	R1234yf	kW	6,79	7,47	7,35	9,47	10,33	11,82	15,08	17,45	22,4
	R513A	kW	6,76	7,53	7,25	9,61	10,16	11,97	15,04	17,81	22,83
	R134a	kW	6,32	7,16	6,99	8,76	9,26	11,18	14,25	16,9	21,59
R404A*	kW	6,95	7,87	7,68	9,63	10,18	12,29	15,66	18,57	23,73	
SC3 (1)	CO <sub>2</sub> - 60 bar (2)	kW	6,4	6,94	7,09	8,11	8,91	11,06	14,27	16,63	20,65
	CO <sub>2</sub> - 80 bar (2)	kW	-	-	-	-	-	-	-	-	-
	R455A	kW	3,81	4,99	4,36	5,89	5,55	6,72	9,06	10,2	14,66
	R454C	kW	3,63	4,72	4,14	5,65	5,31	6,46	8,71	9,84	13,93
	R448A/R449A	kW	4,76	5,65	5,3	6,66	6,82	8,24	10,97	12,49	16,72
	R404A*	kW	5,26	5,77	5,7	7,28	7,6	9,04	11,66	13,66	17,71
Surface area	m <sup>2</sup>	16	21,3	19,2	22,7	19,2	25,5	38,3	38,3	57,5	
Circuit volume	dm <sup>3</sup>	3,8	5	4,5	5,4	4,5	6	9	9	13,5	
Airflow	m <sup>3</sup> /h	5560	4880	5290	6980	12300	11690	10580	17540	15870	
Air throw (3)	m	26	22	25	27	33	32	31	36	34	
	nb	1	3	1	4	2	2	2	3	3	
	Ø	450	315	450	315	450	450	450	450	450	
Fan 1,350 rpm	230 V/1/50-60 Hz	W max	-	270	-	360	-	-	-	-	-
		A max	-	1,2	-	1,6	-	-	-	-	-
	400 V/3/50 Hz	W max	500	-	500	-	1000	1000	1000	1500	1500
		A max	1	-	1	-	2	2	2	3	3
NOVA ... -L Electric defrost 1K (5)	230 V/1/50 Hz	nb	4 + 1	3 + 1	4 + 1	2 + 1	2 + 1	3 + 1	4 + 1	3 + 1	4 + 1
		W total	2200	3080	2200	2940	2640	3520	4400	5280	6600
	400 V/3/50 Hz	A total	9,57	13,39	9,57	12,78	11,48	15,3	-	-	-
		A total	-	-	-	-	-	-	6,35	7,62	9,53
NOVA ... -C Standard electric defrost	Coil + drain pan	nb	5 + 1	4 + 1	6 + 1	3 + 1	3 + 1	4 + 1	6 + 1	4 + 1	6 + 1
		W total	2640	3850	3080	3920	3520	4400	6160	6600	9240
	230 V/1/50 Hz	A total	11,48	-	13,39	-	15,3	-	-	-	-
		A total	-	5,56	-	5,66	-	6,35	8,89	9,53	13,34
Connections	Inlet (6)	Ø OD	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	7/8"
	HFCs Outlet (6)	Ø ODF	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	7/8"
Net weight (7)	kg	39	46	41	56	56	59	65	81	90	

(1) Standard conditions:

SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DT1 = 8K

SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DT1 = 7K

(2) Operating pressure - Specific coil - Connection diameters to be defined when ordering.

(3) Residual air speed: 0.25 m/s.

(4) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.

(5) Electric defrost option.

(6) OD: Male connection - ODF: female to receive the tube of the same diameter.

(7) Standard net weight - Specific net weight for CO<sub>2</sub> 80 bar: contact us.

**R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).**

# NOVA 3<sub>(A)</sub>1<sub>(B)</sub>43<sub>(C)</sub>-S<sub>(D)</sub>

(A) Fan diameter: 3 = Ø 315 mm - 4 = Ø 450 mm

(3) Number of fans

(C) Model

(D) Fin spacing: R = 4 mm (positive) E = 4 mm (negative)

L = 6 mm (positive) C = 6 mm (negative) S = 8 mm (negative)

The NOVA is available with CO<sub>2</sub>, A2Ls, HFCs and glycol water. For more information, please consult our software.

## NOVA (1/2)

 8 mm

CONDITIONS	REFRIGERANTS	NOVA ... -S	NOVA (1/2)									
			3152	3153	3154	3155	3156	3243	3244	3245	3343	3344
SC3 (1)	CO <sub>2</sub> - 60 bar (2)	kW	1,23	1,67	2,02	2,23	2,38	2,72	3,58	3,92	4,28	5,09
	R455A	kW	0,75	1,1	1,39	1,66	1,9	1,94	2,53	2,88	2,93	3,77
	R454C	kW	0,71	1,06	1,34	1,6	1,81	1,86	2,42	2,76	2,81	3,63
	R448A/R449A	kW	0,89	1,26	1,58	1,88	2,11	2,22	2,86	3,22	3,33	4,27
	R404A*	kW	0,95	1,41	1,77	2,03	2,28	2,46	3,15	3,57	3,81	4,64
SC4 (1)	CO <sub>2</sub> - 60 bar (2)	kW	1,02	1,38	1,65	1,84	1,96	2,24	2,96	3,3	3,57	4,23
	R455A	kW	0,52	0,79	0,99	1,2	1,37	1,37	1,81	2,06	2,07	2,7
	R454C	kW	0,51	0,77	0,96	1,17	1,33	1,34	1,76	2,02	2,06	2,65
	R448A/R449A	kW	0,66	0,95	1,2	1,43	1,61	1,68	2,18	2,45	2,53	3,25
	R404A*	kW	0,72	1,1	1,38	1,58	1,79	1,91	2,44	2,81	2,99	3,63

			3152	3153	3154	3155	3156	3243	3244	3245	3343	3344
Surface area		m <sup>2</sup>	2,8	4,1	5,5	6,9	8,3	6,6	8,8	11	9,9	13,2
Circuit volume		dm <sup>3</sup>	0,8	1,3	1,7	2,1	2,5	2	2,7	3,3	3	4
Airflow		m <sup>3</sup> /h	2070	1990	1920	1850	1770	3800	3580	3360	5700	5370
Air throw (3)		m	21	20	19	18	18	21	21	20	25	25
		Nb	1	1	1	1	1	2	2	2	3	3
		Ø	315	315	315	315	315	315	315	315	315	315
Fan	230 V/1/50-60 Hz	W max	90	90	90	90	90	180	180	180	270	270
1,350 rpm		A max (4)	0,4	0,4	0,4	0,4	0,4	0,8	0,8	0,8	1,2	1,2
	400 V/3/50 Hz	W max	-	-	-	-	-	-	-	-	-	-
		A max (4)	-	-	-	-	-	-	-	-	-	-
	Coil + drain pan	Nb	1 + 1	2 + 1	2 + 1	2 + 1	3 + 1	2 + 1	3 + 1	3 + 1	2 + 1	3 + 1
		W Total	860	1290	1290	1290	1720	1545	2060	2060	2310	3080
Standard electric defrost	230 V/1/50 Hz	A Total	3,74	5,61	5,61	5,61	7,48	6,72	8,96	8,96	10,04	13,39
	400 V/3/50 Hz	A Total	-	-	-	-	-	-	-	-	-	-
Connections	Inlet (6)	Ø OD	12mm	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
HFCs	Outlet (6)	Ø ODF	10mm	5/8"	5/8"	5/8"	5/8"	7/8"	7/8"	7/8"	7/8"	7/8"
Net weight (7)		kg	20	21	21	21	22	29	30	31	40	42

(1) Standard conditions:

SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DT1 = 8K

SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DT1 = 7K

(2) Operating pressure - Specific coil - Connection diameters to be defined when ordering.

(3) Residual air speed: 0.25 m/s.

(4) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.

(5) Electric defrost option.

(6) OD: Male connection - ODF: female to receive the tube of the same diameter.

(7) Standard net weight - Specific net weight for CO<sub>2</sub> 80 bar: contact us.

**R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).**



# NOVA 4<sup>(A)</sup> 1<sup>(B)</sup> 66<sup>(C)</sup> -S<sup>(D)</sup>

(A) Fan diameter: **3** = Ø 315 mm - **4** = Ø 450 mm

(3) Number of fans

(C) Model

(D) Fin spacing: **R** = 4 mm (positive) **E** = 4 mm (negative)

**L** = 6 mm (positive) **C** = 6 mm (negative) **S** = 8 mm (negative)

The NOVA is available with CO<sub>2</sub>, A2Ls, HFCs and glycol water. For more information, please consult our software.

## NOVA (2/2)

 8 mm

CONDITIONS	REFRIGERANTS	NOVA ... -S	3345	4165	3444	4166	4263	4264	4266	4364	4366
SC3 (1)	CO <sub>2</sub> - 60 bar (2)	kW	5,93	5,48	6,98	6,05	7,53	9,31	12,21	14	17,66
	R455A	kW	4,38	3,42	5,08	3,75	4,64	5,72	7,83	8,67	12,77
	R454C	kW	4,19	3,26	4,9	3,61	4,51	5,49	7,52	8,35	12,24
	R448A/R449A	kW	4,97	4,22	5,73	4,54	5,65	6,92	9,37	10,45	14,44
	R404A*	kW	5,18	4,45	6,25	4,95	6,37	7,66	10,09	11,55	15,68
SC4 (1)	CO <sub>2</sub> - 60 bar (2)	kW	4,98	4,52	5,71	5,07	6,18	7,74	10,25	11,67	14,74
	R455A	kW	3,18	2,44	3,67	2,68	3,31	4,12	5,67	6,25	9,45
	R454C	kW	3,07	2,39	3,57	2,64	3,28	4,02	5,54	6,12	9,17
	R448A/R449A	kW	3,77	3,33	4,38	3,55	4,41	5,45	7,42	8,29	11,54
	R404A*	kW	4,04	3,49	4,89	3,91	5,01	6,06	8,03	9,15	12,5
Surface area		m <sup>2</sup>	16,5	12,4	17,6	14,9	14,9	19,8	29,7	29,7	44,6
Circuit volume		dm <sup>3</sup>	5	3,8	5,4	4,5	4,5	6	9	9	13,5
Airflow		m <sup>3</sup> /h	5040	5600	7160	5350	12310	11750	10710	17630	16060
Air throw (3)		m	23	26	28	25	33	32	31	36	34
		Nb	3	1	4	1	2	2	2	3	3
		Ø	315	450	315	450	450	450	450	450	450
Fan 1,350 rpm	230 V/1/50-60 Hz	W max	270	-	360	-	-	-	-	-	-
		A max (4)	1,2	-	1,6	-	-	-	-	-	-
	400 V/3/50 Hz	W max	-	500	-	500	1000	1000	1000	1500	1500
		A max (4)	-	1	-	1	2	2	2	3	3
NOVA...S	Coil + drain pan	Nb	3 + 1	5 + 1	3 + 1	6 + 1	3 + 1	4 + 1	6 + 1	4 + 1	6 + 1
		W Total	3080	2640	3920	3080	3520	4400	6160	6600	9240
Standard electric defrost	230 V/1/50 Hz	A Total	13,39	11,48	-	13,39	15,3	-	-	-	-
		A Total	-	-	5,66	-	-	6,35	8,89	9,53	13,34
Connections	Inlet (6)	Ø OD	5/8"	5/8"	5/8"	7/8"	7/8"	1"1/8	1"1/8	1"1/8	1"1/8
HFCs	Outlet (6)	Ø ODF	7/8"	7/8"	7/8"	7/8"	7/8"	1"3/8	1"3/8	1"3/8	1"3/8
Net weight (7)		kg	44	37	54	39	54	56	62	79	86

(1) Standard conditions:

SC2 / 0 °C (air inlet temp.) / -8 °C (evaporating temp.) / DT1 = 8K

SC3 / -18 °C (air inlet temp.) / -25 °C (evaporating temp.) / DT1 = 7K

(2) Operating pressure - Specific coil - Connection diameters to be defined when ordering.

(3) Residual air speed: 0.25 m/s.

(4) Adjustment of overload protection. For air temperatures "ti" other than +20 °C, multiply the intensities by the ratio 293/(273 + "ti") to obtain the approximate value of the intensity after the room has been brought up to temperature.

(5) Electric defrost option.

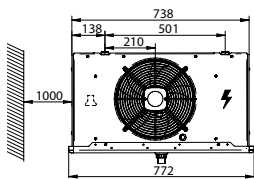
(6) OD: Male connection - ODF: female to receive the tube of the same diameter.

(7) Standard net weight - Specific net weight for CO<sub>2</sub> 80 bar: contact us.

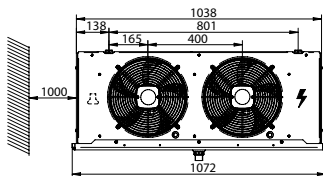
**R404A is a refrigerant only available for non-EU markets (not compatible with F-Gas).**

NOVA | Ø 315 mm

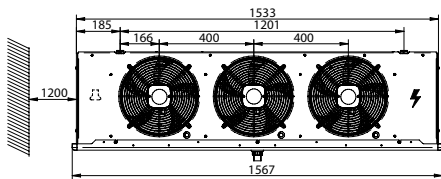
NOVA 315 ..



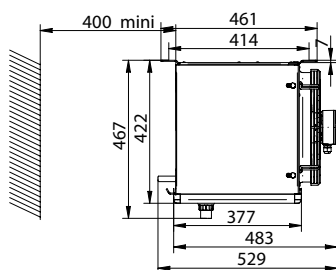
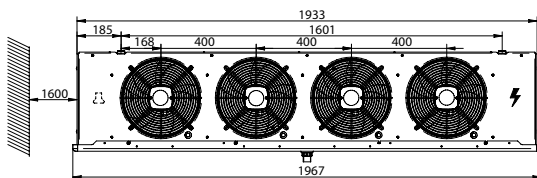
NOVA 324 ..



NOVA 334 ..

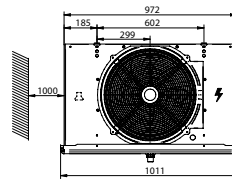


NOVA 344 ..

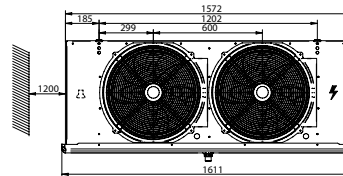


NOVA | Ø 450 mm

NOVA 416 ..



NOVA 426 ..



NOVA 436 ..

