



Freezing tunnel unit cooler



NW industrial range

- The 54 models of the NW range meet the requirements of rapid deep-freezing and refrigeration applications.
- The high air flow speed guarantees extremely rapid refrigeration of food.
- The height-adjustable legs favour homogenous distribution of air over the products.
- Available air pressure of up to 200 Pa.
- Large heat-exchanger surface, large fin spacing of 6,35 - 9 or 12 mm and optimized defrost.



Natural fluids:
Glycol water
CO₂ (R744)*

* Operating pressure 40 bar



4  63 kW

FRIGA-BOHN



HK®
REFRIGERATION

NW - Industrial freezing tunnel unit cooler

Market segments



- Food processing

Description

Casing

- The casing is made of pre-painted galvanized steel offering a high resistance to corrosion and impact damage.
- Intermediate aluminium drain pan to protect against the risk of condensation.

Ventilation

- Two types of fans are used in the NW range:

Axial fans

Models A - Externally mounted, their fan guards are compliant with safety standards. Three-phase external rotor motors, 400 V, 50 Hz, IP54, class F, 4 P (1,500 rpm), permanently lubricated, internal thermal overload protection. Available air pressure of up to 100 Pa.

Centrifugal fans

Models C - "Twin inlet" type with direct drive.

Three-phase enclosed motors, 230/400V, 50 Hz, IP54, class F, 4 P (1,000 rpm), permanently lubricated, internal thermal overload protection. Available air pressure of up to 200 Pa.

Coil

- The high-performance and compact finned coils of the NW range are designed with flat-surface aluminium fins spaced at 6,35 - 9 or 12 mm, crimped onto copper tubes.
- The coils are supplied via R404A optimized Venturi distributor(s).
- For all other refrigerants, please contact us.

Certifications



Advantages

Installation

Installation of the unit up against a wall allows maximum filling of the cold room.

The height-adjustable feet favour homogenous distribution of air over the products (1).

Two blowing positions possible: horizontal (H2) vertical (H4).

Floor mounting system for easy installation and maintenance.

Servicing / Maintenance

Easily removable main aluminium drain pan.

Hinged side panels offering easy access to electrical and refrigerant connections (2).

Designation

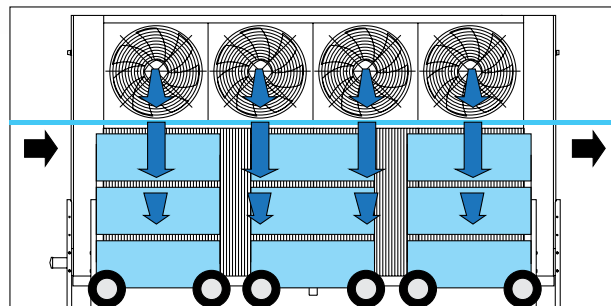
NW 11 ⁽¹⁾ **A1** ⁽²⁾ **S** ⁽³⁾ **100Pa** ⁽⁴⁾

(1) Model

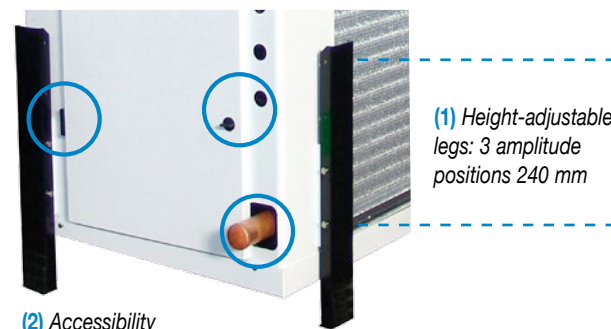
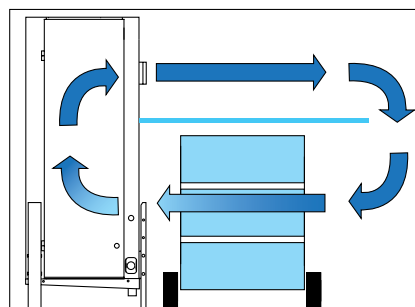
(2) **A** = Axial fan - **C** = Centrifugal fan / **1** = Number

(3) Fin spacing: **R/C** = 6,35 mm - **L/S** = 9 mm - **M/T** = 12 mm

(4) Available pressure



Deep-freeze tunnel principle with an NW



(1) Height-adjustable legs: 3 amplitude positions 240 mm

(2) Accessibility

Kit	Factory
	WCO
	CO2
	DAE
	E1U
ECK	ECU
	HGT
RVK	RVU
	ECB

Options

Coil

Glycol water, coolant (please contact us for details).
R744 optimization (please contact us for details).

Defrost

Water defrost.
Light electric defrost.
Additional coil electric defrost.
Hot gas (coil and drain pan).
Shell defrost heaters.

Miscellaneous

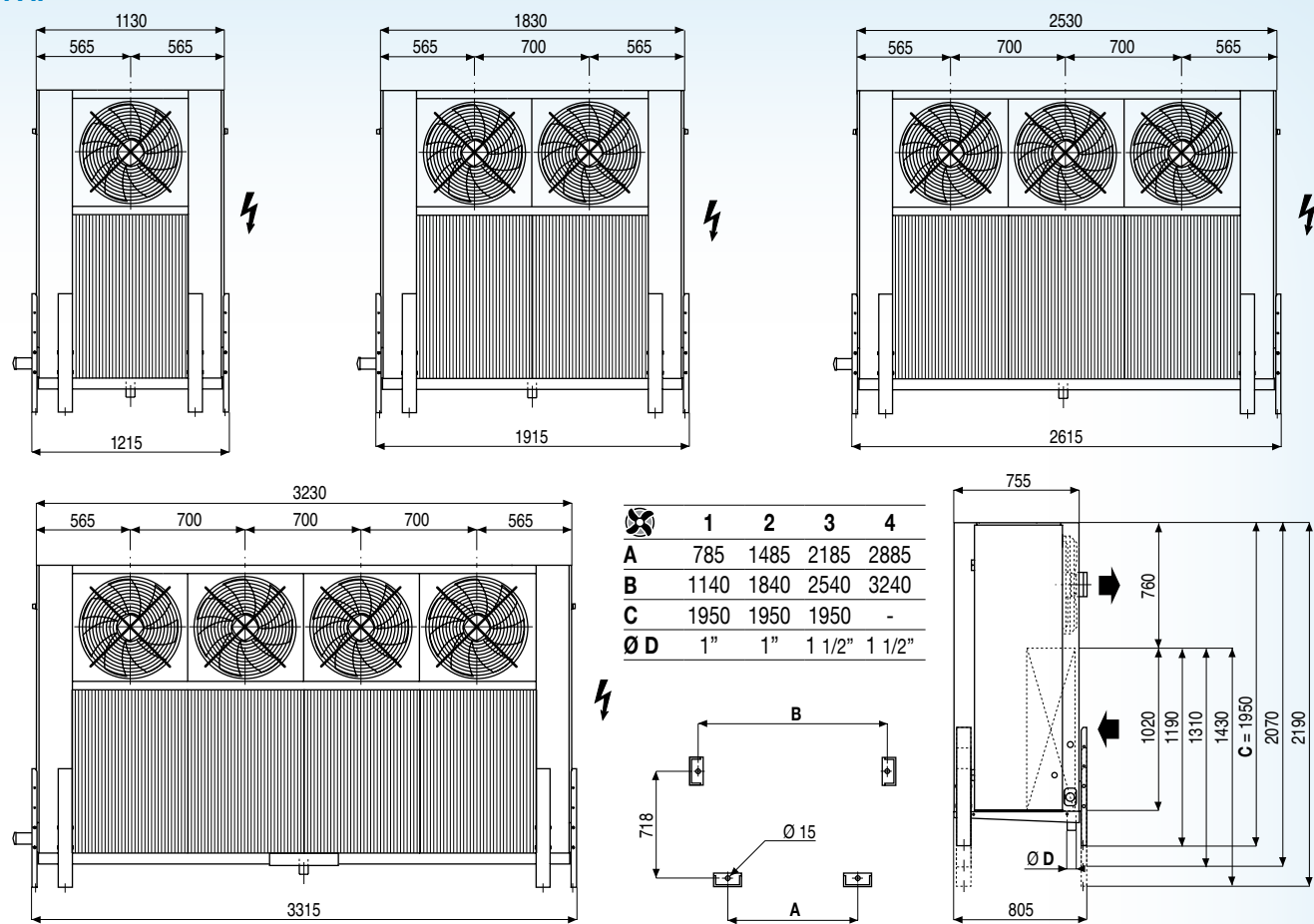
Full crate packaging.

Other options

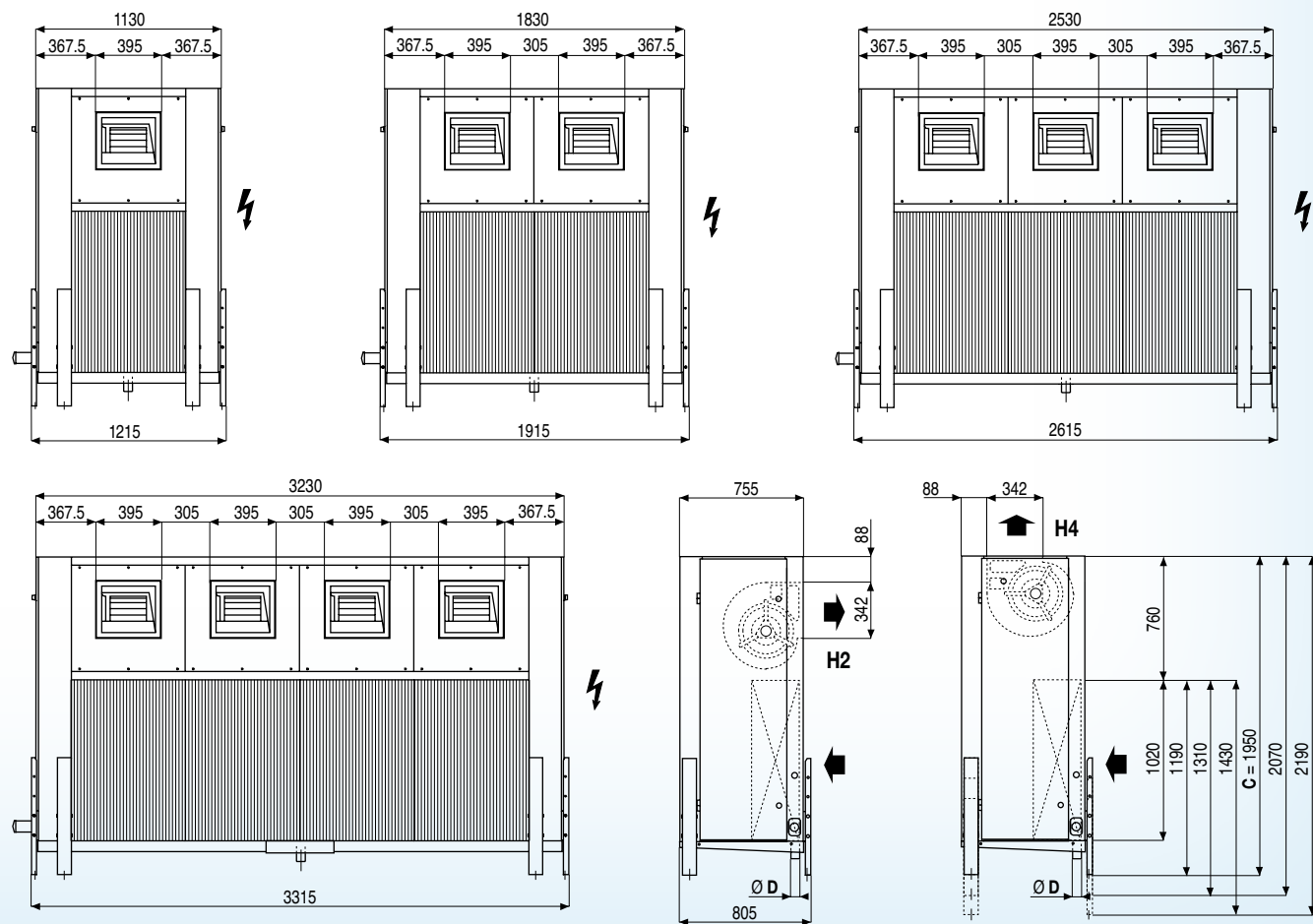
Please contact us for details.

NW - Industrial freezing tunnel unit cooler

NW .. A ..



NW .. C ..



NW .. A. R (Axial fans)

6,35 mm

			NW ... R	12 A1	14 A1	25 A2	30 A2	45 A3	60 A4
0 Pa (1)	Capacity R404A (2)	DT1 = 8K - SC 2	kW	13,2	15,5	26,8	31,5	47,4	63,4
	Capacity CO ₂ (6)	DT1 = 8K - SC 2	kW	12,8	14,7	25,2	29,6	44,6	59,5
	Air flow		m ³ /h	7920	7590	15840	15190	22780	30380
	Air throw (3)		m	19	18	22	21	26	30
100 Pa (1)	Puissance R404A (2)	DT1 = 8K - SC 2	kW	11,4	13,1	23,2	26,6	40,1	53,4
	Puissance CO ₂ (6)	DT1 = 8K - SC 2	kW	11,0	12,3	21,7	24,7	37,2	49,7
	Air flow		m ³ /h	6000	5640	12000	11290	16940	22580
	Air throw (3)		m	15	14	17	16	20	23
Surface			m ²	44,7	59,6	89,3	119,1	178,7	238,3
Circuit volume			dm ³	12,6	16,8	25,2	33,6	50,4	67,2
Net weight			kg	180	195	280	305	420	530
Connections	Inlet		Ø	5/8"	5/8"	7/8"	7/8"	1"1/8	1"3/8
	Outlet		Ø	1"3/8	1"3/8	1"5/8	1"5/8	2"1/8	2"1/8

NW .. A. L (Axial fans)

9 mm

			NW ... L	9 A1	11 A1	20 A2	24 A2	36 A3	49 A4
0 Pa (1)	Capacity R404A (2)	DT1 = 8K - SC 2	kW	10,0	12,1	20,3	24,8	37,6	50,2
	Capacity CO ₂ (6)	DT1 = 8K - SC 2	kW	10,6	12,5	21,3	25,2	38,2	50,7
	Air flow		m ³ /h	8070	7770	16130	15530	23300	31070
	Air throw (3)		m	21	21	25	24	29	34
100 Pa (1)	Puissance R404A (2)	DT1 = 8K - SC 2	kW	8,8	10,6	18,1	21,7	32,8	43,9
	Puissance CO ₂ (6)	DT1 = 8K - SC 2	kW	9,2	10,6	18,5	21,4	32,2	43,1
	Air flow		m ³ /h	6230	5870	12460	11740	17610	23480
	Air throw (3)		m	17	16	20	19	23	27
Surface			m ²	40,8	54,4	81,6	108,8	163,2	217,6
Circuit volume			dm ³	16,1	21,4	32,1	42,8	64,2	85,6
Net weight			kg	185	205	295	325	445	565
Connections	Inlet		Ø	5/8"	5/8"	5/8"	7/8"	7/8"	1"1/8
	Outlet		Ø	1"1/8	1"1/8	1"3/8	1"5/8	2"1/8	2"1/8

NW .. A. M (Axial fans)

12 mm

			NW ... M	9 A1	11 A1	19 A2	23 A2	34 A3	47 A4
0 Pa (1)	Capacity R404A (2)	DT1 = 8K - SC 2	kW	8,8	10,9	18,0	22,3	33,6	45,0
	Capacity CO ₂ (6)	DT1 = 8K - SC 2	kW	8,5	10,4	17,0	20,9	29,8	41,9
	Air flow		m ³ /h	8230	7950	16460	15900	23840	31790
	Air throw (3)		m	22	21	26	25	30	34
100 Pa (1)	Puissance R404A (2)	DT1 = 8K - SC 2	kW	7,9	9,6	16,0	19,5	29,4	39,4
	Puissance CO ₂ (6)	DT1 = 8K - SC 2	kW	7,5	9,0	15,0	18,1	26,2	36,3
	Air flow		m ³ /h	6420	6080	12850	12170	18250	24340
	Air throw (3)		m	17	17	21	20	24	27
Surface			m ²	31,7	42,2	63,4	84,5	126,7	169
Circuit volume			dm ³	16,1	21,4	32,1	42,8	64,2	85,6
Net weight			kg	185	200	290	320	435	555
Connections	Inlet		Ø	5/8"	5/8"	5/8"	7/8"	7/8"	1"1/8
	Outlet		Ø	1"1/8	1"1/8	1"3/8	1"5/8	1"5/8	2"1/8

			NW ...						
Acoustic	Lp 4m (4)		dB(A)	52	52	55	55	57	58
	Lw		dB(A)	82	82	85	85	87	88
Turbine 1,500 rpm.	Ø 560 mm	400 V/3/50 Hz	Nb	1	1	2	2	3	4
			kW/u	1,2	1,2	1,2	1,2	1,2	1,2
			A max/u	2,4	2,4	2,4	2,4	2,4	2,4
Electric defrost E1U (5)	230-400 V/3/50 Hz		Nb	4 + 2	7 + 2	4 + 2	7 + 2	7 + 2	7 + 2
			W total	3900	5850	6600	9900	14400	22500
			A total	9,8/5,6	14,7/8,4	16,6/9,5	24,9/14,3	36,1/20,8	56,5/32,5

(1) Additional air pressure available in Pascal.

(2) Standard conditions (Eurotest) : SC2 / 0°C (air inlet temp.) / -8°C (evaporating temp.) / DT1 = 8K

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

(4) Average sound pressure level in dB(A) measured at 4 m, at fan height, in direct line of sight on a reflective surface, given for information only.

(5) Electric defrost option.

(6) Operating pressure 40 bar - Tube diameter to define the order.

WCO	CO ₂	DAE	E1U	ECK	HGT	RVK	ECB
		O	O	O	O	O	O

NW .. C. R (Centrifugal fans)

6,35 mm

			NW ... R	12 C1	14 C1	24 C2	28 C2	43 C3	58 C4
200 Pa (1)	Capacity R404A (2)	DT1 = 8K - SC 2	kW	11,0	12,6	22,2	25,5	38,5	51,5
	Capacity CO ₂ (6)	DT1 = 8K - SC 2	kW	10,1	11,4	20,0	22,9	32,5	44,5
	Air flow		m ³ /h	5220	5000	10450	10000	15000	20000
	Air throw (3)		m	18	18	22	21	25	28
Surface			m ²	44,7	59,6	89,3	119,1	178,7	238,3
Circuit volume			dm ³	12,6	16,8	25,2	33,6	50,4	67,2
Net weight			kg	180	195	280	305	420	530
Connections	Inlet		Ø	5/8"	5/8"	7/8"	7/8"	1"1/8	1"3/8
	Outlet		Ø	1"1/8	1"3/8	1"5/8	1"5/8	2"1/8	2"1/8

NW .. C. L (Centrifugal fans)

9 mm

			NW ... L	9 C1	10 C1	18 C2	22 C2	33 C3	44 C4
200 Pa (1)	Capacity R404A (2)	DT1 = 8K - SC 2	kW	8,0	9,6	16,3	19,5	29,2	39,1
	Capacity CO ₂ (6)	DT1 = 8K - SC 2	kW	8,4	9,8	16,9	19,8	28,2	39,8
	Air flow		m ³ /h	5360	5160	10710	10320	15490	20650
	Air throw (3)		m	19	18	23	22	26	29
Surface			m ²	40,8	54,4	81,6	108,8	163,2	217,6
Circuit volume			dm ³	16,1	21,4	32,1	42,8	64,2	85,6
Net weight			kg	185	205	295	325	445	565
Connections	Inlet		Ø	5/8"	5/8"	5/8"	7/8"	7/8"	1"1/8
	Outlet		Ø	1"1/8	1"1/8	1"3/8	1"5/8	2"1/8	2"1/8

NW .. C. M (Centrifugal fans)

12 mm

			NW ... M	8 C1	10 C1	17 C2	21 C2	31 C3	42 C4
200 Pa (1)	Capacity R404A (2)	DT1 = 8K - SC 2	kW	7,0	8,5	14,3	17,4	26,2	35,0
	Capacity CO ₂ (6)	DT1 = 8K - SC 2	kW	6,8	8,3	13,3	16,7	24,3	33,4
	Air flow		m ³ /h	5460	5280	10910	10560	15840	21120
	Air throw (3)		m	19	19	23	23	26	30
Surface			m ²	31,7	42,2	63,4	84,5	126,7	169
Circuit volume			dm ³	16,1	21,4	32,1	42,8	64,2	85,6
Net weight			kg	185	200	290	320	435	555
Connections	Inlet		Ø	5/8"	5/8"	5/8"	7/8"	7/8"	7/8"
	Outlet		Ø	1"1/8	1"1/8	1"3/8	1"3/8	1"5/8	2"1/8

			NW ...						
Acoustic	Lp 4m (4)		dB(A)	48	48	51	51	53	54
	Lw		dB(A)	78	78	81	81	83	84
Turbine 1,000 rpm.	12/12	230-400 V/3/50 Hz	Nb	1	1	2	2	3	4
			kW/u	2,0	2,0	2,0	2,0	2,0	2,0
			A max/u	3,3	3,3	3,3	3,3	3,3	3,3
Electric defrost E1U (5)	230-400 V/3/50 Hz		Nb	4 + 2	7 + 2	4 + 2	7 + 2	7 + 2	7 + 2
			W total	3900	5850	6600	9900	14400	22500
			A total	9,8/5,6	14,7/8,4	16,6/9,5	24,9/14,3	36,1/20,8	56,5/32,5

(1) Additional air pressure available in Pascal.

(2) Standard conditions (Eurovent) : SC2 / 0°C (air inlet temp.) / -8°C (evaporating temp.) / DT1 = 8K

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

(4) Average sound pressure level in dB(A) measured at 4 m, at fan height, in direct line of sight on a reflective surface, given for information only.

(5) Electric defrost option.

(6) Operating pressure 40 bar - Tube diameter to define the order.

WCO	CO ₂	DAE	E1U	ECK	HGT	RVK	ECB
		O	O	O	O	-	O

NW .. A. C (Axial fans)

6,35 mm

			NW ... C	12 A1	14 A1	25 A2	29 A2	45 A3	60 A4
0 Pa (1)	Capacity R404A (2)	DT1 = 7K - SC 3	kW	10,2	12,0	20,8	24,5	35,8	48,0
		DT1 = 6K - SC 4	kW	7,9	9,5	16,3	19,4	28,0	37,6
	Capacity CO2 (6)	DT1 = 7K - SC 3	kW	10,4	12,4	21,0	24,9	37,2	47,7
		DT1 = 6K - SC 4	kW	8,4	10,0	16,9	20,3	30,2	38,4
	Air flow		m³/h	7920	7590	15840	15190	22780	30380
Air throw (3)		m	19	18	22	21	26	30	
100 Pa (1)	Capacity R404A (2)	DT1 = 7K - SC 3	kW	8,8	10,2	18,0	20,7	30,7	41,2
		DT1 = 6K - SC 4	kW	6,9	8,1	14,2	16,5	24,3	32,5
	Capacity CO2 (6)	DT1 = 7K - SC 3	kW	9,0	9,9	18,1	20,0	31,1	40,3
		DT1 = 6K - SC 4	kW	7,3	8,4	14,7	16,2	25,4	32,7
	Air flow		m³/h	6000	5640	12000	11290	16940	22580
Air throw (3)		m	15	14	17	16	20	23	
Surface		m²	44,7	59,6	89,3	119,1	178,7	238,3	
Circuit volume		dm³	12,6	16,8	25,2	33,6	50,4	67,2	
Net weight		kg	180	195	280	305	420	530	
Connections	Inlet	Ø	5/8"	7/8"	1"1/8	1"1/8	1"1/8	1"3/8	
R404A	Outlet	Ø	1"3/8	1"5/8	2"1/8	2"1/8	2"1/8	2"5/8	

NW .. A. S (Axial fans)

9 mm

			NW ... S	9 A1	11 A1	19 A2	24 A2	36 A3	48 A4
0 Pa (1)	Capacity R404A (2)	DT1 = 7K - SC 3	kW	7,2	8,9	14,6	18,3	27,7	37,1
		DT1 = 6K - SC 4	kW	5,5	6,8	11,1	14,0	21,2	28,5
	Capacity CO2 (6)	DT1 = 7K - SC 3	kW	8,6	9,9	17,5	20,1	31,6	42,1
		DT1 = 6K - SC 4	kW	6,8	7,7	13,8	15,8	25,0	33,3
	Air flow		m³/h	8070	7770	16130	15530	23300	31070
	Air throw (3)		m	21	21	25	24	29	34
100 Pa (1)	Capacity R404A (2)	DT1 = 7K - SC 3	kW	6,5	7,9	13,0	16,1	24,3	32,7
		DT1 = 6K - SC 4	kW	4,9	6,0	9,9	12,4	18,8	25,3
	Capacity CO2 (6)	DT1 = 7K - SC 3	kW	7,6	8,5	15,3	17,4	26,9	35,8
		DT1 = 6K - SC 4	kW	6,0	6,8	12,1	13,8	21,4	28,6
	Air flow		m³/h	6230	5870	12460	11740	17610	23480
	Air throw (3)		m	17	16	20	19	23	27
Surface			m²	40,8	54,4	81,6	108,8	163,2	217,6
Circuit volume			dm³	16,1	21,4	32,1	42,8	64,2	85,6
Net weight			kg	185	205	295	325	445	565
Connections	Inlet	Ø	5/8"	5/8"	7/8"	7/8"	1"1/8	1"1/8	
R404A	Outlet	Ø	1"3/8	1"3/8	1"5/8	2"1/8	2"1/8	2"5/8	

NW .. A. T (Axial fans)

12 mm

			NW ... T	9 A1	11 A1	18 A2	22 A2	34 A3	46 A4
0 Pa (1)	Capacity R404A (2)	DT1 = 7K - SC 3	kW	6,3	8,0	12,9	16,5	24,8	33,4
		DT1 = 6K - SC 4	kW	4,8	6,1	9,8	12,6	19,1	25,7
	Capacity CO2 (6)	DT1 = 7K - SC 3	kW	7,0	8,3	14,1	16,9	26,0	34,7
		DT1 = 6K - SC 4	kW	5,5	6,6	11,1	13,4	20,7	27,6
	Air flow		m³/h	8230	7950	16460	15900	23840	31790
	Air throw (3)		m	22	21	26	25	30	34
100 Pa (1)	Capacity R404A (2)	DT1 = 7K - SC 3	kW	5,6	7,1	11,5	14,5	21,9	29,4
		DT1 = 6K - SC 4	kW	4,2	5,4	8,8	11,2	16,9	22,8
	Capacity CO2 (6)	DT1 = 7K - SC 3	kW	6,2	7,3	12,5	14,8	22,5	30,1
		DT1 = 6K - SC 4	kW	4,9	5,8	9,9	11,8	18,0	24,0
	Air flow		m³/h	6420	6080	12850	12170	18250	24340
	Air throw (3)		m	17	17	21	20	24	27
Surface		m²	31,7	42,2	63,4	84,5	126,7	169,0	
Circuit volume		dm³	16,1	21,4	32,1	42,8	64,2	85,6	
Net weight		kg	185	200	290	320	435	555	
Connections	Inlet	Ø	5/8"	5/8"	7/8"	7/8"	1"1/8	1"1/8	
R404A	Outlet	Ø	1"3/8	1"3/8	1"5/8	1"5/8	2"1/8	2"1/8	

			NW ...						
Acoustic	Lp 4m (4)		dB(A)	52	52	55	55	57	58
			Lw	82	82	85	85	87	88
Fan 1,500 rpm.	Ø 560 mm	400 V/3/50 Hz	Nb	1	1	2	2	3	4
			kW/u	1,2	1,2	1,2	1,2	1,2	1,2
			A max/u	2,4	2,4	2,4	2,4	2,4	2,4
Electric defrost E1U (5)	Ω	230-400 V/3/50 Hz	Nb	7 + 2	10 + 2	7 + 2	10 + 2	10 + 2	10 + 2
			W total	5850	7800	9900	13200	19200	30000
			A total	14,7/8,4	19,6/11,3	24,9/14,3	33,1/19,1	48,2/27,7	75,3/43,3

WCO	CO ₂	DAE	E1U	ECK	HGT	RVK	ECB
-		O	-	-	O	O	O