

# 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



4  63 kW

## Market segments



FCS 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.

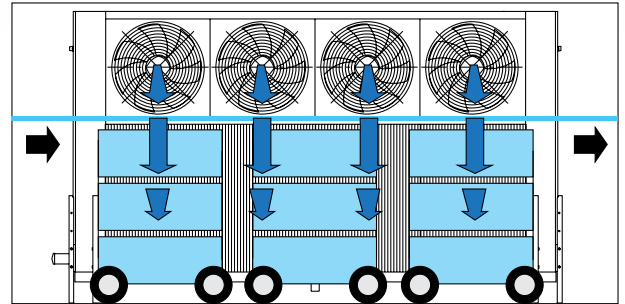
### Servicing / Maintenance

- Easily removable main aluminium drain pan.
- Hinged side panels offering easy access to electrical and refrigerant connections (2).

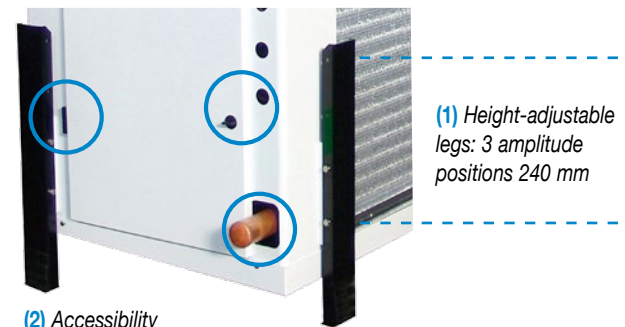
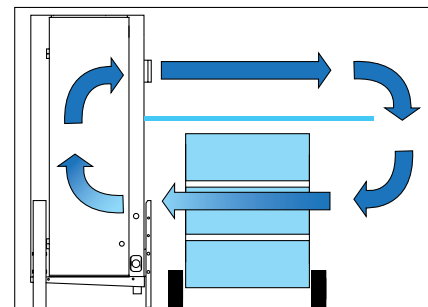
## Designation

**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
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## Options

### Coil

- WCO** Glycol water, coolant (please contact us for details).
- CO2** R744 optimization (please contact us for details).

### Defrost

- E1U** Light electric defrost.
- ECK ECU** Additional coil electric defrost.
- HGT** Hot gas (coil and drain pan).
- RVK RVU** Shell defrost heaters.
- DAE** Water defrost.

### Miscellaneous

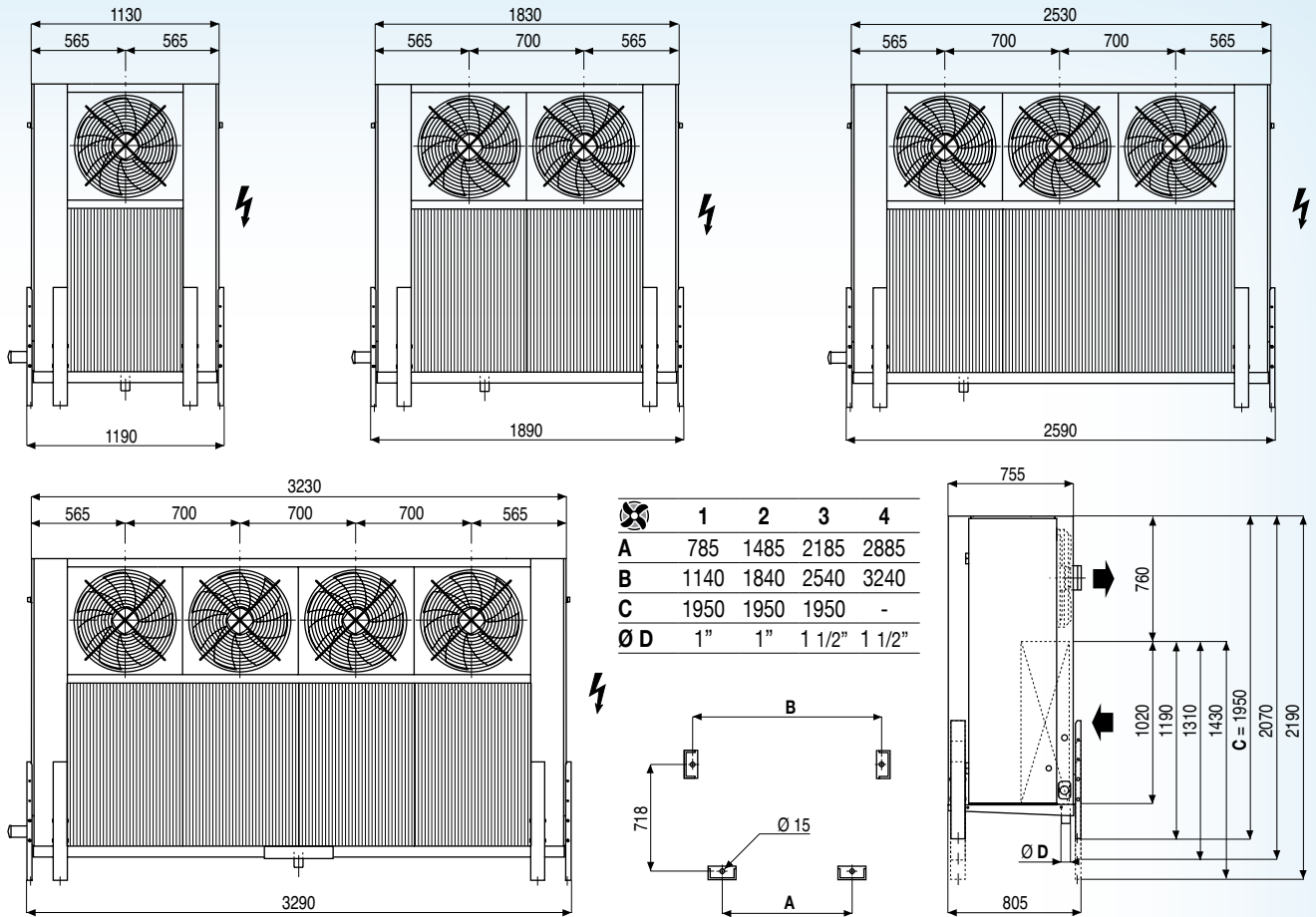
**ECB** Full crate packaging.

### Other options

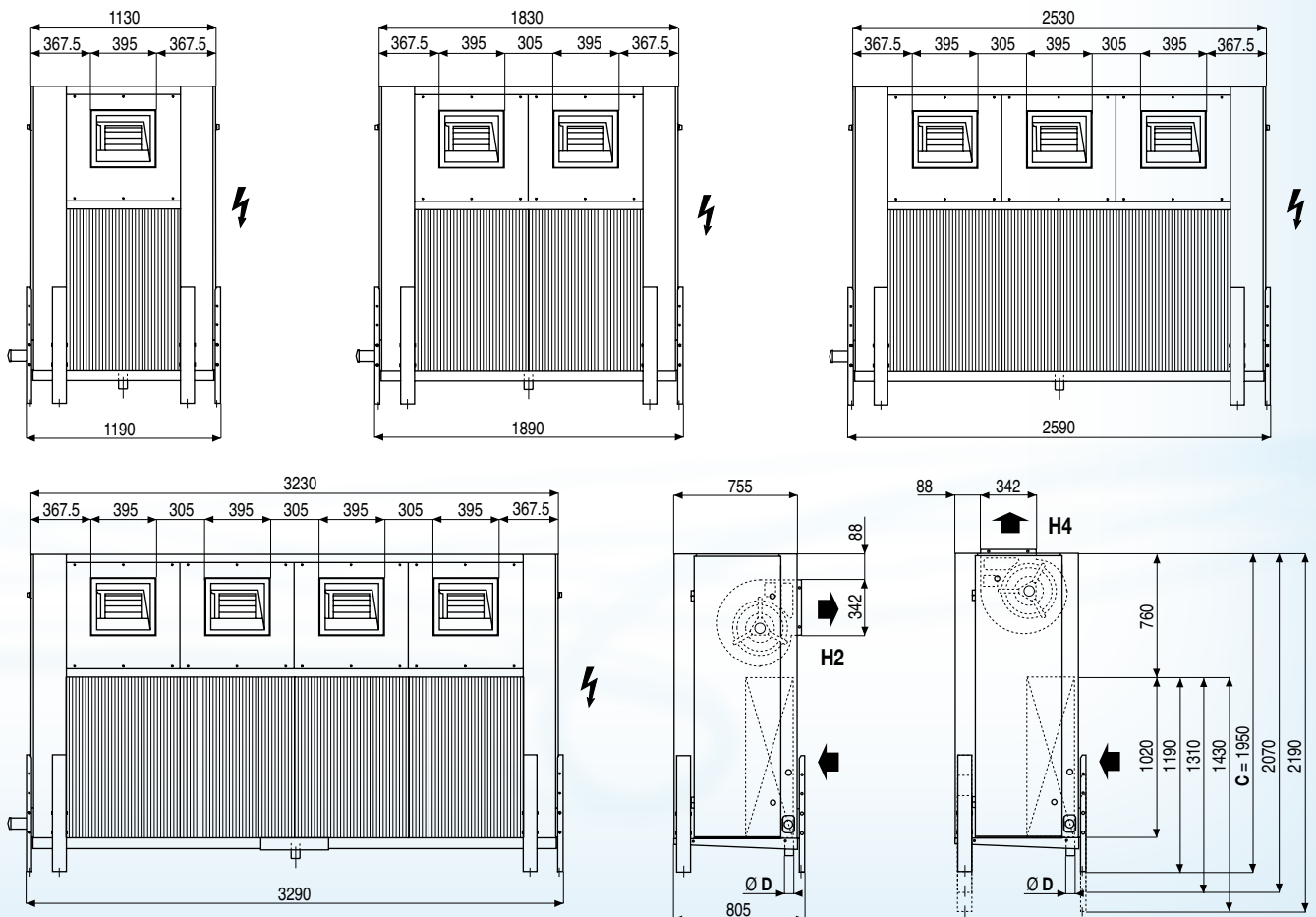
Please contact us for details.

# 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) R404A	Capacity	DT1 = 8K - SC 2 (2)	kW	13,2	15,5	26,8	31,5	47,4	63,4
	Air flow		m <sup>3</sup> /h	7920	7590	15840	15190	22780	30380
	Air throw (3)		m	19	18	22	21	26	30
100 Pa (1) R404A	Capacity	DT1 = 8K - SC 2 (2)	kW	11,4	13,1	23,2	26,6	40,1	53,4
	Air flow		m <sup>3</sup> /h	6000	5640	12000	11290	16940	22580
	Air throw (3)		m	15	14	17	16	20	23
Surface			m <sup>2</sup>	44,7	59,6	89,3	119,1	178,7	238,3
Circuit volume			dm <sup>3</sup>	12,6	16,8	25,2	33,6	50,4	67,2
Net weight			kg	180	195	280	305	420	530
Connections R404A	Inlet		∅	5/8"	5/8"	7/8"	7/8"	1"1/8	1"3/8
	Outlet		∅	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) R404A	Capacity	DT1 = 8K - SC 2 (2)	kW	10,0	12,1	20,3	24,8	37,6	50,2
	Air flow		m <sup>3</sup> /h	8070	7770	16130	15530	23300	31070
	Air throw (3)		m	21	21	25	24	29	34
100 Pa (1) R404A	Capacity	DT1 = 8K - SC 2 (2)	kW	8,8	10,6	18,1	21,7	32,8	43,9
	Air flow		m <sup>3</sup> /h	6230	5870	12460	11740	17610	23480
	Air throw (3)		m	17	16	20	19	23	27
Surface			m <sup>2</sup>	40,8	54,4	81,6	108,8	163,2	217,6
Circuit volume			dm <sup>3</sup>	16,1	21,4	32,1	42,8	64,2	85,6
Net weight			kg	185	205	295	325	445	565
Connections R404A	Inlet		∅	5/8"	5/8"	5/8"	7/8"	7/8"	1"1/8
	Outlet		∅	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) R404A	Capacity	DT1 = 8K - SC 2 (2)	kW	8,8	10,9	18,0	22,3	33,6	45,0
	Air flow		m <sup>3</sup> /h	8230	7950	16460	15900	23840	31790
	Air throw (3)		m	22	21	26	25	30	34
100 Pa (1) R404A	Capacity	DT1 = 8K - SC 2 (2)	kW	7,9	9,6	16,0	19,5	29,4	39,4
	Air flow		m <sup>3</sup> /h	6420	6080	12850	12170	18250	24340
	Air throw (3)		m	17	17	21	20	24	27
Surface			m <sup>2</sup>	31,7	42,2	63,4	84,5	126,7	169
Circuit volume			dm <sup>3</sup>	16,1	21,4	32,1	42,8	64,2	85,6
Net weight			kg	185	200	290	320	435	555
Connections R404A	Inlet		∅	5/8"	5/8"	5/8"	7/8"	7/8"	1"1/8
	Outlet		∅	1"1/8	1"1/8	1"3/8	1"5/8	1"5/8	2"1/8

		NW ...		9 A1	11 A1	19 A2	23 A2	34 A3	47 A4
Acoustic	Lp 4m (4)		dB(A)	52	52	55	55	57	58
	Lw		dB(A)	82	82	85	85	87	88
Fan 1,500 rpm.	∅ 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) See page 10.

(3) Residual air speed: 0.25 m/s, in compliance with standard.

(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.

WCO	CO2	E1U	HGT	DAE	ECK	RVK	ECB
	-	0	0	0	0	0	0

## 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) R404A	Capacity	DT1 = 8K - SC 2 (2)	kW	11,0	12,6	22,2	25,5	38,5	51,5
	Air flow		m <sup>3</sup> /h	5220	5000	10450	10000	15000	20000
	Air throw (3)		m	18	18	22	21	25	28
Surface			m <sup>2</sup>	44,7	59,6	89,3	119,1	178,7	238,3
Circuit volume			dm <sup>3</sup>	12,6	16,8	25,2	33,6	50,4	67,2
Net weight			kg	180	195	280	305	420	530
Connections R404A	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) R404A	Capacity	DT1 = 8K - SC 2 (2)	kW	8,0	9,6	16,3	19,5	29,2	39,1
	Air flow		m <sup>3</sup> /h	5360	5160	10710	10320	15490	20650
	Air throw (3)		m	19	18	23	22	26	29
Surface			m <sup>2</sup>	40,8	54,4	81,6	108,8	163,2	217,6
Circuit volume			dm <sup>3</sup>	16,1	21,4	32,1	42,8	64,2	85,6
Net weight			kg	185	205	295	325	445	565
Connections R404A	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) R404A	Capacity	DT1 = 8K - SC 2 (2)	kW	7,0	8,5	14,3	17,4	26,2	35,0
	Air flow		m <sup>3</sup> /h	5460	5280	10910	10560	15840	21120
	Air throw (3)		m	19	19	23	23	26	30
Surface			m <sup>2</sup>	31,7	42,2	63,4	84,5	126,7	169
Circuit volume			dm <sup>3</sup>	16,1	21,4	32,1	42,8	64,2	85,6
Net weight			kg	185	200	290	320	435	555
Connections R404A	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) See page 10.

(3) Residual air speed: 0.25 m/s, in compliance with standard.

(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.

WCO	CO2	E1U	HGT	DAE	ECK	RVK	ECB
👤	-	0	0	0	0	-	0

## 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	DT1 = 7K - SC 3 (2)	kW	10,2	12,0	20,8	24,5	35,8	48,0
		DT1 = 6K - SC 4 (2)	kW	7,9	9,5	16,3	19,4	28,0	37,6
R404A	Air flow		m <sup>3</sup> /h	7920	7590	15840	15190	22780	30380
	Air throw (3)		m	19	18	22	21	26	30
100 Pa (1)	Capacity	DT1 = 7K - SC 3 (2)	kW	8,8	10,2	18,0	20,7	30,7	41,2
		DT1 = 6K - SC 4 (2)	kW	6,9	8,1	14,2	16,5	24,3	32,5
R404A	Air flow		m <sup>3</sup> /h	6000	5640	12000	11290	16940	22580
	Air throw (3)		m	15	14	17	16	20	23
	Surface		m <sup>2</sup>	44,7	59,6	89,3	119,1	178,7	238,3
	Circuit volume		dm <sup>3</sup>	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	DT1 = 7K - SC 3 (2)	kW	7,2	8,9	14,6	18,3	27,7	37,1
		DT1 = 6K - SC 4 (2)	kW	5,5	6,8	11,1	14,0	21,2	28,5
R404A	Air flow		m <sup>3</sup> /h	8070	7770	16130	15530	23300	31070
	Air throw (3)		m	21	21	25	24	29	34
100 Pa (1)	Capacity	DT1 = 7K - SC 3 (2)	kW	6,5	7,9	13,0	16,1	24,3	32,7
		DT1 = 6K - SC 4 (2)	kW	4,9	6,0	9,9	12,4	18,8	25,3
R404A	Air flow		m <sup>3</sup> /h	6230	5870	12460	11740	17610	23480
	Air throw (3)		m	17	16	20	19	23	27
	Surface		m <sup>2</sup>	40,8	54,4	81,6	108,8	163,2	217,6
	Circuit volume		dm <sup>3</sup>	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	DT1 = 7K - SC 3 (2)	kW	6,3	8,0	12,9	16,5	24,8	33,4
		DT1 = 6K - SC 4 (2)	kW	4,8	6,1	9,8	12,6	19,1	25,7
R404A	Air flow		m <sup>3</sup> /h	8230	7950	16460	15900	23840	31790
	Air throw (3)		m	22	21	26	25	30	34
100 Pa (1)	Capacity	DT1 = 7K - SC 3 (2)	kW	5,6	7,1	11,5	14,5	21,9	29,4
		DT1 = 6K - SC 4 (2)	kW	4,2	5,4	8,8	11,2	16,9	22,8
R404A	Air flow		m <sup>3</sup> /h	6420	6080	12850	12170	18250	24340
	Air throw (3)		m	17	17	21	20	24	27
	Surface		m <sup>2</sup>	31,7	42,2	63,4	84,5	126,7	169,0
	Circuit volume		dm <sup>3</sup>	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 ...		9 A1	11 A1	18 A2	22 A2	34 A3	46 A4
Acoustic	Lp 4m (4)		dB(A)	52	52	55	55	57	58
	Lw		dB(A)	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)	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


(1) Additional air pressure available in Pascal.

(2) See page 10.

(3) Residual air speed: 0.25 m/s, in compliance with standard.

(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.

WCO	CO2	E1U	HGT	DAE	ECK	RVK	ECB
-		-	0	0	-	0	0