

**Datasheet:** 02037474      **Position:** 747401  
**Project:** McDonalds DK - Syddjurs      **Side:** 1 by 7  
**Location:**      **Date:** 15.05.2025  
**Unit:** Kitchen      **Tender Position:**



REV1: Electronic expansion valve kits mounted on the operating side. Changing the chamber length.

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<b>Clerk:</b>	S.Reifenröther	<b>Quantity:</b>	1 Piece
<b>Construction:</b>	HYD S Inside installation, VDI 6022		
<b>Base Frame:</b>	inside galvanized 80 mm, 113,94 kg		
<b>Base Frame top unit:</b>	Without		
<b>Total Weight:</b>	Ca. 700 kg		
<b>Thermal Decoupling:</b>	T2/TB4		
<b>CAL (R)@-400 Pa:</b>	0,327 dm <sup>3</sup> /(sm <sup>2</sup> )		
<b>CAL (R)@+400 Pa:</b>	0,403 dm <sup>3</sup> /(sm <sup>2</sup> )		
<b>Accessories:</b>	Transport Steel Pipes insulation strips		

<b>Cert. No:</b>	02.03.036
<b>Efficiency Factor Winter:</b>	1,00
<b>Efficiency Factor Summer:</b>	-
<b>Reference city:</b>	DK-Hvide Sande
<b>Dry bulb temperature:</b>	25,30
<b>Wet bulb temperature:</b>	20,20
<b>Dew point temperature:</b>	17,80





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**Location:**      **Date:** 15.05.2025  
**Unit:** Kitchen      **Tender Position:**



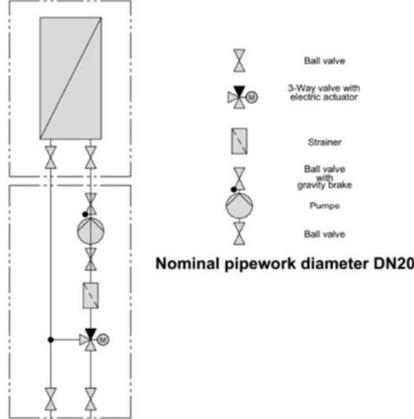
REV1: Electronic expansion valve kits mounted on the operating side. Changing the chamber length.

**(SUP) Heat Recovery**      GS/GS/GS      **Weight: 50 kg**      **Length: 495 mm**      **Pressure Drop: 0 Pa**  
 Empty section for run around coil system heat exchanger

**Design:** Fixed Panel

**(SUP) Piping chamber**      GS/GS/GS      **Weight: 51 kg**      **Length: 470 mm**      **Pressure Drop: 0 Pa**

System limit Air handling unit



Warm Water Control group.  
 Piped according to the following scheme and piped to the outside on the operating side through a wide profile.  
 Ball valve in DN 20 on the outside of the appliance on the supply and return lines.  
 Pipe cross section DN20

- 2x Kugelhahn DN25 – 1"
- 2x Kugelhahn DN20 – 3/4"
- 1x Schmutzfänger DN20 – 3/4"
- 1x 3-Wege Ventil
- 1x Elektrischer Stellantrieb VA500C.1

**Design:** Access Panel  
**Lockers:** Lockers

**(SUP) Heater**      GS/GS/GS      **Weight: 52 kg**      **Length: 275 mm**      **Pressure Drop: 49 Pa**

<b>Brand:</b>	Rox	<b>Type:</b>	W/27/701/3R/11K/2,9 Cu9,5/Al-L1
<b>Pipes:</b>	Copper	<b>Heat Transfer Medium:</b>	Water
<b>Fin:</b>	Aluminium	<b>Weight Heat Exchanger:</b>	kg 16,00
<b>Collector:</b>	Copper	<b>Medium</b>	
<b>Frame:</b>	Galvanized Steel	<b>Flow-Rate:</b>	m³/h 1,43
<b>Quantity Pipe Rows:</b>	3	<b>Temp. In:</b>	°C 50,00
<b>Fin distance:</b>	mm 2,90	<b>Temp. Out:</b>	°C 30,00
<b>Connections:</b>	Abgewinkelt fluchtend	<b>Charge:</b>	l 5,00
<b>Connection Inlet:</b>	DN25	<b>Druckverlust:</b>	kPa 12,20
<b>Connection Outlet:</b>	DN25		
<b>Finned height:</b>	mm 675	<b>Luft</b>	
<b>Finned width:</b>	mm 855	<b>Air Volume:</b>	m³/h 4000
<b>Freeze protection:</b>	°C 0,00	<b>Temp. In:</b>	°C -12,00
<b>Frost Protection Support Frame:</b>	Fixing eyelets	<b>Temp. Out:</b>	°C 10,00
		<b>Pressure Drop:</b>	Pa 49
		<b>Air velocity:</b>	m/s 2,4
		<b>Surface Reserve:</b>	% 10,31
		<b>Capacity:</b>	kW 29,62

**Design:** Fixed Panel  
**Lockers:** Lockers  
**Hints:** This component is not included in the software Eurovent certified

Datasheet: 02037474      Position: 747401  
 Project: McDonalds DK - Syddjurs      Side: 4 by 7  
 Location:      Date: 15.05.2025  
 Unit: Kitchen      Tender Position:



REV1: Electronic expansion valve kits mounted on the operating side. Changing the chamber length.

<b>(SUP) Cooler / Heater</b>	<b>GS/GS/GS</b>	<b>Weight: 81 kg</b>	<b>Length: 330 mm</b>	<b>Pressure Drop: 83 Pa</b>
<b>Brand:</b>	Rox	<b>Type:</b>	XRCAF 0725 T014 04 F30 E004 2*5/8 2*7/8 (R2) (8mm)	
<b>Pipes:</b>	Cu/Al 1/2" 0,35 mm	<b>Weight Heat Exchanger:</b>	kg	32,10
<b>Fin:</b>	Aluminium	<b>Connections:</b>	Backside	
<b>Collector:</b>	Kupfer	<b>Connection Inlet:</b>	2*16mm	
<b>Frame:</b>	Aluminium	<b>Connection Outlet:</b>	2*22mm	
<b>Separation (A x B):</b>	mm 37,5 x 32,48 mm	<b>Finned height:</b>	mm	525
<b>Quantity Pipe Rows:</b>	4	<b>Finned width:</b>	mm	725
<b>Fin Distance:</b>	mm 3			

**Haupt-Betriebspunkt**

Air

<b>Air Volume:</b>	m³/h	4000
<b>Pressure Drop:</b>	Pa	83
<b>Temp. In:</b>	°C	34
<b>Rel. Humidity In:</b>	%	35
<b>Temp. Out:</b>	°C	18,4
<b>Rel. Humidity out:</b>	%	87
<b>Capacity:</b>	kW	21,87
<b>Surface Reserve:</b>	%	9
<b>Air velocity:</b>	m/s	2,92

Medium

<b>Heat Transfer Medium:</b>		R32
<b>Mass Flow:</b>	kg/h	317,0
<b>Pressure Drop:</b>	kPa	12,81
<b>Evaporation temperature:</b>	°C	8,5
<b>Condensation temperature:</b>	°C	45
<b>Charge:</b>	l	5,1
<b>Medium Velocity:</b>	m/s	2,59 / 5,26

**Zusatz-Betriebspunkt**

Air

<b>Air Volume:</b>	m³/h	4000
<b>Pressure Drop:</b>	Pa	78
<b>Temp. In:</b>	°C	10
<b>Rel. Humidity In:</b>	%	0
<b>Temp. Out:</b>	°C	24
<b>Rel. Humidity out:</b>	%	0
<b>Capacity:</b>	kW	18,90
<b>Surface Reserve:</b>	%	28
<b>Air velocity:</b>	m/s	2,96

Medium

<b>Heat Transfer Medium:</b>		R32
<b>Mass Flow:</b>	kg/h	227,0
<b>Pressure Drop:</b>	kPa	1,65
<b>Evaporation temperature:</b>	°C	8,5
<b>Condensation temperature:</b>	°C	45
<b>Charge:</b>	l	5,1
<b>Medium Velocity:</b>	m/s	1,88 / 0,13

**Design:** Fixed Panel      **Condensate Trough:** RAL/V2A (AISI304)

**Accessories**

Item Number	Description	Weight
<b>Heat Pump</b>	2x Samsung AM 040DXMDNG The heat pumps are mounted on a separate base frame	
<b>EEV-Kit</b>	2x Samsung MXD K050AN The EEV-Kits are mounted on a console on the operating side of the system	
<b>Gas-Detector:</b>	Gas Detector, MGS450 IP66 R32 1KPPM	



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 Location:      Date: 15.05.2025  
 Unit: Kitchen      Tender Position:



REV1: Electronic expansion valve kits mounted on the operating side. Changing the chamber length.

**(SUP) Droplet Eliminator**      GS/GS/GS      Weight: 44 kg      Length: 350 mm      Pressure Drop: 18 Pa  
 Brand: Rox  
 Material: PPTV      Guiding Rail: V2A (AISI304)  
 Design: Access Panel      Condensate Trough: RAL/V2A (AISI304)  
 Lockers: Lockers      Condensate Drain: Yes

### Accessories

Item Number	Description	Weight
	Siphon SN	

**(SUP) Fan**      GS/GS/GS      Weight: 91 kg      Length: 495 mm      Pressure Drop: 0 Pa  
 Brand: Rox      Construction: Free Running  
 Fan Type: 1 x GKHM 355-CII.118.6FF      Drivetrain: Motor in Airstream  
 SFP-Data with FC: m³/s 1069      SFP-Class with FC: SFP3  
 Air Volume: m³/h 4000      Motor type: EC  
 ΔP ext.: Pa 300      Voltage / Frequency: V/Hz 3~200-240 / 50/60  
 Dyn. Pressure Drop: Pa 33      Nominal Power: kW 2,77  
 Installation loss: Pa 20      Nominal Current: A 7,25  
 Static Pressure Drop: Pa 640      Nominal Rotation Speed: 1/min 3115  
 Total Pressure Drop: Pa 673      Frequency Converter: Integrated  
 electrical Power Input: kW 1,19 / P1      Nozzle Pressure Difference: Pa 725,90  
 Reference Power Input: kW 1,59      k-Factor: m²s/h 115  
 Nominal Rotation Speed: 1/min 2301  
 Maximum Rotation Speed: 1/min 3115  
 Rotation Speed Spare: % 25,92  
 Total Efficiency: % 62,90  
 Static System Efficiency: % 59,90  
 Total Efficiency in Efficiency Optimum: % 69  
 Air Volume Measuring Point: Air Volume Measuring Point with Pressure Sensor DPA 2500  
 Total Sound Power level: dB(A) 76,9

f	125	250	500	1000	2000	4000	8000	Hz
Lw o	50	74	74	75	73	72	69	dB
Lw i	44	70	71	70	69	68	65	dB

Design: Access Door  
 Lockers: Lockers  
 Hinges: 3D-Hinges  
 Hints: The Installation losses of the fan are considered in the Fan Performances  
 Designed for wet conditions  
 Motor wired to Repair Switch



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REV1: Electronic expansion valve kits mounted on the operating side. Changing the chamber length.

**(SUP) Air Outlet Section**      GS/GS/GS      **Weight:** 31 kg      **Length:** 1 mm      **Pressure Drop:** 15 Pa

**Connection:**

**Layer:** Front Side  
**Material:** galvanized  
**Design:** Damping Connection VDI6022  
**Potential Equalisation:** Yes  
**Dimensions (W x H)** 881 x 360  
  
**Grating:** Without

**Design:** Fixed Panel

**Supply Air Acoustic Data**

**Supply Air Connector**

Frequency f in Hz	125	250	500	1k	2k	4k	8k	Sum
Residue Sound Power in dB	49	73	73	74	72	71	68	80
Residue Sound Power in dB(A)	33	64	70	74	73	72	67	79

**Outside Air Connector**

Frequency f in Hz	125	250	500	1k	2k	4k	8k	Sum
Residue Sound Power in dB	33	57	56	54	47	50	47	61
Residue Sound Power in dB(A)	17	48	53	54	48	51	46	59

**Surrounding Acoustic Emission (Casing Emission)**

Wall Thickness: 53 mm

Frequency f in Hz	125	250	500	1k	2k	4k	8k	Sum
Residue Sound Power in dB	34	65	62	53	45	33	27	67
Residue Sound Power in dB(A)	18	57	58	53	47	34	26	62

The Acoustic Data refer only on the inside fan  
Possibly the Supply Air and Extract Air Data have to be added together



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**Unit:** Kitchen      **Tender Position:**



REV1: Electronic expansion valve kits mounted on the operating side. Changing the chamber length.

<b>Unit Type</b>	NRVU	<b>Construction of Unit</b>	UVU
Non residential ventilation unit		Unidirectional ventilation unit	

<b>Total unit characteristics:</b>	
Type of HR:	None
Temperature ratio dry:	0,00 %
Highest External Leakage rate (+400Pa/-400Pa):	0,00 %
Highest Internal Leakage rate (250Pa):	0,00 %

<b>SFPint:</b>	<b>122,45 [W/(m³/s)]</b>
<b>SFPint max. 2016:</b>	<b>250,00 [W/(m³/s)]</b>
<b>SFPint max. 2018:</b>	<b>230,00 [W/(m³/s)]</b>



<b>Supply air features</b>	
Air Volume:	1,11 m³/s
ΔP ext:	300 Pa
ΔP s, add:	249 Pa
ΔP s, int:	104 Pa
Filter:	ePM1 60% (F7)
Filter pressure drop beginning:	71 Pa
Heat recovery pressure drop dry:	0 Pa
Fan pressure drop total:	653 Pa
Fan pressure drop dynamic:	33 Pa
Fan electric power input:	1,19 kW
Fan efficiency static:	59,90 %
SFPv:	928,21 [W/(m³/s)]

<b>Hints</b>	
<b>Filter warn indication</b>	The Filter warn indication is realized by a differential pressure manometer. According to the guideline 1253/2014/EU the filter monitoring has to be mounted onsite if it is not contained in the equipment.
<b>Thermal Bypass</b>	The required thermal bypass of the HRS according to the guideline 1253/2014/EU is realized by a bypass of the HR-System.
<b>Drivetrain</b>	If the unit is ordered and delivered without DDC, a governor or a cascade drive is provided to fulfill the requirements of the guideline 1253/2014/EU.
<b>Disposal note</b>	Further information under <a href="http://www.rox-online.de">www.rox-online.de</a>

