

Datasheet: 02037475 **Position:** 747501
Project: McDonalds DK - Ringe **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.

Clerk: S.Reifenröther **Quantity:** 1 Piece
Construction: HYD S Inside installation, VDI 6022
Base Frame: inside galvanized 80 mm, 113,94 kg
Base Frame top unit: Without
Total Weight: Ca. 700 kg
Thermal Decoupling: T2/TB4
CAL (R)@-400 Pa: 0,327 dm³/(sm²)
CAL (R)@+400 Pa: 0,403 dm³/(sm²)
Accessories: Transport Steel Pipes
insulation strips

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

Datasheet: 02037475 **Position:** 747501
Project: McDonalds DK - Ringe **Side:** 3 by 7
Location: **Date:** 15.05.2025
Unit: Kitchen **Tender Position:**



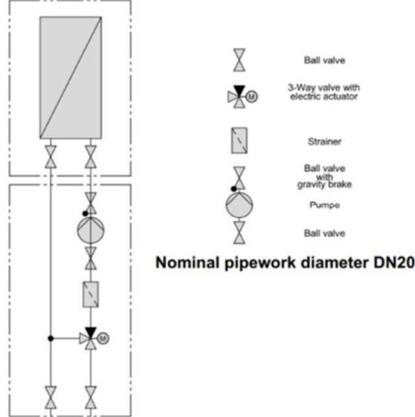
REV1: Electronic expansion valve kits mounted on the operating side. Changing the chamber length.

(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 hanhdling 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**

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

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

Datasheet: 02037475 Position: 747501
 Project: McDonalds DK - Ringe 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.

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

Haupt-Betriebspunkt

Air

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

Medium

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

Zusatz-Betriebspunkt

Air

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

Medium

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

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

Accessories

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



Datasheet: 02037475 **Position:** 747501
Project: McDonalds DK - Ringe **Side:** 5 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.

(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 IE Gen3	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

Datasheet: 02037475 **Position:** 747501
Project: McDonalds DK - Ringe **Side:** 6 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.

(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



Datasheet: 02037475 **Position:** 747501
Project: McDonalds DK - Ringe **Side:** 7 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.

Unit Type	NRVU	Construction of Unit	UVU
Non residential ventilation unit		Unidirectional ventilation unit	

Total unit characteristics:

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

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



Supply air features

Air Volume:	1,11 m ³ /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/(m ³ /s)]

Hints

Filter warn indication	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.
Thermal Bypass	The required thermal bypass of the HRS according to the guideline 1253/2014/EU is realized by a bypass of the HR-System.
Drivetrain	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.
Disposal note	Further information under www.rox-online.de

