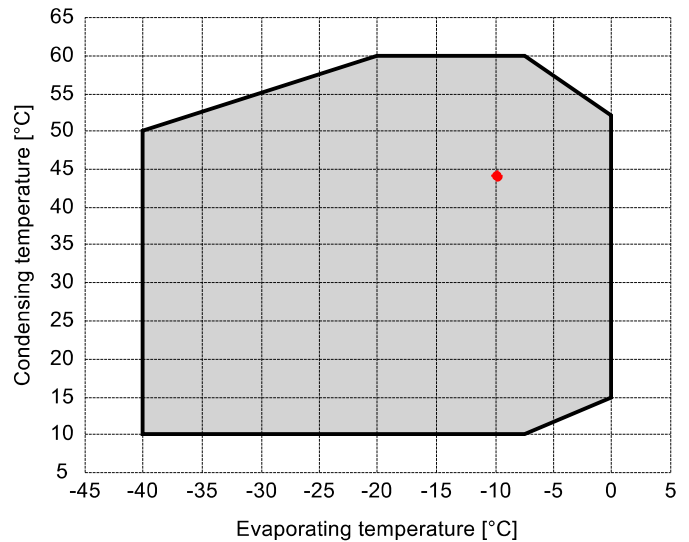


Input data

Refrigerant	R449A	
Reference temperature	Dew point temperature	
Calculation mode	Refrigeration / Air Cond.	
Operating mode	Subcritical	
Power supply	400/3/50	
Ambient temperature	°C	32
Liquid subcooling	K	3
Liquid temperature	°C	36,92
Evaporating temperature	°C	-10
Evaporating pressure	bar	3,61
Suction gas superheating	K	10
Useful fraction of superheating	%	100



Output data

Compressor :		LB2-S842-3Y-2T
Number of compressors :		FSx1
Refrigerating capacity	kW	20,273
Condensing temperature (dew point)	°C	44,23
Evaporator capacity	kW	20,273
Power input (with fan)	W	9667
Condenser capacity, theor.	kW	28,441
Current	A	14,05
COP/EER (with fan)	W/W	2,1
Mass flow	kg/h	496
Operating frequency	Hz	50
Connection	-	PWS
Operating mode	-	100%
Discharge temperature	°C	83,51
Ratio (%)	%	100,0%
Note	-	
Oil flow	l/min	-
Heat Exchanged (oil Cooler)	kW	-
Oil Temp. at Oil Cooler Outlet	°C	-
Certified by	-	Frascold

Compliant with EU Ecodesign Directive 2009/125/EC - Regulation EU 2015/1095, at medium temperature (-10 °C).

This unit can't be used with this refrigerant at low temperature (-35 °C) in EU Countries.

Certified by:

- Frascold Data

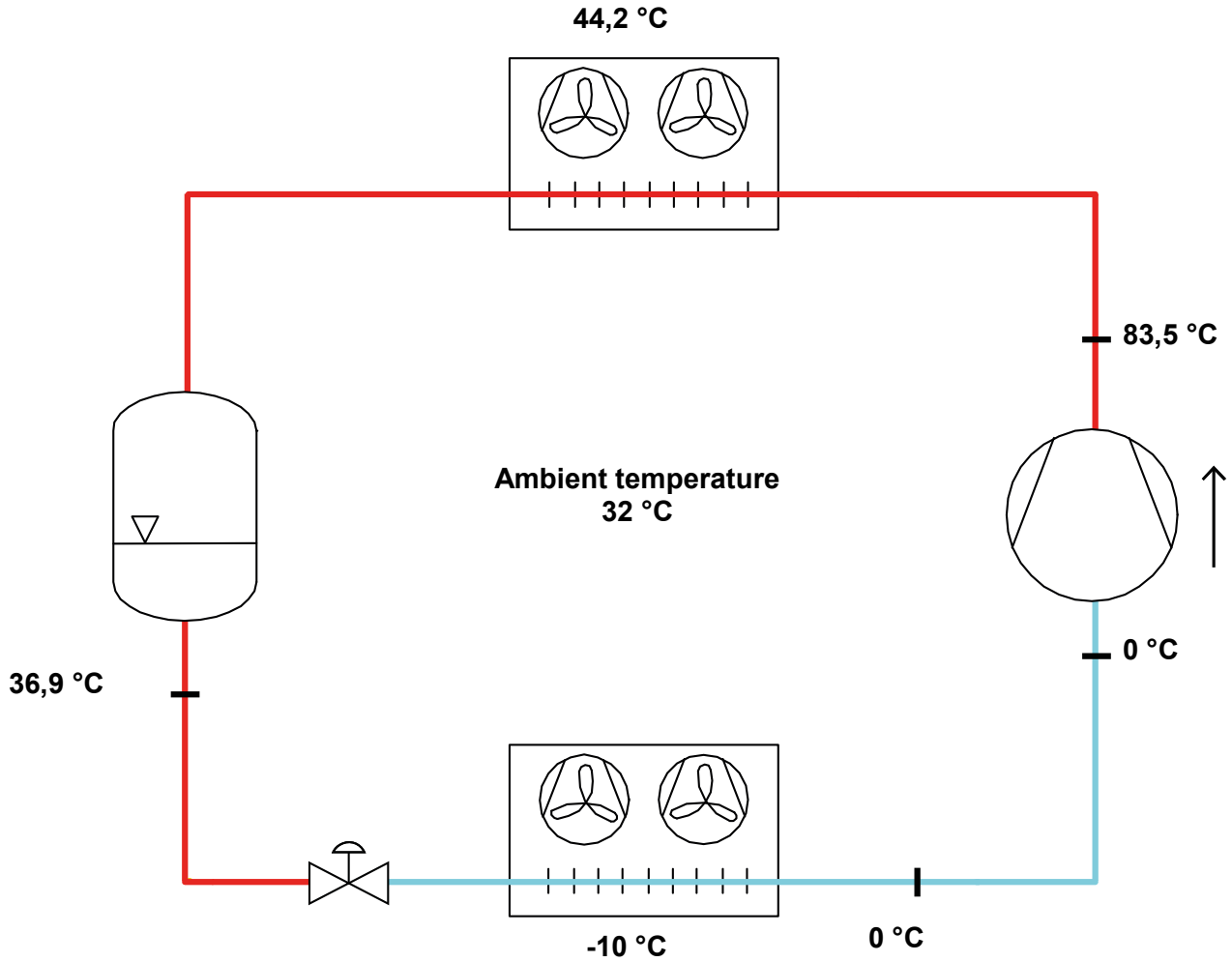


Legend:

- *ref: At conditions according to EN12900
- Suction gas temperature = 20 °C
- Liquid subcooling = 0 K

All data subject to change without notice

P&I Diagram:



All data subject to change without notice

Model: LB2-S842-3Y-2T

Refrigerant: R449A

Power supply: 400/3/50 PWS

Technical data:

Compressor

Compressor	S8-42Y
Displacement	41,32 m³/h
Nominal compressor speed	1450 rpm
Motor voltage	400 V
Nominal operating frequency	50 Hz
Maximum allowed operating current (MRA)	20,3 A
Locked rotor current (LRA)	52,7 A
Locked rotor current (LRA), DOL	90,3 A
Number of pistons	4
Net weight	117 kg
Lubricant	FRASCOLD POE32
Oil charge	2,9 l
Maximum static pressure LP	20,5 bar
Maximum operating pressure HP	30 bar

Condenser

Volume	6,9 l
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Fan motor

Number	2
Air flow	16020 m³/h
Power supply	230 - 400/3/50
Max power input (x1)	750 W
Max Current (x1) @400V	1,75 A
Max Current (x1) @230V	3,03 A

Liquid receiver

Code	USLR06,6-M
Volume	6,6 l

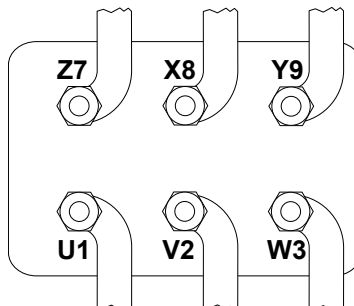
Net weight

STANDARD	250 kg
with housing	307 kg

Sound level:

*half sphere model

Motor connections:



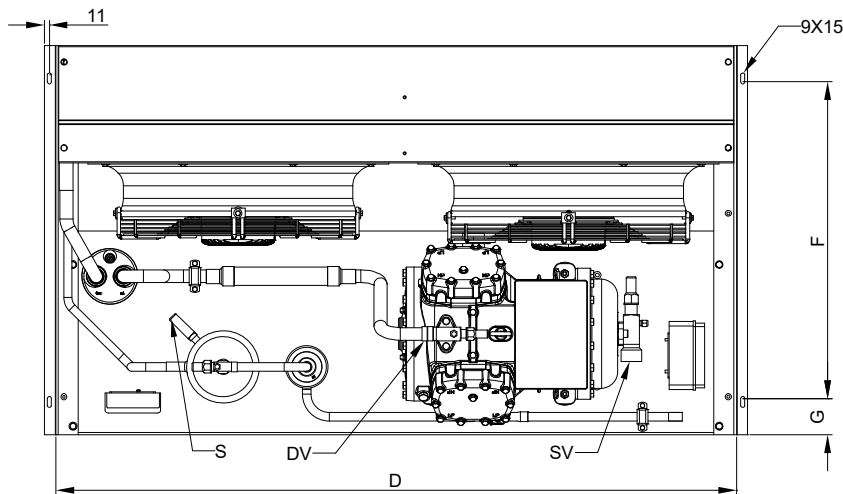
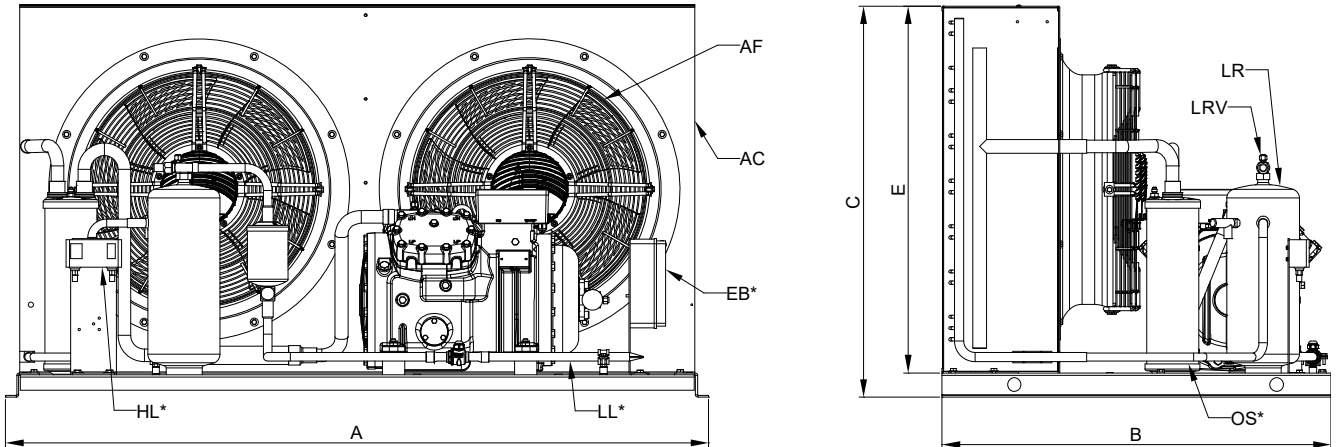
All data subject to change without notice

Model: LB2-S842-3Y-2T

Refrigerant: R449A

Power supply: 400/3/50 PWS

Dimensions:



Legend:

SV: Suction Valve	35 mm - 1 3/8" in	S: Safety Valve	
LRV: Liquid valve	19 mm - 3/4" in	AC: Condenser	
A: Length	1556 mm	AF: Fan motor	AC Type
B: Width	860 mm	DV: Discharge valve	
C: Height	867 mm	LR: Liquid receiver	
A: Length (with housing)	1556 mm	OS*: Oil separator	
B: Width (with housing)	884 mm	EB*: Electric box	
C: Height (with housing)	888 mm	HL*: High/Low pressure switch	
D: Base length	1504 mm	H*: High pressure switch	
E: Condenser Height	813 mm	LL*: Liquid line	
F: Base mounting	700 mm	*Package	
G: Base mounting	80 mm		

All data subject to change without notice

Model: LB2-S842-3Y-2T

Refrigerant: R449A

Power supply: 400/3/50 PWS

Polynomial coefficients according to EN12900 for S8-42Y:

*S = T_{evap} ; D = T_{cond}

Reference conditions

Refrigerant	R449A
Ambient temperature	32 °C
Suction gas temperature	20 °C
Liquid subcooling	3 K
Frequency	50 Hz

	Refrigerating capacity [W]	Power input [W]
C1	5,454800E+004	1,495540E+003
C2	2,034350E+003	-1,705060E+002
C3	-5,515950E+002	2,497500E+002
C4	2,729100E+001	-4,705470E+000
C5	-1,690670E+001	7,082910E+000
C6	5,663940E-001	-1,762980E+000
C7	1,371250E-001	-2,972100E-002
C8	-1,484170E-001	4,769270E-002
C9	1,433750E-002	-1,158310E-002
C10	5,404860E-004	5,839620E-003

$$Y = C1 + C2*S + C3*D + C4*S^2 + C5*S*D + C6*D^2 + C7*S^3 + C8*D*S^2 + C9*S*D^2 + C10*D^3$$

All data subject to change without notice

Seasonal efficiency calculation according to EU Regulation 2015/1095

Model: LB2-S842-3Y-2T

Refrigerant: R449A

Item	Symbol	Value		Unit
Evaporating temperature	t	-10	-35	[°C]
Annual electricity consumption	Q	43010	-	[kWh/a]
Seasonal energy performance ratio	SEPR	2,98	-	[-]

Parameters at full load and ambient temperature 32°C (Point A)				
Rated cooling capacity	P _A	20,846	-	[kW]
Rated power supply	D _A	9,642	-	[kW]
Rated COP	COP_A	2,16	-	[-]

Parameters at part load and ambient temperature 25°C (Point B)				
Declared cooling capacity	P _B	23,114	-	[kW]
Declared power supply	D _B	9,148	-	[kW]
Declared COP	COP_B	2,53	-	[-]

Parameters at part load and ambient temperature 15°C (Point C)				
Declared cooling capacity	P _C	26,405	-	[kW]
Declared power supply	D _C	8,309	-	[kW]
Declared COP	COP_C	3,18	-	[-]

Parameters at part load and ambient temperature 5°C (Point D)				
Declared cooling capacity	P _D	29,721	-	[kW]
Declared power supply	D _D	7,305	-	[kW]
Declared COP	COP_D	4,07	-	[-]

Parameters at full load and ambient temperature 43°C (Point 3)				
Declared cooling capacity	P ₃	17,399	-	[kW]
Declared power supply	D ₃	10,278	-	[kW]
Declared COP	COP₃	1,69	-	[-]

Other Items				
Capacity control		Fixed		
Degradation coefficient for fixed and staged capacity units	Cdc	0.25		[-]
Power supply		400/3/50		
Fan speed regulation (Rated)	V	Fixed		[V]
Reference temperature		Dew point temperature		
Suction gas temperature	toh	20		[°C]
Subcooling	SC	3		[K]

Declaration of conformity - Directive 2009/125/UE Ecodesign - Condensing units LB2 series: FDEC151