

frascold®

LB-LBT

Air-cooled condensing units



Catalogue index

• General information	Pag. 3 - 5
• Model Overview	Pag. 6
• Special features	Pag. 7
• Technical data	Pag. 8 - 11
• Multifunctional device Kriwan INT69 ®Diagnose	Pag. 12
• Construction features and optionals	Pag. 13
• Performance [50 Hz]	Pag. 14 - 41
• Dimensions	Pag. 42 - 43
• Dimensional drawings	Pag. 44 - 55
• Two-stage units	Pag. 56 - 63

Air-cooled condensing units with semi-hermetic compressor

Frascold offers a wide range of commercial and industrial monobloc cooling condensing units for medium and low temperature applications. Their compact and innovative design is extraordinary and also meets requirements for compact installations in small spaces and in environments where the noise level must be controlled and restricted.

The range of models has two main lines:

- **LB models** for moderate climate areas with a single and two-stage compressor
- **LBT models** for tropical climate areas

LB and LBT units are used in many cooling installations, including: cold and refrigerated rooms, supermarkets and shops, distribution centres, industrial applications, cooling processes in the food production and preservation industry.

Features

Reliable operation: Frascold monobloc condensing units are rigorously assembled and tested in our factories in Italy. The Diagnose technology protection system installed on all Frascold compressors enables early detection of faults and their rapid resolution, thus reducing maintenance and system downtime.

Reduced consumption: The best efficiency of condensing units is reached thanks to the advanced design of Frascold semi-hermetic compressors and correct sizing of all components used in the units. By taking advantage of the inverter technology available as an option, efficiency is increased further.

Wide temperature range and universal use: The range of units enables temperature control from 10° C to -45° C for models with a single-stage compressor and from -20° to -70° C for models with a two-stage compressor. The units can be used with all HCFC and HFC, HFO refrigerants.

Low noise: Frascold compressors are distinguished by their particularly low noise level achieved through the intelligent combination of a monobloc body structure with the mechanical components of gas compression and suction and the electric motor. This also enables unit installations very close to the utility provided by the application in order to reduce pressure drops and possible danger of leaks.

Compact and complete: Their compact size also makes them the perfect solution for installations with limited space. The different versions proposed and the wide range of accessories make Frascold condensing units more efficient and reliable.

Easy to install and maintain: As a result of their design structure, installation of the units is made simple. Accessibility to all components enables quick and safe maintenance operations.

Full assistance: Frascold offers an accurate and comprehensive customer service and prompt assistance in any emergency, both directly and through an extensive network of service centres and partners distributed across all five continents.

Standard design specifications

The choice of all other components is based on quality and safety, respect for the environment and social responsibility:

- Frascold semi-hermetic compressor with POE oil filling and suitable for inverter regulation
- Condensing unit with wide exchange surface and pipes optimised to reduce pressure drops and refrigerant charge
- Fan motors with low power consumption and optimised airflow
- Vertical-type liquid receiver with high storage capacity
- Compressor discharge line with vibration damping pipe (see technical data of the different models)
- Electronic device for compressor protection
- Oil differential pressure switch for V and Z series compressors units
- Discharge temperature control device for models with V and Z compressors
- Support base frame designed to ensure the necessary strength and stability



Models

The condensing units are available in different versions in order to characterise the construction design according to installation requirements.

Standard

Compressor, air-cooled condensing unit, fan motors, liquid receiver with valve, compressor discharge line and base frame.

Standard + Oil separator

Standard + Package

Compressor, air-cooled condensing unit, fan motors, liquid receiver with valve, compressor discharge line, liquid line with filter liquid sight glass and valve, high and low pressure switch, high-pressure switch for condensation control, electrical wiring box.

Standard + Package + Oil separator

Housing

Accessories

As described above, the basic design of the unit can be equipped with a wide range of accessories (see page 13).

ASERCOM performance certifications



Frascold is a member of ASERCOM, the Association that ensures accuracy and reliability of its compressors and that has set out the procedure for measuring the performance of compressors and their certification process. The certification of compressors certifies and guarantees that the published performance matches the performance measured with reference to European standard EN12900. Compressors with certified performance are marked with the Certified Product logo. Further details on www.asercom.org

Data concerning condensing unit performance

This brochure indicates the data for compressors with R134a, R404A, R507A, R407F, R407A, R407C, R22, R1234ze. Data relating to other refrigerants are available on request.

The capacities are indicated in accordance with European standard EN12900 and at 50Hz operation. To calculate capacity in other conditions and at 60 Hz, use the Frascold Selection Software.

Operating limits

Condensing unit operation is possible within the application diagram; pay attention to the indications for the various areas of the diagram. The limits refer to operation of the compressor at full load and with a power supply frequency of 50 Hz.

The diagrams published in this catalogue are to be considered as a general diagram for the full range of condensing units. Check the diagram of every single compressor model on the Frascold Selection Software program.

FSS Product Selection Software

The FSS selection software, which is quick and easy to use, allows users to obtain the capacity in the various operating points and to access all the technical information relating to Frascold compressors.

If you have any questions on how to use the software, please contact customer service via e-mail or telephone. You can also send your comments and suggestions to improve the FSS program; your feedback will always be welcome. Download the 'setup.exe' file on your computer, start it and follow the installation instructions.

This creates a program shortcut on the desktop for easy start-up.

Safety

Frascold condensing units are constructed according to European safety standards. They may only be used if installed within systems complying with the operating instructions and conforming to the regulations in force.

For the relevant standards please refer to the Manufacturer's Declaration, available on request or on the www.frascold.it website in the certification section. They will be put into service by experienced staff, suitably documented in relation to the manufacturer's declarations and able to understand and apply the instructions contained in the installation manual supplied with the condensing unit or available on the www.frascold.it website.

Conformity

The condensing units referred to in this catalogue comply with the requirements regarding the following Directives:

- Machinery directive 2006/42/EC
- Low voltage directive 2014/35/ECE
- Electromagnetic compatibility directive EMC 2014/30/EC, IEC EN 50081-1, IEC EN 50082-1, IEC EN 61000-6
- Pressure equipment directive 2014/68/EU
- Ecodesign directive 2009/125/EC
- Commission regulation EU 2015/1095

To verify compliance with Directive 2009/125/EC Ecodesign-Commission regulation EU 2015/1095, refer to the FTEC030 manual or use the FSS3 selection program that can be downloaded from www.frascold.it.

The condensing units are not functional assemblies, which means that in order to work they need to be integrated into a device or system. It is forbidden to commission the product before the device/system in which the cooling unit will be incorporated has been declared compliant with the provisions of the relevant directives, with particular reference to the directive regarding pressure equipment. The condensing units comply with the following applicable Standards:

EN378-1:2012 - EN378-2:2012 - EN378-3:2012 - EN378-4:2012 - EN12263:2000v - EN13136:2014 - EN 14276:2011 - EN13585:2012 - EN13134:2002 - EN12100:2010 - EN12735-1:2010

Models overview

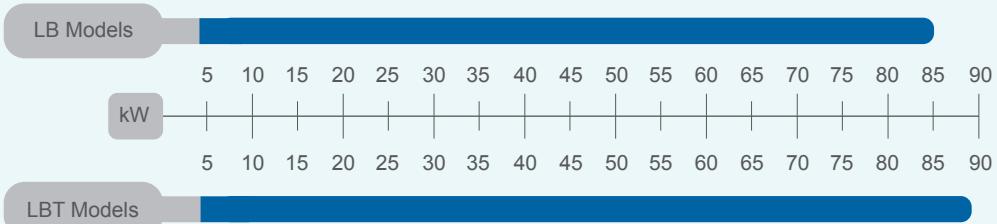
Frascold offers a wide range of models and versions that allow to keep the right temperature and the perfect balance between refrigerant load and efficiency in every refrigeration process. The range of models has two main lines:

- LB Models for moderate climate areas with a single and two-stage compressor
- LBT Models for tropical climate areas

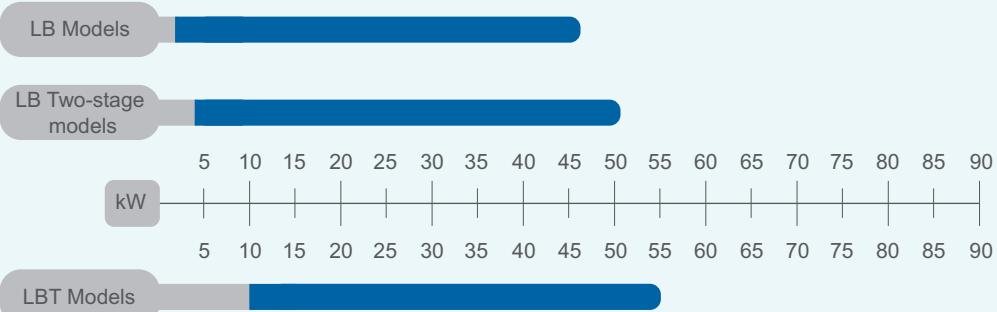
Current range:

3 main versions, 88 different models with compressors having 34 displacements from 4,93 m³/h to 126 m³/h at 50Hz

Medium Temperature



Low Temperature



Model designation

LB - S1242 - 3 Y - 2 T - 0

Air-cooled condensing unit		
Compressor model		
Motor type and power supply		
0	DOL	220-240V/380-420V/3/50Hz 265-290V/440-480V/3/60Hz
1		220V/1/50Hz
3	PWS	380V-420V/3/50Hz 440V-480V/3/60Hz
4	DOL	220-240V/3/60Hz 380-420V/3/60Hz
5		220V/1/60Hz
7	PWS	380V-420V/3/60Hz
1		Inverter

Arrangement	
0	Standard
1	with Oil Separator
2	with Package
3	with Package and Oil Separator
Fan motor type	
T	Three phase motor
M	Single phase motor
Number of fans	
1	One Fan motor
2	Two fan motors
4	Four Fan motors

Special features

The LB, LBT and LB two-stage condensing units are designed and configured to meet multiple applications of commercial and industrial cooling. These units are designed for unsurpassed quality, are durable and flexible while maintaining a high energy efficiency.

Low noise: Frascold compressors are distinguished by their particularly low noise level achieved through the intelligent combination of a monobloc body structure with the mechanical components of gas compression and suction and the electric motor. This also enables unit installations that are very close to the utility provided by the application in order to reduce pressure drops and possible danger of leaks.

Reliable operation: Frascold monobloc condensing units are rigorously assembled and tested in our factories in Italy. The Diagnose technology protection system installed on all Frascold compressors enables early detection of faults and their rapid resolution, thus reducing maintenance and system stoppage.

Easy to install and maintain: As a result of their design structure, installation of the units is made simple. Accessibility to all components enables quick and safe maintenance operations.

Full assistance: Frascold offers an accurate and comprehensive customer service and prompt assistance in any emergency, both directly and through an extensive network of service centres and partners distributed across all five continents.



Compact and complete: Their compact size also makes them the perfect solution for installations with limited space. The different versions proposed and the wide range of accessories make Frascold condensing units more efficient and reliable.

Reduced consumption: The perfect efficiency of condensing units is due to the advanced design of Frascold semi-hermetic compressors and correct sizing of all components used in the units. By taking advantage of the inverter technology available as an option, efficiency is increased further.

Wide temperature range and universal use: The range of units enables temperature control from 10° C to -45° C for models with a single-stage compressor and from -20° to -70° C for models with a two-stage compressor. The units can be used with all HCFC and HFC, HFO refrigerants.

Information plate

All the important information to identify the compressor is displayed on the plate. The installer is responsible for indicating the type of refrigerant.

Manufacturer	Frascold S.p.A. via Barbara Melzi 103/105 - 20027 Rescaldina (MI) tel.+390331742201 fax.+390331576102		Air-cooled condensing unit model		
Serial number	Serial number: 3Q001051		Type of fan motor		
Installed compressor model	Unit model: LB-S1242-3Y-2T		Conformity mark		
Type of condensing unit	Compressor: S12-42Y		Certifying body number		
Maximum operating pressures	Condenser: USAC18M		Year of manufacture		
Maximum and minimum temperature limits	Refrigerant: Refrigerants group 2		Type of liquid receiver		
	Oil type: POE oil Frascold FC 32 cSt		Classification regulations		
	PS High side maximum admissible pressure Low side maximum admissible pressure				
	30 bar 17 bar				
	TS* Admissible maximum temperature range: +140°C -45°C				
	PED Category: Evaluation module: II A1				
*Refer to the instruction manual to know the temperature range of each component					
Voltage: refer to components' technical specification					
Read carefully the instruction manual before assembling and using the unit					
Integrated refrigerant classification		Type of oil charged into the compressor			

Technical data

Condensing units		Compressor ①						Condenser							
Model	Model	Displacement (m ³ /h 50Hz)	Oil charge (litres)	Version	Motor ③		Max operating current MRA (400V)	Model	Fan motors (with thermal protection)						Condenser air flow (m ³ /h 50Hz)
					Electric connection Power supply	Max operating current MRA (400V)			Quantity	Model	Electric connection Power supply	Installed power Watt	Max absorbed current A	Condenser air flow (m ³ /h 50Hz)	
					②	④	⑤		⑧	⑨	⑩	Δ	Υ		
LB-A075-0Y-1M	A07-5Y	4,93	1	1	A	2,7	USAC03M	1	USAF2	M	165	0,69		2500	
LB-A075-0Y-2M				1	A		USAC15M	2	USAF1	M	130	0,60		3400	
LBT-A075-0Y-2M				1	A		USAC07M	2	USAF2	M	330	1,38		5000	
LB-A106-0Y-1M	A16-Y	5,47	1	1	A	3,6	USAC03M	1	USAF2	M	165	0,69		2500	
LB-A106-0Y-2M				1	A		USAC15M	2	USAF1	M	130	0,60		3400	
LBT-A106-0Y-2M				1	A		USAC07M	2	USAF2	M	330	1,38		5000	
LB-A107-0Y-1M	A17-Y	6,91	1	2	A	3,7	USAC03M	1	USAF2	M	165	0,69		2500	
LB-A107-0Y-2M				2	A		USAC15M	2	USAF1	M	130	0,60		3400	
LBT-A107-0Y-2M				2	A		USAC07M	2	USAF2	M	330	1,38		5000	
LB-A157-0Y-1M	A1.5-7Y	6,91	1	1	A	4,5	USAC06M	1	USAF3	M	200	0,87		2900	
LB-A157-0Y-2M				1	A		USAC15M	2	USAF1	M	130	0,60		3400	
LBT-A157-0Y-2M				1	A		USAC07M	2	USAF2	M	330	1,38		5000	
LB-B159-0Y-1M	B1.5-9.1Y	8,96	1	2	A	5,9	USAC03M	1	USAF2	M	165	0,69		2500	
LB-B159-0Y-2M				2	A		USAC15M	2	USAF1	M	130	0,60		3400	
LBT-B159-0Y-2M				2	A		USAC07M	2	USAF2	M	330	1,38		5000	
LB-B210-0Y-1M	B2-10.1Y	9,88	1	1	A	6,7	USAC06M	1	USAF3	M	200	0,87		2900	
LB-B210-0Y-2M				1	A		USAC15M	2	USAF1	M	130	0,60		3400	
LBT-B210-0Y-2M				1	A		USAC07M	2	USAF2	M	330	1,38		5000	
LB-D211-0Y-1M	D2-11.1Y	11,26	1,1	1	A	7,1	USAC06M	1	USAF3	M	200	0,87		2900	
LB-D211-0Y-2M				1	A		USAC07M	2	USAF2	M	330	1,38		5000	
LBT-D211-0Y-2M				1	A		USAC08M	2	USAF3	M	400	1,74		5800	
LB-D213-0Y-1M	D2-13.1Y	13,15	1,1	2	A	7,1	USAC06M	1	USAF3	M	200	0,87		2900	
LB-D213-0Y-2M				2	A		USAC07M	2	USAF2	M	330	1,38		5000	
LBT-D213-0Y-2M				2	A		USAC08M	2	USAF3	M	400	1,74		5800	
LB-D313-0Y-1M	D3-13.1Y	13,15	1,1	1	A	8,8	USAC06M	1	USAF3	M	200	0,87		2900	
LB-D313-0Y-2M				1	A		USAC07M	2	USAF2	M	330	1,38		5000	
LBT-D313-0Y-2T				1	A		USAC16M	2	USAF4	T	630	2,26	1,30	11400	
LB-D316-0Y-1M	D3-16.1Y	16,40	1,1	2	A	9,9	USAC06M	1	USAF3	M	200	0,87		2900	
LB-D316-0Y-2M				2	A		USAC07M	2	USAF2	M	330	1,38		5000	
LBT-D316-0Y-2T				2	A		USAC16M	2	USAF4	T	630	2,26	1,30	11400	
LB-D416-0Y-1M	D4-16.1Y	16,40	1,2	1	A	11,6	USAC06M	1	USAF3	M	200	0,87		2900	
LB-D416-0Y-2M				1	A		USAC08M	2	USAF3	M	400	1,74		5800	
LBT-D416-0Y-2T				1	A		USAC16M	2	USAF4	T	630	2,26	1,30	11400	
LB-D318-0Y-1M	D3-18.1Y	17,93	1,1	2	A	10,0	USAC06M	1	USAF3	M	200	0,87		2900	
LB-D318-0Y-2M				2	A		USAC07M	2	USAF2	M	330	1,38		5000	
LBT-D318-0Y-2M				2	A		USAC08M	2	USAF3	M	400	1,74		5800	
LB-Q420-0Y-2M	Q4-201.Y	19,77	1,6	2	A	10,1	USAC08M	2	USAF3	M	400	1,74		5800	
LBT-Q420-0Y-2T				2	A		USAC16M	2	USAF4	T	630	2,26	1,30	11400	
LB-Q521-0Y-2T	Q5-21.1Y	21,18	1,6	1	A	11,6	USAC16M	2	USAF4	T	630	2,60	1,30	11400	
LBT-Q521-0Y-2T				1	A		USAC18M	2	USAF10	T	1500	6,00	3,50	17400	
LB-Q424-0Y-2M	Q4-24.1Y	23,91	1,6	2	A	11,7	USAC08M	2	USAF3	M	400	1,74		5800	
LBT-Q424-0Y-2T				2	A		USAC16M	2	USAF4	T	630	2,26	1,30	11400	
LB-Q524-0Y-2M	Q5-24.1Y	23,91	1,6	1	A	13,8	USAC08M	2	USAF3	M	400	1,74		5800	
LBT-Q524-0Y-2T				1	A		USAC16M	2	USAF4	T	630	2,26	1,30	11400	

Technical data

Condensing units		Compressor ①						Condenser						
Model	Model	Displacement (m ³ /h 50Hz)	Oil charge (litres)	Version	Motor ③		Model	Fan motors (with thermal protection)						
					②	④	⑤	⑥ ⑦	Quantity	Model	Electric connection Power supply	Installed power Watt	Max absorbed current A	Condenser air flow (m ³ /h 50Hz)
LB-Q528-0Y-2M	Q5-28.1Y	28,02	1,6	2	A	14,0	USAC08M	2	USAF3	M	400	1,74	5800	
LBT-Q528-0Y-2T					A		USAC16M	2	USAF4	T	630	2,26	1,30	11400
LB-Q728-0Y-2T	Q7-28.1Y	28,02	1,6	1	A	17,6	USAC16M	2	USAF4	T	630	2,26	1,30	11400
LBT-Q728-0Y-2T				1	A		USAC18M	2	USAF10	T	1500	6,00	3,50	17400
LB-Q533-0Y-2M	Q5-33.1Y	32,66	1,6	2	A	14,4	USAC08M	2	USAF3	M	400	1,74	5800	
LBT-Q533-0Y-2T				2	A		USAC16M	2	USAF4	T	630	2,26	1,30	11400
LB-Q733-0Y-2T	Q7-33.1Y	32,66	1,6	1	A	20,0	USAC17M	2	USAF4	T	630	2,26	1,30	10400
LBT-Q733-0Y-2T				1	A		USAC18M	2	USAF10	T	1500	6,00	3,50	17400
LB-Q536-0Y-2T	Q5-36.1Y	35,86	1,6	2	A	11,8	USAC16M	2	USAF4	T	630	2,26	1,30	11400
LBT-Q536-0Y-2T				2	A		USAC18M	2	USAF10	T	1500	6,00	3,50	17400
LB-Q736-0Y-2T	Q7-36.1Y	35,86	1,6	1	A	19,4	USAC17M	2	USAF4	T	630	2,26	1,30	10400
LBT-Q736-0Y-2T				1	A		USAC18M	2	USAF10	T	1500	6,00	3,50	17400
LB-S842-3Y-2T	S8-42Y	41,32	2,9	2	B	20,3	USAC16M	2	USAF4	T	630	2,26	1,30	11400
LBT-S842-3Y-2T				2	B		USAC18M	2	USAF10	T	1500	6,00	3,50	17400
LB-S1242-3Y-2T	S12-42Y	41,32	2,9	1	B	22,4	USAC18M	2	USAF10	T	1500	6,00	3,50	17400
LBT-S1242-3Y-2T				1	B		USAC19M	2	USAF10	T	1500	6,00	3,50	16400
LB-S1052-3Y-2T	S10-52Y	51,50	2,9	2	B	24,5	USAC17M	2	USAF4	T	630	2,26	1,30	10400
LBT-S1052-3Y-2T				2	B		USAC19M	2	USAF10	T	1500	6,00	3,50	16400
LB-S1552-3Y-2T	S15-52Y	51,50	2,9	1	B	32,4	USAC18M	2	USAF10	T	1500	6,00	3,50	17400
LBT-S1552-3Y-2T				1	B		USAC19M	2	USAF10	T	1500	6,00	3,50	16400
LB-S1556-3Y-2T	S15-56Y	56,00	2,9	2	B	30,7	USAC18M	2	USAF10	T	1500	6,00	3,50	17400
LBT-S1556-3Y-2T				2	B		USAC19M	2	USAF10	T	1500	6,00	3,50	16400
LB-S2056-3Y-2T	S-20-56Y	56,00	2,9	1	B	38,4	USAC19M	2	USAF10	T	1500	6,00	3,50	16400
LBT-S2056-3Y-4T				1	B		USAC20M	4	USAF10	T	3000	12,00	7,00	32800
LB-V2059-3Y-2T	V20-59Y	58,48	4,0	1	B	35,3	USAC19M	4	USAF10	T	3000	12,00	7,00	32800
LBT-V2059-3Y-4T				1	B		USAC20M	4	USAF10	T	3000	12,00	7,00	32800
LB-V1571-3Y-2T	V15-71Y	70,77	4,0	2	B	32,2	USAC17M	2	USAF4	T	630	2,26	1,30	10400
LBT-V1571-3Y-2T				2	B		USAC19M	2	USAF10	T	1500	6,00	3,50	16400
LB-V2571-3Y-2T	V25-71Y	70,77	4,0	1	B	43,5	USAC19M	2	USAF10	T	1500	6,00	3,50	16400
LBT-V2571-3Y-4T				1	B		USAC20M	4	USAF10	T	3000	12,00	7,00	32800
LB-V2084-3Y-2T	V20-84Y	83,81	4,0	2	B	46,2	USAC19M	2	USAF10	T	1500	6,00	3,50	16400
LBT-V2084-3Y-4T				2	B		USAC20M	4	USAF10	T	3000	12,00	7,00	32800
LB-V3084-3Y-4T	V30-84Y	83,81	4,0	1	B	49,2	USAC20M	4	USAF10	T	3000	12,00	7,00	32800
LB-Z25106Y-3Y-4T	Z25-106Y	106,16	3,7	2	B	53,6	USAC14M	4	USAF4	T	1260	4,52	2,60	20800
LBT-Z25106-3Y-4T	Z25-106Y	106,16	3,7	2	B		USAC20M	4	USAF10	T	3000	12,00	7,00	32800
LB-Z30126Y-3Y-4T	Z30-126Y	125,72	7,2	2	B	55,7	USAC14M	4	USAF4	T	1260	4,52	2,60	20800
LBT-Z30126-3Y-4T	Z30-126Y	125,72	7,2	2	B		USAC20M	4	USAF10	T	3000	12,00	7,00	32800

① For other compressor technical data refer to catalogue FCAT100

② POE oil

③ Standard motor / Contact Frascold for different motors

④ Motor size: Version 1 = optimized for medium-high evaporating temperatures
Version 2 = optimized for low evaporating temperatures⑤ A = 220-240V Δ / 360-420V Y / 3~ / 50Hz // 265-290V Δ / 440-480V Y / 3~ / 60Hz - B = 380-420V Y / 3~ / 50Hz // 440-480V Y / 3~ / 60Hz
Tolerance +/- 10% relative to the mean value of the voltage range.

⑥ Maximum operating current at full load (400V). For rated current see Frascold Selection Software program.

⑦ Maximum operating current (MRA) at 230V = (400V MRA) x 1.75

⑧ M = 230/1/50 Hz - T = 230-400/3/50 Hz

⑨ Total installed power of the fans.

⑩ Maximum total current absorbed by the fans.

Technical data

Condensing units		Liquid receiver				Piping connections				Installation/Transport			Housing	
Model	Model	Refrigerant charge Max kg				Compressor suction valve		Liquid line valve		Net Weight kg (Standard construction)	Gross weight kg (Standard construction)	Volume with packaging dm ³		
		R134a R450A R513A	R404A R507A R407F R407A R448A R449A	R407C R22	Safety valve connection	Ø mm	Ø inch	Ø mm	Ø inch					
		(12)				(13)				(14)			(15)	
LB-A075-0Y-1M	USLR02	1,8	1,7	1,8	1/4"	15,8	5/8	12,7	1/2	53	62	315	USH0U21	
LB-A075-0Y-2M								9,5	3/8	63	72	370	USH0U18	
LBT-A075-0Y-2M	USLR03-M	2,3	2,2	2,3	1/4"			12,7	1/2	79	84	594	USH0U17	
LB-A106-0Y-1M	USLR02	1,8	1,7	1,8	1/4"	15,8	5/8	12,7	1/2	56	62	315	USH0U21	
LB-A106-0Y-2M								9,5	3/8	65	72	370	USH0U18	
LBT-A106-0Y-2M	USLR03-M	2,3	2,2	2,3	1/4"			12,7	1/2	79	84	594	USH0U17	
LB-A107-0Y-1M	USLR02	1,8	1,7	1,8	1/4"	15,8	5/8	12,7	1/2	56	62	315	USH0U21	
LB-A107-0Y-2M								9,5	3/8	65	72	370	USH0U18	
LBT-A107-0Y-2M	USLR03-M	2,3	2,2	2,3	1/4"			12,7	1/2	79	84	594	USH0U17	
LB-A157-0Y-1M	USLR03-M	2,3	2,2	2,3	1/4"	15,8	5/8	12,7	1/2	63	70	470	USH0U21	
LB-A157-0Y-2M	USLR02	1,8	1,7	1,8	1/4"			12,7	1/2	65	72	370	USH0U18	
LBT-A157-0Y-2M	USLR03-M	2,3	2,2	2,3	1/4"			12,7	1/2	79	84	594	USH0U17	
LB-B159-0Y-1M	USLR02	1,8	1,7	1,8	1/4"	15,8	5/8	12,7	1/2	58	64	315	USH0U21	
LB-B159-0Y-2M								12,7	1/2	67	74	370	USH0U18	
LBT-B159-0Y-2M	USLR03-M	2,3	2,2	2,3	1/4"			9,5	3/8	81	86	594	USH0U17	
LB-B210-0Y-1M	USLR03-M	2,3	2,2	2,3	1/4"	19,0	3/4	12,7	1/2	67	74	470	USH0U18	
LB-B210-0Y-2M	USLR02	1,8	1,7	1,8	1/4"			12,7	1/2	79	88	370	USH0U18	
LBT-B210-0Y-2M	USLR03-M	2,3	2,2	2,3	1/4"			12,7	1/2	83	93	594	USH0U17	
LB-D211-0Y-1M	USLR03-M	2,3	2,2	2,3	1/4"	22,0	7/8	12,7	1/2	72	80	470	USH0U20	
LB-D211-0Y-2M								12,7	1/2	84	93	594	USHOU17	
LBT-D211-0Y-2M	USLR04	3,6	3,1	3,5	1/4"			15,8	5/8	87	96	737	USHOU16	
LB-D213-0Y-1M	USLR03-M	2,3	2,2	2,3	1/4"	22,0	7/8	12,7	1/2	72	80	470	USH0U20	
LB-D213-0Y-2M								12,7	1/2	84	93	594	USHOU17	
LBT-D213-0Y-2M	USLR04	3,6	3,1	3,5	1/4"			15,8	5/8	84	93	737	USHOU16	
LB-D313-0Y-1M	USLR03-M	2,3	2,2	2,3	1/4"	28,6	1 1/8	12,7	1/2	76	84	470	USH0U20	
LB-D313-0Y-2M								12,7	1/2	92	102	594	USHOU17	
LBT-D313-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"			15,8	5/8	119	128	1202	USH0U15	
LB-D316-0Y-1M	USLR03-M	2,3	2,2	2,3	1/4"	28,6	1 1/8	12,7	1/2	76	84	470	USH0U20	
LB-D316-0Y-2M								12,7	1/2	84	93	594	USHOU17	
LBT-D316-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"			19,0	3/4	92	102	1202	USH0U15	
LB-D416-0Y-1M	USLR03-M	2,3	2,2	2,3	1/4"	28,6	1 1/8	15,8	5/8	78	86	470	USH0U20	
LB-D416-0Y-2M	USLR04	3,6	3,1	3,5	1/4"			15,8	5/8	94	106	737	USHOU16	
LBT-D416-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"			19,0	3/4	116	130	1202	USH0U15	
LB-D318-0Y-1M	USLR03-M	2,3	2,2	2,3	1/4"	28,6	1 1/8	12,7	1/2	76	84	470	USH0U20	
LB-D318-0Y-2M								12,7	1/2	84	94	594	USHOU17	
LBT-D318-0Y-2M	USLR04	3,6	3,1	3,5	1/4"			15,8	5/8	92	104	737	USHOU16	
LB-Q420-0Y-2M	USLR04	3,6	3,1	3,5	1/4"	28,6	1 1/8	15,8	5/8	122	134	737	USHOU16	
LBT-Q420-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"			19,0	3/4	139	153	1202	USH0U15	
LB-Q521-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"			19,0	3/4	144	153	1202	USHOU16	
LBT-Q521-0Y-2T	USLR12-M	6,3	5,5	6,2	1/2"	28,6	1 1/8	22,2	7/8	178	189	1652	USH0U14	
LB-Q424-0Y-2M	USLR04	3,6	3,1	3,5	1/4"			15,8	5/8	127	134	737	USHOU16	
LBT-Q424-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"			19,0	3/4	139	153	1202	USH0U15	
LB-Q524-0Y-2M	USLR04	3,6	3,1	3,5	1/4"	28,6	1 1/8	15,8	5/8	127	137	737	USHOU16	
LBT-Q524-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"			19,0	3/4	139	153	1202	USH0U15	

Technical data

Condensing units		Liquid receiver					Piping connections				Installation/Transport		Housing	
Model	Model	Refrigerant charge Max kg				Compressor suction valve		Liquid line valve		Net Weight kg (Standard construction)	Gross weight kg (Standard construction)	Volume with packaging dm ³		
		R134a R450A R513A	R404A R507A R407F R407A R448A R449A	R407C R22	Safety valve connection	Ø mm	Ø inch	Ø mm	Ø inch					
		(12)				(13)				(14)			(15)	
LB-Q528-0Y-2M	USLR04	3,6	3,1	3,5	1/4"	35,0	1 3/8	15,8	5/8	127	137	737	USHOU16	
LBT-Q528-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"	35,0	1 3/8	19,0	3/4	144	157	1202	USHOU15	
LB-Q728-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"	35,0	1 3/8	19,0	3/4	144	155	1202	USHOU15	
LBT-Q728-0Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	35,0	1 3/8	22,2	7/8	178	200	1652	USHOU14	
LB-Q533-0Y-2M	USLR04	3,6	3,1	3,5	1/4"	35,0	1 3/8	15,8	5/8	127	137	737	USHOU16	
LBT-Q533-0Y-2T	USLR06-M	6,3	5,5	6,2	1/4"	35,0	1 3/8	19,0	3/4	144	157	1202	USHOU15	
LB-Q733-0Y-2T	USLR06.6-M	7,0	6,1	6,9	1/4"	35,0	1 3/8	19,0	3/4	144	155	1202	USHOU15	
LBT-Q733-0Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	35,0	1 3/8	22,2	7/8	178	189	1652	USHOU14	
LB-Q536-0Y-2T	USLR06.6-M	7,0	6,1	6,9	1/4"	35,0	1 3/8	19,0	3/4	144	155	1202	USHOU15	
LBT-Q536-0Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	35,0	1 3/8	22,2	7/8	178	200	1652	USHOU14	
LB-Q736-0Y-2T	USLR06.6-M	7,0	6,1	6,9	1/4"	35,0	1 3/8	19,0	3/4	144	155	1202	USHOU15	
LBT-Q736-0Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	35,0	1 3/8	22,2	7/8	178	189	1652	USHOU14	
LB-S842-3Y-2T	USLR06-M	6,3	5,5	6,2	1/4"	35,0	1 3/8	19,0	3/4	186	205	1202	USHOU13	
LBT-S842-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	35,0	1 3/8	22,2	7/8	216	241	1652	USHOU14	
LB-S1242-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	35,0	1 3/8	22,2	7/8	219	241	1652	USHOU14	
LBT-S1242-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	35,0	1 3/8	22,2	7/8	235	261	1652	USHOU14	
LB-S1052-3Y-2T	USLR06.6-M	7,0	6,1	6,9	1/4"	35,0	1 3/8	19,0	3/4	194	214	1202	USHOU13	
LBT-S1052-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	35,0	1 3/8	22,2	7/8	221	249	1652	USHOU14	
LB-S1552-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 3/8	22,2	7/8	225	248	1652	USHOU14	
LBT-S1552-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 3/8	22,2	7/8	227	256	1652	USHOU14	
LB-S1556-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 3/8	22,2	7/8	229	252	1107	USHOU14	
LBT-S1556-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 3/8	22,2	7/8	231	259	1652	USHOU14	
LB-S2056-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 3/8	22,2	7/8	231	261	1107	USHOU14	
LBT-S2056-3Y-4T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 5/8	22,2	7/8	294	320	2210	n.d.	
LB-V2059-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 5/8	22,2	7/8	253	279	1848	USHA0U22	
LBT-V2059-3Y-4T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 5/8	22,2	7/8	332	358	2210	n.d.	
LB-V1571-3Y-2T	USLR06.6-M	7,0	6,1	6,9	1/4"	42,0	1 5/8	19,0	3/4	250	275	999	USHA0U23	
LBT-V1571-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 5/8	22,2	7/8	263	296	1848	USHA0U22	
LB-V2571-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 5/8	22,2	7/8	277	310	1848	USHA0U22	
LBT-V2571-3Y-4T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 5/8	22,2	7/8	346	372	2210	n.d.	
LB-V2084-3Y-2T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 5/8	22,2	7/8	251	276	1848	USHA0U22	
LBT-V2084-3Y-4T	USLR12-M	12,1	10,6	12,0	1/2"	42,0	1 5/8	22,2	7/8	347	373	2210	n.d.	
LB-V3084-3Y-4T	USLR12-M	12,1	10,6	12,0	1/2"	54,0	2 1/8	22,2	7/8	354	380	2210	n.d.	
LB-Z25106Y-3Y-4T	USLR12-M (11)	12,1	10,6	12,0	1/2"	54,0	2 1/8	22,2	7/8	382	407	2210	n.d.	
LBT-Z25106-3Y-4T	USLR12-M (11)	12,1	10,6	12,0	1/2"	54,0	2 1/8	22,2	7/8	382	416	2210	n.d.	
LB-Z30126Y-3Y-4T	USLR12-M (11)	12,1	10,6	12,0	1/2"	54,0	2 1/8	22,2	7/8	396	421	2210	n.d.	
LBT-Z30126-3Y-4T	USLR12-M (11)	12,1	10,6	12,0	1/2"	54,0	2 1/8	22,2	7/8	396	430	2210	n.d.	

(11) Liquid receiver with safety valve

(12) 90% of the volume. Liquid temperature 20°C

(13) Valves with solder connections

(14) Including service valves, oil charge, rubber supports; not including any accessories supplied on request

(15) Optional component (see page 44)

Kriwan INT69 ®Diagnose multifunctional device

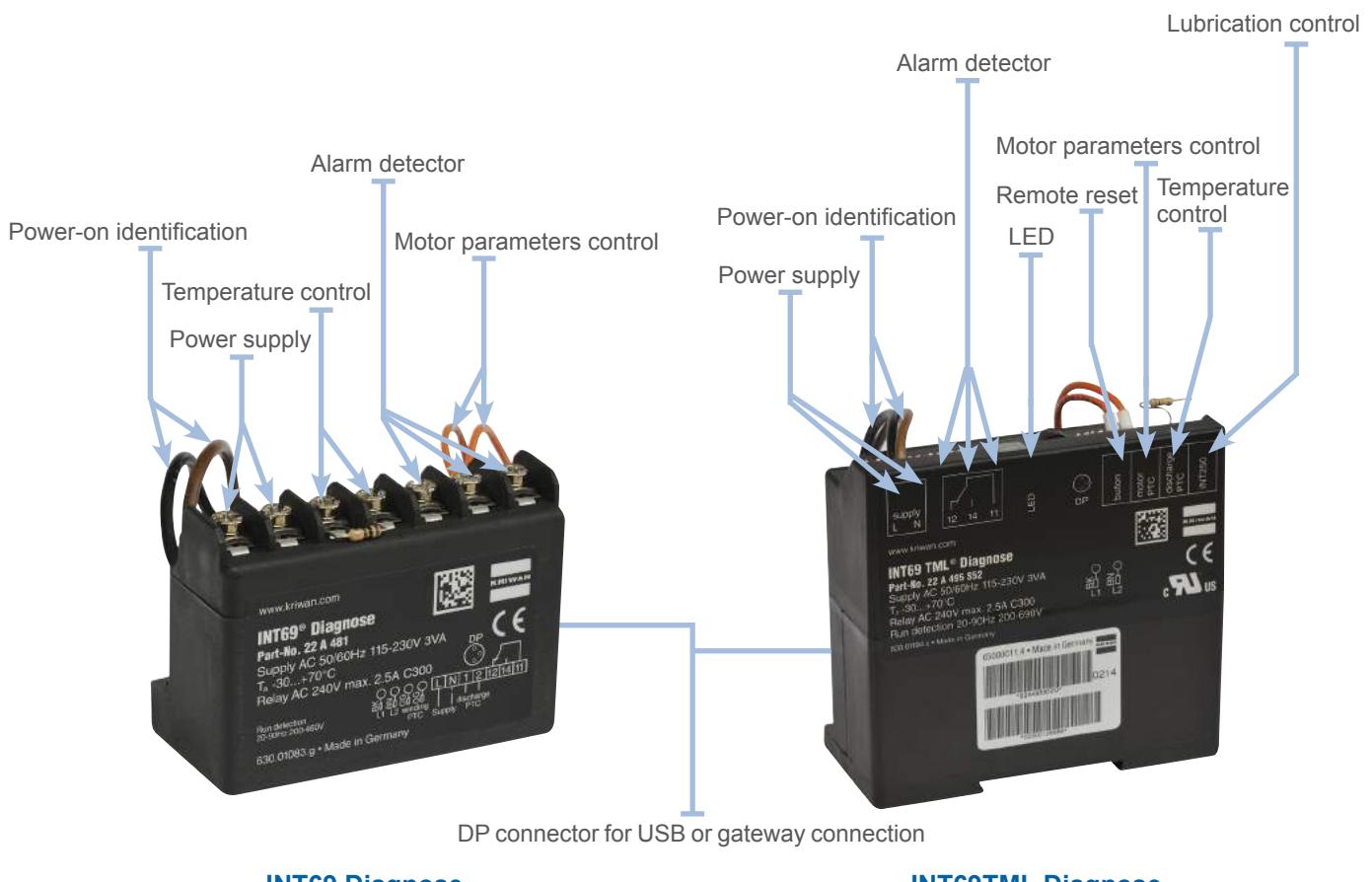
Kriwan Diagnose devices are a step ahead in the protection of compressors.

The Diagnose technology is not only limited to protecting the compressor, but also offers diagnosis and system optimisation features: it provides detailed information to technicians in order to promptly diagnose system problems, besides, it even makes it possible to prevent malfunctioning thanks to data analysis; additional protection features help extending the compressor's service life. Through this technology, users will benefit from enhanced reliability of the cooling system and from the reduction in operating and maintenance costs.

Frascold was the first compressor manufacturer to adopt this innovative technology and today it is standard on all models in the Q - S - V - Z - W series.

Advantages

- Guaranteed optimal operation throughout the compressor's entire life cycle
- Simple and straightforward operation
- Fast diagnosis and precise instructions for solving the problems causing errors and failures
- Specifically designed to satisfy the user's needs
- Intelligent monitoring of compressor operation
- Extends the operative life of cooling systems
- Improves compressor protection
- Reduces running and maintenance costs
- Automatic storage of operational data and errors in a memory
- Technical card with retrieval of stored data
- Display of compressor status through flash LED code (for TML version)
- Data download through USB connection
- Remote communication through DP-Modbus gateway or Modbus-LAN Gateway (optional)
- Applicable to previously installed compressors



INT69® Diagnose and INT69TML® Diagnose are intellectual property and trademarks ® of KRIWAN Industrie-Elektronik GmbH.

Construction features and optionals

Air-cooled condensing unit series / model	LB-A...1	LB-A...2	LBT-A...2	LB-B...1	LB-B...2	LBT-B...2	LB-D...1	LB-D...2	LBT-D...2	LB-Q...2	LBT-Q...2	LB-S...2	LBT-S...2	LB-T-S...4	LB-V...2	LBT-V...2	LB-V...4	LBT-V...4	LB-Z...4	LBT-Z...4
Semi-hermetic compressor with integrated direct electric start-up motor 220-240V Δ / 380-420V / 3 / 50 Hz <> 265-290V Δ / 440-480V / 3 / 60 Hz PTC/AMS sensors; INT69 protection device; POE oil filling; Suction and compression valves; Rubber mounts	①	①	①	①	①	①	①	①	①											
Semi-hermetic compressor with integrated direct electric start-up motor 220-240V Δ / 380-420V / 3 / 50 Hz <> 265-290V Δ / 440-480V / 3 / 60 Hz PTC/AMS sensors; INT69 DIAGNOSE protection device; POE oil filling; Suction and compression valves; Rubber mounts									①											
Semi-hermetic compressor with integrated PWS electric start-up motor 380-420V / 3 / 50 Hz <> 440-480V / 3 / 60 Hz AMS sensors; INT69 DIAGNOSE protection device; POE oil filling; Suction and compression valves; Rubber mounts.										①	①									
Semi-hermetic compressor with split integrated electric start-up motor (PWS) 380-420V / 3 / 50 Hz <> 440-480V / 3 / 60 Hz; AMS Sensors; Multifunctional control and diagnosis device INT69TML DIAGNOSE; Delivery temperature control device; Electronic pressure switch for lubrication control; POE oil filling, suction and compression valve; Rubber mounts														①	①	①				
Fan motor speed regulation device (as an alternative to the pressure switch)	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②	②
Liquid receiver (PED certified) with large volume, brazing Rotalock valve, plug for safety valve connection	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①
30 bar safety valve (only for units with compressor Z25-106Y and Z30-126Y)																			①	
Compressor discharge line with flexible joint	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①
Optional "Package", includes: Liquid line (filter, liquid sight glass, service valve), high/low safety pressure switch (PED certified, Cat.IV), high pressure switch for condensation control, electrical wiring junction box.	③	④	③	④	③	④	③	④	③	③	③	③	③	③	③	③	③	③	③	③
Solenoid valve (in alternative to the liquid line service valve)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
High/low pressure safety pressure switch (PED certified, Cat. IV)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Oil separator	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤	⑤
Factory mounted Check-valve for compressor discharge line	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥	⑥
Electrical wiring of "Package" components (pressure switches, fan motors, fan speed control)	○		○		○		○	○	○	○	○	○	○	○	○	○	○	○	○	○
Protecting Housing for outdoor installation	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦	⑦

① Standard components included

○ Optional component supplied on request

② Accessory only available with single-phase fan motors (model name that ends in "M")

③ Package fitting without electric cable junction box

④ Package fitting with electric cables Junction box

⑤ Supplied without oil charge; check the amount of oil to fill into the circuit

⑥ Accessory required when the compressor is equipped with "US" head for unloading start

⑦ Supplied disassembled; the housing is not available for condensing units equipped with inverter fitted on the compressor

Performance R134a [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]						
			10	5	0	5	-10	-15	-20
LB-A075-0Y-1M	27	Qo Pe	3607 1,00	3006 0,93	2465 0,86	1984 0,80	1562 0,74	1196 0,68	884 0,63
	32	Qo Pe	3400 1,06	2827 0,98	2312 0,91	1853 0,84	1452 0,78	1103 0,71	804 0,64
	43	Qo Pe	2956 1,18	2450 1,09	1996 1,01	1590 0,93	1234 0,85	923 0,76	654 0,68
	27	Qo Pe	3733 0,94	3097 0,87	2528 0,81	2027 0,75	1590 0,70	1214 0,64	895 0,59
LB-A075-0Y-2M	32	Qo Pe	3517 0,99	2908 0,92	2371 0,86	1892 0,79	1476 0,73	1118 0,67	813 0,61
	43	Qo Pe	3055 1,12	2519 1,04	2042 0,96	1620 0,88	1252 0,81	932 0,73	660 0,64
	38	Qo Pe	3422 1,22	2809 1,15	2269 1,09	1795 1,03	1382 0,96	1025 0,90	725 0,83
	43	Qo Pe	3211 1,28	2628 1,21	2118 1,14	1672 1,07	1281 1,00	944 0,92	660 0,84
LBT-A075-0Y-2M	48	Qo Pe	3001 1,33	2454 1,26	1974 1,18	1554 1,10	1186 1,03	869 0,94	600 0,85
	27	Qo Pe	3808 1,06	3182 1,00	2617 0,93	2114 0,87	1672 0,81	1286 0,74	954 0,67
	32	Qo Pe	3588 1,12	2993 1,05	2457 0,98	1978 0,91	1555 0,84	1186 0,76	871 0,68
	43	Qo Pe	3123 1,24	2595 1,16	2119 1,08	1696 0,99	1322 0,91	993 0,81	708 0,71
LB-A106-0Y-1M	27	Qo Pe	3949 0,99	3282 0,94	2688 0,88	2162 0,82	1702 0,76	1306 0,70	967 0,63
	32	Qo Pe	3717 1,05	3087 0,99	2519 0,93	2022 0,86	1583 0,80	1205 0,73	881 0,65
	43	Qo Pe	3234 1,17	2672 1,10	2173 1,03	1731 0,95	1342 0,87	1006 0,77	715 0,67
	38	Qo Pe	3632 1,27	2987 1,21	2419 1,15	1922 1,09	1489 1,02	1110 0,95	789 0,86
LBT-A106-0Y-2M	43	Qo Pe	3406 1,33	2796 1,27	2259 1,20	1790 1,13	1380 1,05	1021 0,97	717 0,87
	48	Qo Pe	3186 1,39	2612 1,32	2106 1,25	1665 1,17	1278 1,10	940 0,99	651 0,89
	27	Qo Pe	4879 1,32	4122 1,23	3439 1,15	2825 1,07	2284 1,00	1815 0,93	1414 0,85
	32	Qo Pe	4585 1,40	3870 1,30	3221 1,21	2638 1,13	2130 1,04	1682 0,96	1301 0,87
LB-A107-0Y-1M	43	Qo Pe	3953 1,57	3321 1,45	2754 1,34	2244 1,23	1796 1,13	1405 1,02	1065 0,90
	27	Qo Pe	5119 1,22	4297 1,15	3561 1,08	2911 1,01	2344 0,95	1855 0,88	1440 0,81
	32	Qo Pe	4813 1,31	4032 1,22	3334 1,15	2722 1,07	2181 0,99	1719 0,92	1324 0,83
	43	Qo Pe	4154 1,48	3467 1,38	2853 1,28	2312 1,18	1841 1,08	1433 0,98	1081 0,87
LBT-A107-0Y-2M	38	Qo Pe	4768 1,52	3953 1,45	3235 1,38	2611 1,30	2075 1,22	1615 1,14	1218 1,05
	43	Qo Pe	4459 1,60	3688 1,52	3011 1,44	2424 1,35	1917 1,26	1488 1,17	1108 1,07
	48	Qo Pe	4151 1,68	3428 1,59	2793 1,50	2241 1,40	1765 1,30	1360 1,19	1000 1,07
	27	Qo Pe	5128 1,27	4307 1,21	3569 1,16	2919 1,10	2350 1,04	1858 0,97	1438 0,90
LB-A157-0Y-1M	32	Qo Pe	4840 1,35	4059 1,28	3354 1,22	2737 1,15	2196 1,08	1726 1,00	1322 0,93
	43	Qo Pe	4209 1,51	3514 1,43	2894 1,34	2348 1,25	1866 1,16	1449 1,06	1085 0,95
	27	Qo Pe	5036 1,22	4234 1,16	3519 1,10	2880 1,04	2321 0,97	1838 0,91	1422 0,84
	32	Qo Pe	4752 1,30	3988 1,23	3307 1,16	2701 1,09	2165 1,02	1705 0,94	1308 0,86
LB-A157-0Y-2M	43	Qo Pe	4127 1,46	3452 1,37	2848 1,28	2312 1,19	1841 1,09	1430 0,99	1073 0,89
	38	Qo Pe	4703 1,51	3914 1,45	3209 1,39	2596 1,32	2065 1,24	1605 1,16	1205 1,07
	43	Qo Pe	4410 1,59	3661 1,52	2998 1,44	2419 1,36	1914 1,28	1481 1,18	1098 1,08
	48	Qo Pe	4124 1,66	3415 1,58	2792 1,50	2245 1,41	1768 1,31	1359 1,20	995 1,09

① For performance data references see page 20.

■ Additional cooling required.

Performance R134a [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]						
			10	5	0	5	-10	-15	-20
LB-B159-0Y-1M	27	Qo Pe	6048 1,91	5186 1,70	4381 1,52	3649 1,35	2991 1,21	2407 1,08	1897 0,96
	32	Qo Pe	5679 1,97	4868 1,75	4110 1,55	3419 1,38	2793 1,23	2238 1,09	1749 0,96
	43	Qo Pe	4871 2,09	4174 1,84	3517 1,62	2912 1,42	2357 1,25	1860 1,09	1416 0,96
	27	Qo Pe	6424 1,80	5459 1,62	4586 1,45	3791 1,30	3089 1,16	2473 1,04	1943 0,92
LB-B159-0Y-2M	32	Qo Pe	6046 1,87	5138 1,67	4303 1,49	3557 1,33	2884 1,18	2302 1,05	1789 0,92
	43	Qo Pe	5204 2,01	4419 1,77	3692 1,57	3032 1,38	2439 1,21	1913 1,06	1450 0,92
	38	Qo Pe	6095 2,07	5116 1,88	4239 1,70	3461 1,54	2781 1,39	2187 1,25	1674 1,13
	43	Qo Pe	5702 2,13	4777 1,93	3953 1,74	3217 1,57	2569 1,40	2008 1,26	1516 1,13
LBT-B159-0Y-2M	48	Qo Pe	5307 2,19	4438 1,97	3661 1,77	2971 1,58	2365 1,41	1829 1,26	1358 1,12
	27	Qo Pe	7127 1,94	6065 1,84	5085 1,72	4200 1,60	3405 1,47	2708 1,34	2111 1,20
	32	Qo Pe	6687 2,12	5681 1,98	4762 1,84	3926 1,69	3177 1,54	2515 1,39	1954 1,24
	43	Qo Pe	5719 2,46	4849 2,26	4049 2,06	3323 1,86	2673 1,66	2098 1,46	1602 1,27
LB-B210-0Y-2M	27	Qo Pe	6942 1,95	5924 1,82	4981 1,69	4120 1,56	3351 1,42	2670 1,28	2084 1,14
	32	Qo Pe	6501 2,12	5546 1,96	4661 1,81	3847 1,65	3121 1,49	2477 1,33	1925 1,17
	43	Qo Pe	5546 2,44	4720 2,23	3956 2,02	3254 1,81	2623 1,60	2066 1,40	1577 1,20
	38	Qo Pe	6613 2,27	5562 2,16	4609 2,02	3765 1,88	3018 1,72	2363 1,55	1811 1,39
LBT-B210-0Y-2M	43	Qo Pe	6159 2,44	5175 2,29	4282 2,13	3488 1,95	2785 1,77	2173 1,58	1649 1,40
	48	Qo Pe	5710 2,59	4788 2,41	3959 2,22	3212 2,02	2556 1,81	1984 1,60	1494 1,40
	27	Qo Pe	7991 2,16	6820 2,03	5722 1,89	4703 1,76	3781 1,62	2975 1,48	2289 1,34
	32	Qo Pe	7461 2,30	6363 2,14	5343 1,98	4388 1,83	3526 1,67	2768 1,52	2127 1,36
LB-D211-0Y-1M	43	Qo Pe	6292 2,56	5368 2,35	4486 2,15	3669 1,96	2933 1,77	2276 1,58	1716 1,39
	27	Qo Pe	8648 2,12	7297 2,03	6055 1,93	4929 1,83	3929 1,71	3065 1,59	2345 1,46
	32	Qo Pe	8094 2,27	6835 2,15	5668 2,03	4614 1,91	3680 1,77	2866 1,63	2188 1,48
	43	Qo Pe	6881 2,56	5798 2,40	4796 2,23	3890 2,05	3081 1,88	2377 1,70	1783 1,52
LBT-D211-0Y-2M	38	Qo Pe	7661 2,45	6433 2,32	5320 2,19	4306 2,04	3413 1,89	2644 1,74	1998 1,57
	43	Qo Pe	7108 2,58	5960 2,43	4912 2,27	3970 2,11	3134 1,94	2414 1,76	1808 1,59
	48	Qo Pe	6546 2,71	5488 2,53	4514 2,35	3632 2,16	2853 1,98	2175 1,79	1596 1,60
	27	Qo Pe	9046 2,66	7748 2,45	6550 2,25	5442 2,06	4448 1,88	3573 1,71	2822 1,55
LB-D213-0Y-1M	32	Qo Pe	8462 2,82	7250 2,58	6119 2,36	5084 2,15	4146 1,95	3322 1,76	2610 1,59
	43	Qo Pe	7176 3,13	6142 2,84	5179 2,57	4296 2,31	3489 2,07	2776 1,86	2155 1,66
	27	Qo Pe	9864 2,55	8366 2,41	6985 2,26	5753 2,11	4664 1,96	3720 1,81	2921 1,66
	32	Qo Pe	9257 2,73	7843 2,56	6542 2,38	5380 2,21	4353 2,03	3462 1,86	2705 1,70
LB-D213-0Y-2M	43	Qo Pe	7922 3,08	6693 2,85	5575 2,61	4570 2,38	3680 2,17	2901 1,96	2238 1,78
	38	Qo Pe	8828 2,92	7424 2,74	6172 2,55	5045 2,35	4060 2,16	3207 1,98	2484 1,81
	43	Qo Pe	8205 3,08	6906 2,87	5724 2,65	4675 2,43	3752 2,22	2952 2,02	2271 1,84
	48	Qo Pe	7588 3,24	6379 2,99	5287 2,74	4308 2,51	3450 2,28	2703 2,07	2064 1,88

① For performance data references see page 20.

■ Additional cooling required.

Performance R134a [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]						
			10	5	0	5	-10	-15	-20
LB-D313-0Y-1M	27	Qo Pe	9064 2,67	7716 2,47	6463 2,28	5333 2,09	4326 1,92	3454 1,75	2719 1,59
	32	Qo Pe	8469 2,82	7190 2,59	6026 2,37	4958 2,16	4007 1,97	3188 1,78	2494 1,61
	43	Qo Pe	7163 3,10	6073 2,81	5060 2,53	4143 2,28	3329 2,04	2623 1,83	2021 1,64
	27	Qo Pe	9912 2,57	8336 2,43	6913 2,30	5648 2,16	4544 2,01	3602 1,86	2819 1,71
LB-D313-0Y-2M	32	Qo Pe	9295 2,74	7800 2,58	6454 2,41	5267 2,24	4218 2,07	3335 1,90	2590 1,73
	43	Qo Pe	7929 3,07	6634 2,83	5456 2,60	4423 2,37	3520 2,16	2746 1,95	2102 1,76
	38	Qo Pe	9348 3,03	7738 2,89	6321 2,74	5083 2,57	4020 2,40	3133 2,22	2384 2,05
	43	Qo Pe	8687 3,20	7179 3,02	5848 2,83	4681 2,64	3692 2,44	2858 2,24	2157 2,06
LBT-D313-0Y-2T	48	Qo Pe	8038 3,35	6621 3,14	5373 2,91	4295 2,69	3368 2,47	2596 2,26	1936 2,07
	27	Qo Pe	10348 3,35	8918 3,01	7555 2,70	6305 2,41	5172 2,15	4158 1,90	3273 1,67
	32	Qo Pe	9692 3,47	8334 3,10	7064 2,77	5885 2,47	4810 2,19	3843 1,93	2994 1,68
	43	Qo Pe	8243 3,69	7079 3,27	5989 2,90	4957 2,55	4017 2,24	3156 1,94	2386 1,67
LB-D316-0Y-1M	27	Qo Pe	11438 3,26	9716 2,98	8147 2,72	6724 2,48	5471 2,24	4367 2,01	3419 1,79
	32	Qo Pe	10744 3,41	9124 3,10	7635 2,81	6294 2,55	5102 2,29	4048 2,04	3134 1,80
	43	Qo Pe	9226 3,68	7815 3,31	6511 2,97	5334 2,65	4282 2,36	3342 2,07	2509 1,80
	38	Qo Pe	10982 3,66	9176 3,39	7565 3,13	6149 2,87	4915 2,61	3841 2,36	2917 2,11
LBT-D316-0Y-2T	43	Qo Pe	10246 3,80	8542 3,50	7041 3,21	5696 2,92	4529 2,64	3508 2,37	2618 2,11
	48	Qo Pe	9518 3,93	7921 3,60	6505 3,27	5246 2,96	4148 2,66	3174 2,37	2319 2,09
	27	Qo Pe	10456 3,75	9034 3,43	7706 3,14	6464 2,87	5338 2,62	4332 2,38	3456 2,14
	32	Qo Pe	9778 3,93	8460 3,59	7215 3,27	6051 2,98	4985 2,71	4032 2,44	3204 2,18
LB-D416-0Y-1M	43	Qo Pe	8324 4,32	7211 3,91	6141 3,54	5148 3,19	4230 2,87	3403 2,55	2677 2,24
	27	Qo Pe	12038 3,50	10229 3,28	8565 3,09	7081 2,89	5764 2,70	4624 2,50	3659 2,29
	32	Qo Pe	11324 3,70	9600 3,47	8041 3,24	6639 3,02	5398 2,80	4313 2,58	3399 2,35
	43	Qo Pe	9749 4,14	8264 3,84	6905 3,55	5685 3,27	4599 2,99	3657 2,71	2846 2,43
LBT-D416-0Y-2T	38	Qo Pe	11159 3,98	9373 3,76	7769 3,55	6356 3,33	5125 3,10	4057 2,87	3160 2,62
	43	Qo Pe	10419 4,19	8740 3,94	7244 3,69	5910 3,45	4756 3,19	3758 2,93	2907 2,65
	48	Qo Pe	9673 4,39	8109 4,11	6717 3,83	5477 3,55	4397 3,26	3462 2,97	2666 2,67
	27	Qo Pe	11218 4,08	9765 3,69	8375 3,33	7074 3,01	5883 2,71	4807 2,44	3878 2,19
LB-D318-0Y-1M	32	Qo Pe	10468 4,27	9119 3,85	7827 3,47	6615 3,13	5496 2,81	4488 2,52	3607 2,26
	43	Qo Pe	8811 4,64	7711 4,17	6612 3,75	5597 3,36	4646 3,00	3784 2,67	3021 2,37
	27	Qo Pe	12586 3,84	10784 3,54	9128 3,25	7606 2,98	6248 2,73	5059 2,50	4048 2,28
	32	Qo Pe	11820 4,05	10122 3,72	8563 3,41	7131 3,12	5853 2,85	4734 2,59	3773 2,35
LB-D318-0Y-2M	43	Qo Pe	10084 4,49	8642 4,09	7309 3,73	6085 3,38	4988 3,06	4012 2,76	3175 2,47
	38	Qo Pe	11355 4,24	9675 3,91	8136 3,59	6746 3,29	5512 3,01	4430 2,74	3506 2,48
	43	Qo Pe	10557 4,44	8994 4,08	7563 3,74	6263 3,41	5108 3,10	4100 2,81	3234 2,53
	48	Qo Pe	9750 4,63	8309 4,24	6990 3,87	5784 3,52	4713 3,18	3775 2,87	2962 2,58

① For performance data references see page 20.

■ Additional cooling required.

Performance R134a [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]						
			10	5	0	5	-10	-15	-20
LB-Q420-0Y-2M	27	Qo Pe	14817 3,58	12604 3,33	10573 3,09	8714 2,85	7062 2,62	5628 2,39	4421 2,16
	32	Qo Pe	13963 3,85	11879 3,57	9951 3,29	8197 3,02	6626 2,76	5259 2,50	4104 2,24
	43	Qo Pe	12089 4,42	10273 4,05	8570 3,71	7041 3,36	5658 3,02	4449 2,70	3413 2,38
	38	Qo Pe	13960 4,08	11734 3,85	9725 3,59	7925 3,34	6340 3,07	4979 2,80	3833 2,53
LBT-Q420-0Y-2T	43	Qo Pe	13074 4,36	10982 4,08	9082 3,79	7382 3,49	5891 3,19	4596 2,89	3512 2,60
	48	Qo Pe	12161 4,63	10212 4,30	8432 3,97	6838 3,64	5439 3,30	4222 2,97	3195 2,65
	27	Qo Pe	16193 3,72	13505 3,50	11075 3,29	8938 3,07	7091 2,84	5522 2,62	4225 2,39
	32	Qo Pe	15252 3,98	12671 3,72	10362 3,47	8338 3,20	6573 2,95	5093 2,69	3852 2,44
LB-Q521-0Y-2T	43	Qo Pe	13086 4,48	10824 4,13	8793 3,78	6998 3,45	5447 3,12	4134 2,80	3048 2,50
	38	Qo Pe	14916 4,93	12256 4,69	9930 4,43	7897 4,16	6151 3,89	4679 3,62	3442 3,35
	43	Qo Pe	13906 5,17	11400 4,88	9187 4,58	7279 4,27	5625 3,97	4235 3,66	3070 3,37
	48	Qo Pe	12889 5,39	10532 5,05	8446 4,71	6653 4,36	5117 4,02	3797 3,69	2708 3,38
LBT-Q521-0Y-2T	27	Qo Pe	16238 4,47	13837 4,10	11599 3,76	9551 3,43	7718 3,11	6106 2,80	4736 2,52
	32	Qo Pe	15200 4,72	12934 4,33	10841 3,94	8909 3,57	7179 3,22	5655 2,88	4359 2,56
	43	Qo Pe	12881 5,24	10979 4,76	9174 4,30	7510 3,85	6015 3,42	4691 3,01	3547 2,63
	38	Qo Pe	15330 4,92	12874 4,57	10624 4,22	8633 3,86	6856 3,51	5337 3,16	4046 2,82
LBT-Q424-0Y-2T	43	Qo Pe	14213 5,18	11927 4,79	9834 4,39	7969 3,99	6314 3,60	4887 3,22	3669 2,85
	48	Qo Pe	13113 5,43	10988 4,99	9056 4,55	7314 4,11	5783 3,69	4446 3,27	3304 2,88
	27	Qo Pe	16479 4,41	13986 4,02	11645 3,66	9545 3,33	7670 3,01	6038 2,72	4663 2,44
	32	Qo Pe	15465 4,65	13079 4,23	10898 3,83	8907 3,46	7129 3,12	5589 2,79	4280 2,49
LB-Q524-0Y-2M	43	Qo Pe	13145 5,14	11095 4,63	9207 4,15	7483 3,71	5930 3,30	4578 2,91	3412 2,56
	38	Qo Pe	15600 4,85	13022 4,47	10682 4,10	8616 3,75	6808 3,40	5248 3,07	3939 2,75
	43	Qo Pe	14492 5,10	12075 4,67	9896 4,26	7948 3,86	6244 3,49	4772 3,12	3532 2,78
	48	Qo Pe	13386 5,32	11121 4,85	9084 4,40	7265 3,97	5674 3,56	4304 3,16	3139 2,80
LBT-Q524-0Y-2T	27	Qo Pe	16479 5,56	13986 5,02	11645 4,53	9545 4,08	7670 3,67	6038 3,30	4663 2,95
	32	Qo Pe	15465 5,86	13079 5,27	10898 4,73	8907 4,25	7129 3,80	5589 3,39	4280 3,02
	43	Qo Pe	14627 6,46	12515 5,77	10561 5,13	8741 4,56	7093 4,03	5633 3,55	4367 3,11
	38	Qo Pe	17606 5,99	14852 5,47	12333 4,99	10095 4,52	8113 4,09	6402 3,68	4949 3,29
LB-Q528-0Y-2M	43	Qo Pe	17175 6,30	14734 5,72	12429 5,19	10302 4,68	8394 4,25	6702 3,80	5261 3,33
	43	Qo Pe	14627 6,46	12515 5,77	10561 5,13	8741 4,56	7093 4,03	5633 3,55	4367 3,11
	38	Qo Pe	17606 6,58	14852 5,95	12333 5,36	10095 4,81	8113 4,29	6402 3,80	4949 3,35
	48	Qo Pe	16338 6,58	13789 5,95	11443 5,36	9357 4,81	7509 4,29	5901 3,80	4536 3,35
LBT-Q528-0Y-2T	27	Qo Pe	20398 5,25	17157 4,87	14228 4,52	11016 4,19	9345 3,86	7388 3,54	5756 3,23
	32	Qo Pe	19178 5,58	16131 5,15	13358 4,75	10894 4,37	8739 4,00	6880 3,64	5328 3,30
	43	Qo Pe	16481 6,23	13806 5,68	11416 5,17	9266 4,69	7387 4,23	5769 3,79	4391 3,38
	38	Qo Pe	19078 6,48	15851 6,09	12985 5,71	10487 5,33	8315 4,95	6486 4,58	4956 4,21
LBT-Q728-0Y-2T	43	Qo Pe	17800 6,79	14758 6,35	12078 5,91	9730 5,48	7699 5,05	5969 4,64	4517 4,24
	48	Qo Pe	16510 7,09	13667 6,58	11166 6,09	8966 5,61	7066 5,14	5453 4,69	4082 4,25

① For performance data references see page 20.

■ Additional cooling required.

Performance R134a [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]						
			10	5	0	5	-10	-15	-20
LB-Q533-0Y-2M	27	Qo Pe	20074 6,65	17429 5,95	14873 5,35	12511 4,80	10319 4,30	8327 3,82	6536 3,34
	32	Qo Pe	18811 7,01	16300 6,28	13948 5,62	11747 5,03	9684 4,49	7813 3,96	6108 3,45
	43	Qo Pe	15989 7,76	13895 6,94	11914 6,19	10054 5,51	8309 4,87	6683 4,26	5181 3,67
	38	Qo Pe	19476 7,05	16629 6,42	14002 5,84	11619 5,30	9471 4,78	7547 4,27	5824 3,76
LBT-Q533-0Y-2T	43	Qo Pe	18113 7,43	15452 6,75	13037 6,12	10827 5,53	8819 4,97	7021 4,41	5396 3,85
	48	Qo Pe	16752 7,80	14305 7,06	12070 6,38	10037 5,74	8175 5,13	6495 4,54	4962 3,94
	27	Qo Pe	23587 6,32	19971 5,91	16684 5,47	13700 5,03	11075 4,56	8791 4,10	6861 3,63
	32	Qo Pe	22190 6,72	18805 6,24	15700 5,74	12896 5,23	10395 4,72	8231 4,21	6387 3,72
LB-Q733-0Y-2T	43	Qo Pe	19089 7,48	16188 6,85	13491 6,23	11068 5,61	8895 5,01	6990 4,43	5347 3,90
	38	Qo Pe	21866 7,68	18334 7,23	15168 6,74	12362 6,22	9894 5,69	7748 5,17	5942 4,66
	43	Qo Pe	20408 8,04	17112 7,52	14157 6,96	11520 6,40	9199 5,82	7185 5,27	5464 4,74
	48	Qo Pe	18946 8,38	15895 7,78	13128 7,18	10674 6,56	8500 5,95	6610 5,37	4994 4,84
LBT-Q733-0Y-2T	27	Qo Pe			17542 6,00	14651 5,43	12079 4,89	9788 4,40	7801 3,94
	32	Qo Pe			16479 6,34	13742 5,71	11312 5,12	9150 4,58	7279 4,07
	43	Qo Pe			14065 6,93	11705 6,20	9587 5,51	7722 4,87	6089 4,28
	38	Qo Pe			16226 7,28	13400 6,68	10907 6,10	8744 5,55	6869 5,03
LBT-Q536-0Y-2T	43	Qo Pe			15101 7,58	12439 6,92	10110 6,28	8069 5,69	6313 5,12
	48	Qo Pe			13966 7,82	11479 7,10	9284 6,42	7389 5,78	5760 5,18
	27	Qo Pe			26171 7,68	22509 6,70	19088 6,01	15944 5,53	10581 5,19
	32	Qo Pe			24793 8,08	21307 7,05	18036 6,29	15001 5,74	9819 5,33
LB-Q736-0Y-2T	43	Qo Pe			21604 8,97	18609 7,87	15717 7,04	13037 6,39	8403 5,85
	38	Qo Pe			24648 9,00	20973 8,02	17594 7,30	14510 6,75	9295 6,32
	43	Qo Pe			23176 9,42	19728 8,41	16516 7,65	13599 7,05	8655 6,57
	48	Qo Pe			21673 9,82	18436 8,79	15439 8,00	12690 7,38	8054 6,86
LBT-Q736-0Y-2T	27	Qo Pe			30354 9,86	25916 8,65	21853 7,59	18153 6,64	12001 5,79
	32	Qo Pe			28591 10,36	24346 9,05	20474 7,88	16983 6,84	11125 5,92
	43	Qo Pe			24530 11,21	20821 9,66	17383 8,29	14285 7,08	9119 6,01
	38	Qo Pe			29568 10,96	24778 9,82	20523 8,74	16756 7,74	10636 6,82
LB-S842-3Y-2T	32	Qo Pe			27633 11,46	23111 10,17	19054 8,98	15498 7,88	12372 6,87
	43	Qo Pe			25717 11,87	21405 10,45	17579 9,14	14197 7,95	9673 6,88
	27	Qo Pe			31104 7,57	26299 7,10	21970 6,63	18069 6,17	12372 5,70
	32	Qo Pe			29284 8,02	24718 7,47	20579 6,93	16870 6,40	13611 5,88
LBT-S842-3Y-2T	43	Qo Pe			25363 8,91	21288 8,19	17568 7,50	14275 6,82	10747 6,16
	38	Qo Pe			27713 8,39	23242 7,79	19240 7,20	15672 6,61	8826 6,03
	43	Qo Pe			25920 8,78	21696 8,11	17876 7,44	14501 6,79	6675 6,14
	48	Qo Pe			24115 9,18	20123 8,41	16524 7,67	13333 6,95	8110 6,24
LBT-S1242-3Y-2T	38	Qo Pe			27713 8,39	23242 7,79	19240 7,20	15672 6,61	8948 6,03
	43	Qo Pe			25920 8,78	21696 8,11	17876 7,44	14501 6,79	6755 6,14
	48	Qo Pe			24115 9,18	20123 8,41	16524 7,67	13333 6,95	8110 6,24
	38	Qo Pe			27713 8,39	23242 7,79	19240 7,20	15672 6,61	8948 6,03

① For performance data references see page 20.

■ Additional cooling required.

Performance R134a [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]						
			10	5	0	5	-10	-15	-20
LB-V2571-3Y-2T	27	Qo Pe	49676 14,93	42491 13,65	35786 12,47	29620 11,35	24038 10,30	19076 9,31	14724 8,36
	32	Qo Pe	46422 15,57	39654 14,18	33345 12,88	27547 11,66	22262 10,51	17538 9,42	13458 8,38
	43	Qo Pe	39499 16,80	33628 15,17	28136 13,63	23076 12,19	18513 10,82	14415 9,54	10849 8,32
	38	Qo Pe	46730 17,01	39326 15,74	32623 14,49	26577 13,29	21197 12,11	16482 10,98	12422 9,88
	43	Qo Pe	43316 17,64	36424 16,23	30145 14,86	24491 13,54	19439 12,26	15041 11,02	11232 9,84
	48	Qo Pe	40074 18,20	33638 16,66	27754 15,18	22443 13,75	17761 12,37	13645 11,04	10098 9,78
LBT-V2571-3Y-4T	27	Qo Pe	54826 17,22	47050 15,57	39673 14,06	32969 12,63	26856 11,29	21384 10,03	16625 8,84
	32	Qo Pe	51457 17,93	43958 16,21	37070 14,58	30757 13,04	24972 11,61	19838 10,26	15354 9,00
	43	Qo Pe	44108 19,40	37662 17,44	31668 15,59	26134 13,86	21159 12,23	16698 10,71	12785 9,29
	38	Qo Pe	52256 19,26	44057 17,69	36620 16,16	29947 14,69	24032 13,27	18831 11,91	14374 10,61
	43	Qo Pe	48663 20,00	41000 18,29	34020 16,66	27774 15,08	22249 13,56	17398 12,11	13218 10,74
	48	Qo Pe	45262 20,67	38079 18,86	31527 17,12	25717 15,44	20538 13,83	16026 12,30	12123 10,86
LBT-V2084-3Y-4T	27	Qo Pe	59571 17,22	50570 16,07	42393 14,94	34969 13,85	28352 12,80	22566 11,76	17593 10,76
	32	Qo Pe	56063 18,09	47567 16,80	39795 15,55	32726 14,36	26474 13,18	20985 12,04	16272 10,93
	43	Qo Pe	48420 19,78	40917 18,21	34040 16,71	27886 15,24	22375 13,82	17534 12,46	13320 11,14
	38	Qo Pe	66451 22,00	57326 19,82	48637 17,82	40664 15,93	33258 14,20	26692 12,56	20892 11,04
	43	Qo Pe	61889 22,81	53321 20,52	45194 18,39	37683 16,40	30799 14,55	24654 12,82	19240 11,22
	48	Qo Pe	52417 24,46	45065 21,91	38207 19,52	31761 17,31	25939 15,25	20728 13,33	16129 11,57
LBT-Z25106-3Y-4T	38	Qo Pe	61207 24,67	52172 22,45	43779 20,36	36102 18,39	29240 16,51	23201 14,74	17949 13,09
	43	Qo Pe	56725 25,45	48200 23,12	40450 20,90	33335 18,81	26993 16,83	21392 14,98	16555 13,26
	48	Qo Pe	52380 26,20	44524 23,74	37349 21,40	30795 19,21	24936 17,14	19777 15,21	15305 13,43
	27	Qo Pe	77251 25,98	66822 23,24	56991 20,74	47851 18,44	39413 16,33	31768 14,39	24977 12,60
	32	Qo Pe	72270 26,99	62392 24,12	53195 21,45	44500 19,03	36562 16,78	29375 14,71	22946 12,79
	43	Qo Pe		53058 25,78	45074 22,81	37575 20,07	30651 17,54	24401 15,20	18815 13,04
LBT-Z30126-3Y-4T	38	Qo Pe	72362 28,71	61867 25,96	52094 23,39	43120 20,99	34995 18,74	27751 16,63	21427 14,65
	43	Qo Pe	67370 29,67	57409 26,78	48251 24,05	39810 21,50	32239 19,10	25452 16,85	19526 14,75
	48	Qo Pe		53058 27,52	44517 24,63	36671 21,93	29563 19,40	23246 17,02	17697 14,81

① References of performance data:

Data published are based on suction gas temperature of 20°C and 3K liquid subcooling; Frequency 50 Hz.
 For calculating the performance at other conditions and 60 Hz, use Frascold Selection Software.

■ Additional cooling required.

Verify compliance with Directive 2009/125/EC Ecodesign - Regulation EU 2015/1095, refer to the manual FTEC030 or use the FSS3 selection program available from Frascold web site.

Performance R404A - R507A [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]										
			0	-5	-10	-15	-20	-25	-30	-35	-40	-45	
LB-Q420-0Y-2M	27	Qo Pe	12548 5,22	10660 4,70	8942 4,22	7366 3,78	5961 3,37	4721 2,99	3653 2,65	2752 2,32	2005 2,03		
	32	Qo Pe	11618 5,47	9851 4,91	8248 4,39	6781 3,91	5468 3,47	4318 3,05	3322 2,68	2476 2,33	1774 2,02		
	43	Qo Pe	9547 5,98	8069 5,32	6716 4,70	5492 4,14	4389 3,62	3428 3,14	2595 2,70	1882 2,31			
LBT-Q420-0Y-2M	38	Qo Pe	11488 5,74	9612 5,20	7932 4,69	6441 4,21	5128 3,75	3988 3,32	3018 2,92	2200 2,56	1508 2,23		
	43	Qo Pe	10520 5,98	8771 5,40	7212 4,84	5836 4,31	4623 3,82	3579 3,36	2685 2,93	1922 2,54			
	48	Qo Pe	9544 6,21	7933 5,58	6494 4,97	5222 4,41	4119 3,88	3166 3,38	2354 2,93				
LB-Q521-0Y-2T	27	Qo Pe	17087 5,63	14635 5,31	12327 4,96	10184 4,58	8245 4,17	6488 3,73	4914 3,26				
	32	Qo Pe	15674 5,92	13419 5,56	11279 5,17	9319 4,74	7513 4,28	5881 3,80	4407 3,29				
	43	Qo Pe	12567 6,44	10732 6,00	9005 5,51	7393 4,99	5912 4,43	4533 3,85	3282 3,24				
LBT-Q521-0Y-2T	38	Qo Pe	15303 6,86	12919 6,52	10739 6,13	8758 5,70	6970 5,22	5359 4,70	3926 4,16				
	43	Qo Pe	13816 7,12	11639 6,74	9661 6,30	7850 5,81	6203 5,29	4726 4,72	3383 4,12				
	48	Qo Pe	12341 7,35	10378 6,91	8592 6,43	6955 5,89	5472 5,32	4110 4,71					
LB-Q424-0Y-2M	27	Qo Pe	14190 6,41	12211 5,75	10337 5,14	8589 4,57	6983 4,04	5526 3,55	4230 3,09	3110 2,67	2164 2,27		
	32	Qo Pe	12938 6,69	11140 5,98	9436 5,32	7832 4,71	6347 4,15	5006 3,62	3802 3,13	2755 2,68	1860 2,27		
	43	Qo Pe	10331 7,22	8874 6,41	7502 5,66	6204 4,96	4982 4,32	3884 3,72	2885 3,17	1989 2,67			
LBT-Q424-0Y-2M	38	Qo Pe	13002 6,90	10985 6,24	9158 5,60	7476 5,00	5966 4,43	4625 3,89	3443 3,39	2424 2,91	1504 2,48		
	43	Qo Pe	11718 7,17	9900 6,45	8234 5,77	6705 5,12	5331 4,51	4107 3,94	3018 3,40	2059 2,90			
	48	Qo Pe	10468 7,42	8831 6,65	7321 5,92	5941 5,23	4700 4,58	3582 3,97	2590 3,41				
LB-Q524-0Y-2M	27	Qo Pe	16587 6,99	14481 6,34	12412 5,73	10444 5,15	8610 4,60	6935 4,08	5428 3,58				
	32	Qo Pe	15132 7,29	13201 6,61	11326 5,96	9536 5,33	7859 4,74	6305 4,18	4904 3,65				
	43	Qo Pe			10400 7,14	8964 6,39	7561 5,68	6230 5,01	4969 4,37	3803 3,76			
LBT-Q524-0Y-2M	38	Qo Pe	15467 7,45	13243 6,83	11169 6,22	9258 5,62	7506 5,04	5928 4,47	4524 3,93				
	43	Qo Pe	13898 7,77	11894 7,09	10032 6,43	8315 5,79	6729 5,16	5307 4,56	4015 3,98				
	48	Qo Pe			10551 7,34	8918 6,63	7379 5,94	5983 5,27	4689 4,63				
LB-Q528-0Y-2M	27	Qo Pe	16136 7,86	14014 7,06	12412 6,32	10444 5,62	8610 4,96	6935 4,35	5428 3,76	3860 3,21	2757 2,68		
	32	Qo Pe			14760 8,14	12826 7,30	10939 6,52	9190 5,78	7538 5,08	6030 4,43	4670 3,81	3462 3,22	2422 2,66
	43	Qo Pe				10210 7,74	8720 6,87	7317 6,04	5979 5,26	4751 4,52	3628 3,83	2614 3,17	
LBT-Q528-0Y-2M	38	Qo Pe	15111 8,30	12864 7,52	10819 6,77	8922 6,05	7199 5,36	5662 4,69	4307 4,05	3123 3,44	2097 2,85		
	43	Qo Pe			13625 8,58	11624 7,75	9732 6,95	8028 6,18	6470 5,45	5065 4,74	3823 4,06	2734 3,41	
	48	Qo Pe				10378 7,95	8682 7,10	7141 6,29	5739 5,51	4474 4,76	3349 4,05		
LB-Q728-0Y-2T	27	Qo Pe	21708 8,22	18733 7,57	15984 6,94	13388 6,36	11033 5,79	8897 5,24	7013 4,69				
	32	Qo Pe			19913 8,62	17228 7,90	14699 7,23	12314 6,59	10145 5,97	8182 5,37	6419 4,78		
	43	Qo Pe			16030 9,46	13853 8,63	11846 7,82	9930 7,07	8186 6,34	6571 5,63	5102 4,94		
LBT-Q728-0Y-2T	38	Qo Pe	20022 9,46	17035 8,81	14327 8,18	11859 7,56	9656 6,94	7694 6,32	5951 5,71				
	43	Qo Pe			18143 9,87	15440 9,16	12979 8,46	10729 7,78	8728 7,11	6938 6,44	5342 5,78		
	48	Qo Pe			16270 10,28	13818 9,50	11618 8,74	9610 8,00	7802 7,27	6178 6,56			

① For performance data references see page 27.

■ Additional cooling required.

Performance R407F - R407A [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]								
			0	-5	-10	-15	-20	-25	-30	-35	-40
LB-V2084-3Y-2T	27	Qo	51310	43003	35608	29022	23188	18044	13453	9286	
		Pe	22,56	19,77	17,33	15,18	13,27	11,53	9,94	8,45	
	32	Qo	47858	40063	33074	26850	21328	16460	12111	8113	
		Pe	23,48	20,53	17,95	15,68	13,64	11,79	10,10	8,53	
	43	Qo			27750	22360	17593	13354	9523		
		Pe			19,28	16,72	14,43	12,35	10,45		
LBT-V2084-3Y-4T	38	Qo	48509	39713	32144	25620	19994	15150	10868		
		Pe	24,81	22,123	19,682	17,457	15,414	13,515	11,752		
	43	Qo		36613	29502	23446	18227	13752	9713		
		Pe		22,926	20,337	17,962	15,787	13,771	11,922		
	48	Qo			27009	21426	16614	12454	8716		
		Pe			20,975	18,457	16,159	14,043	12,106		
LB-V3084-3Y-4T	27	Qo	66281	55705	46176	37727	30250	23708	17931	12887	8352
		Pe	23,23	21,31	19,45	17,64	15,90	14,22	12,62	11,10	9,69
	32	Qo	61670	51745	42889	34989	28017	21813	16347	11438	6918
		Pe	24,24	22,22	20,24	18,30	16,42	14,62	12,88	11,24	9,71
	43	Qo	51239	43040	35523	28928	22947	17542	12648	8089	
		Pe	26,15	23,89	21,68	19,48	17,36	15,29	13,30	11,41	
LB-Z25106-3Y-4T	27	Qo	62708	52426	43199	35029	27808	21500	15815	10608	
		Pe	27,20	23,77	20,78	18,14	15,75	13,54	11,47	9,51	
	32	Qo		58187	48480	39846	32152	25420	19498	14164	9179
		Pe		28,23	24,64	21,48	18,67	16,12	13,77	11,59	9,53
	43	Qo				32719	26214	20524	15459	10866	
		Pe				22,81	19,66	16,80	14,18	11,75	
LBT-Z25106-3Y-4T	38	Qo	57524	47183	38196	30407	23730	17875	12667		
		Pe		30,119	26,651	23,54	20,715	18,107	15,686	13,411	
	43	Qo			43210	34870	27644	21454	16058	11199	
		Pe			27,463	24,165	21,174	18,417	15,862	13,479	
	48	Qo				25043	19349	14343	9875		
		Pe				21,578	18,683	16,011	13,528		
LB-Z30126-3Y-4T	27	Qo	69615	59188	49499	40591	32540	25273	18785	12986	
		Pe		33,31	29,22	25,43	21,97	18,82	16,05	13,66	11,70
	32	Qo			54625	45527	37304	29722	22874	16729	11207
		Pe			30,18	26,23	22,58	19,28	16,35	13,81	11,73
	43	Qo				30351	23895	18037	12675		
		Pe				23,76	20,14	16,90	14,09		
LBT-Z30126-3Y-4T	38	Qo		53679	44144	35552	27927	21098	15038		
		Pe		32,114	28,241	24,628	21,294	18,296	15,673		
	43	Qo			40202	32324	25238	18866	13176		
		Pe			28,979	25,179	21,688	18,547	15,797		
	48	Qo					22646	16818	11478		
		Pe					22,053	18,77	15,911		

① References of performance data:

Data published are based on suction gas temperature of 20°C and 3K liquid subcooling; Frequency 50 Hz.

For calculating the performance at other conditions and 60 Hz, use Frascold Selection Software.

■ Additional cooling required.

Verify compliance with Directive 2009/125/EC Ecodesign - Regulation EU 2015/1095, refer to the manual FTEC030 or use the FSS3 selection program available from Frascold web site.

Performance R22 [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]							
			0	-5	-10	-15	-20	-25	-30	-35
			-40							
LB-D313-0Y-1M	27	Qo Pe	9510 3,37	8116 3,10	6846 2,84	5687 2,59	4642 2,34	3710 2,09	2887 1,85	
	32	Qo Pe	8909 3,59	7615 3,26	6419 2,95	5320 2,66	4330 2,38	3442 2,10	2642 1,84	
	43	Qo Pe	7600 7600	6488 6488	5459 5459	4506 4506	3633 3633	2826 2826	2085 2085	
	27	Qo Pe	10357 3,23	8733 3,05	7282 2,86	5991 2,66	4857 2,44	3861 2,21	2994 1,98	
	32	Qo Pe	9742 3,42	8217 3,20	6841 2,97	5621 2,73	4540 2,48	3589 2,23	2745 1,97	
	43	Qo Pe	8402 8402	7071 7071	5871 5871	4794 4794	3835 3835	2969 2969	2180 2180	
LB-T-D313-0Y-2T	38	Qo Pe	9817 3,70	8170 3,51	6719 3,30	5456 3,06	4352 2,80	3386 2,54	2506 2,26	
	43	Qo Pe	9187 3,92	7628 3,68	6270 3,42	5072 3,15	4021 2,86	3094 2,56	2232 2,26	
	48	Qo Pe	8546 4,18	7088 3,90	5808 3,59	4678 3,28	3682 2,95	2790 2,62	1951 2,31	
	27	Qo Pe	10701 4,31	9265 3,92	7914 3,56	6676 3,22	5539 2,89	4505 2,57	3580 2,25	2747 1,94
	32	Qo Pe	10000 4,61	8677 4,14	7414 3,73	6255 3,33	5186 2,96	4209 2,60	3321 2,25	2510 1,91
	43	Qo Pe		7372	6317	5322	4396	3536	2731	1968
LB-D316-0Y-1M	27	Qo Pe	11847 4,31	10110 3,92	8529 3,56	7105 3,22	5835 2,89	4713 2,57	3721 2,25	2847 1,94
	32	Qo Pe	10000 4,61	8677 4,14	7414 3,73	6255 3,33	5186 2,96	4209 2,60	3321 2,25	2510 1,94
	43	Qo Pe		7372	6317	5322	4396	3536	2731	1968
	27	Qo Pe	11130 3,99	9497 3,74	8013 3,49	6669 3,23	5473 2,95	4406 2,67	3458 2,37	2608 2,07
	32	Qo Pe	9545 4,27	8145 3,96	6870 3,66	5714 3,35	4668 3,03	3724 2,71	2858 2,38	2055 2,06
	43	Qo Pe	9545 9545	8145 8145	6870 6870	5714 5714	4668 4668	3724 3724	2858 2858	2055 1271
LBT-D316-0Y-2T	38	Qo Pe	11370 4,48	9561 4,24	7957 3,98	6547 3,68	5306 3,36	4220 3,03	3261 2,68	2363 2,32
	43	Qo Pe	10616 4,77	8919 4,48	7422 4,15	6096 3,81	4937 3,44	3903 3,05	2973 2,66	2096 2,27
	48	Qo Pe	9855 5,10	8287 4,73	6885 4,35	5651 3,94	4554 3,52	3581 3,09	2680 2,66	1821 2,23
	27	Qo Pe	10888 4,23	9432 3,87	8073 3,53	6793 3,22	5626 2,91	4557 2,61	3592 2,31	
	32	Qo Pe	10180 4,51	8841 4,07	7553 3,68	6361 3,31	5264 2,97	4239 2,63	3304 2,30	
	43	Qo Pe		7536	6462	5443	4471	3557	2684	
LB-D416-0Y-2M	27	Qo Pe	12510 3,89	10614 3,71	8913 3,50	7397 3,28	6048 3,04	4853 2,78	3806 2,51	
	32	Qo Pe	11754 4,14	9987 3,89	8382 3,65	6948 3,38	5667 3,11	4532 2,81	3506 2,51	
	43	Qo Pe	10125 10125	8594 8594	7215 7215	5974 5974	4845 4845	3812 3812	2863 2863	
	27	Qo Pe	11603 4,42	9760 4,19	8121 3,95	6674 3,67	5394 3,38	4257 3,06	3239 2,73	
	32	Qo Pe	10837 4,68	9111 4,40	7582 4,10	6226 3,78	5013 3,44	3931 3,09	2931 2,72	
	43	Qo Pe	10065 4,99	8465 4,65	7045 4,29	5768 3,92	4633 3,53	3602 3,14	2633 2,75	
LB-D318-0Y-1M	27	Qo Pe	10189 4,49	8654 4,07	7272 3,68	6029 3,30	4923 2,95	3938 2,60	3061 2,25	2260 1,92
	32	Qo Pe	9552 4,75	8096 4,27	6804 3,82	5630 3,41	4586 3,01	3652 2,63	2812 2,25	2035 1,89
	43	Qo Pe		6873	5746	4725	3817	2992	2233	1512
	27	Qo Pe	11189 4,23	9380 3,94	7788 3,64	6396 3,33	5176 3,02	4115 2,70	3181 2,38	2337 2,05
	32	Qo Pe	10534 4,49	8813 4,14	7310 3,79	5990 3,44	4834 3,09	3821 2,74	2922 2,38	2111 2,03
	43	Qo Pe	9069 9069	7569 7569	6245 6245	5080 5080	4053 4053	3157 3157	2334 2334	1583 1583
LBT-D318-0Y-2M	38	Qo Pe	10082 4,73	8394 4,36	6906 3,99	5622 3,61	4498 3,23	3520 2,84	2650 2,44	1845 2,06
	43	Qo Pe	9413 5,00	7815 4,57	6414 4,15	5198 3,72	4139 3,29	3207 2,86	2378 2,43	1583 2,01
	48	Qo Pe	8722 5,29	7220 4,80	5909 4,32	4767 3,84	3766 3,36	2882 2,89	2084 2,42	

① For performance data references see page 41.

■ Additional cooling required.

Performance R22 [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]								
			0	-5	-10	-15	-20	-25	-30	-35	-40
LB-Q420-0Y-2M	27	Qo Pe	14729 5,07	12501 4,68	10480 4,31	8685 3,94	7103 3,57	5724 3,20	4536 2,83	3526 2,48	2668 2,13
	32	Qo Pe	13976 5,45	11866 5,01	9956 4,58	8253 4,15	6751 3,72	5436 3,31	4299 2,90	3327 2,51	2493 2,13
	43	Qo Pe	12343 6,27	10492 5,68	8824 5,11	7325 4,56	6000 4,02	4831 3,50	3811 2,99	2924 2,51	2146 2,06
	38	Qo Pe	13975 5,68	11750 5,30	9770 4,90	8042 4,47	6531 4,05	5228 3,61	4109 3,17	3151 2,75	2308 2,33
LBT-Q420-0Y-2M	43	Qo Pe	13207 6,07	11113 5,61	9252 5,14	7615 4,66	6186 4,18	4953 3,69	3892 3,21	2970 2,74	2154 2,29
	48	Qo Pe	12455 6,44	10484 5,91	8730 5,38	7191 4,84	5850 4,30	4690 3,76	3680 3,24	2801 2,73	
LB-Q521-0Y-2T	27	Qo Pe	16710 4,88	13987 4,68	11577 4,45	9444 4,18	7587 3,86	5986 3,51	4620 3,13		
	32	Qo Pe	15761 5,26	13181 4,99	10888 4,68	8868 4,34	7099 3,97	5569 3,57	4251 3,14		
	43	Qo Pe	13650 6,19	11390 5,70	9369 5,21	7577 4,70	6000 4,18	4636 3,64	3442 3,08		
	38	Qo Pe	15429 6,27	12801 6,00	10471 5,69	8453 5,32	6698 4,92	5176 4,47	3840 3,98		
LBT-Q521-0Y-2T	43	Qo Pe	14455 6,68	11958 6,33	9765 5,93	7852 5,49	6193 5,01	4735 4,50	3456 3,95		
	48	Qo Pe	13467 7,14	11123 6,69	9065 6,20	7252 5,68	5688 5,12	4299 4,55	3080 3,93		
LB-Q424-0Y-2M	27	Qo Pe	17266 6,61	14695 5,93	12358 5,31	10220 4,76	8311 4,24	6619 3,74	5153 3,26	3889 2,80	2825 2,35
	32	Qo Pe	16231 7,09	13804 6,30	11577 5,60	9556 4,96	7738 4,37	6131 3,81	4735 3,28	3538 2,78	2521 2,30
	43	Qo Pe	11841 7,08	9867 6,18	8078 5,36	6475 4,61	5069 4,16	3831 3,91	2770 3,26	1870 2,66	1870 2,09
	38	Qo Pe	16478 7,20	13807 6,53	11424 5,88	9300 5,26	7426 4,66	5799 4,08	4402 3,51	3220 2,97	2179 2,43
LBT-Q424-0Y-2M	43	Qo Pe	12894 6,89	10615 6,16	8608 5,45	8608 4,77	6845 4,12	5302 3,50	3978 2,90	2852 2,32	1870 2,32
	48	Qo Pe	11972 7,26	9824 6,42	7915 5,63	6248 4,88	4806 4,16	4806 3,48	3564 2,83	2489 2,83	
LB-Q524-0Y-2M	27	Qo Pe	17213 6,14	14628 5,60	12269 5,08	10113 4,61	8193 4,14	6501 3,69	5037 3,25		
	32	Qo Pe	16191 6,59	13781 5,93	11529 5,33	9492 4,77	7666 4,24	6056 3,73	4647 3,24		
	43	Qo Pe	13870 7,78	11802 6,83	9873 5,98	8099 5,20	6499 4,47	5068 3,79	3779 3,16		
	38	Qo Pe	16405 6,73	13753 6,17	11372 5,62	9254 5,07	7382 4,52	5747 3,97	4328 3,44		
LBT-Q524-0Y-2M	43	Qo Pe	15336 7,23	12845 6,56	10603 5,90	8615 5,25	6843 4,62	5285 4,00	3928 3,40		
	48	Qo Pe	14232 7,81	11913 7,01	9815 6,23	7944 5,48	6285 4,75	4820 4,05	3526 3,38		
LB-Q528-0Y-2M	27	Qo Pe	18985 7,44	16270 6,68	13775 6,00	11509 5,39	9465 4,83	7664 4,29	6064 3,76	4644 3,25	3380 2,76
	32	Qo Pe	17831 7,99	15276 7,10	12933 6,31	10806 5,60	8876 4,95	7169 4,34	5645 3,75	4284 3,19	3045 2,67
	43	Qo Pe	12936 8,19	10979 7,10	9166 6,13	7517 5,25	6020 4,44	4674 3,69	3433 3,00	2489 2,37	2259 2,37
	38	Qo Pe	18274 8,01	15399 7,28	12858 6,57	10605 5,89	8619 5,24	6877 4,59	5340 3,96	3970 3,36	2691 2,77
LBT-Q528-0Y-2M	43	Qo Pe	17008 8,63	14338 7,75	11962 6,92	9843 6,13	7989 5,37	6351 4,64	4891 3,93	3566 3,26	2298 2,62
	48	Qo Pe	13243 8,27	11022 7,31	9062 6,40	7321 5,53	5779 4,70	4388 3,92	3127 3,18		
LB-Q728-0Y-2T	27	Qo Pe	21986 6,76	18571 6,35	15512 5,92	12768 5,46	10342 4,98	8212 4,48	6364 3,98		
	32	Qo Pe	20725 7,15	17485 6,66	14570 6,15	11969 5,62	9665 5,08	7632 4,52	5836 3,96		
	43	Qo Pe	17896 8,21	15085 7,47	12509 6,75	10218 6,03	8167 5,31	6329 4,60	4669 3,90		
	38	Qo Pe	20651 8,04	17236 7,60	14210 7,11	11545 6,57	9216 6,00	7170 5,41	5369 4,80		
LBT-Q728-0Y-2T	43	Qo Pe	19332 8,50	16103 7,96	13238 7,38	10723 6,76	8504 6,11	6563 5,44	4805 4,77		
	48	Qo Pe	18014 9,03	14970 8,39	12290 7,70	9920 6,99	7813 6,27	5956 5,53	4248 4,80		

① For performance data references see page 41.

■ Additional cooling required.

Performance R22 [50 Hz]

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]										
			0	-5	-10	-15	-20	-25	-30	-35	-40		
LB-V2084-3Y-2T	27	Qo Pe	49562 20,04	41899 17,70	34938 15,68	28667 13,89	23081 12,22	18127 10,62	13740 8,98	9855 7,24			
	32	Qo Pe	46989 21,33	39684 18,83	33010 16,64	27034 14,66	21669 12,82	16905 11,02	12669 9,20	8876 7,26			
	43	Qo Pe	41821 24,32	35181 21,47	29132 18,91	23678 16,56	18771 14,33	14372 12,13	10400 9,88	6762 7,52			
	38	Qo Pe	47182 22,73	39359 20,50	32425 18,46	26267 16,56	20815 14,72	16004 12,88	11758 10,93	7859 8,85			
LBT-V2084-3Y-4T	43	Qo Pe	44706 24,08	37254 21,69	30618 19,49	24700 17,44	19460 15,44	14851 13,39	10718 11,27	6838 9,01			
	48	Qo Pe	42373 25,47	35237 22,93	28893 20,57	23241 18,34	18205 16,17	13712 13,97	9686 11,66				
	27	Qo Pe	63677 20,70	53954 19,17	45505 17,78	38048 16,45	31334 15,11	25030 13,69	18781 12,15				
	32	Qo Pe	60397 21,94	51119 20,25	43092 18,71	36018 17,25	29605 15,79	23563 14,26	17485 12,63				
LB-V3084-3Y-4T	43	Qo Pe	53359 25,00	45118 22,89	38007 20,98	31724 19,19	26007 17,42	20479 15,63	14807 13,75				
	27	Qo Pe			52873 22,31	44199 19,65	36265 17,12	29027 14,74	22545 12,49	16798 10,37	11825 8,36		
	32	Qo Pe			49971 23,55	41736 20,71	34097 18,03	27162 15,46	20944 13,03	15401 10,73	10566 8,55		
	43	Qo Pe					29480 19,90	23197 17,04	17527 14,28	12462 11,66			
LB-Z25106-3Y-4T	38	Qo Pe				40389 23,02	32702 20,35	25776 17,76	19581 15,27	14100 12,87	9330 10,56		
	43	Qo Pe				37923 24,03	30594 21,22	23970 18,48	18008 15,85	12776 13,30			
	48	Qo Pe					28504 22,00	22161 19,15	16477 16,38				
	27	Qo Pe			69747 30,51	59580 26,91	50116 23,53	41326 20,39	33290 17,46	26063 14,71	19676 12,07	14156 9,49	
LB-Z30126-3Y-4T	32	Qo Pe			65988 32,18	56347 28,47	47285 24,95	38951 21,60	31263 18,45	24345 15,44	18217 12,52	12897 9,65	
	43	Qo Pe				49417 31,54	41390 27,81	33900 24,18	27043 20,64	20779 17,19	15196 13,77	-	-
	38	Qo Pe			65499 34,13	55448 30,63	46142 27,27	37624 24,03	29898 20,89	23002 17,81	16942 14,75	11681 11,67	
	43	Qo Pe			61821 35,66	52251 32,09	43411 28,61	35282 25,23	27973 21,90	21370 18,63	15565 15,35		
LBT-Z30126-3Y-4T	48	Qo Pe				49052 33,42	40677 29,86	33025 26,34	26039 22,88	19784 19,42			

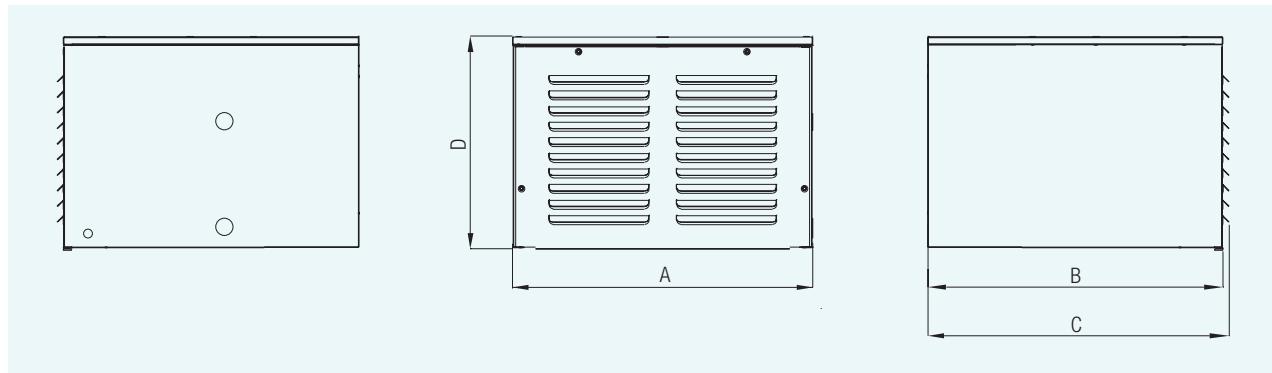
① References of performance data:

Data published are based on suction gas temperature of 20°C and 3K liquid subcooling; Frequency 50 Hz.
For calculating the performance at other conditions and 60 Hz, use Frascold Selection Software.

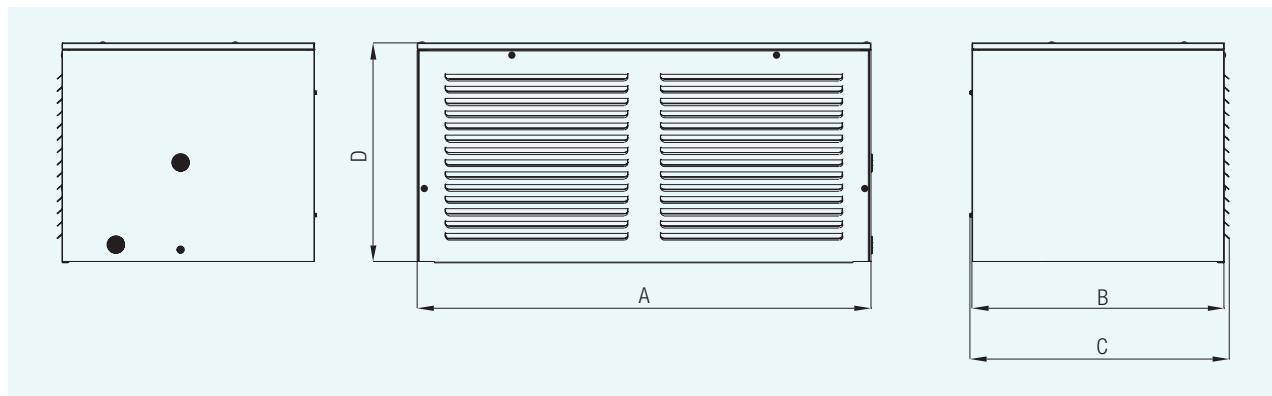
■ Additional cooling required.

Verify compliance with Directive 2009/125/EC Ecodesign - Regulation EU 2015/1095, refer to the manual FTEC030 or use the FSS3 selection program available from Frascold web site.

Dimensional drawings - Housing

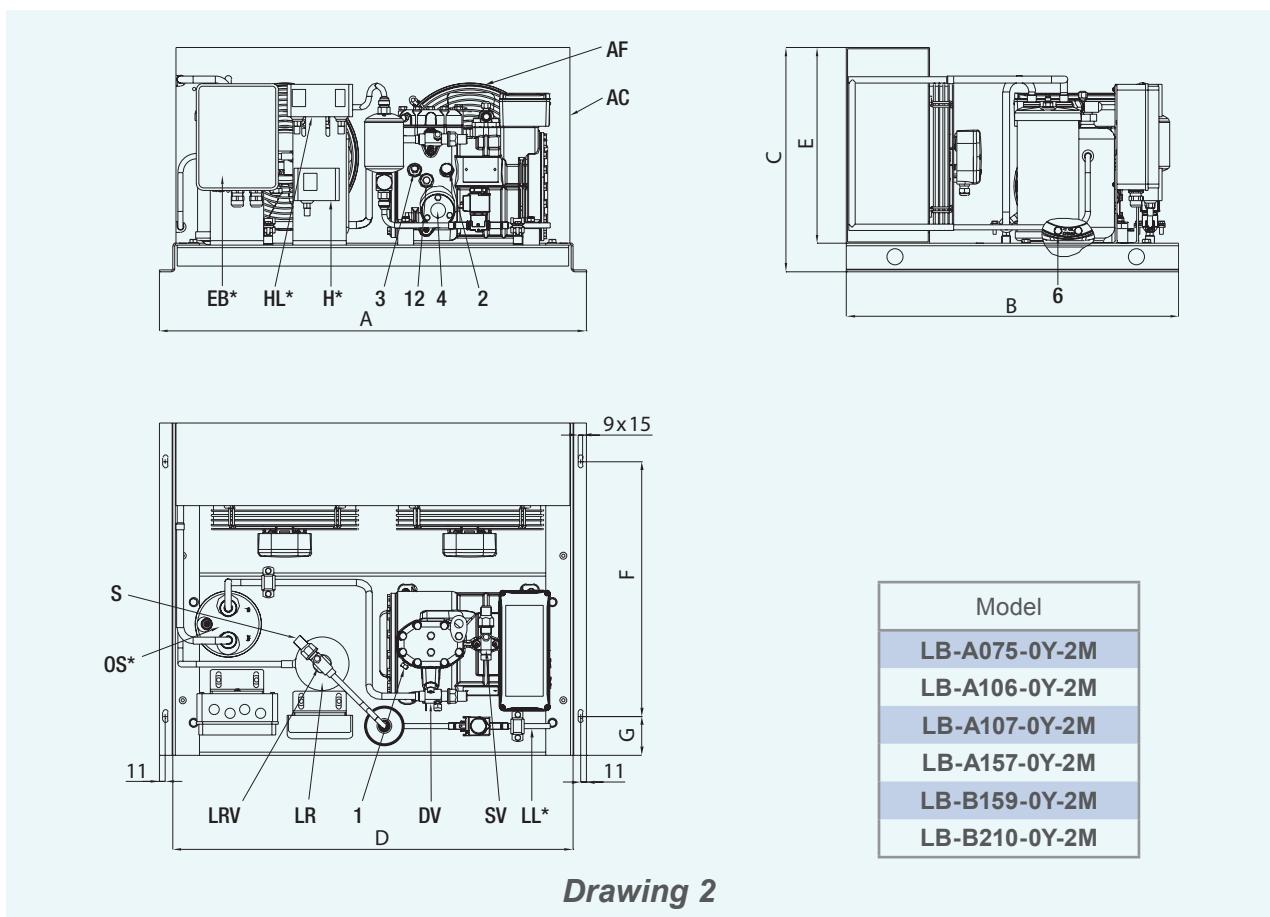
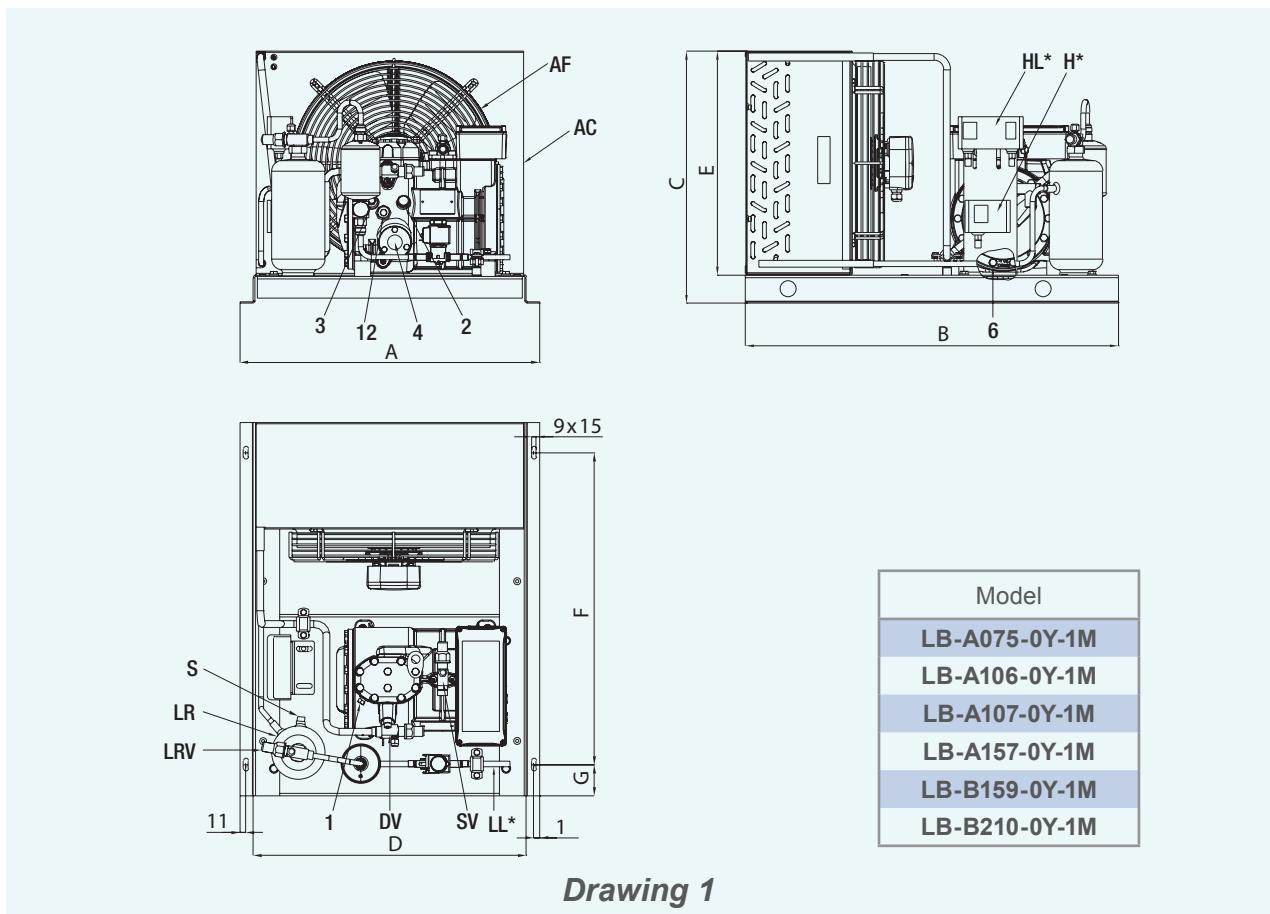


Housing code	Length	Width (base)	Width (max)	Height	Weight
	A	B	C	D	kg
USHOU20	712	702	723	503	24
USHOU21	512	702	723	450	19

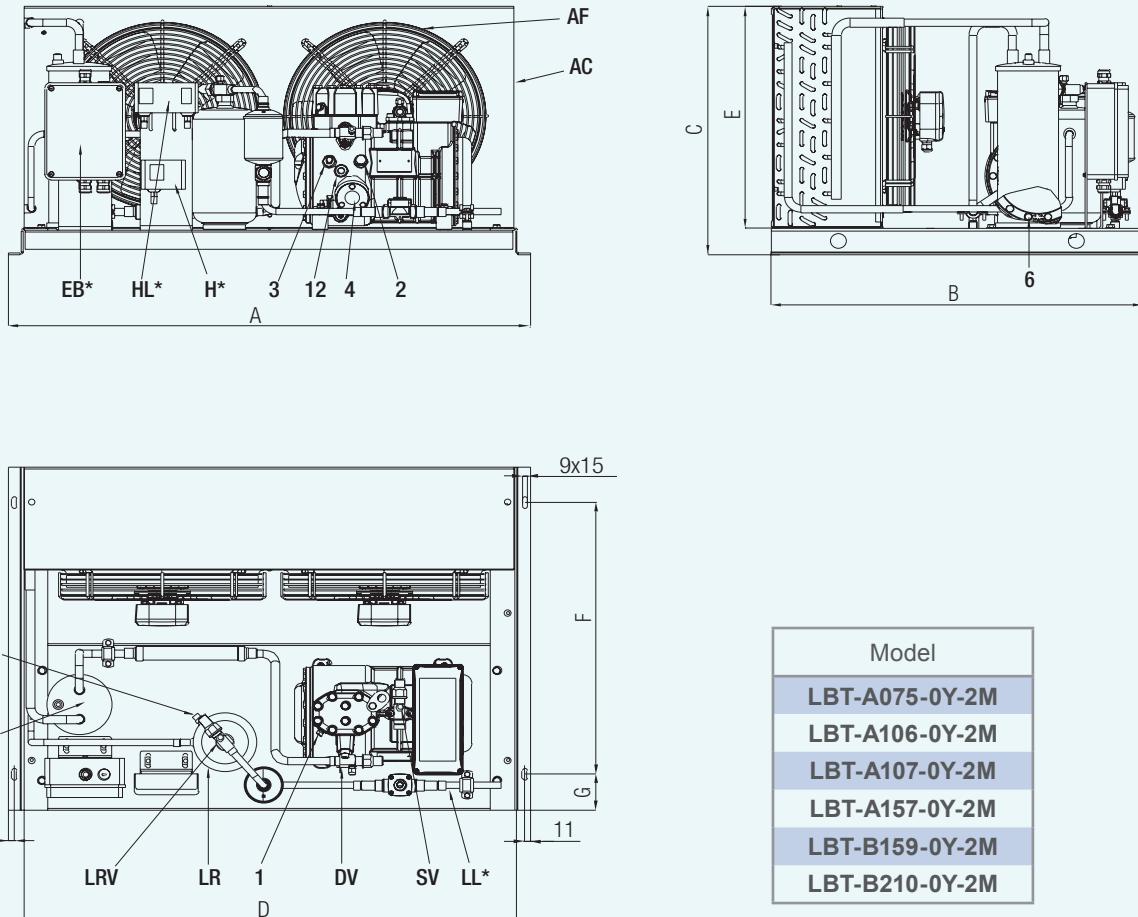


Housing code	Length	Width (base)	Width (max)	Height	Weight
	A	B	C	D	kg
USHOU13	1370	812	833	660	45
USHOU14	1520	832	853	835	54
USHOU15	1370	762	783	660	44
USHOU16	1010	762	783	547	33
USHOU17	937	702	723	478	27
USHOU18	746	622	643	395	20
USHAOU22	1520	917	938	835	60
USHAOU23	1370	917	938	660	49
USHAOU24	1370	1012	1033	660	53
USHAOU25	1520	1117	1138	835	68

Dimensional drawings

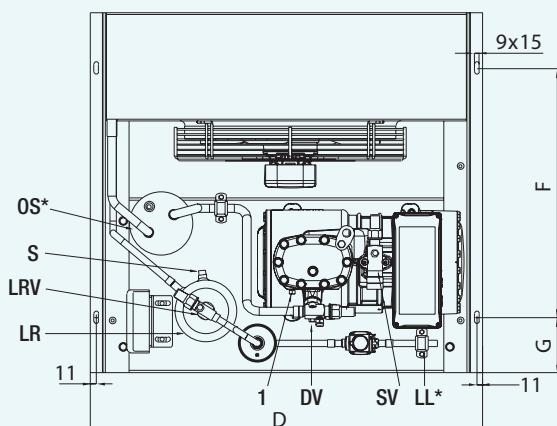
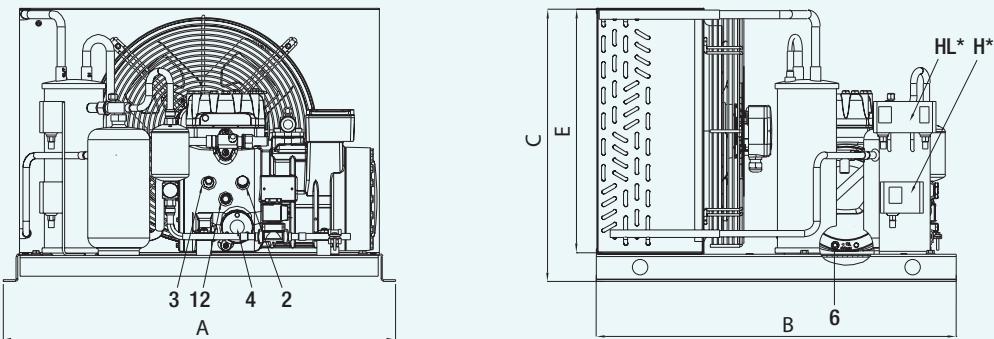


Dimensional drawings

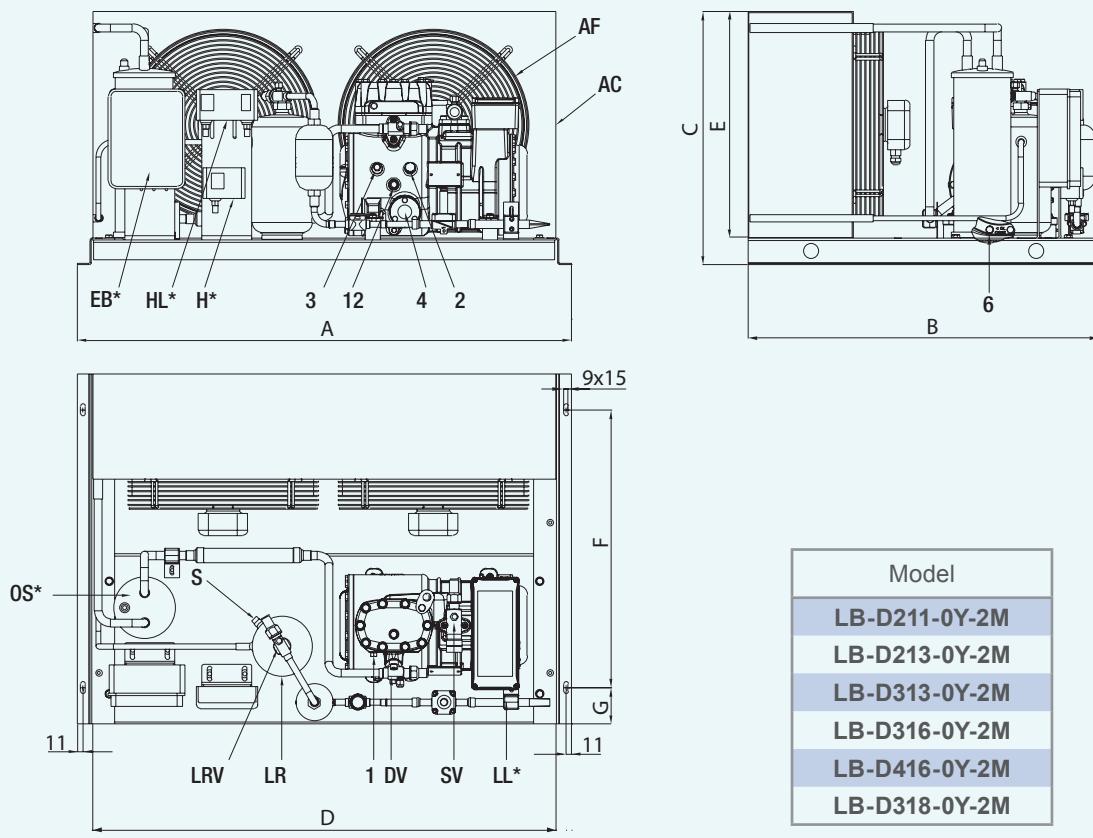


Drawing 3

Dimensional drawings

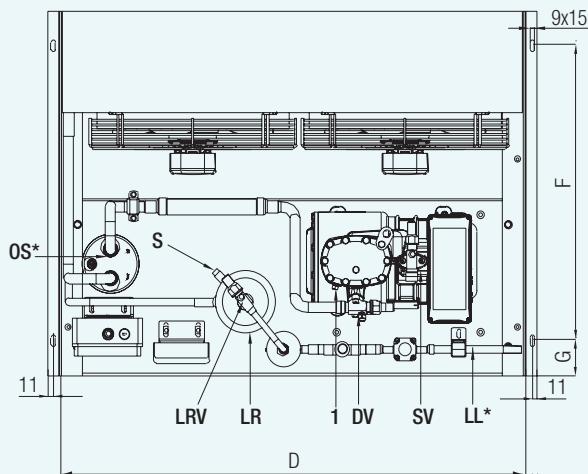
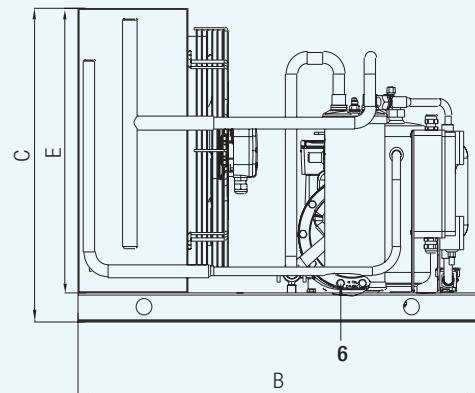
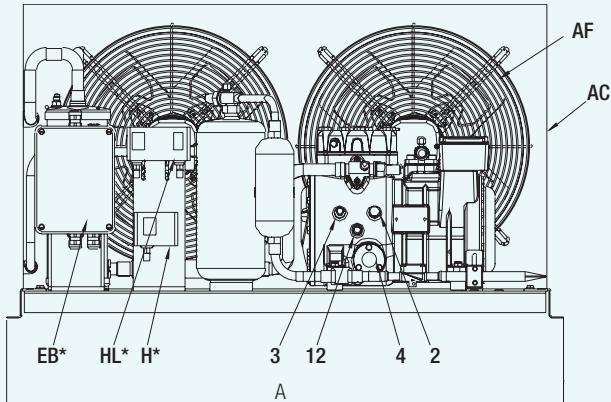


Drawing 4



Drawing 5

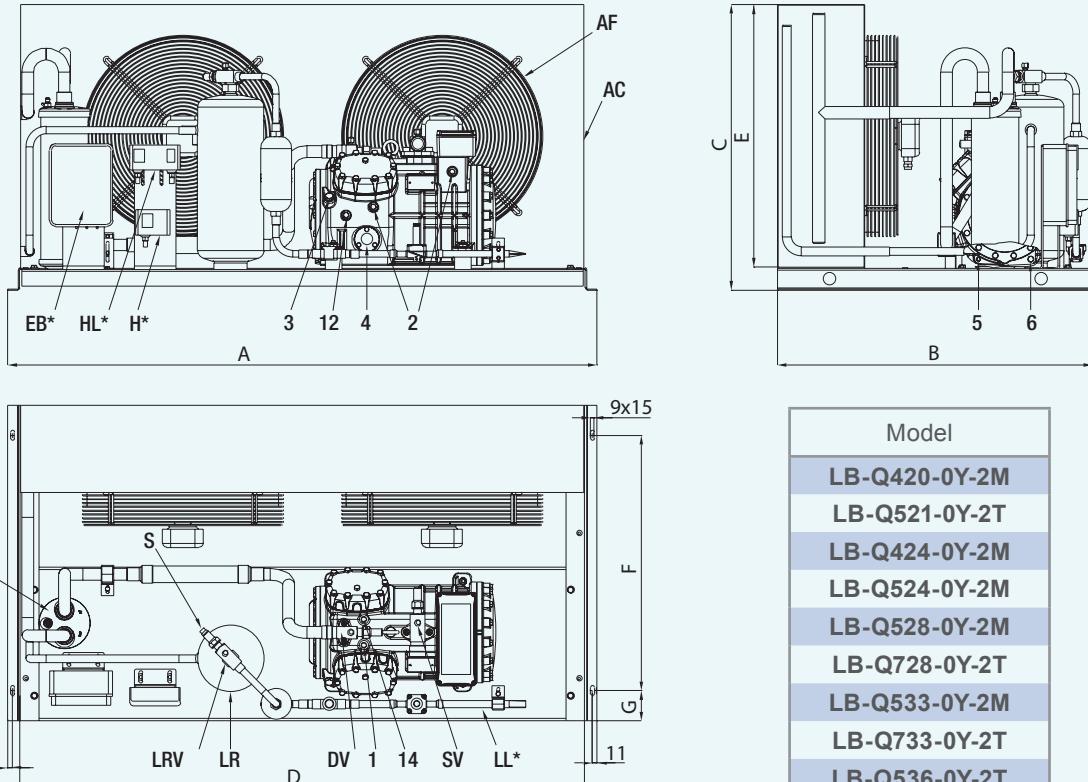
Dimensional drawings



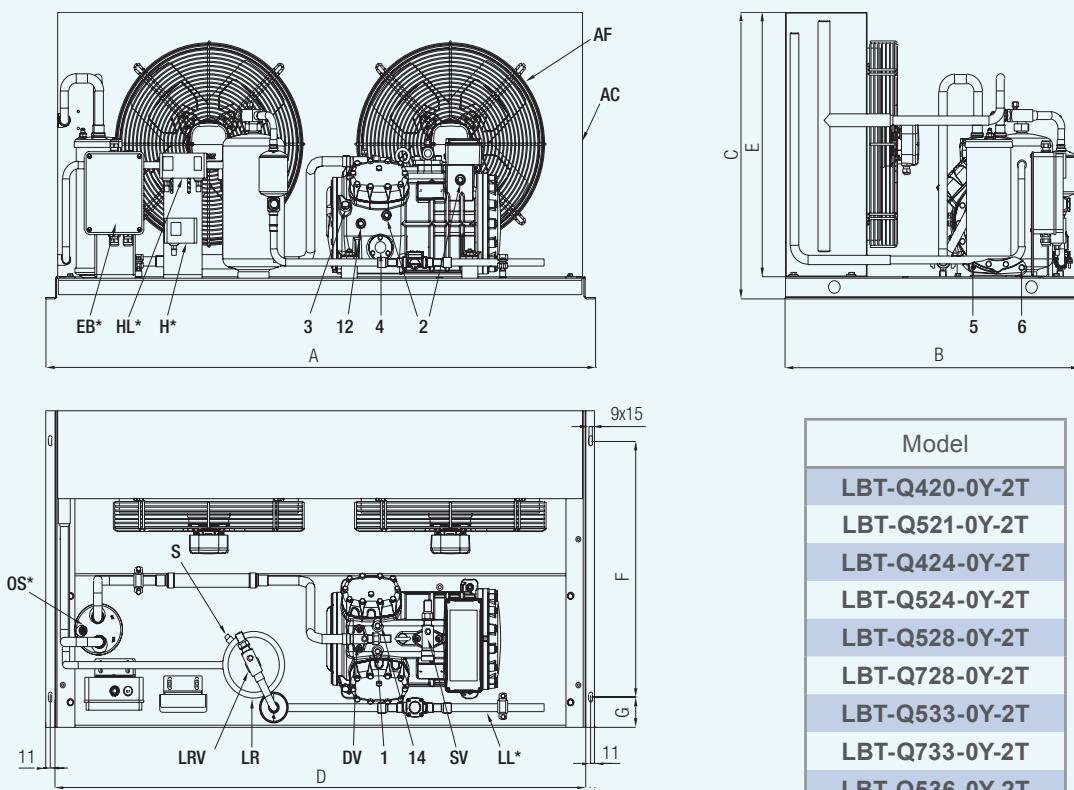
Model
LBT-D211-0Y-2M
LBT-D213-0Y-2M
LBT-D313-0Y-2T
LBT-D316-0Y-2T
LBT-D416-0Y-2T
LBT-D318-0Y-2M

Drawing 6

Dimensional drawings

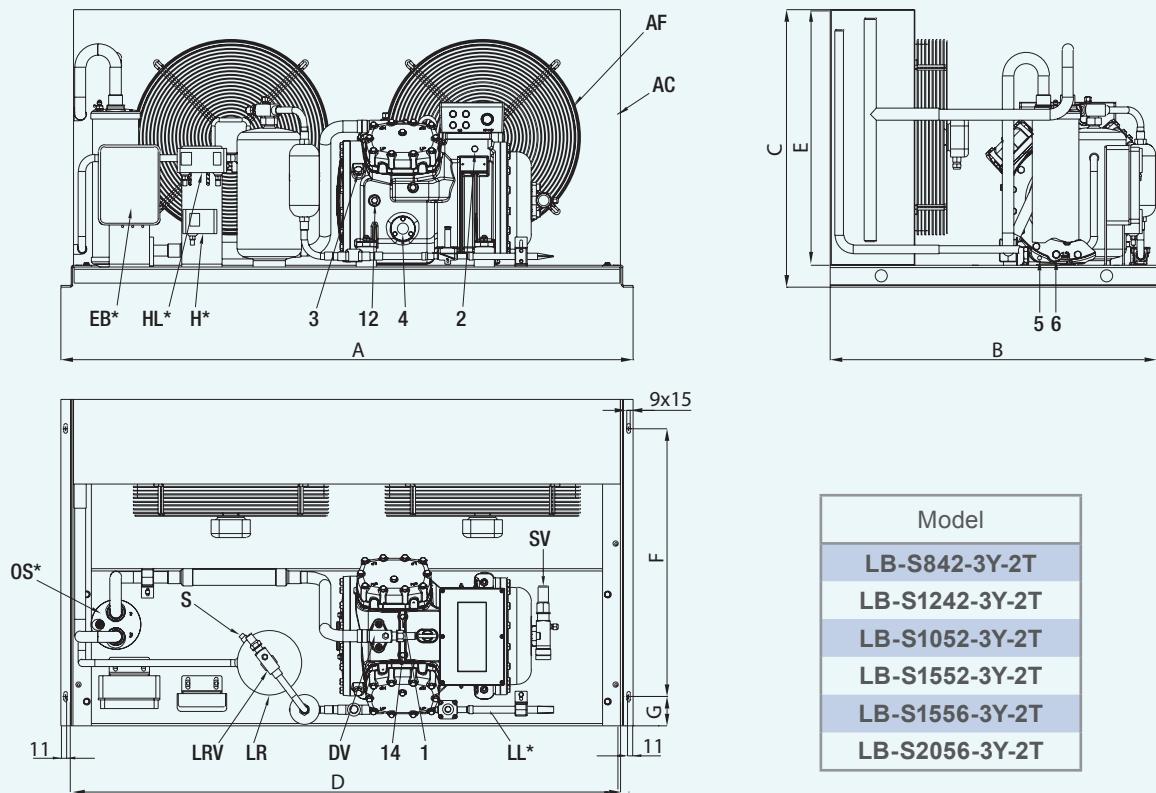


Drawing 7

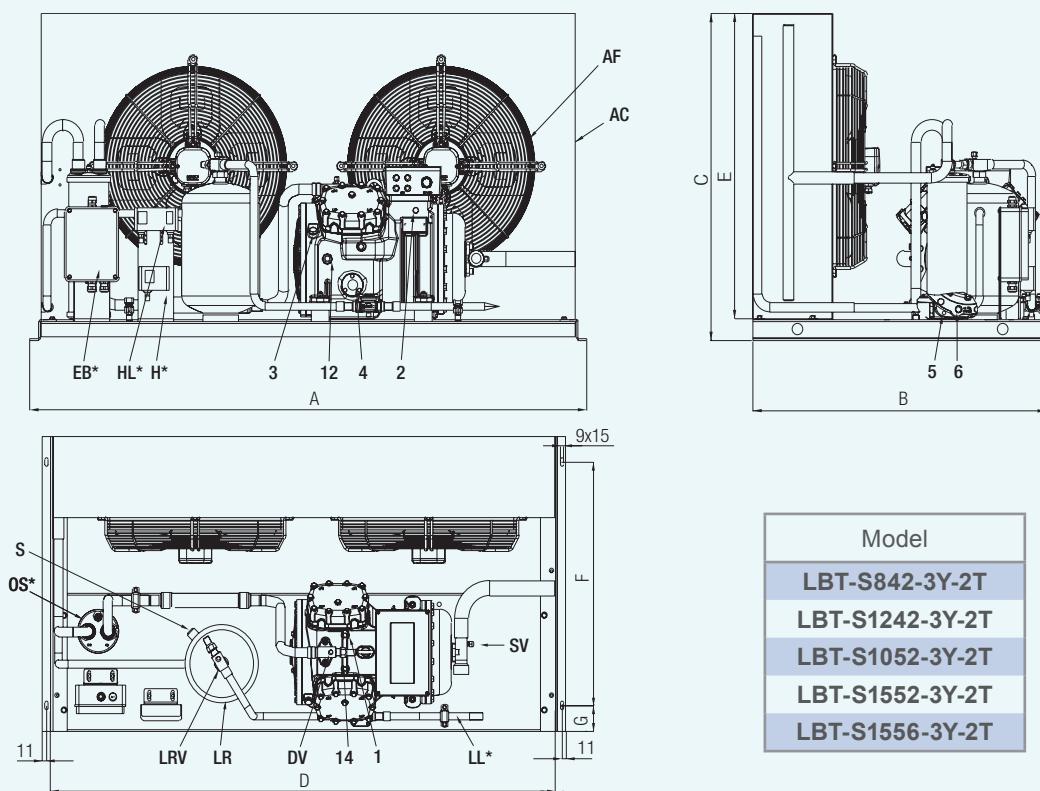


Drawing 8

Dimensional drawings

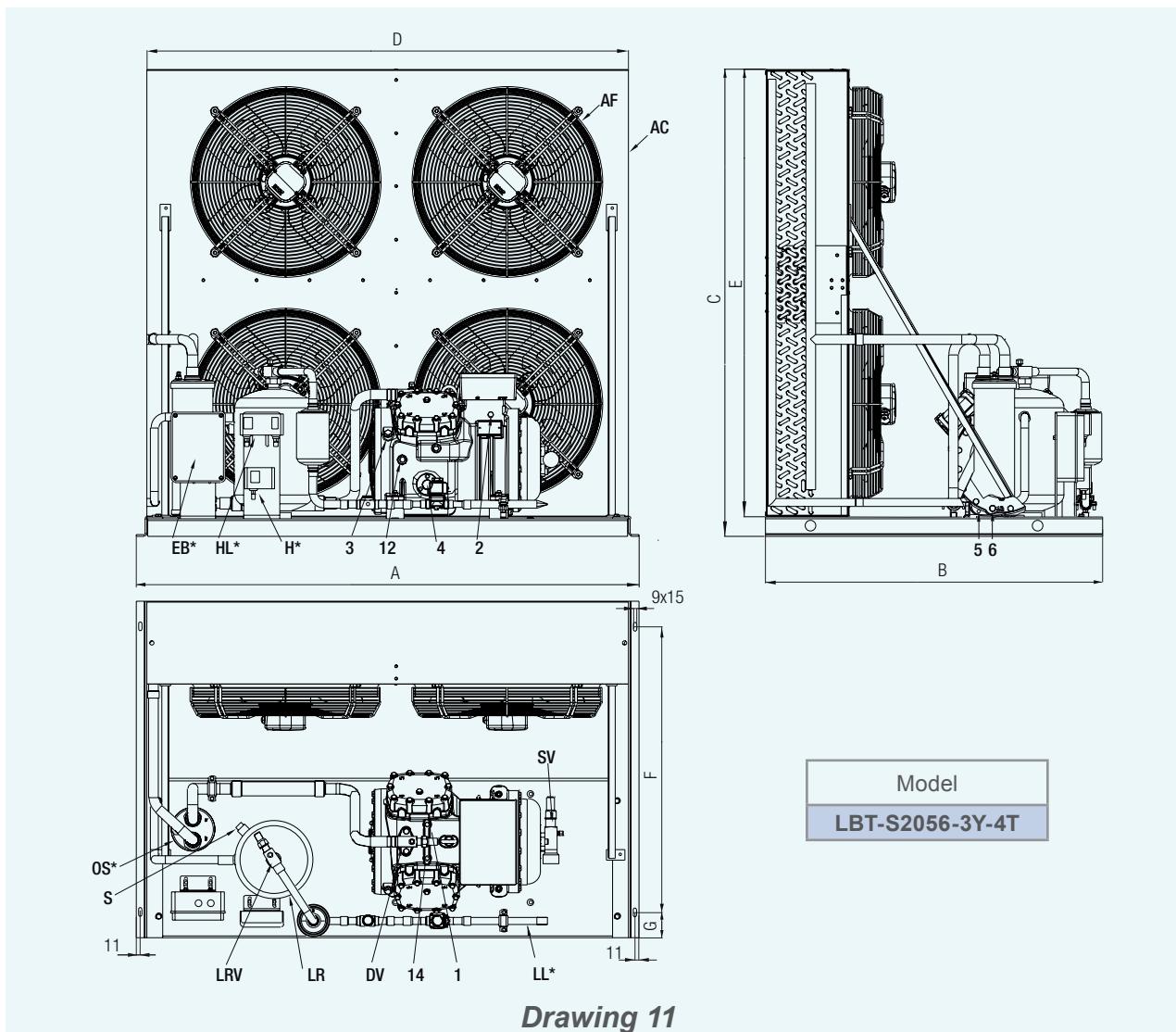


Drawing 9

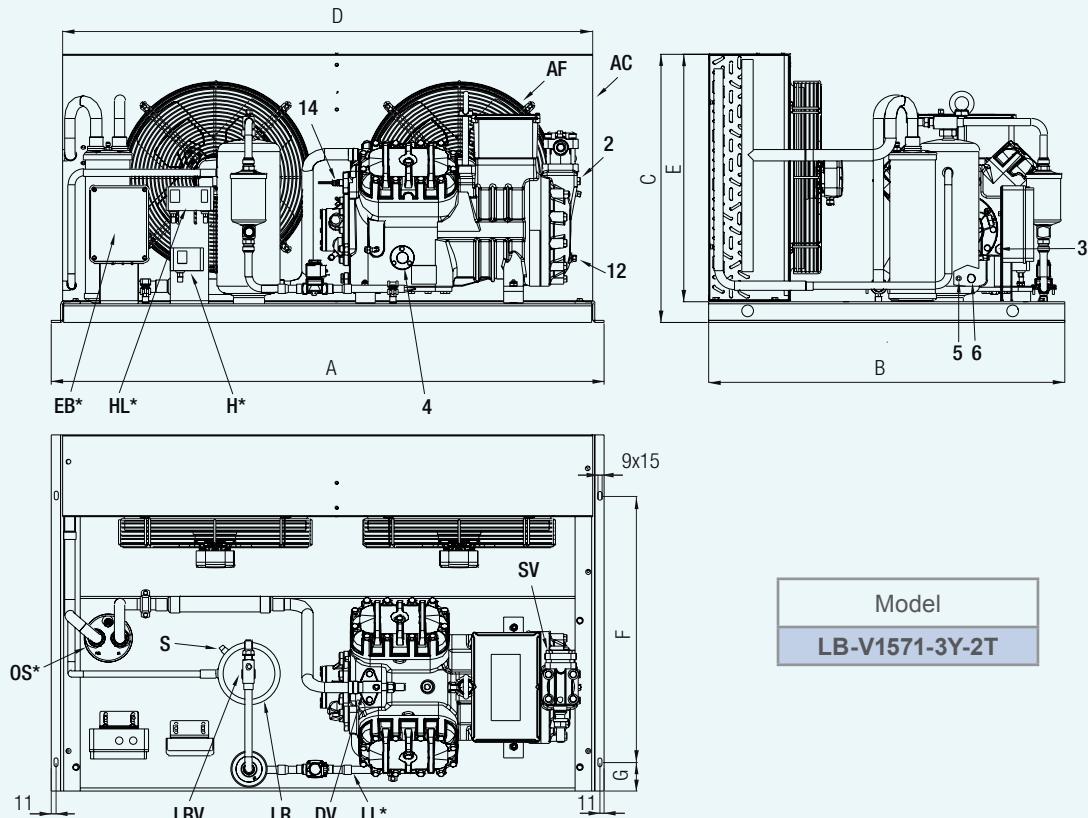


Drawing 10

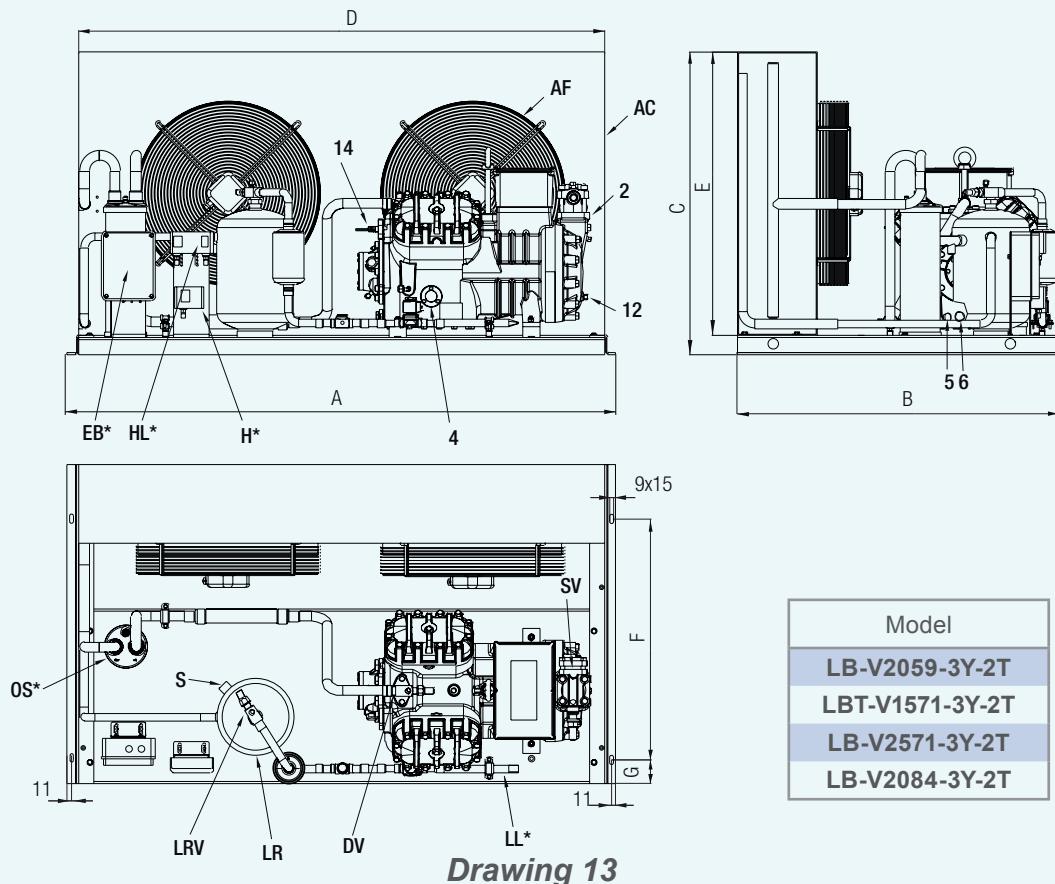
Dimensional drawings



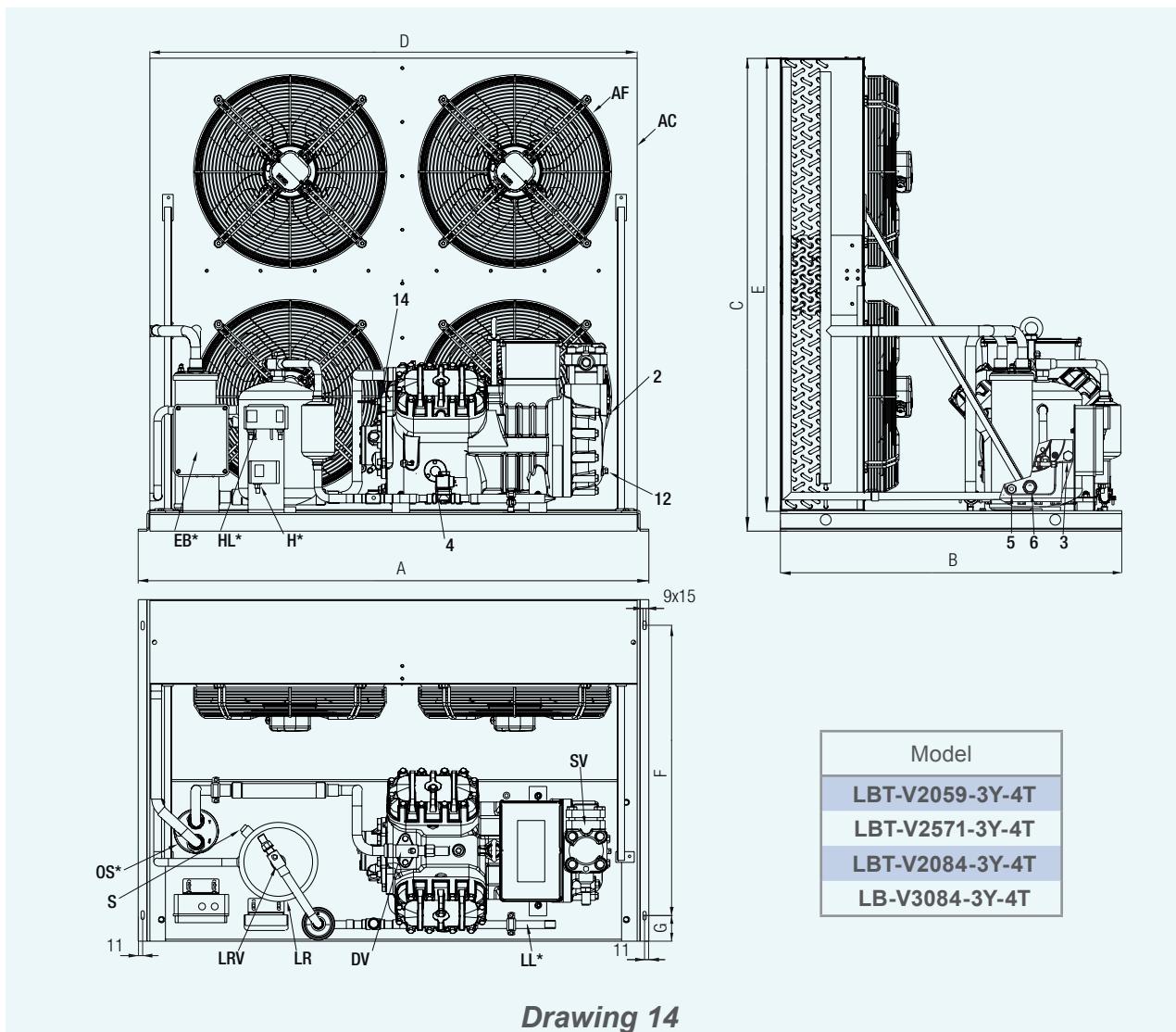
Dimensional drawings



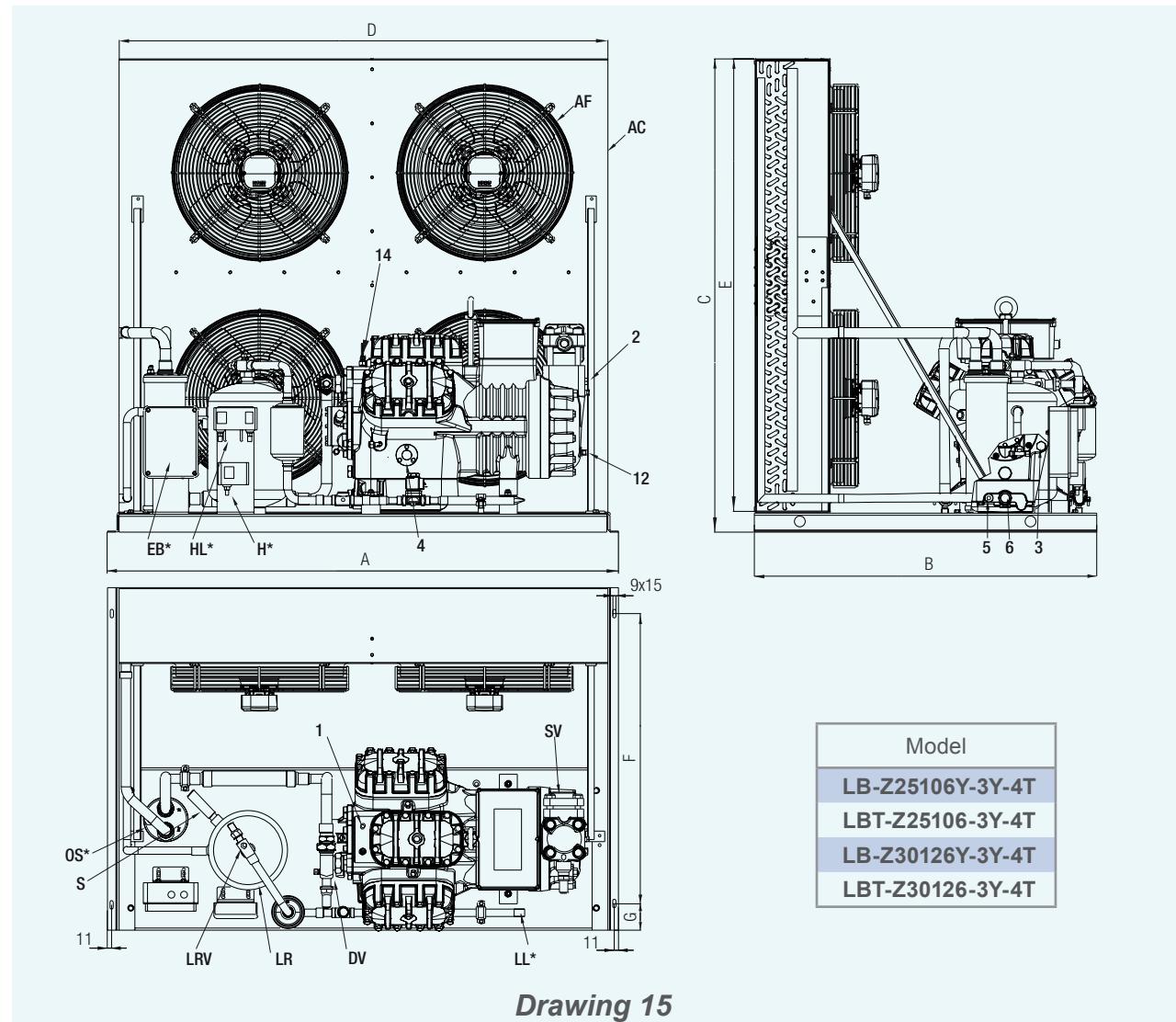
Drawing 12



Dimensional drawings



Dimensional drawings



Drawing 15

Construction features and optionals

Air-cooled condensing unit series / model	LB-S526.16-3Y-2T	LB-S727.19-3Y-2T	LB-V1042.29-3Y-2T	LB-Z1560.30-3Y-2T	LB-Z22072.36-3Y-2T	LB-Z22584.42-3Y-2T	LB-Z30102.51-3Y-4T
Two-stage semi-hermetic compressor with electric motor (PWS) 380-420V / 3 / 50 Hz <> 440-480V / 3 / 60 Hz, AMS Sensors; POE oil charge, Discharge temperature control device, Suction and discharge valves, Rubber mounts	●	●					
Two-stage semi-hermetic compressor with electric motor (PWS) 380-420V / 3 / 50 Hz <> 440-480V / 3 / 60 Hz. AMS Sensors. POE oil charge Discharge temperature control device, Electronic oil pressure switch for lubrication control, Suction and discharge valves; Rubber mounts			●	●	●	●	●
Injection Control Card			●	●	●	●	●
INT69 Diagnose control and protection device → (models V and Z only for Diagnostic Control version)	●	●	●	●	●	●	●
INT69TML Diagnose control and protection device → (Direct Control version only)			●	●	●	●	●
DeltaP-II electronic pressure switch-Lubrication pressure control → (Standard Control and Diagnostic Control versions only)			●	●	●	●	●
INT250FR electronic pressure switch for lubrication pressure control → (Direct Control version only)			●	●	●	●	●
Liquid receiver (PED certified) with large volume, brazing Rotalock valve, plug for safety valve connection (1)	●	●	●	●	●	●	●
Compressor discharge line with flexible joint	●	●	●	●	●	●	●
Liquid sub-cooler kit	○	○	○	○	○	○	○
Optional "Package", includes: Liquid line (filter, liquid sight glass, service valve), high/low safety pressure switch (PED certified, Cat.IV), high pressure switch for condensation control, electrical wiring junction box	○	○	○	○	○	○	○
High/low pressure safety pressure switch (PED certified, Cat. IV)	○	○	○	○	○	○	○
Oil crankcase heater (always recommended with two-stage compressors)	○	○	○	○	○	○	○
Solenoid valve (in alternative to the liquid line service valve)	○	○	○	○	○	○	○
Oil separator (1)	○	○	○	○	○	○	○
Factory mounted Check-valve for compressor discharge line (2)	○	○	○	○	○	○	○
Electrical wiring of "Package" components (pressure switches, fan motors, fan speed control)	○	○	○	○	○	○	○

- Standard components included
 - Optional component supplied on request
- (1) Supplied without oil charge; check the amount of oil to fill into the circuit
(2) Accessory required when the compressor is equipped with "US" head for unloading start

Prestazioni R404A - R507A [50 Hz] with liquid sub-cooling

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]							
			-30	-35	-40	-45	-50	-55	-60	-65
LB-S526.16-3Y-2T	27	Qo 9915 Pe 6,70	8283	6825	5540	4424	3471	2672	2016	1487
	32	Qo 9707 Pe 7,16	8123	6706	5455	4365	3429	2637	2017	1487
	37	Qo 9504 Pe 7,66	7960	6581	5362	4297	3377	2590	3,03	
	42	Qo 9315 Pe 8,23	7803	6455	5267	4223	3317			
	27	Qo 10699 Pe 7,25	8927	7345	5952	4745	3717	2857	2154	1591
	32	Qo 10483 Pe 7,75	8757	7218	5861	4682	3671	2820	2115	
	37	Qo 10268 Pe 8,29	8584	7085	5763	4611	3619	2775		
	42	Qo 10062 Pe 8,90	8413	6949	5659	4532	3558			
LB-S727.19-3Y-2T	27	Qo 15498 Pe 11,46	13016	10787	8813	7091	5613	4371	3350	2528
	32	Qo 15208 Pe 12,30	12799	10634	8714	7032	5580	4347	3317	
	37	Qo 14930 Pe 13,18	12583	10480	8609	6966	5537	4311		
	42	Qo 14667 Pe 14,19	12376	10325	8499	6891	5482			
	27	Qo 21028 Pe 15,48	17695	14692	12020	9677	7662	5962	4563	3443
	32	Qo 20611 Pe 16,60	17378	14464	11868	9586	7609	5924	4513	
	37	Qo 20211 Pe 17,85	17064	14230	11705	9476	7533	5858		
	42	Qo 16778 Pe 16,89	14006	11537	9353	7436				
LB-Z1560.30-3Y-2T	27	Qo 25568 Pe 18,35	21506	17842	14586	11735	9284	7221	5526	4176
	32	Qo 25090 Pe 19,72	21139	17580	14413	11628	9221	7173	5463	
	37	Qo 24629 Pe 21,29	20772	17312	14227	11506	9137	7100		
	42	Qo 20447 Pe 20,16	17048	14031	11364	9027				
	27	Qo 29939 Pe 22,00	25240	20985	17186	13853	10975	8542	6537	4928
	32	Qo 29381 Pe 23,72	24797	20667	16970	13716	10890	8479	6458	
	37	Qo 28858 Pe 25,77	24372	20340	16743	13559	10783	8386		
	42	Qo 16504 Pe 18,00			13383	10647				
LB-Z2072.36-3Y-2T	27	Qo 37255 Pe 27,71	31230	25842	21074	16922	13363	10373	7914	5938
	32	Qo 36640 Pe 30,18	30746	25481	20831	16766	13266	10299	7820	
	37	Qo 30280 Pe 28,07	25118	20567	16585	13139	10191			
	42	Qo 20296 Pe 21,97		16381		12,85				
	27	Qo 36640 Pe 30,18	30746	25481	20831	16766	13266	10299	7820	
	32	Qo 30280 Pe 28,07	25118	20567	16585	13139	10191			
	37	Qo 20296 Pe 21,97		16381		12,85				
	42	Qo 18,00 Pe 18,68								

① References of performance data:

Data published are based on suction gas temperature of 20°C and 3K liquid subcooling; Frequency 50 Hz.

Data valid for R404A; for R507A there are slight variations, consult Frascold Selection Software

For calculating the performance at other conditions and 60 Hz, use Frascold Selection Software.

■ Additional cooling is required.

Verify compliance with Directive 2009/125/EC Ecodesign - Regulation EU 2015/1095, refer to the manual FTEC030 or use the FSS3 selection program available from Frascold web site.

Two-stage air-cooled condensing units

Prestazioni R22 [50 Hz] with liquid sub-cooling

Condensing unit	Ambient temperature [°C]	Qo [Watt] = Cooling capacity Pe [kW] = Input power ①	Evaporating temperature [°C]						
			-20	-25	-30	-35	-40	-45	-50
LB-S526.16-3Y-2T	27	Qo 11717 Pe 7,47	9915	8283	6825	5540	4424	4,28	4,28
	32	Qo 11462 Pe 8,04	9707	8123	6706	5455	4365	4,45	4,45
	37	Qo 11218 Pe 8,66	9504	7960	6581	5362	4297	4,64	4,64
	42	Qo 9315 Pe 8,23	7803	6455	5267	4223	4,86	4,86	4,86
	27	Qo 12661 Pe 8,03	10699	8927	7345	5952	4745	4,64	4,64
	32	Qo 12400 Pe 8,63	10483	8757	7218	5861	4682	4,83	4,83
	37	Qo 12143 Pe 9,30	10268	8584	7085	5763	4611	5,05	5,05
	42	Qo 11908 Pe 10,06	10062	8413	6949	5659	4532	5,29	5,29
LB-S727.19-3Y-2T	27	Qo 18232 Pe 12,69	15498	13016	10787	8813	7091	7,54	7,54
	32	Qo 17869 Pe 13,69	15208	12799	10634	8714	7032	7,89	7,89
	37	Qo 14930 Pe 13,18	12583	10480	8609	6966	6966	8,28	8,28
	42	Qo 14667 Pe 14,19	12376	10325	8499	6891	6891	8,71	8,71
	27	Qo 24677 Pe 17,33	21028	17695	14692	12020	9677	9,71	9,71
	32	Qo 20611 Pe 16,60	17378	14464	11868	9586	9586	10,17	10,17
	37	Qo 20211 Pe 17,85	17064	14230	11705	9476	9476	10,69	10,69
	42	Qo 16778 Pe 16,89	12376	10325	8499	6891	6891	11,28	11,28
LB-Z1560.30-3Y-2T	27	Qo 30012 Pe 20,65	25568	21506	17842	14586	11735	11,62	11,62
	32	Qo 29430 Pe 22,33	25090	21139	17580	14413	11628	12,17	12,17
	37	Qo 24629 Pe 21,29	20772	17312	14227	11506	11506	12,79	12,79
	42	Qo 20447 Pe 20,16	17048	14031	11364	11364	11364	13,53	13,53
	27	Qo 35093 Pe 25,01	29939	25240	20985	17186	13853	13,16	13,16
	32	Qo 34410 Pe 27,21	29381	24797	20667	16970	13716	13,86	13,86
	37	Qo 28858 Pe 25,77	24372	20340	16743	13559	13559	14,64	14,64
	42	Qo 20,16				16504	13383	15,56	15,56
LB-Z2072.36-3Y-2T	27	Qo 43906 Pe 32,18	37255	31230	25842	21074	16922	15,64	15,64
	32	Qo 36640 Pe 30,18	36640	30746	25481	20831	16766	16,51	16,51
	37	Qo 30280 Pe 28,07	30280	25118	20567	16585	16585	17,50	17,50
	42	Qo 20296 Pe 21,97				20296	16381	18,68	18,68

① References of performance data:

Data published are based on suction gas temperature of 20°C and 3K liquid subcooling; Frequency 50 Hz.

For calculating the performance at other conditions and 60 Hz, use Frascold Selection Software.

■ Additional cooling is required.

Verify compliance with Directive 2009/125/EC Ecodesign - Regulation EU 2015/1095, refer to the manual FTEC030 or use the FSS3 selection program available from Frascold web site.

Two-stage air-cooled condensing units

Dimensional drawings - Positions and dimensions

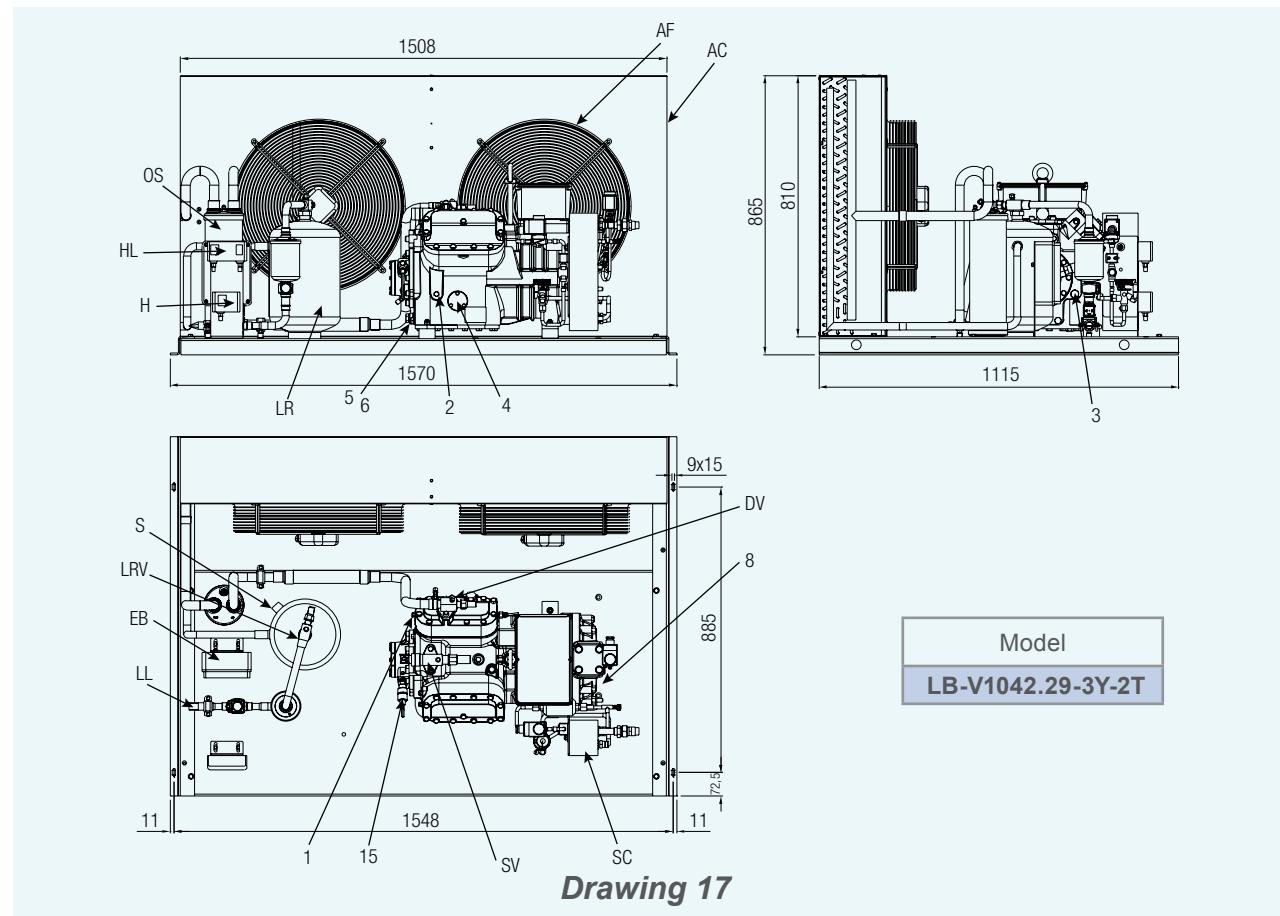
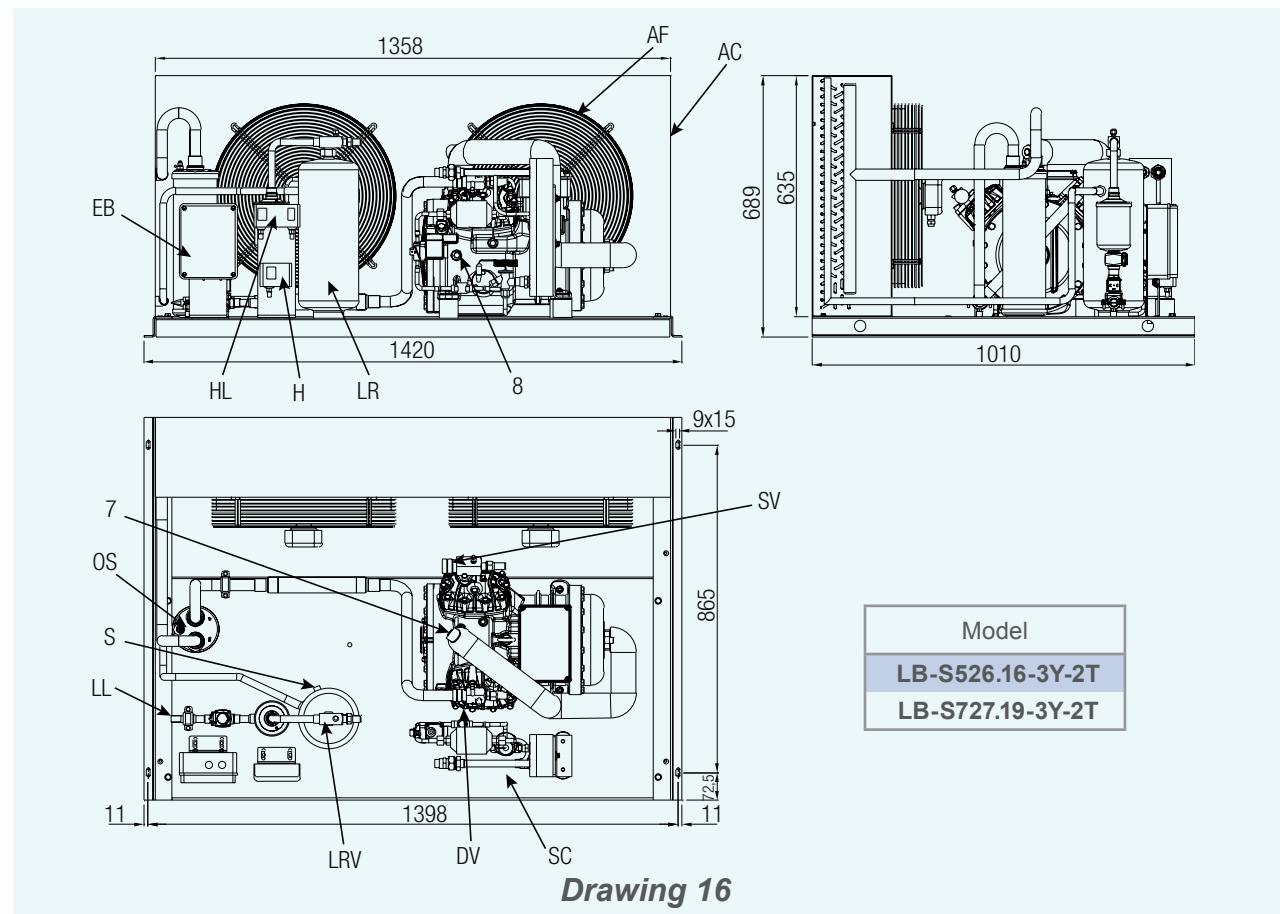
Condensing unit model			LB-S526.16-3Y-2T	LB-S727.19-3Y-2T	LB-V1042.29-3Y-2T	LB-Z1560.30-3Y-2T	LB-Z2072.36-3Y-2T	LB-Z2584.42-3Y-2T	LB-Z30102.51-3Y-4T
Pos.	Components								
1	High-pressure plug	NPT	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"
2	Low-pressure plug	NPT	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"
3	Oil filling plug	GAS	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"
4	Oil level sight glass								
5	Oil heater								
6	Oil drain plug								
7	Connection for liquid injection								
8	Oil return plug	NPT	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
15	Electronic oil pressure switch								
AC	Air-cooled condenser		①	①	①	①	①	①	①
AF	Fan motor		①	①	①	①	①	①	①
DV	Compressor discharge valve		①	①	①	①	①	①	①
LR	Liquid receiver		①	①	①	①	①	①	①
LRV	Liquid receiver service valve								
SV	Compressor suction valve		①	①	①	①	①	①	①
S	Safety valve connection		①	①	①	①	①	①	①
OS	Oli separator		②	②	②	②	②	②	②
EB	Electric wiring box		②	②	②	②	②	②	②
HL	High/low pressure switch		②	②	②	②	②	②	②
H	High pressure switch		②	②	②	②	②	②	②
LL	Liquid line		②	②	②	②	②	②	②
SC	Sub-cooler ki		②	②	②	②	②	②	②

① See page 56.

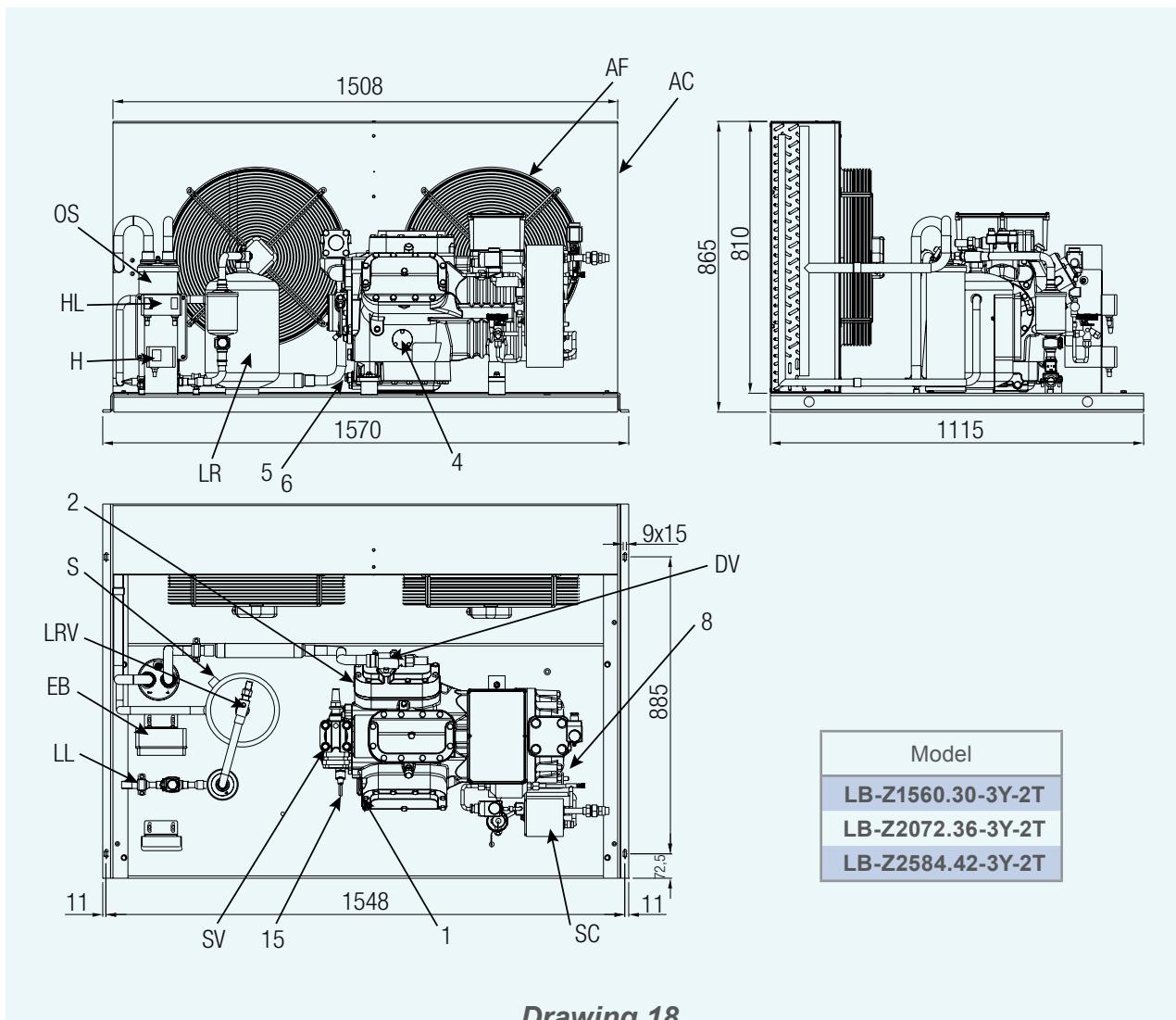
② Optional components, supplied on request.

Two-stage air-cooled condensing units

Dimensional drawings

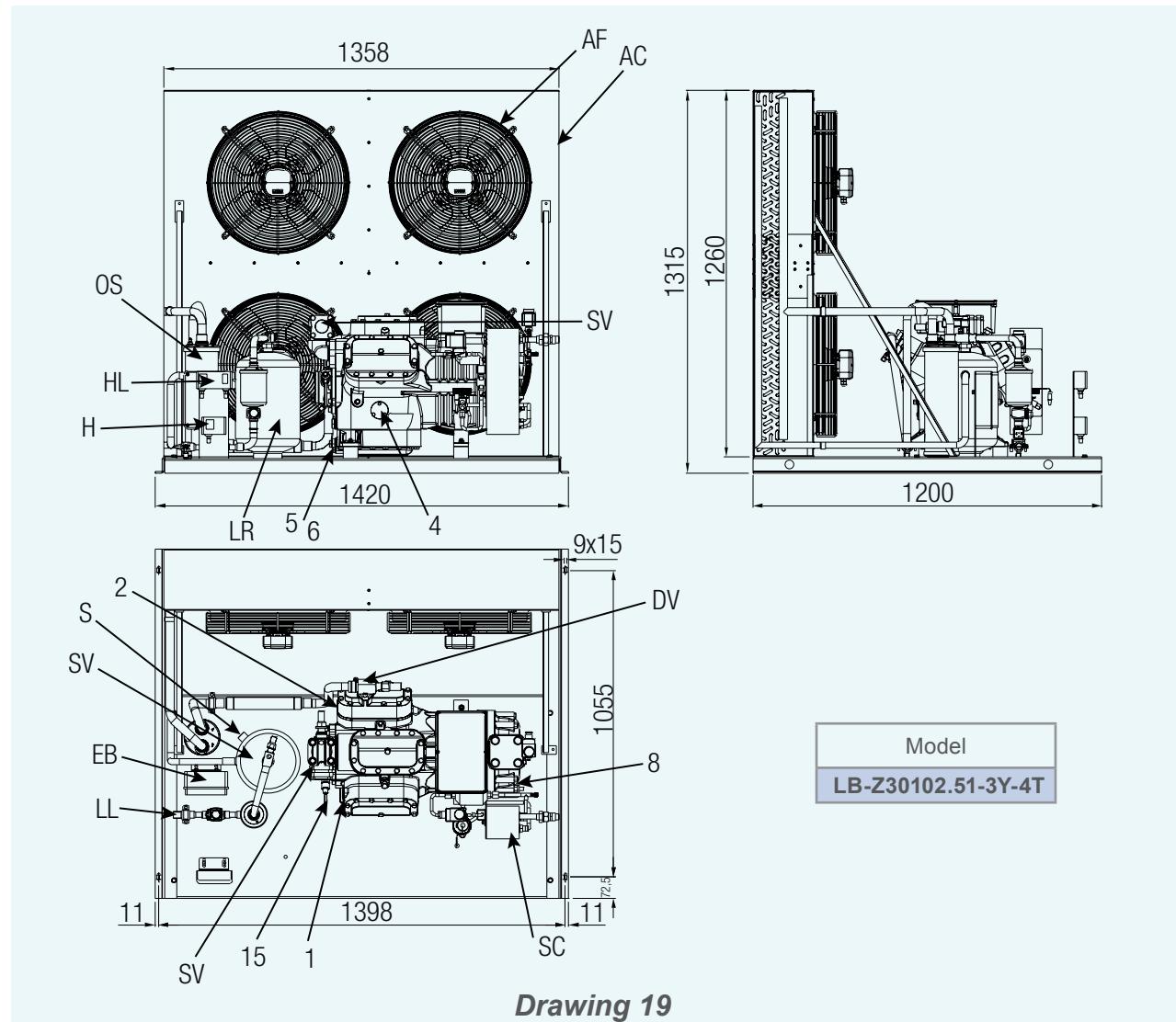


Dimensional drawings



Drawing 18

Dimensional drawings





1936 - 2016

Celebrating 80 years of innovation



Blue is better

Headquarters and production
FRASCOLD SpA

Via B. Melzi 105 - 20027 Rescaldina (MI) Italy
Tel. +39 0331 742201 - Fax +39 0331 576102
mail: frascold@frascold.it - web: www.frascold.it

Corporate sales offices

FRASCOLD USA
5901 23rd Drive West, Suite 101
Everett, WA 98203
(855) 547-5600 Office
info@frascoldusa.com
www.frascoldusa.com

FRASCOLD CHINA
Frascold Refrigeration Co. Ltd
Room 608, 6th Floor, Jinqiao Life Hub, No.3611
Zhangyang Road, New Pudong District, Shanghai, China
+86 021 58650192 / +86 021 58650180
Fax: +86 021 58650180
nora.lu@frascold.net - www.frascold.it

FRASCOLD INDIA PVT LTD
C-908, Titanium Square,
Nr. Thaltej Cross Roads, S. G. Road,
Thaltej, Ahmedabad – 380 054,
Gujarat, India.
www.frascoldindia.com