

SCREW COMPRESSORS FOR CONDITIONING

Compact CX Series

50Hz



frascold[®]
BLUE IS BETTER

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ABOUT THE COMPANY

Frascold manufactures over 70,000 screw and reciprocating compressors a year. Our 53,000 m² factory outside of Milan (Italy) houses our advanced engineering, manufacturing and testing facilities. More than 200 employees work in the Headquarters and in the Subsidiaries based in the United States, China and India, with distribution partners and service centers in 86 countries.

The infographic is a 3D-style illustration with four numbered callouts. Callout 1 shows a large industrial factory building with two chimneys. Callout 2 shows a group of people icons representing employees. Callout 3 shows a large number of truck icons representing production volume. Callout 4 shows a world map with several flags and a laptop with a pen, representing global distribution and service centers.

53.000 sqm factory outside Milan (Italy) hosting our advanced engineering manufacturing and testing facilities. ①

More than 200 employees working in Italy, China, India and United States. ②

Over 70.000 screw and reciprocating compressors manufactured every year. ③

Distribution partners and service centers in 86 countries. ④

More than 80 years ago Frascold born as a small family owned Company developing solutions in refrigeration and conditioning industry. Today we invest more and more in people, products, technologies and services aiming to become the best partner for our Customers and the touchstone for the market.

GIUSEPPE GALLI - Frascold Executive Managing Director

SEGMENTS



COMFORT



COMMERCIAL & TRANSPORT REFRIGERATION



INDUSTRIAL REFRIGERATION



PROCESS COOLING

SOLUTIONS

Cooling capacity range @50Hz



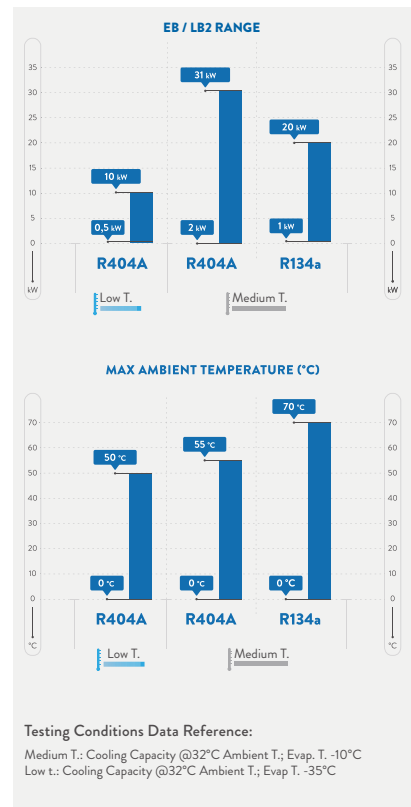
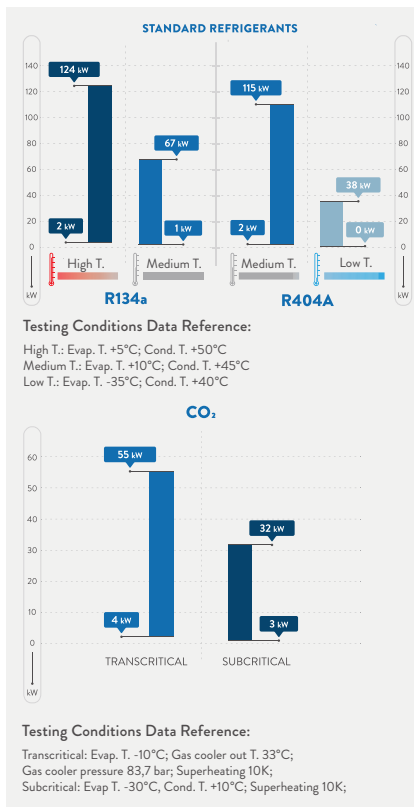
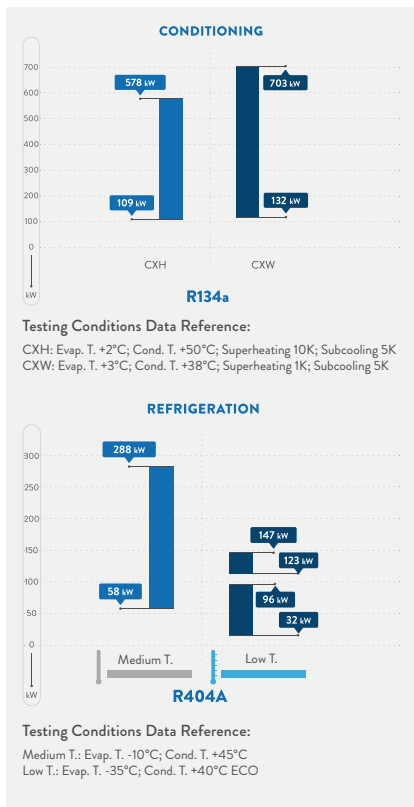
SCREW COMPRESSORS



RECIPROCATING COMPRESSORS



CONDENSING UNITS





CX COMPACT SCREW COMPRESSORS FOR CONDITIONING

Frascold CX compact screw compressors range has been designed to grant the maximum efficiency, reliability and flexibility. Currently the range consists of 15 swept volumes, which cover not only a wide cooling capacity range but also an extremely various application range (air conditioning, process cooling, heat pumps and even refrigeration at medium evaporating temperatures).

FEATURES & BENEFITS



High flexibility

Different versions and/or options widen the application envelope and assure always the best performances.



High Efficiency

All possible configurations grants the highest efficiency both at design (COP/EER) and seasonal (ESEER/IPLV) conditions, thanks to the optimized fluid dynamics and the latest design and manufacturing technologies.



Very Quiet Operation

N-type screws with pure rolling motion, doublewall compression chamber and hydraulic capacity control achieved through ultra-low friction bearings deliver the lowest levels of noise and vibrations.



Axial suction connection (Option)

Standard over 912m³ and optional up to 912 m³.



Excellent Reliability

Designed for heavy-duty operation and equipped with top quality components.



Safe operation

The advanced controller INT69FRY ensure monitoring and protection.



Very Low Oil Carryover

Sophisticated 3-step oil separation (Venturi effect section, centrifugal pipe, demister). "P" version is meant for flooded evaporators and/or parallel compound and requires an external oil separator



Long life

Generously sized bearings, both for loads and life.



Easy installation and accessibility

All main fittings and checks on just one side.



Inverter matching

External VFD makes it possible to increase drastically the efficiency at part loads.

CONFORMITY DECLARATION

Frascold CX compact screw compressors are intended for installation in refrigeration systems. The machine or partly completed machines shall comply with local safety regulation and standards of the place of installation (within the EU according to the EU Directives 2006/42/EC Machinery Directive, 2014/68/UE Pressure Equipment, 2006/95/EC Low Voltage Directive). They may be put into operation only if the compressor has been installed in accordance with these assembly instructions.

Commissioning is only possible if the entire system into which it is integrated has been inspected and approved in accordance to the provisions of legal regulations.

The Manufacturer Declaration, describes the standards to be applied. The Manufacturer Declaration of incorporation, according to the 2006/42/EC, is available at: www.frascold.it, documentation, manufacturer's declaration.

PERFORMANCE DATA FSS3 SOFTWARE

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Please refer to our FSS3 to check performances of all our compressors.



①

① Operating limits



②

② Cooling capacity



③

③ All operating data with any kind of refrigerant



④

④ European standard EN12900 at 50Hz



⑤

⑤ Technical information



⑥

⑥ Drawings



⑦

⑦ Manuals



⑧

⑧ Catalogues and certifications

CONTROL PROTECTION DEVICE

Standard compressor protection:

All the compressors are supplied complete with an **INT69 FRY** electronic protection module connected to a chain of PTC thermistors inserted into the electric motor, and a thermistor sensor positioned on the discharge temperature control output. If a problem is encountered, the module will shut the compressor down to prevent damage.

Optional compressor protection:

Optionally, all compressors can be equipped with the new **Kriwan INT69 FRYL® Diagnose** protection module. This adds data logging, diagnostic, and protection features which can improve reliability and service life of the compressor. Logged data can be used to aid in system optimization, identify problems and prevent malfunctions before they happen. The **INT69 FRYL® Diagnose** protection device has a dedicated connection port for the following compressor protection devices:

- Thermistor PTC (1, 2)
- Discharge temperature sensor (3, 4)
- Oil level check (5, 6)
- Oil filter clogging sensor (7, 8)
- Oil flowswitch (9, 10)

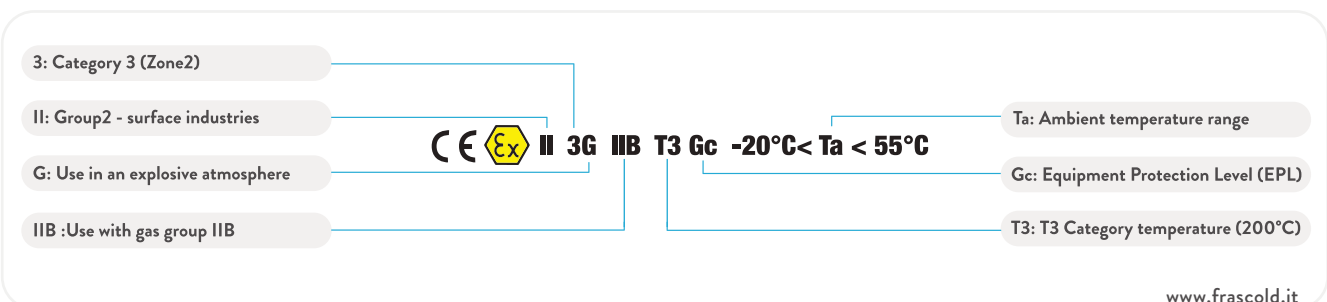


ATEX

The ATEX directive (2014/34/UE) is a certification for equipment and protective systems intended for use in potentially explosive atmospheres, caused by the presence of gases or solid dust.

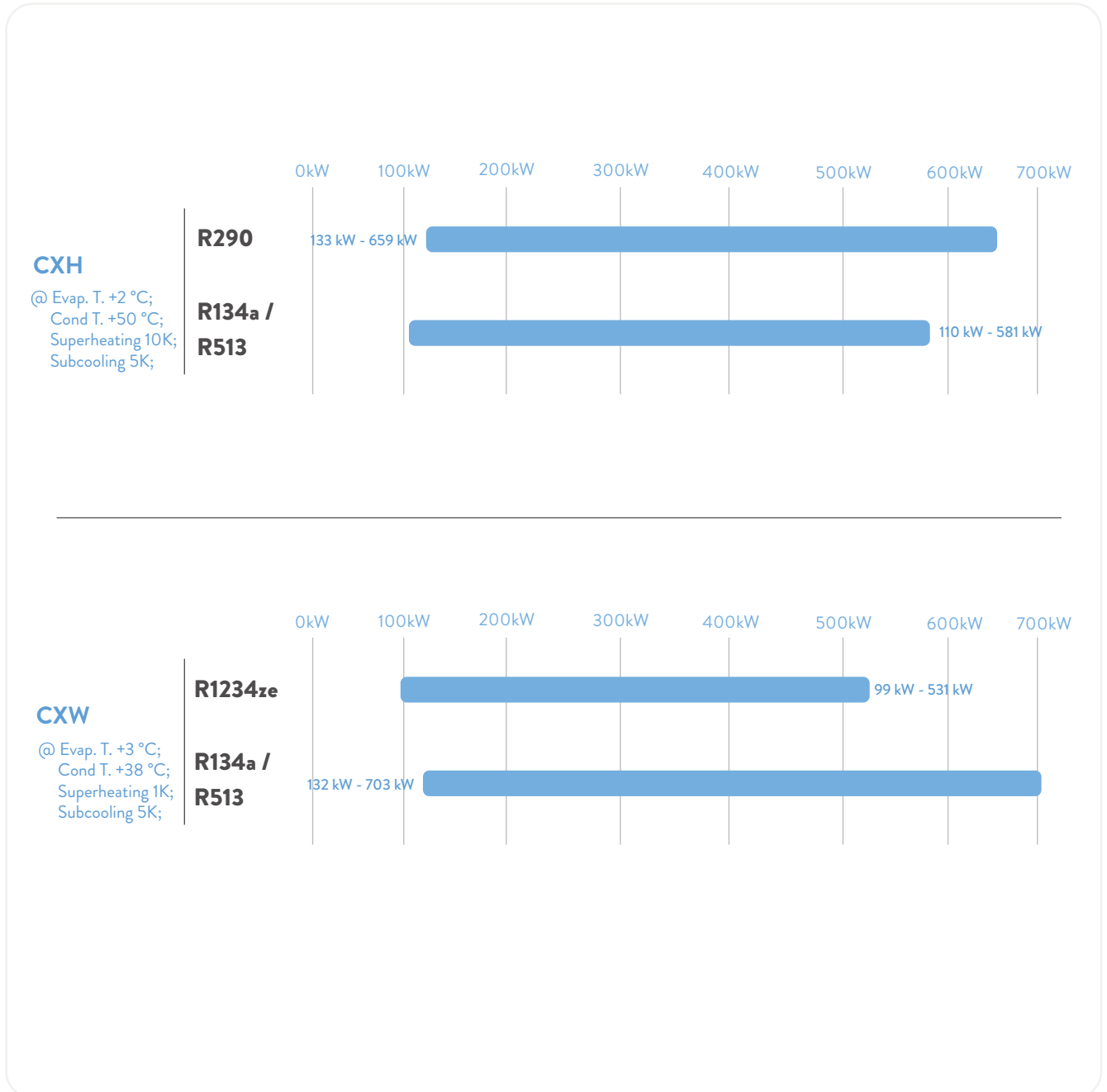
Our complete range of reciprocating and screw compressors (CX) is 100% certified in category 3G: devices or protection systems that guarantee a very high level of protection Zone 2: an area where explosive atmosphere may be present, but only in rare cases or for short periods.

The compressor label includes the following ATEX assembly marking, usually placed on the wiring box:



COOLING CAPACITY

Range @50Hz



LEGAL DISCLAIMER:

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PRODUCT RANGE

COMPACT SCREW MODELS RANGE

Low compression ratio

High compression ratio

CXW.1

CXH.1

Motor 1

CXW.2

CXH.2

Motor 2

CXH CXW

Available version:
P: For flooded evaporator and/or parallel compound
I: Suitable for operation with variable frequency drive (VFD)

CX EVO

Improvements:

- Redesigned volumetric ratio (VI) at full load
- Improved fluid flow with larger cross section area
- Optimized oil lubrication improves full and part load
- HFO screw shape designed for lower density
- Redesigned to combine VI and performance at part load
- Overall 12 sizes available with three body shape (frame 0, frame 5, frame 9)

MODEL DESIGNATION

CX H 5 1 - 125 - 468 Y

Family series	
Compact Screw Compressor	
Application	
H	Vi = 3.1
W	Vi = 2.3
HI-WI	Suitable for external VFD
HP-WP	For parallel compound and/or flooded type evaporator
Blank	EVO
Frame Size	
0	Small
5	Medium
9	Big
Motor Size	
1	Small
2	Full

Version	
Y	Standard
EVO	Evolution
AX	ATEX
Displacement	
199 ÷ 1085 m ³ /h at 50Hz	
Nominal Motor Power	
50 ÷ 310 HP	

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INFORMATION PLATE

Compressor model

Frascold® Type **CXH91-280-1000Y**

Nr. **KP001002** Serial number

Frequency/ Displacement/ Speed	Hz	Displ. m ³ /h	RPM	Max. Operating Disch. Pressure	bar 30
	50	1000	2900	Max. Static Suct. Pressure	bar 20,5
	60	1200	3500		

Oil type: POE170 3~

Voltage and Frequencies	Volt		Hz		MRA		LRA	
	Y/Δ				Y/Δ	Y	Δ	
	380-420		50		474	805	2520	
	440-480		60		474	805	2520	

CE

Identification barcode: **CX280000KLP001002** Identification code: **KLP001002** Place of manufacturing: **MADE IN ITALY**

Maximum operating current

STANDARD EQUIPMENT AND OPTIONAL ACCESSORIES

CX - COMPACT SCREW COMPRESSORS

Description	CXH		CXW		CX EVO	
	Std.	Opt.	Std.	Opt.	Std.	Opt.
Electronic Control Protection Module INT69FRY with manual reset. Standard power supply: AC 50-60 Hz 110-230V ± 10% 3 VA	•		•		•	
INT69FRYL Diagnose - AC 50-60 Hz 24-230V ± 10% 3 VA		•		•		•
Integrated three stage internal oil separator, crankcase heater, replaceable oil filter	•		•		•	
Two oil level (min & max) sight glasses (for 5 and 9 series)	•		•		•	
POE 170 cSt lubricant charge (not included for CXH-W...AX version)	•		•		•	
Discharge valve with soldering connections	•		•		•	
Suction flange with solder sleeve	•		•		•	
Axial suction layout for CXH-W91/2...1000/1085Y	•		•		•	
Integrated check valve and safety valve	•		•		•	
Step capacity control + unloaded start: 230V/1/50-60 coils	•		•		•	
Stepless capacity control upon request		•		•		•
Nitrogen protective charge	•		•		•	
Discharge Temperature PTC Sensor controlled by module T00EC45B	•		•		•	
Packing ensuring proper handling and adequate protection	•		•		•	
IP65 terminal box (IP54 for AX version)	•		•		•	
Oil Drain Valve	•		•		•	
Special voltage for electric motor		•		•		•
Suction Valve with soldering connections		•		•		•
Coils with different voltages		•		•		•
Axial suction layout Series 9 excluded (CXH-W91/2...1000/1085Y) and 5 Series		•		•		•
Opto electronic oil level control		•		•		•
Oil Flow Switch		•		•		•
Oil Filter Clogging Differential Pressure Switch (Electronic)		•		•		•
Electronic Alarm Control Module		•		•		•
Connection Kit for Economiser or Liquid Injection		•		•		•
Adapter Kit for External Oil cooler		•		•		•
Bridges for DOL Start (STD for I Version)		•		•		•
Rubber vibration dampers (4 pcs)		•		•		•
Special painting according to C5M painting requirements		•		•		•

TECHNICAL DATA AND OPERATING LIMITS

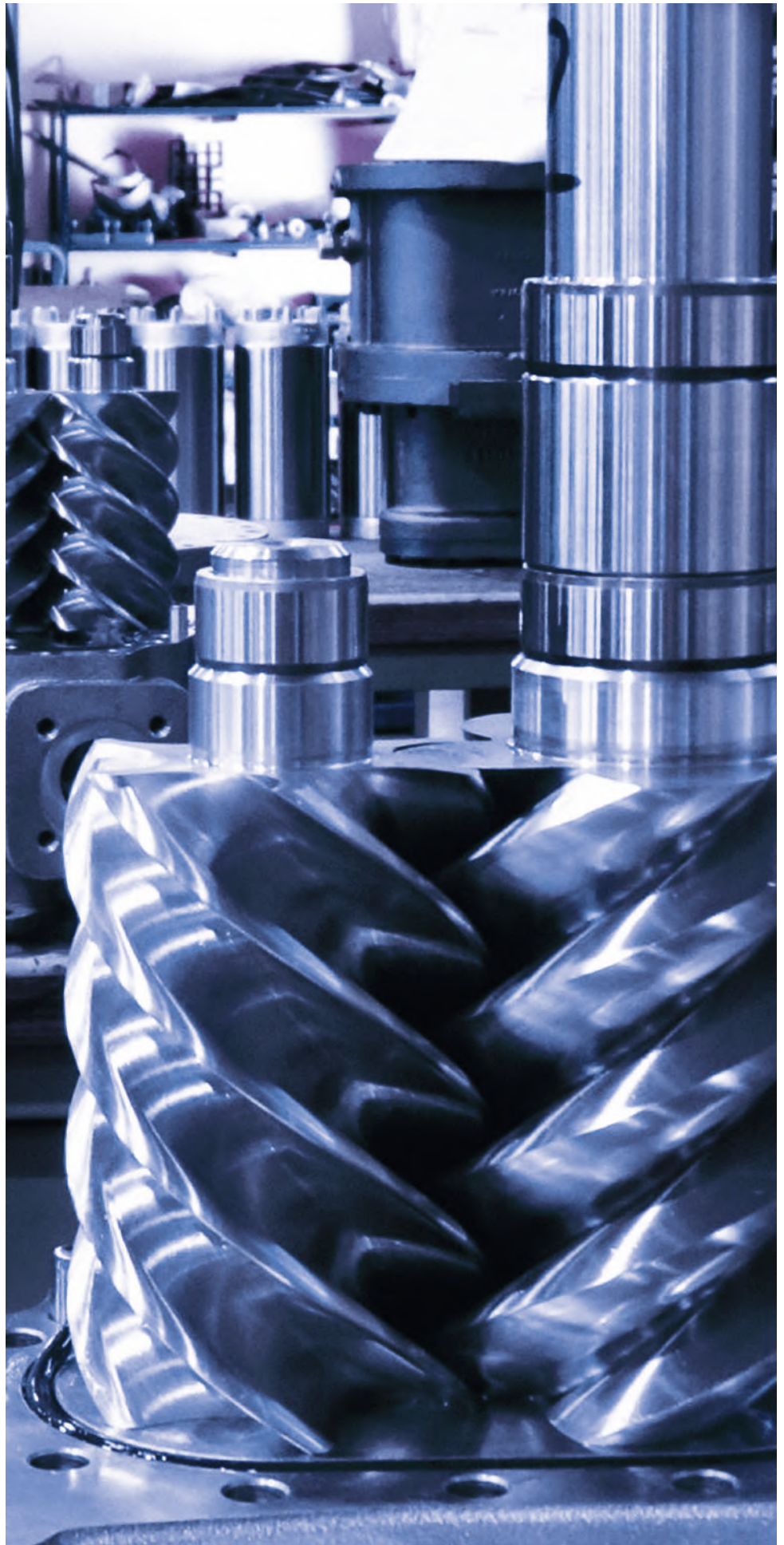
CX - Compact Screw Compressors

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CXH

MODELS	Motor Vers.	Displacement		Nominal power	VALID ONLY FOR CXH-CXHP	VALID ONLY FOR CXHI		MRA	LRA, PW Motor		
		50Hz	60Hz		Partition Steps	Frequency min.	Frequency max.				
		[m ³ /h]	[m ³ /h]								
CXH01-50-199Y	1	199	238,8	50	75% - 50% - 25%	30	70	80	203		
CXH01-60-230Y	1	230	276	60	75% - 50% - 25%	30	70	98	262		
CXH01-70-264Y	1	264	316,8	70	75% - 50% - 25%	30	70	125	298		
CXH01-80-298Y	1	298	357,6	80	75% - 50% - 25%	30	70	145	373		
CXH01-90-340Y	1	340	408	90	75% - 50% - 25%	30	70	152	405		
CXH01-100-370Y	1	370	444	100	75% - 50% - 25%	30	70	169	488		
CXH51-110-398Y	1	398	477,6	110	75% - 50% - 25%	30	70	180	434		
CXH51-125-468Y	1	468	561,6	125	75% - 50% - 25%	30	70	198	530		
CXH51-140-538Y	1	538	645,6	140	75% - 50% - 25%	30	70	221	587		
CXH91-160-620Y	1	620	744	160	75% - 50% - 25%	30	70	283	436		
CXH91-180-702Y	1	702	842,4	180	75% - 50% - 25%	30	70	315	465		
CXH91-210-810Y	1	810	972	210	75% - 50% - 25%	30	70	356	586		
CXH91-240-912Y	1	912	1094,4	240	75% - 50% - 25%	30	60	427	650		
CXH91-280-1000Y	1	1000	1200	280	75% - 50% - 25%	30	60	474	805		
CXH91-310-1085Y	1	1085	1302	310	75% - 50% - 25%	30	60	490	805		
CXH02-70-199Y	2	199	238,8	70	75% - 50% - 25%	30	70	128	298		
CXH02-80-230Y	2	230	276	80	75% - 50% - 25%	30	70	145	373		
CXH02-90-264Y	2	264	316,8	90	75% - 50% - 25%	30	70	160	405		
CXH02-100-298Y	2	298	357,6	100	75% - 50% - 25%	30	70	175	488		
CXH52-110-316Y	2	316	379,2	110	75% - 50% - 25%	30	70	184	434		
CXH02-120-340Y	2	340	408	120	75% - 50% - 25%	30	70	195	505		
CXH52-125-372Y	2	372	446,4	125	75% - 50% - 25%	30	70	218	530		
CXH52-140-428Y	2	428	513,6	140	75% - 50% - 25%	30	70	245	587		
CXH52-160-468Y	2	468	561,6	125	75% - 50% - 25%	30	70	282	729		
CXH52-180-538Y	2	538	645,6	140	75% - 50% - 25%	30	70	304	786		
CXH92-180-545Y	2	545	654	180	75% - 50% - 25%	30	70	332	465		
CXH92-210-620Y	2	620	744	210	75% - 50% - 25%	30	70	375	586		
CXH92-240-702Y	2	702	842,4	240	75% - 50% - 25%	30	70	427	650		
CXH92-280-810Y	2	810	972	280	75% - 50% - 25%	30	70	455	805		
CXH92-300-912Y	2	912	1094,4	300	75% - 50% - 25%	30	60	474	805		
CXH92-310-1000Y	2	1000	1200	300	75% - 50% - 25%	30	60	474	805		

Data reference valid for the same model in version CXH, CXHI and CXHP.

Find the most updated information in our Product Selection Software FSS3 at the link :
https://www.frascold.it/en/download/software/fss_3_frascold_selection_software

	LRA, DOL Motor	Protection Index	Maximum pressure	Maximum pressure	Suction valve	Suction Valve	Discharge Valve	Discharge Valve	Suction bushing	Suction bushing	Net Weight	MODELS
			(LP)		(SV)		(DV)		(SL)			
			[bar]	[bar]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]		
	330	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	490	CXH01-50-199Y
	425	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	505	CXH01-60-230Y
	518	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	505	CXH01-70-264Y
	600	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	515	CXH01-80-298Y
	649	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	525	CXH01-90-340Y
	767	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	540	CXH01-100-370Y
	720	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	870	CXH51-110-398Y
	838	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	875	CXH51-125-468Y
	921	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	878	CXH51-140-538Y
	1364	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	1475	CXH91-160-620Y
	1442	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	1475	CXH91-180-702Y
	1853	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1475	CXH91-210-810Y
	2029	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1475	CXH91-240-912Y
	2520	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CXH91-280-1000Y
	2520	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CXH91-310-1085Y
	518	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	510	CXH02-70-199Y
	600	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	520	CXH02-80-230Y
	649	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	520	CXH02-90-264Y
	767	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	525	CXH02-100-298Y
	720	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	865	CXH52-110-316Y
	793	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	537	CXH02-120-340Y
	838	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	865	CXH52-125-372Y
	921	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	875	CXH52-140-428Y
	1114	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	878	CXH52-160-468Y
	1209	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	878	CXH52-180-538Y
	1442	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	1475	CXH92-180-545Y
	1853	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	1490	CXH92-210-620Y
	2029	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	1490	CXH92-240-702Y
	2520	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CXH92-280-810Y
	2520	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CXH92-300-912Y
	2520	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CXH92-310-1000Y

CXW

MODELS	Motor Vers.	Displacement		Nominal power	VALID ONLY FOR CXW-CXWP	VALID ONLY FOR CXWI		MRA	LRA, PW Motor		
		50Hz	60Hz		Partition Steps	Frequency min.	Frequency max.				
		[m ³ /h]	[m ³ /h]			50Hz	[%]				
CXW01-50-230Y	1	230	276	50	75% - 50% - 25%	30	70	80	203		
CXW01-60-264Y	1	264	316,8	60	75% - 50% - 25%	30	70	98	262		
CXW01-70-298Y	1	298	357,6	70	75% - 50% - 25%	30	70	125	298		
CXW01-80-340Y	1	340	408	80	75% - 50% - 25%	30	70	134	373		
CXW01-90-370Y	1	370	444	90	75% - 50% - 25%	30	70	160	405		
CXW51-100-428Y	1	428	513,6	110	75% - 50% - 25%	30	70	180	434		
CXW51-110-468Y	1	468	561,6	110	75% - 50% - 25%	30	70	187	434		
CXW51-125-538Y	1	538	645,6	125	75% - 50% - 25%	30	70	198	530		
CXW91-140-620Y	1	620	744	160	75% - 50% - 25%	30	70	255	436		
CXW91-160-702Y	1	702	842,4	160	75% - 50% - 25%	30	70	283	436		
CXW91-180-810Y	1	810	972	180	75% - 50% - 25%	30	70	315	465		
CXW91-210-912Y	1	912	1094,4	210	75% - 50% - 25%	30	70	356	586		
CXW91-240-1000Y	1	1000	1200	300	75% - 50% - 25%	30	60	427	650		
CXW91-280-1085Y	1	1085	1302	300	75% - 50% - 25%	30	60	455	805		
CXW02-50-199Y	2	199	238,8	50	75% - 50% - 25%	30	70	85	203		
CXW02-60-230Y	2	230	276	60	75% - 50% - 25%	30	70	101	262		
CXW02-70-264Y	2	264	316,8	70	75% - 50% - 25%	30	70	125	298		
CXW02-80-298Y	2	298	357,6	80	75% - 50% - 25%	30	70	145	373		
CXW02-90-340Y	2	340	408	90	75% - 50% - 25%	30	70	160	405		
CXW02-100-370Y	2	370	444	100	75% - 50% - 25%	30	70	175	488		
CXW52-110-428Y	2	428	513,6	110	75% - 50% - 25%	30	70	184	434		
CXW52-125-468Y	2	468	561,6	125	75% - 50% - 25%	30	70	219	530		
CXW52-140-538Y	2	538	645,6	140	75% - 50% - 25%	30	70	235	587		
CXW92-160-620Y	2	620	744	160	75% - 50% - 25%	30	70	283	436		
CXW92-180-702Y	2	702	842,4	180	75% - 50% - 25%	30	70	315	465		
CXW92-210-810Y	2	810	972	210	75% - 50% - 25%	30	70	356	586		
CXW92-240-912Y	2	912	1094,4	240	75% - 50% - 25%	30	70	427	650		
CXW92-280-1000Y	2	1000	1200	300	75% - 50% - 25%	30	60	427	650		
CXW92-310-1085Y	2	1085	1302	300	75% - 50% - 25%	30	60	455	805		

Data reference valid for the same model in version CXW, CXWI and CXWP.

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			(LP)		(SV)		(DV)		(SL)			
			[bar]	[bar]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]		
	330	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	490	CXW01-50-230Y
	425	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	500	CXW01-60-264Y
	518	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	505	CXW01-70-298Y
	600	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	510	CXW01-80-340Y
	649	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	525	CXW01-90-370Y
	720	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	840	CXW51-100-428Y
	720	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	850	CXW51-110-468Y
	838	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	865	CXW51-125-538Y
	1364	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	1475	CXW91-140-620Y
	1364	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	1465	CXW91-160-702Y
	1442	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1465	CXW91-180-810Y
	1853	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1465	CXW91-210-912Y
	2029	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CXW91-240-1000Y
	2520	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CXW91-280-1085Y
	330	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	490	CXW02-50-199Y
	425	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	505	CXW02-60-230Y
	518	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	500	CXW02-70-264Y
	600	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	515	CXW02-80-298Y
	649	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	525	CXW02-90-340Y
	767	IP56	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	540	CXW02-100-370Y
	720	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	840	CXW52-110-428Y
	838	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	875	CXW52-125-468Y
	921	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	878	CXW52-140-538Y
	1364	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	1475	CXW92-160-620Y
	1442	IP56	20,5	30	105	4 1/8"	DN80	DN80	105	4 1/8"	1475	CXW92-180-702Y
	1853	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1475	CXW92-210-810Y
	2029	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1475	CXW92-240-912Y
	2029	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CXW92-280-1000Y
	2520	IP56	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CXW92-310-1085Y

CX EVO

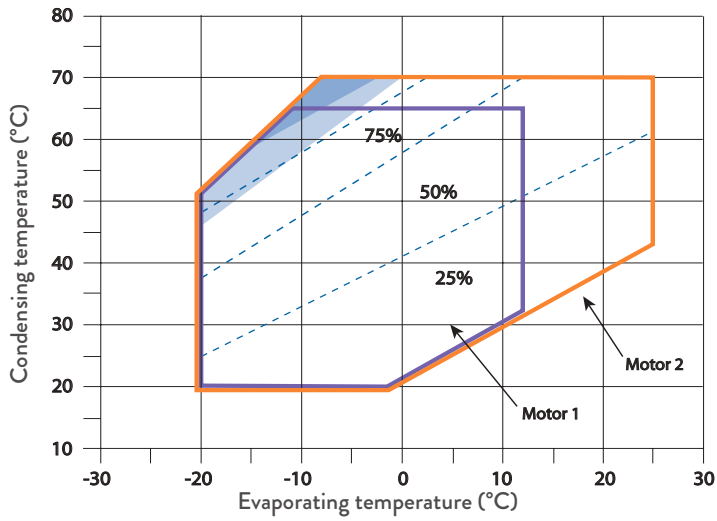
MODELS	Motor Vers.	Displacement		Nominal power 50Hz	Partition Steps [%]	MRA [A]	LRA, PW Motor [A]	LRA, DOL Motor [A]	Protection Index [IP]
		50Hz	60Hz						
		[m ³ /h]	[m ³ /h]						
CX01-70-264-EVO	1	264	316,8	70	75% - 50% - 25%	125	298	518	IP56
CX01-80-298-EVO	1	298	357,6	80	75% - 50% - 25%	145	373	600	IP56
CX01-90-340-EVO	1	340	408	90	75% - 50% - 25%	152	405	649	IP56
CX51-110-398-EVO	1	398	477,6	110	75% - 50% - 25%	180	434	720	IP56
CX51-125-468-EVO	1	468	561,6	125	75% - 50% - 25%	198	530	838	IP56
CX51-140-538-EVO	1	538	645,6	140	75% - 50% - 25%	221	587	921	IP56
CX91-160-620-EVO	1	620	744	160	75% - 50% - 25%	283	436	1364	IP56
CX91-180-702-EVO	1	702	842,4	180	75% - 50% - 25%	315	465	1442	IP56
CX91-210-810-EVO	1	810	972	210	75% - 50% - 25%	356	586	1853	IP56
CX91-240-912-EVO	1	912	1094,4	240	75% - 50% - 25%	427	650	2029	IP56
CX91-280-1000-EVO	1	1000	1200	280	75% - 50% - 25%	474	805	2520	IP56
CX91-310-1085-EVO	1	1085	1302	310	75% - 50% - 25%	490	805	2520	IP56

Find the most updated information in our Product Selection Software FSS3 at the link :
https://www.frascold.it/en/download/software/fss_3_frascold_selection_software

	Maximum pressure	Maximum pressure	Suction valve	Suction Valve	Discharge Valve	Discharge Valve	Suction bushing	Suction bushing	Net Weight	MODELS
	(LP)		(SV)		(DV)		(SL)			
	[bar]	[bar]	[mm]	[inch]	[mm]	[inch]	[mm]	[inch]		
	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	505	CX01-70-264-EVO
	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	515	CX01-80-298-EVO
	20,5	30	80	3 1/8"	54	2 1/8"	80	3 1/8"	525	CX01-90-340-EVO
	20,5	30	105	4 1/8"	80	DN80	105	4 1/8"	870	CX51-110-398-EVO
	20,5	30	105	4 1/8"	80	DN80	105	4 1/8"	875	CX51-125-468-EVO
	20,5	30	105	4 1/8"	80	DN80	105	4 1/8"	878	CX51-140-538-EVO
	20,5	30	105	4 1/8"	80	DN80	105	4 1/8"	1475	CX91-160-620-EVO
	20,5	30	105	4 1/8"	80	DN80	105	4 1/8"	1475	CX91-180-702-EVO
	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1475	CX91-210-810-EVO
	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1475	CX91-240-912-EVO
	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CX91-280-1000-EVO
	20,5	30	DN125	DN125	105	4 1/8"	DN125	DN125	1490	CX91-310-1085-EVO

Operating Limits

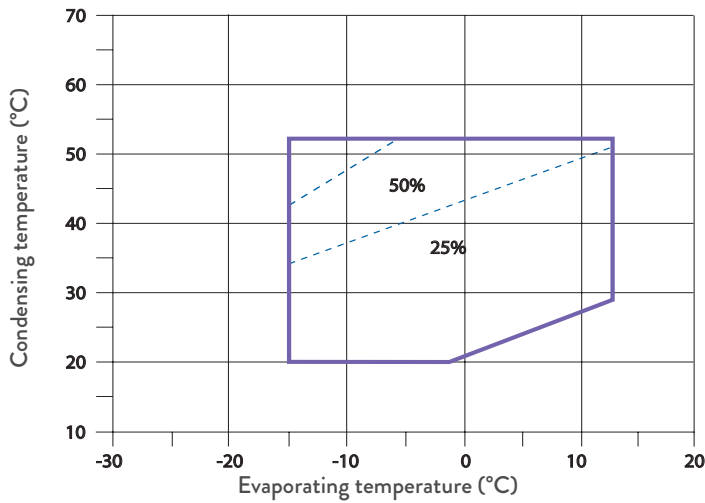
R134a - CXH / CXHP



- Full load operation (100%) - Motor 1
- Full load operation (100%) - Motor 2

Suction gas superheating 10K without liquid subcooling.

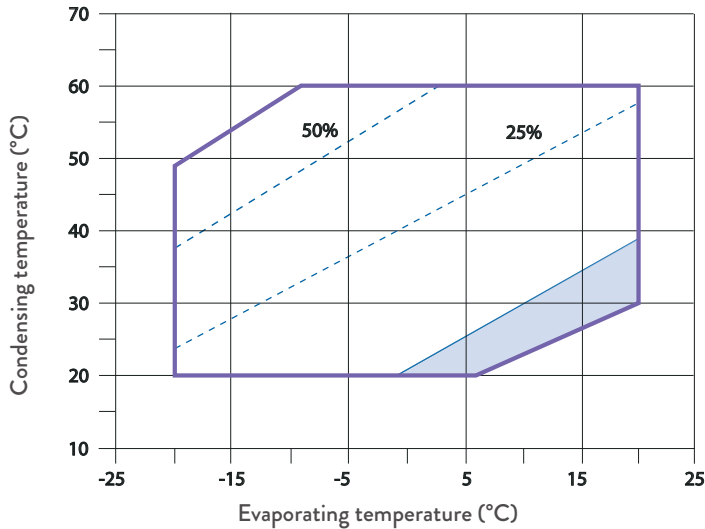
R134a - CXW / CXWP



- Full load operation (100%)

Suction gas superheating 10K without liquid subcooling.

R134a - CX EVO

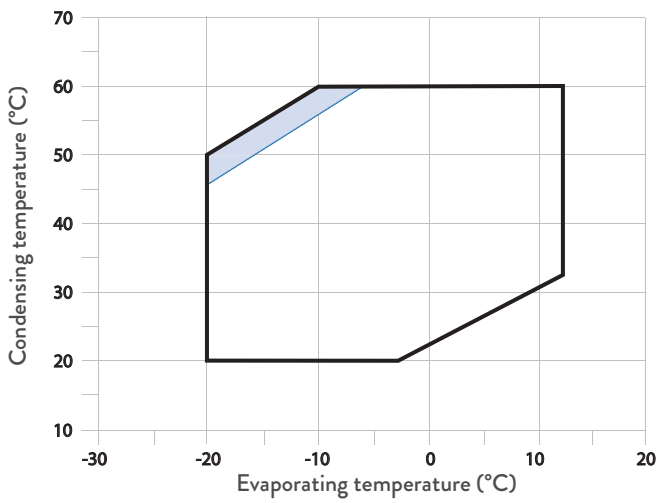


- Full load operation (100%)
- Only 75 %

Suction gas superheating 10K without liquid subcooling.

Note: For "I" version verify with the selection software the frequency limits for your application.

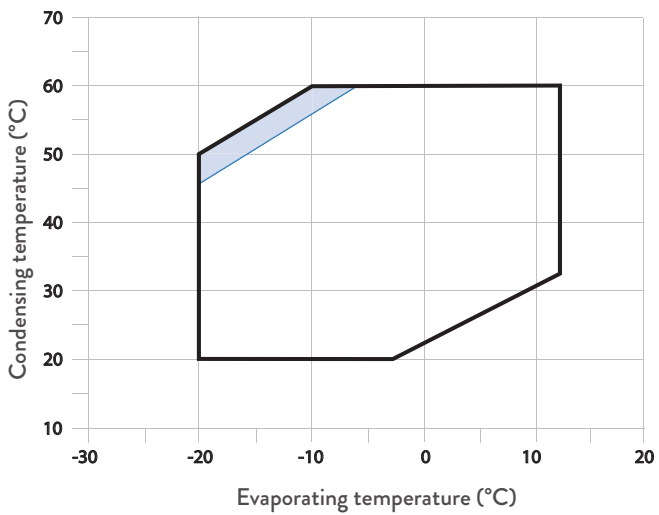
R290 - CXH



Additional cooling

50 Hz
Suction gas superheating 10K
without liquid subcooling.

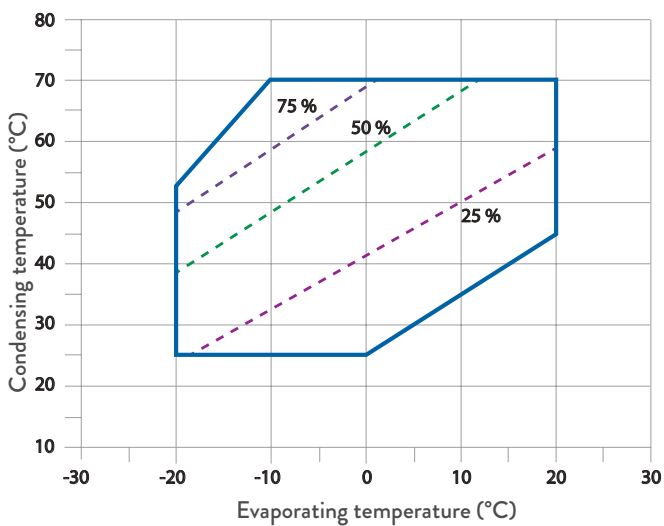
R290 - CXHI



Additional cooling

50 Hz
Suction gas superheating 10K
without liquid subcooling.

R1234ze(E) - CXH

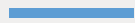


Full load operation (100%)

50 Hz
Suction gas superheating 10K
without liquid subcooling.

TECHNICAL DRAWINGS AND DIMENSIONS

24



CX - Compact Screw Compressors

744

185

SL

4

762

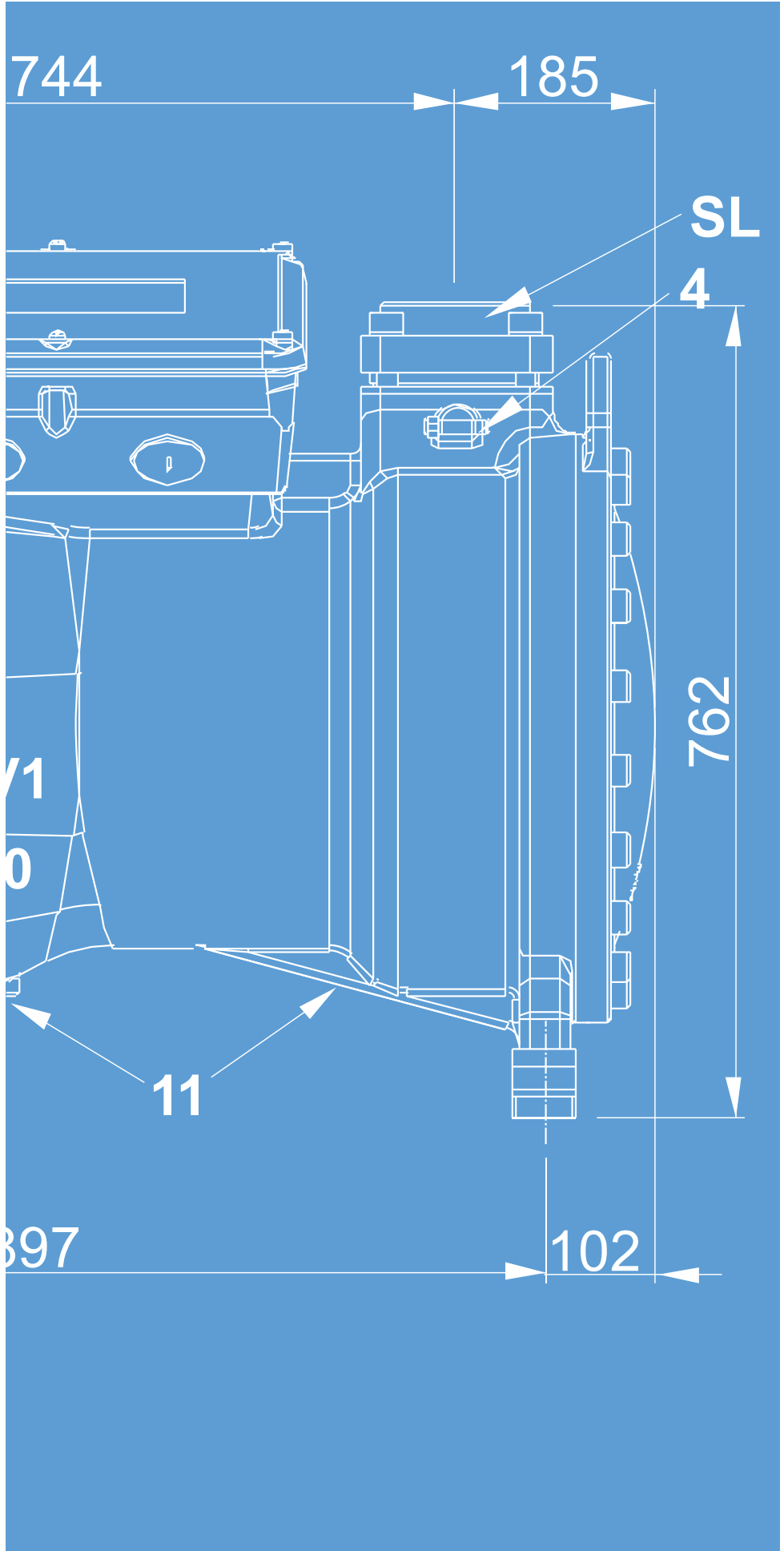
71

0

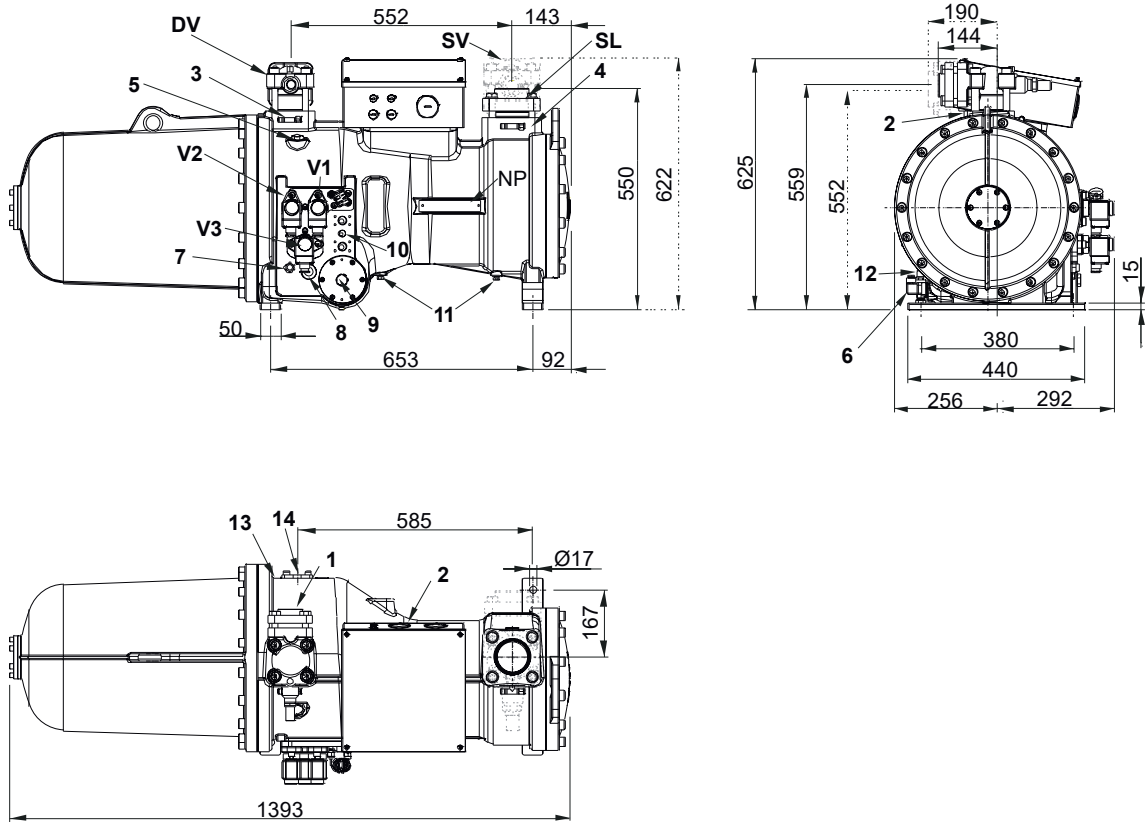
11

397

102

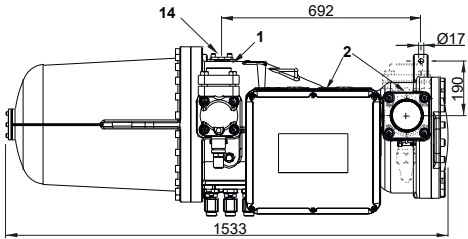
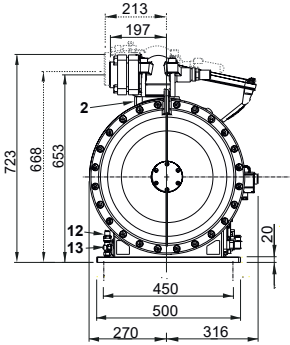
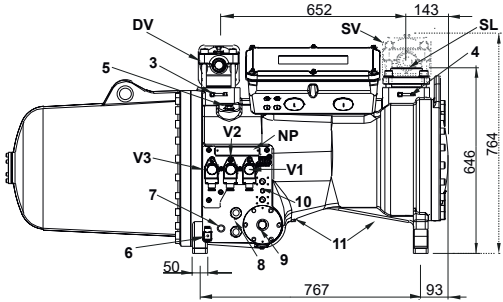


CXH0 - CXW0 - CX0EVO



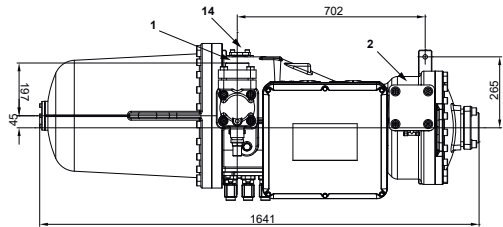
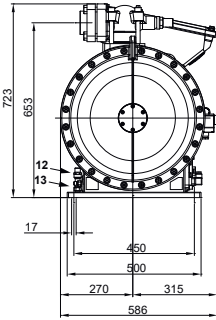
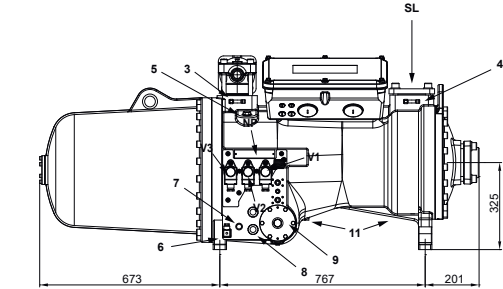
1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1/8"
SV	Suction valve	3 1/8" - 80 mm
DV	Discharge valve	2 1/8" - 54 mm
SL	Suction line	3 1/8"
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	

CXH5 - CXW5 - CX5EVO



STANDARD

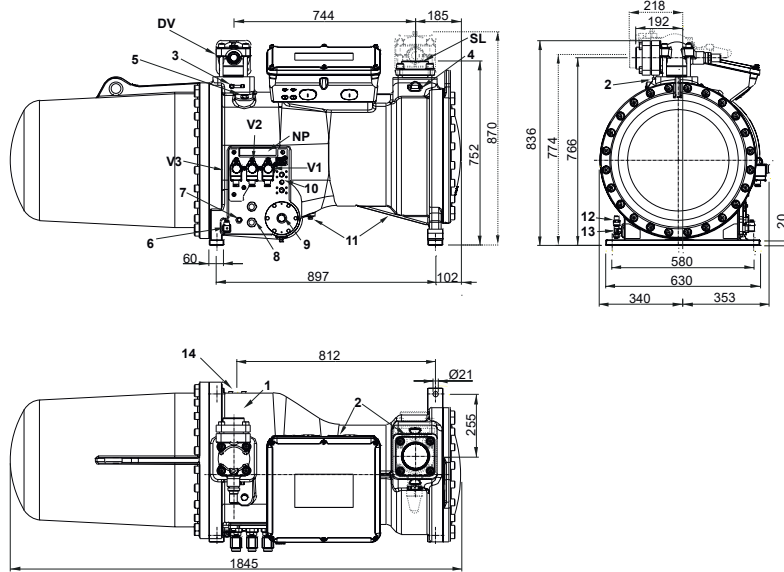
WITH AXIAL SUCTION



1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1 1/8"
SV	Suction valve	4 1/8" - 105 mm
DV	Discharge valve	DN80
SL	Suction line	4 1/8"
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	

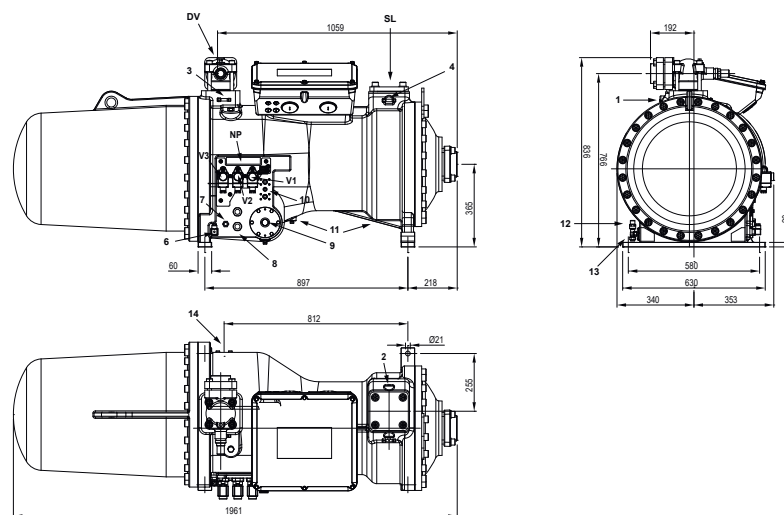
Dimensional drawings

CX9 - 545-702 m³/h



STANDARD

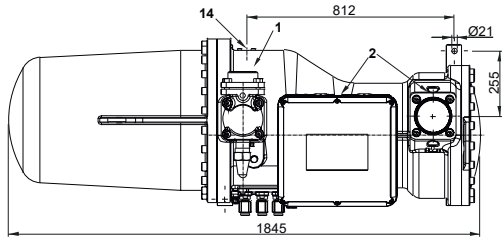
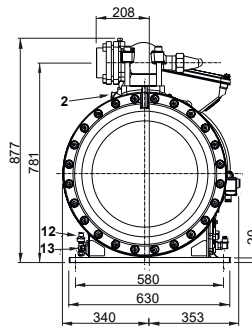
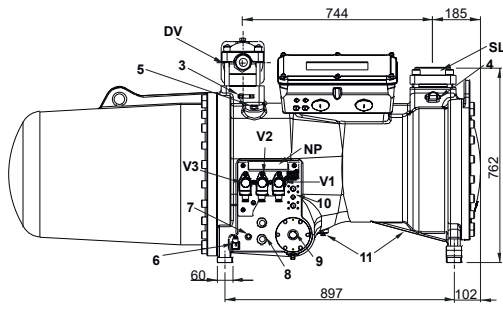
WITH AXIAL SUCTION



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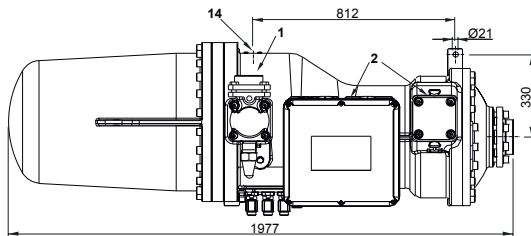
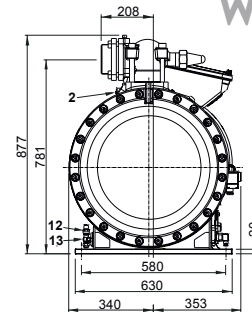
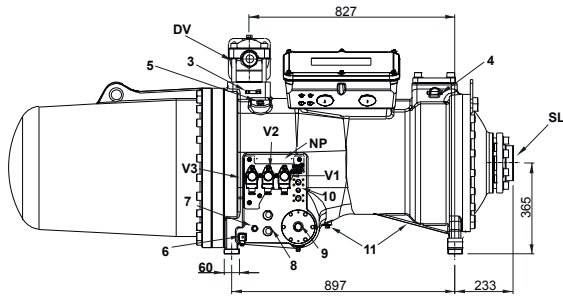
1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1 1/8"
SV	Suction valve	4 1/8" - 105 mm
DV	Discharge valve	DN80
SL	Suction line	4 1/8"
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	

CX9 - 810-912 m³/h



STANDARD

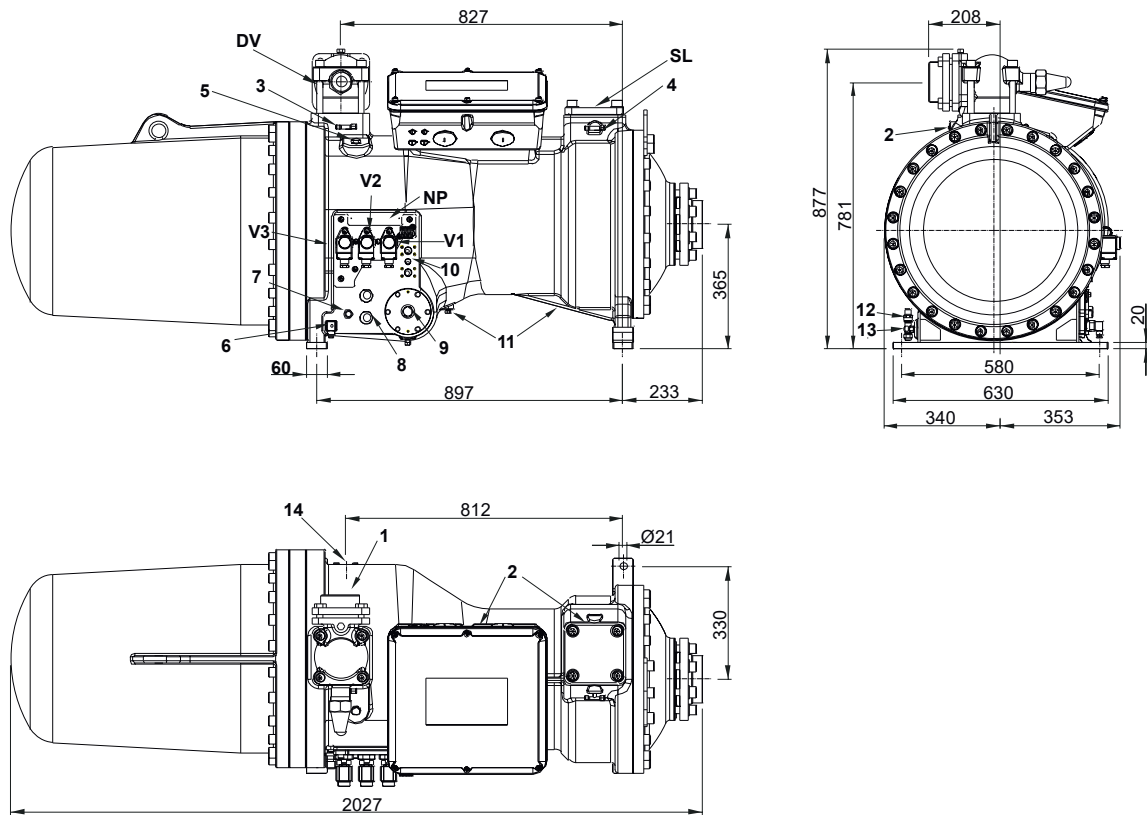
WITH AXIAL SUCTION



1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1 1/8"
SV	Suction valve	DN125
DV	Discharge valve	4 1/8" - 105 mm
SL	Suction line	DN125
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	

Dimensional drawings

CX9 - 1000-1085 m³/h

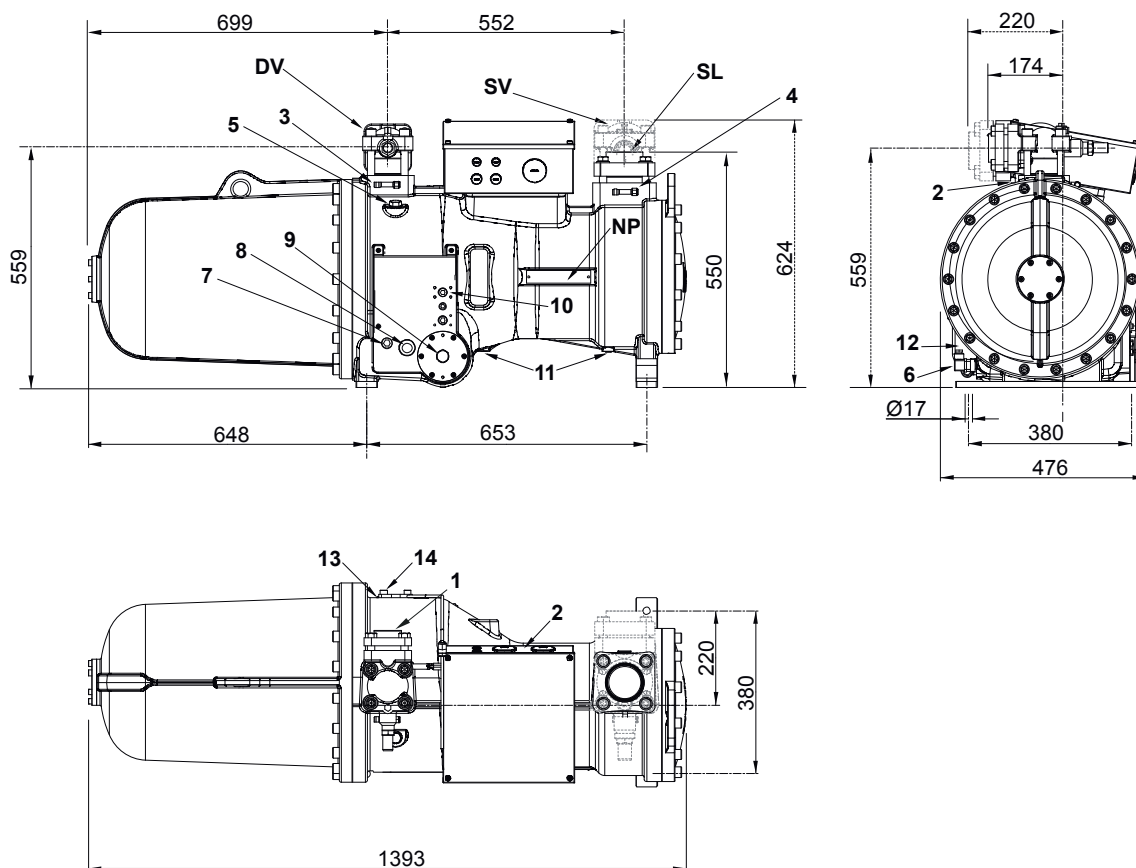


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1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1 1/8"
SV	Suction valve	DN125
DV	Discharge valve	4 1/8" - 105 mm
SL	Suction line	DN125
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	

MODELS

CXHI01-50-199Y, CXHI02-70-199Y, CXHI01-60-230Y, CXHI02-80-230Y, CXHI01-70-264Y, CXHI02-90-264Y, CXHI01-80-298Y, CXHI02-100-298Y, CXHI01-90-340Y, CXHI02-120-340Y, CXHI01-100-370Y, CXWI02-50-199Y, CXWI01-50-230Y, CXWI02-60-230Y, CXWI01-60-264Y, CXWI02-70-264Y, CXWI01-70-298Y, CXWI02-80-298Y, CXWI01-80-340Y, CXWI02-90-340Y, CXWI01-90-370Y, CXWI02-100-370Y

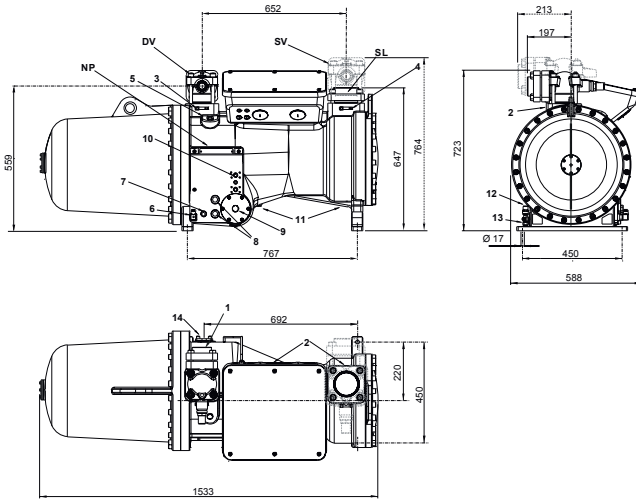


1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1 1/8"
SV	Suction valve	3 1/8" - 80 mm
DV	Discharge valve	2 1/8" - 54 mm
SL	Suction line	3 1/8"

Dimensional drawings

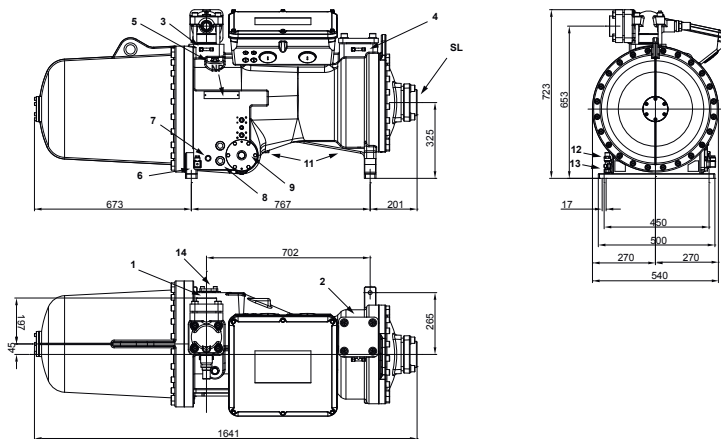
MODELS

CXHI52-110-316Y, CXHI52-125-372Y, CXHI51-110-398Y, CXHI52-140-428Y, CXHI51-125-468Y, CXHI52-160-468Y, CXHI51-140-538Y, CXHI52-180-538Y, CXWI51-100-428Y, CXWI52-110-428Y, CXWI51-110-468Y, CXWI52-125-468Y, CXWI51-125-538Y, CXWI52-140-538Y



STANDARD

WITH AXIAL SUCTION

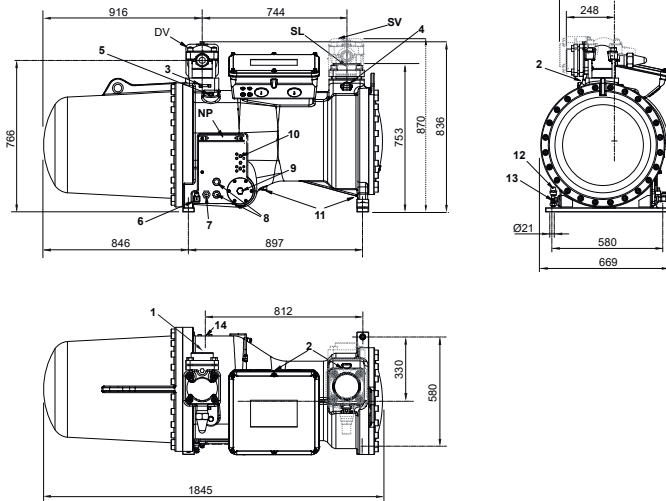


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1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1 1/8"
SV	Suction valve	4 1/8" - 105 mm
DV	Discharge valve	DN80
SL	Suction line	4 1/8"

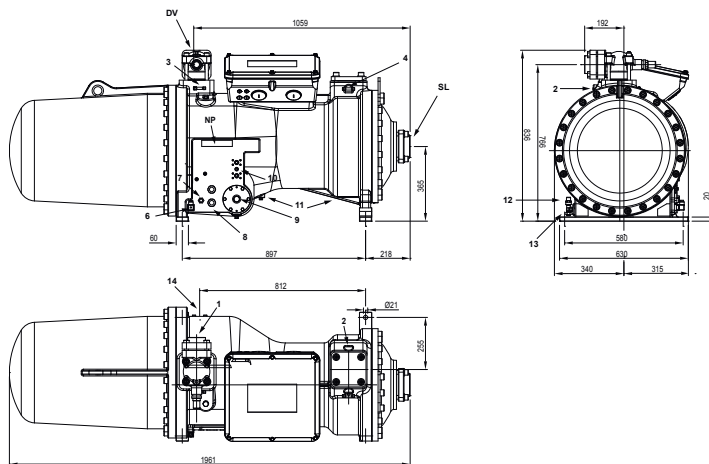
MODELS

CXHI92-180-545Y, CXHI91-160-620Y, CXHI92-210-620Y, CXHI91-180-702Y, CXHI92-240-702Y, CXWI91-140-620Y, CXWI92-160-620Y, CXWI91-160-702Y, CXWI92-180-702Y, CXWI91-180-810Y



STANDARD

WITH AXIAL SUCTION



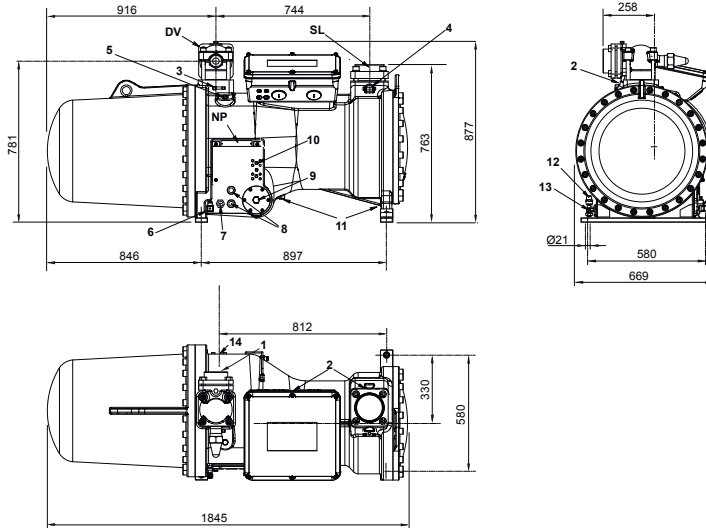
33

1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1 1/8"
SV	Suction valve	4 1/8" - 105 mm
DV	Discharge valve	DN80
SL	Suction line	4 1/8"

Dimensional drawings

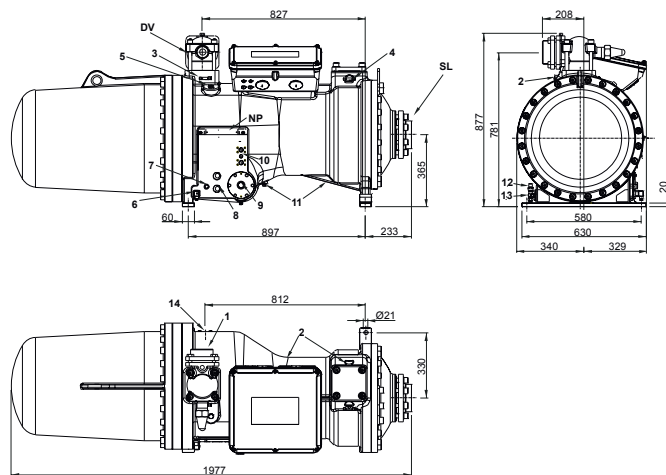
MODELS

CXHI91-210-810Y, CXHI92-280-810Y, CXHI91-240-912Y, CXHI92-300-912Y, CXWI91-140-620Y, CXWI92-160-620Y, CXWI91-160-702Y, CXWI92-180-702Y, CXWI91-180-810Y



STANDARD

WITH AXIAL SUCTION

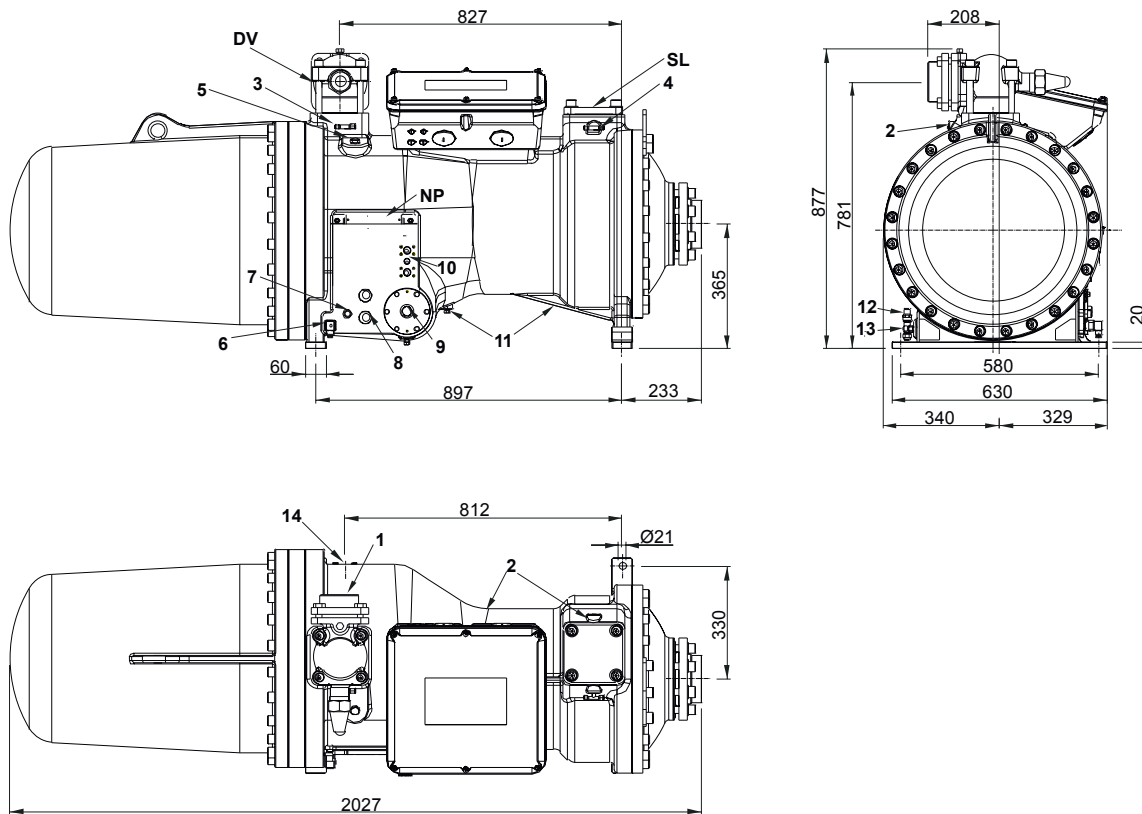


34

1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1 1/8"
SV	Suction valve	DN125
DV	Discharge valve	4 1/8" - 105 mm
SL	Suction line	DN125

MODELS

CXHI91-280-1000Y, CXHI92-310-1000Y, CXHI91-310-1085Y, CXWI92-210-810Y, CXWI91-210-912Y, CXWI92-240-912Y, CXWI91-240-1000Y

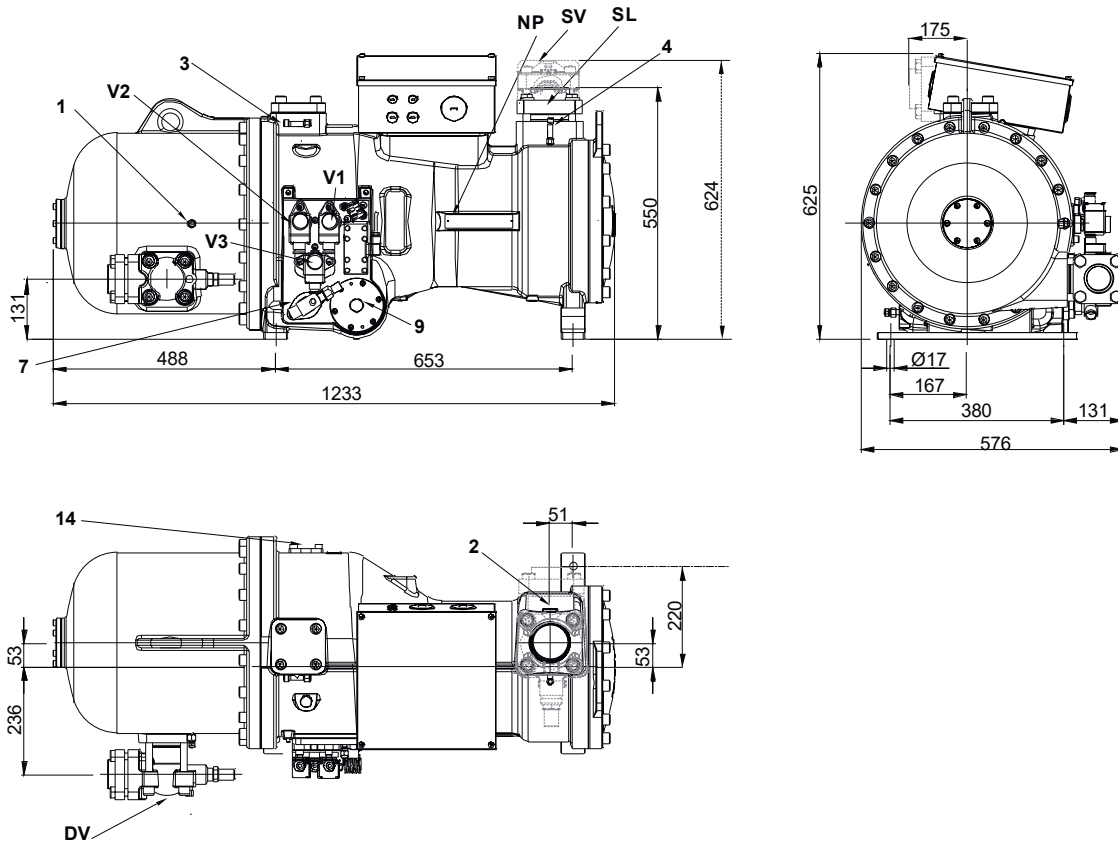


1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	3/8" GAS
6	Crankcase heater	
7	Oil level regulator connection	3/4" NPT
8	Oil level sight glass	
9	Filter clogging sensor connection	1/2" GAS
10	Oil cooler connection	1/2" NPT
11	Oil drain plug	1/4" NPT
12	Oil drain valve	1/8" NPT
13	Maximum oil temperature sensor	
14	ECO/Liquid injection connection	1 1/8"
SV	Suction valve	DN125
DV	Discharge valve	4 1/8" - 105 mm
SL	Suction line	DN125

Dimensional drawings

MODELS

CXHP01-50-199Y, CXHP02-70-199Y, CXHP01-60-230Y, CXHP02-80-230Y, CXHP01-70-264Y, CXHP02-90-264Y, CXHP01-80-298Y, CXHP02-100-298Y, CXHP01-90-340Y, CXHP02-120-340Y, CXHP01-100-370Y, CXWP02-50-199Y, CXWP01-50-230Y, CXWP02-60-230Y, CXWP01-60-264Y, CXWP02-70-264Y, CXWP01-70-298Y, CXWP02-80-298Y, CXWP01-80-340Y, CXWP02-90-340Y, CXWP01-90-370Y, CXWP02-100-370Y

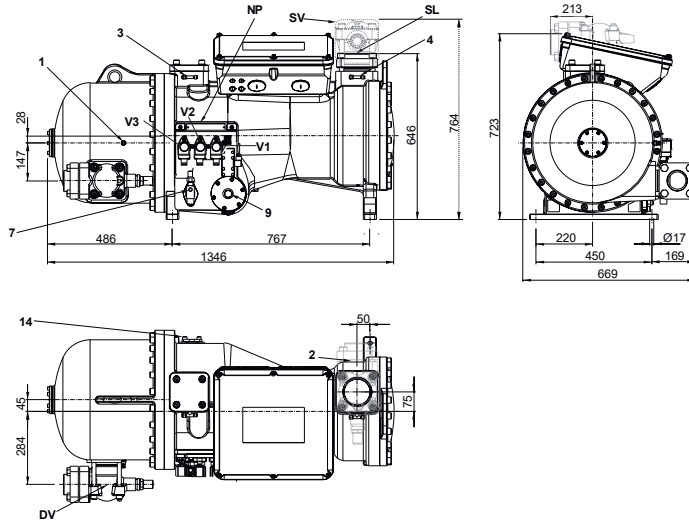


36

1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	
7	Oil level regulator connection	3/4" NPT
9	Filter clogging sensor connection	1/2" GAS
SV	Suction valve	3 1/8" - 80 mm
DV	Discharge valve	2 1/8" - 54 mm
SL	Suction line	3 1/8"
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	

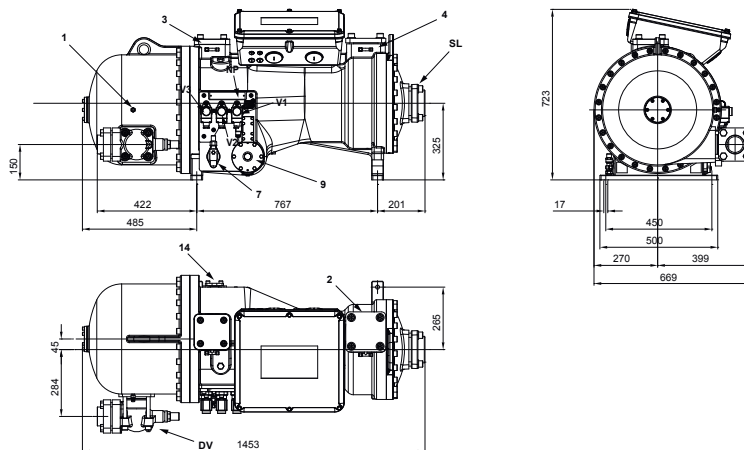
MODELS

CXHP52-110-316Y, CXHP52-125-372Y, CXHP51-110-398Y, CXHP52-140-428Y, CXHP51-125-468Y, CXHP52-160-468Y, CXHP51-140-538Y, CXHP52-180-538Y, CXWP51-100-428Y, CXWP52-110-428Y, CXWP51-110-468Y, CXWP52-125-468Y, CXWP51-125-538Y, CXWP52-140-538Y



STANDARD

WITH AXIAL SUCTION

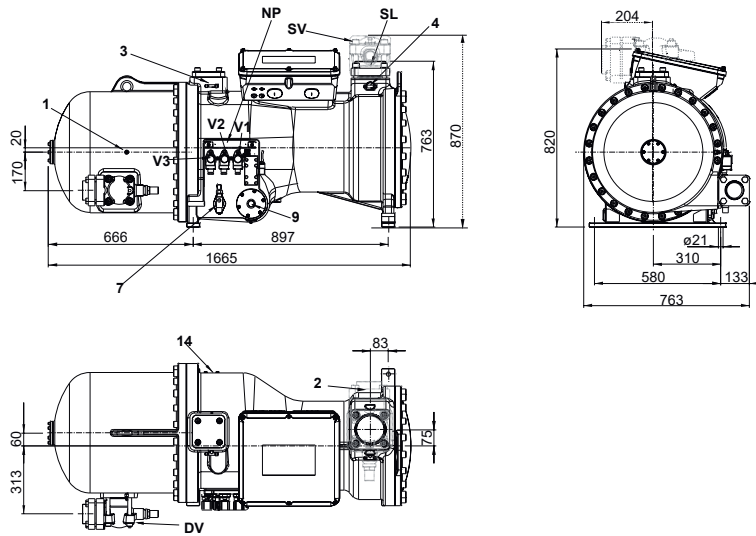


37

1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	
7	Oil level regulator connection	3/4" NPT
9	Filter clogging sensor connection	1/2" GAS
SV	Suction valve	4 1/8" - 105 mm
DV	Discharge valve	DN80
SL	Suction line	4 1/8"
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	

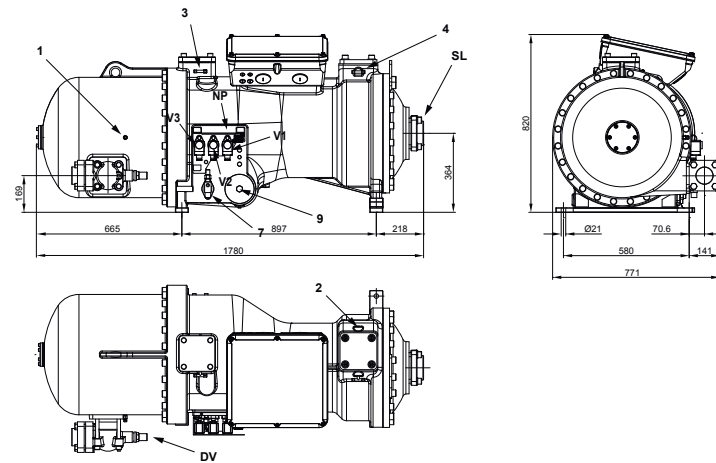
MODELS

CXHP92-180-545Y, CXHP91-160-620Y, CXHP92-210-620Y, CXHP91-180-702Y, CXHP92-240-702Y, CXWP91-140-620Y, CXWP92-160-620Y, CXWP91-160-702Y, CXWP92-180-702Y, CXWP91-180-810Y



STANDARD

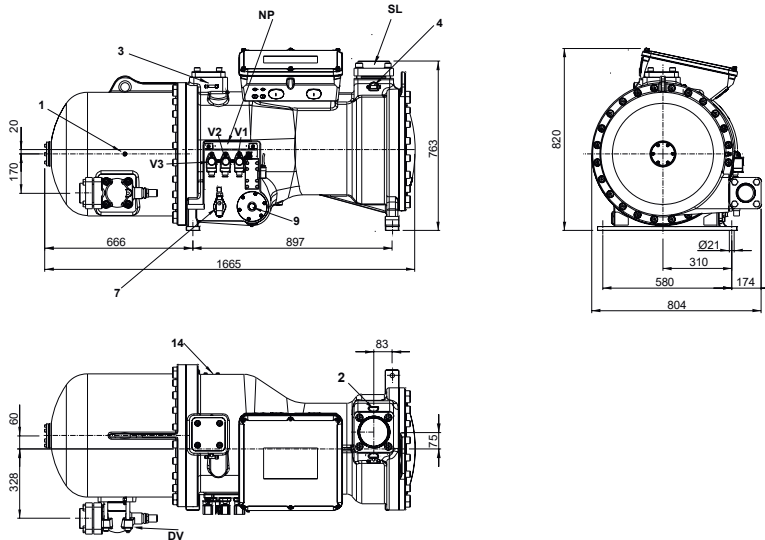
WITH AXIAL SUCTION



1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	
7	Oil level regulator connection	3/4" NPT
9	Filter clogging sensor connection	1/2" GAS
SV	Suction valve	4 1/8" - 105 mm
DV	Discharge valve	DN80
SL	Suction line	4 1/8"
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	

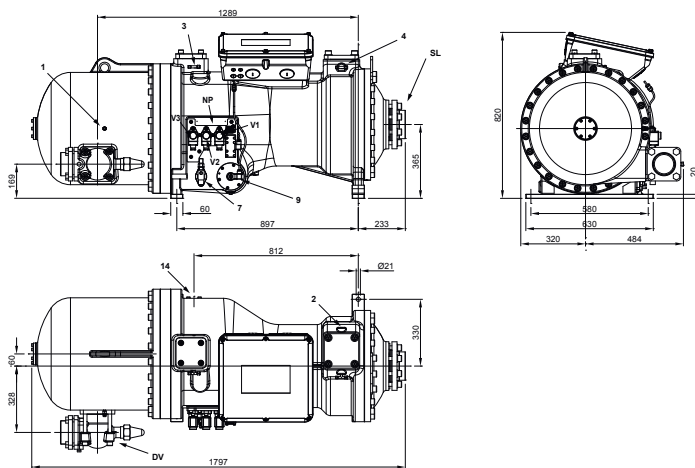
MODELS

CXHP91-210-810Y, CXHP92-280-810Y, CXHP91-240-912Y, CXHP92-300-912Y, CXWP91-140-620Y, CXWP92-160-620Y, CXWP91-160-702Y, CXWP92-180-702Y, CXWP91-180-810Y



STANDARD

WITH AXIAL SUCTION

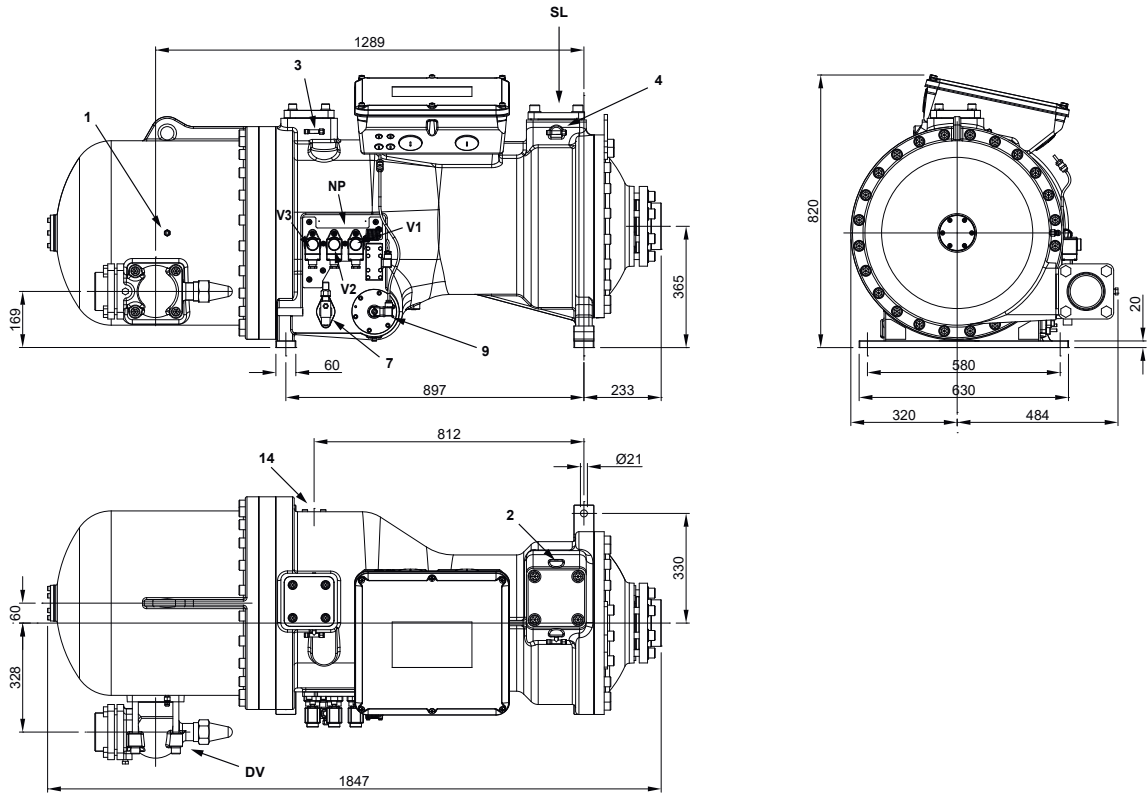


1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	
7	Oil level regulator connection	3/4" NPT
9	Filter clogging sensor connection	1/2" GAS
SV	Suction valve	DN125
DV	Discharge valve	4 1/8" - 105 mm
SL	Suction line	DN125
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	

Dimensional drawings

MODELS

CXHP91-280-1000Y, CXHP92-310-1000Y, CXHP91-310-1085Y, CXWP92-210-810Y, CXWP91-210-912Y, CXWP92-240-912Y, CXWP91-240-1000Y



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1	High pressure connection	1/8" NPT
2	Low pressure connection	1/8" NPT
3	High pressure connection	1/4" SAE x 1/4" SAE
4	Low pressure connection	1/4" SAE x 1/4" SAE
5	Oil charge plug	
7	Oil level regulator connection	3/4" NPT
9	Filter clogging sensor connection	1/2" GAS
SV	Suction valve	DN125
DV	Discharge valve	4 1/8" - 105 mm
SL	Suction line	DN125
V1	Capacity control valve	
V2	Capacity control valve	
V3	Capacity control valve	



CONTACT AND SUBSIDIARIES



mail: frascold@frascold.it
web: www.frascold.it

Frascold headquarters

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

Frascold China

Frascold Refrigeration Co. Ltd
Room 612, 6th Floor,
Jinqiao Life Hub, No.3611
Zhangyang Road, New Pudong
District, Shanghai, CHINA
www.frascold.net
ph. +86 021 58650192
ph. +86 021 58650180
fax +86 021 58650180
frascold.china@frascold.net

Frascold India pvt ltd

C-908, Titanium Square,
Nr. Thaltej Cross Roads, S. G. Road,
Thaltej, Ahmedabad – 380 054
Gujarat, INDIA
Ph. +91 79 29704046/47/48
Fax +91 79 29704049
sales@frascoldindia.com
www.frascoldindia.com

Frascold USA

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

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