



R290

Compressors

Catalogue

Extended and efficient range of compressors in R290



Natural refrigerants

Complete range
of compressors from
2.2 to 38cc



- › Maximum efficiency
- › Better cooling capacity



HUAYI
COMPRESSOR
BARCELONA

R290 Cubigel Compressors®

For light commercial refrigeration

Huayi Compressor Barcelona aims to provide quality and environmentally- friendly products using cutting-edge technology- For this reason, the company offers the most extended range for high efficiency Green Cooling compressors for R290, which is the consequence of the development of natural refrigerants during the last 15 years.



“The advanced design of the Green Cooling ranges from Cubigel Compressors® represents a significant advance in terms of **efficiency and sustainability**”

Natural refrigerants like propane (R290) and isobutene (R600a) are being gradually introduced in commercial appliances, not only due to the replacement of H-CFC's and HFC's refrigerants which have high impact on environment, but also because it is more efficient in terms of performance and applications' energy consumption.

The increase of the market demand for high efficiency compressors with natural refrigerants with low GWP is a fact, and Cubigel compressor® offers the entire range from 2.2 to 38cc suitable for different applications such as open displays, bottle coolers, vending machines, freezers, wine coolers, water coolers, ice makers, chests, islands freezers, ice cream cabinets.

“Among the most significant advantages with the use of **R290** are the energy savings, which translates into an important reduction in operating costs and the **reduction of CO₂** emissions into the atmosphere.”



Why propane?

The increasing use of natural refrigerants in commercial applications such as propane (R290) is a priority, not only owing to the need to replace HFC refrigerants, which have a high impact on the environment, but also because they are more efficient in terms of performance and energy consumption.

Refrigerant propane has no direct contribution to global warming and its energy consumption is between 10% to 15% lower than a similar application with R404A.



“**Cubigel Compressors® R290** offer a higher cooling capacity and COP allowing energy-saving consumption with **smaller displacement.**”

From a strictly technical point of view, the use of these hydrocarbon refrigerants is a great solution because of their physical and chemical properties. In fact, their use can be considered fairly consolidated in large parts of the world, especially in developed countries.

R290 is the best alternative due to the fact that R290 has no direct contribution to global warming (GWP = 3) and zero Ozone Depletion Potential (ODP = 0). For this reason it makes both HC refrigerants, R290 and R600a, even more attractive.

R600a is recommended for home appliances and small business applications, and is already being used to replace R134a. For its part, R290, or propane, is a good alternative for light commercial applications, successfully replacing R134a, R404A and even R22 in certain cases.



Low energy consumption



Natural refrigerant with low GWP

	HFC's	R290
Flammability Class	A1	A3
Environment impact	High	Low
Displacement	Reference	Lower
System efficiency	Reference	Higher
Charge limitation	No	150 gr

GWP	
R404A	3920
R22	1810
R134a	1430
R290	3

R290 Compressors range

“The advanced design of the R290 Cubigel Compressors® series is intended to minimize operating costs for refrigeration equipment in supermarkets, shops, restaurants, etc., **where energy conservation is a main requirement.**”



B range

More displacement, more efficient, compactness
2.20 to 3.50 cc

Applications:

For water coolers, can / bottle coolers, small refrigerator and freezers



U range

The most efficient, Compact size, Extremely silent
3.50 to 8.90 c

Applications:

Ice Cream Freezers, Bottle Coolers, Chest coolers, Freezers, Refrigerated display counters, Display cabinets



L range

Extend catalogue of high efficient range with propane (R290)
10.7 to 12.00 cc

Applications:

For Household Refrigerators, Bottle Coolers and Freezers, Can Coolers, Chest, Freezers, Vending Machines, Ice Cream Freezers, Beer Dispensers, Ice Makers, Soft Drink Dispensers, Heat Pumps Systems



P range

Extend catalogue of high efficient range with propane (R290)
12.10 to 18.00 cc

Applications:

For Household Refrigerators, Bottle Coolers and Freezers, Can Coolers, Chest, Freezers, Vending Machines, Ice Cream Freezers, Beer Dispensers, Ice Makers, Soft Drink Dispensers



X range

High reliability & efficiency. Design to work under heavy duty operation conditions
18.00 to 23.20 cc

Applications:

Large Freezers (vertical and chest), Blast Freezers, Ice Makers, Vending Machines, Display Cabinets, Display Islands, Soft Drink Dispensers



S range

Top capacity range, Optimized design to reduce vibration
26.00 to 38.00 cc

Applications:

For Large Freezers (vertical and chest), Soft drinks dispensers, Blast Freezers, Air Dryers, Ice Makers, Vending Machines, Heat Pumps, Display, Cabinets, Display Islands

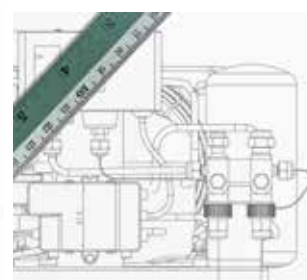


Condensing Units

Complete range of Condensing Units from 2.20 to 38.00 cc
Specific customized versions
High reliability
Top quality components
Design to work under 43°C

Applications:

For all type of applications



Bespoke Condensing Units

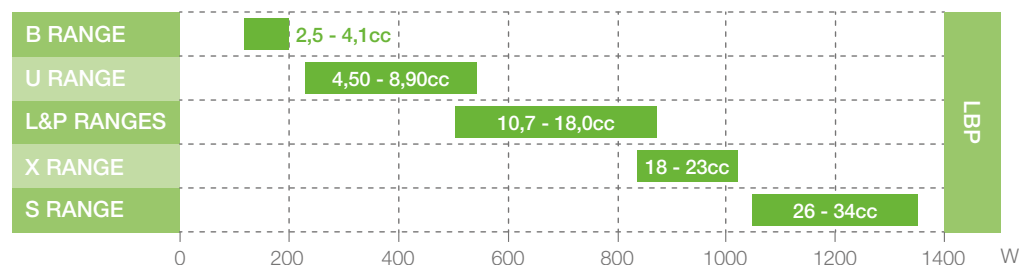
Made to order condensing units

Based on customer's design and needs

Applications

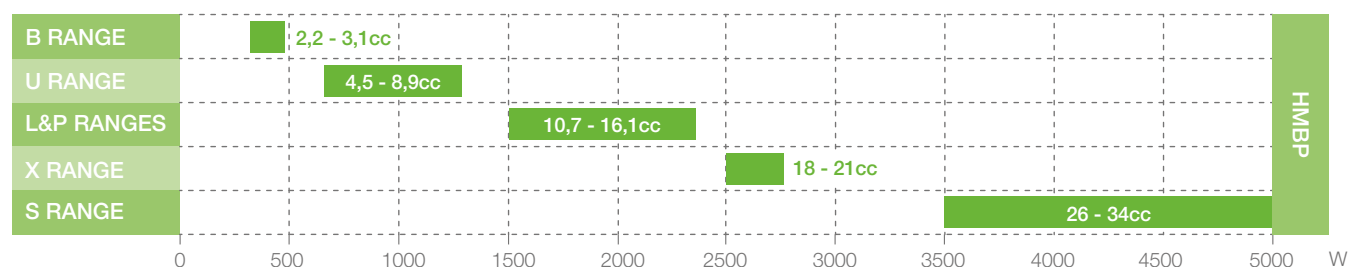
Compressors Ranges LBP

Refrigerant R290

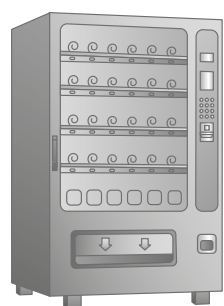


Compressors Ranges HMBP

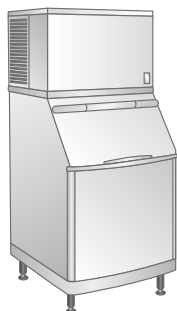
Refrigerant R290



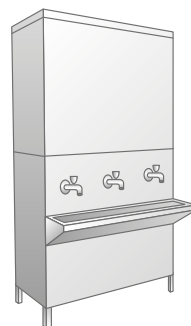
“One compressor for **every** application”



Vending machine



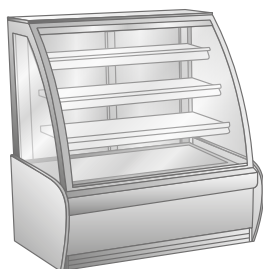
Ice maker



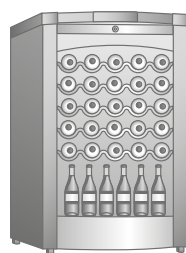
Water dispensers



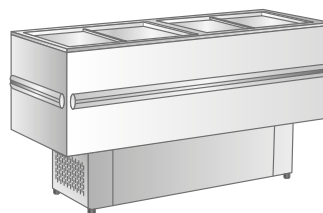
Upright freezer



Open chest display cabinet



Wine cooler



Island freezer



Glass door merchandiser

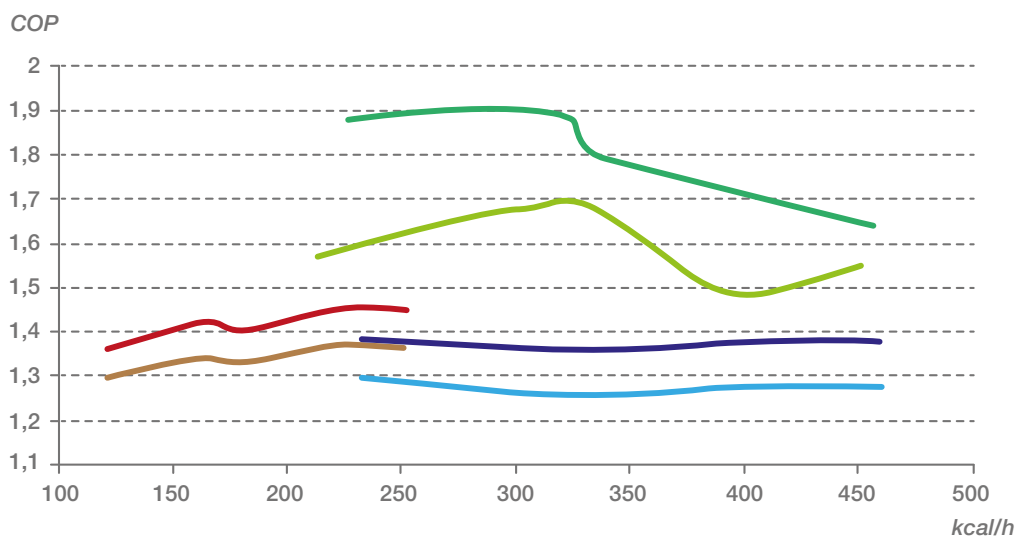
Performance

Compared with R134a, R290 offers approximately 40% more cooling capacity, while compared with R404A the cooling capacity is reduced by approximately 10%.

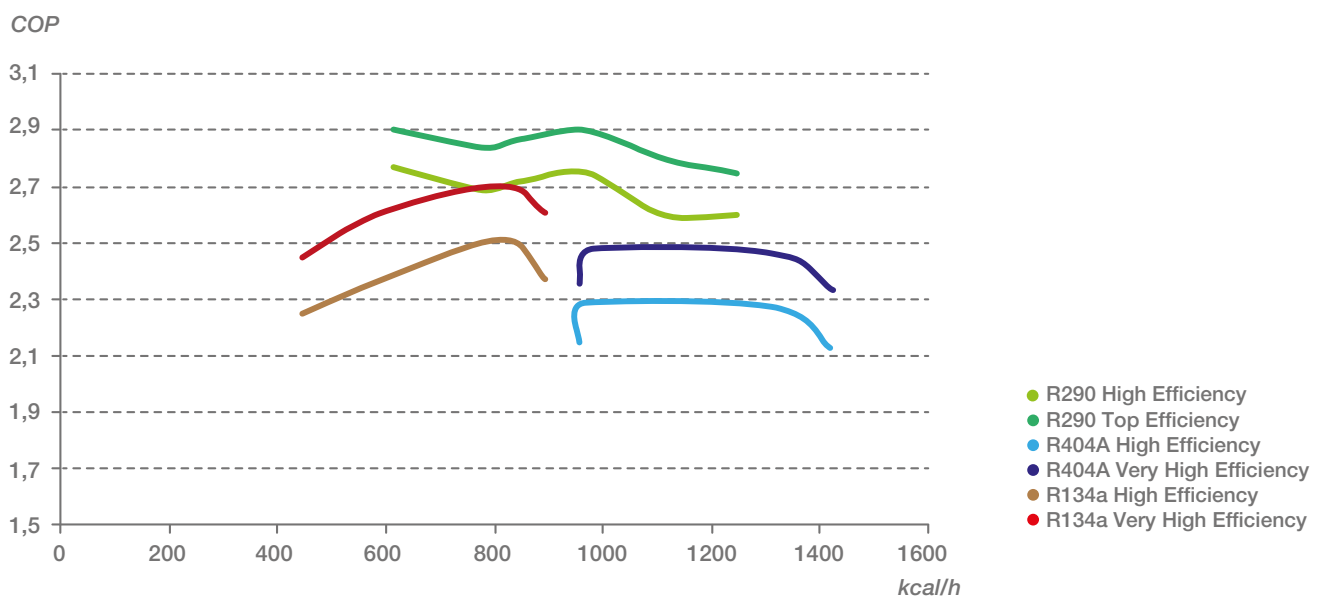
Using R290, the energy consumption of the whole application can be reduced by 20-25% compared to current HFCs, such as R404A and R134a.

“R290 cubigel compressors® covers COP up to **1,8** in LBP and **2,9** in HMBP”

LBP



HMBP



The table shows the performances achieved by three different models of compressors, with equal displacements, but loaded with the three reference refrigerants.

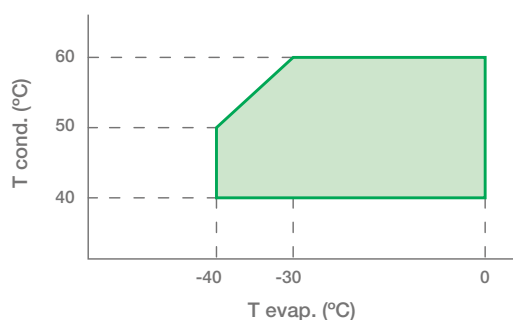
Model	GLY60RAa	MLY60RAa	NUY60RAa
Refrigerant	R134a	R404A	R290
Displacement (cm ³)	5,98	5,98	6,00
Cooling Capacity (W)	582	959	850
COP (W/W)	2,36	2,135	2,72

- R290 the best option among natural refrigerants for light commercial applications.
- While the amount of refrigerant always depends on the type of system and component, R290 requires loading about 40-50% less refrigerant compared to R404A and R134a.
- It has an excellent level of GWP
- Its use does not require drastic changes in the design of equipment currently loaded with other HFC gases
- R290 can work with compressors with smaller displacements than those required for R134a while obtaining a similar cooling capacity.

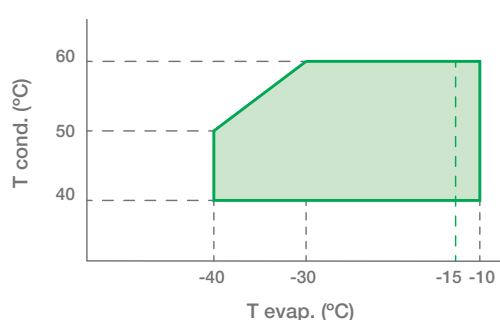
“The use of R290 compressors allows cost saving by utilizing **smaller displacement** compressors ranges”

SOA

SOA R290 LMBP

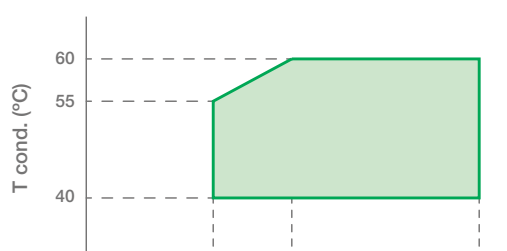


SOA R290 LBP

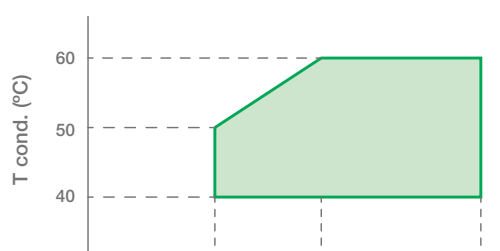


Note: For B range SOA goes up to -15°

SOA R290 HBP



SOA R290 HMBP



How to use R290

Safety

Due to the high flammability of R290, it is necessary to establish security measures both for the equipment itself and on production lines. The use of the R290 is only allowed in devices designed to meet the requirements according to the following standards:

Europe	North America
IEC/EN 60335-2-24	UL 60335-2-24
IEC/EN 60335-2-89	UL 471
IEC/EN 60335-2-34	UL 60335-2-34

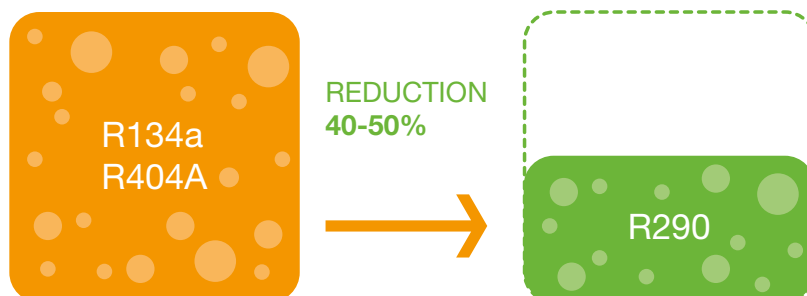
Compressors from Huayi Compressors Barcelona enjoy VDE and UL certifications, which comply with the regulations mentioned above.

On the other hand, equipment from Cubigel Compressors® for R290 are equipped with starting devices like PTC, current relays and overload protectors, according to EN60079-15:2010 regulations (ref. ATEX), to prevent electrical sparks from occurring within the machine's environment.

The compressors must bear a warning label alerting to the presence of flammable refrigerant.

Due to the flammability of this refrigerant, for proper repair or maintenance of the system one must take into account the fact that:

- › There should be no risk of sparks near the work area
- › Good ventilation in the work area is necessary.
- › The coolant should not penetrate into basements or low areas, as HC gases are heavier than air.
- › Risk situations in which the R290 can be mixed with air and acquire a high temperature should be avoided.



Refrigerant Load

While the amount of refrigerant always depends on the type of system and component, R290 requires loading about 40-50% less refrigerant compared to R404A and R134a.

According to EN 60335-2-89, the maximum load of refrigerant in the case of R290 is 150 g for light commercial equipment and domestic applications.

Capillary Tube

With R290, the same capillary tube as with R404A can be used, although usually it will be twice as long as that employed with R134a.

The following link leads to tables for selecting the capillary tube for a given cooling capacity:

<http://www.huayicompressor.es/index.php/technical-information/technical-notes/file/44-technical-note-capillary-tube-size>



These tables are intended to assist at the start of laboratory tests, with a view toward minimizing the number of tests.

Tools

On-line Catalogue

We have an intuitive and easy to use product search for Cubigel Compressors® products on our website. This tool allows the search of compressors' references by multiple variables such as model, refrigerant, and application, both in standard and particular conditions and for cooling capacity.

On-line Catalogue



Capillary Tube Selection Software

Capillary Tube Selection Software is available on our website in order to help you select the most suitable capillary tube for your application. It is available in our webpage.

The program allows the calculation of the capillary tube by:



- Selecting one of our compressor models
- Entering the cooling capacity needed
- Entering the specific working conditions of your system
- Choosing the diameter of the capillary and define whether it is going to be coiled in the suction line or not

Cross Reference

This tool allows the cross search of compressor models in the market, having as a result the equivalences in Cubigel Compressors® products. With this APP you will be able to view all the performance information of our compressors.

Furthermore, you can find the nearest store of our distribution network in order to purchase the equivalent model of your selection.



R290 LBP | LMBP • 50 Hz

Natural Refrigerant

MODEL	DISPLACEMENT cm³	POWER hp	APPLICATION	CPR COOLING	VOLTAGE FREQUENCY	MOTOR	STARTING	EXPANSION	REFRIGERATION CAPACITY								WEIGHT Kg	DESIGN
									COP in W/W 1 W = 0,864 kcal/h = 3,415 BTU/h Evaporating Temperature °C									
									Cecomaf (W)					Ashrae				
									-40	-30	-25		-10	-23.3				
											W	COP		W	COP			
NBC25CA	2.60	1/12	LBP	S	220-240V 50Hz ~1	RSIR	R	C	32	57	74	1.00	143	100	1.30	5.90	Bc	
NBG25CA (**)	2.60	1/12	LBP	S	220-240V 50Hz ~1	RSCR	R	C	32	57	74	1.17	143	100	1.52	6.00	Bc	
NBC30NG	3.10	1/8	LMHBP	S/F	220-240V 50/60Hz ~1	CSIR	R	C-V	38	75	104	1.12	201	140	1.45	5.80	Bc	
NBC35NA	3.50	1/8	LBP	S	220-240V 50Hz ~1	RSIR	R	C	40	79	106	1.04	211	143	1.35	6.10	Bf	
NBG35CA (**)	3.50	1/8	LBP	S	220-240V 50Hz ~1	RSCR	R	C	47	83	108	1.20	209	145	1.55	6.20	Bf	
NBC41NA	4.10	1/7	LMBP	S	220-240V 50Hz ~1	RSIR	R	C	58	103	134	1.00	259	180	1.30	5.90	Bf	
NBG41CA (**)	4.10	1/7	LBP	S	220-240V 50Hz ~1	RSCR	R	C	58	103	134	1.20	259	181	1.55	6.00	Bf	
NUY45LAa	4.50	1/5	LBP	F	220-240V 50Hz ~1	CSIR	R	C-V	65	122	159	1.21	306	214	1.57	9.30	Ub	
NUY45LAb	4.50	1/5	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	66	123	161	1.26	311	216	1.64	9.45	Ub	
NUC45NGa	4.50	1/5	LMBP	F	200-220/230V 50/60Hz ~1	RSIR	P	C	68	120	157	1.05	304	210	1.35	8.60	Ub	
NUM55CAa	5.50	1/5	LBP	S/F	220-240V 50Hz ~1	RSIR	P	C	79	147	193	1.11	373	260	1.45	8.30	Ub	
NUM55CAb	5.50	1/5	LMBP	S/F	220-240V 50Hz ~1	RSCR	P	C	79	147	193	1.19	373	260	1.55	8.30	Ub	
NUM55CAc	5.50	1/5	LBP	S/F	220-240V 50Hz ~1	CSIR	R	C-V	79	147	193	1.11	373	260	1.45	8.30	Ub	
NUM55CAc	5.50	1/5	LBP	S/F	220-240V 50Hz ~1	CSR	R	C-V	79	147	193	1.19	373	260	1.55	8.30	Ub	
NUM55CAc	5.50	1/5	LMBP	S/F	220-240V 50Hz ~1	CSR	R	C-V	79	147	193	1.19	373	260	1.55	8.30	Ub	
NUT55CAa	5.50	1/5	LBP	F	220-240V 50Hz ~1	RSIR	P	C	88	152	196	1.27	382	264	1.64	9.10	Ub	
NUT55CAb	5.50	1/5	LBP	F	220-240V 50Hz ~1	RSCR	P	C	88	152	196	1.39	382	264	1.80	9.21	Ub	
NUT55CAc	5.50	1/5	LBP	S	220-240V 50Hz ~1	RSIR	P	C	88	152	196	1.27	382	264	1.64	9.10	Ub	
NUT55CAc	5.50	1/5	LBP	S	220-240V 50Hz ~1	RSCR	P	C	88	152	196	1.39	382	264	1.80	9.21	Ub	
NUC55NGa	5.50	1/5	LMBP	F	200-220/230V 50/60Hz ~1	RSIR	P	C	89	154	198	1.04	386	265	1.35	8.60	Ub	
NUC55NGc	5.50	1/5	LMBP	F	200-220/230V 50/60Hz ~1	CSIR	R	C-V	89	154	198	1.04	386	265	1.35	8.60	Ub	
NUM60CAa	6.00	1/4	LBP	S/F	220-240V 50Hz ~1	RSIR	P	C	98	170	219	1.11	427	295	1.45	8.30	Ub	
NUM60CAb	6.00	1/4	LMBP	S/F	220-240V 50Hz ~1	RSCR	P	C	98	170	219	1.19	427	295	1.55	8.30	Ub	
NUM60CAc	6.00	1/4	LBP	S/F	220-240V 50Hz ~1	CSIR	R	C-V	98	170	219	1.11	427	295	1.45	8.30	Ub	
NUM60CAc	6.00	1/4	LMBP	S/F	220-240V 50Hz ~1	CSR	R	C-V	98	170	219	1.19	427	295	1.55	8.30	Ub	
NUT60CAa	6.00	1/4	LBP	F	220-240V 50Hz ~1	RSIR	P	C	101	175	226	1.30	431	304	1.68	9.20	Ub	
NUT60CAb	6.00	1/4	LBP	F	220-240V 50Hz ~1	RSCR	P	C	101	175	226	1.41	431	304	1.82	9.31	Ub	
NUT60CAc	6.00	1/4	LBP	S	220-240V 50Hz ~1	RSIR	P	C	101	175	226	1.30	431	304	1.68	9.20	Ub	
NUT60CAc	6.00	1/4	LBP	S	220-240V 50Hz ~1	RSCR	P	C	101	175	226	1.41	431	304	1.82	9.31	Ub	
NUY60LAa	6.00	1/4	LBP	F	220-240V 50Hz ~1	CSIR	R	C-V	91	168	217	1.24	405	291	1.60	9.40	Ub	
NUY60LAb	6.00	1/4	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	92	167	216	1.29	414	291	1.67	9.50	Ub	
NUM70CAa	6.70	1/4	LBP	F	220-240V 50Hz ~1	RSIR	P	C	103	186	241	1.11	462	325	1.45	8.60	Ub	
NUM70CAb	6.70	1/4	LMBP	F	220-240V 50Hz ~1	RSCR	P	C	103	186	241	1.19	462	325	1.55	8.60	Ub	
NUM70CAc	6.70	1/4	LBP	F	220-240V 50Hz ~1	CSIR	R	C-V	103	186	241	1.11	462	325	1.45	8.60	Ub	
NUM70CAc	6.70	1/4	LMBP	F	220-240V 50Hz ~1	CSR	R	C-V	103	186	241	1.19	462	325	1.55	8.60	Ub	
NUT70CAa	6.70	1/4	LBP	F	220-240V 50Hz ~1	RSIR	P	C	109	195	250	1.30	463	335	1.68	9.20	Ub	
NUT70CAb	6.70	1/4	LBP	F	220-240V 50Hz ~1	RSCR	P	C	109	195	250	1.39	463	335	1.80	9.41	Ub	
NUT70CAc	6.70	1/4	LBP	S	220-240V 50Hz ~1	RSIR	P	C	109	195	250	1.30	463	335	1.68	9.20	Ub	
NUT70CAc	6.70	1/4	LBP	S	220-240V 50Hz ~1	RSCR	P	C	109	195	250	1.39	463	335	1.80	9.41	Ub	
NUY70NGa	6.70	1/4	LMBP	F	200-220/220-230V 50/60Hz ~1	RSIR	P	C	106	190	243	1.09	450	325	1.41	8.80	Ub	
NUY70NGb	6.70	1/4	LMBP	F	200-220/220-230V 50/60Hz ~1	CSIR	R	C-V	106	190	243	1.16	450	325	1.50	8.80	Ub	
NUY80LAa	8.10	1/3	LBP	F	220-240V 50Hz ~1	CSIR	R	C-V	129	230	294	1.16	540	393	1.49	9.43	Uc	
NUY90CAa	8.90	1/3	LBP	F	220-240V 50Hz ~1	RSIR	P	C	157	267	338	1.21	614	451	1.55	9.30	Uc	
NUY90CAb	8.90	1/3	LBP	F	220-240V 50Hz ~1	RSCR	P	C	158	270	342	1.28	625	457	1.64	9.40	Uc	
NUY90LAa	8.90	3/8	LBP	F	220-240V 50Hz ~1	CSIR	R	C-V	157	267	338	1.21	614	451	1.55	9.40	Uc	
NUY90LAb	8.90	3/8	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	158	270	342	1.28	625	457	1.64	9.50	Uc	

● Green Cooling Models ● New Models (**) Under development

This table continues in the following page

R290 LBP | LMBP • 50 Hz

Natural Refrigerant

MODEL	DISPLACEMENT cm ³	POWER hp	APPLICATION	CPR COOLING	VOLTAGE FREQUENCY	MOTOR	STARTING	EXPANSION	REFRIGERATION CAPACITY						WEIGHT Kg	DESIGN	
									COP in W/W 1 W = 0,864 kcal/h = 3,415 BTU/h Evaporating Temperature °C								
									Cecomaf (W)				Ashrae				
									-40	-30	-25		-10	-23.3			
											W	COP		W			COP
NLY12LAa	10.70	3/8	LBP	F	220-240V 50Hz ~1	CSIR	R	C-V	163	283	364	0.96	689	488	1.24	11.21	Ld
NLY12LAb	10.70	3/8	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	163	283	364	1.01	689	488	1.31	11.31	Ld
NLY12NGa	10.70	3/8	LMBP	F	200-220/220-230V 50/60Hz ~1	CSIR	R	C-V	168	288	371	0.98	715	499	1.28	11.04	Ld
NLY12NGb	10.70	3/8	LMBP	F	200-220/220-230V 50/60Hz ~1	CSR	R	C-V	171	287	371	1.06	726	499	1.31	11.14	Ld
NPY12LAa	12.10	3/8	LBP	F	220-240V 50Hz ~1	CSIR	R	C-V	174	309	402	1.05	783	541	1.35	12.13	Pd
NPY12LAb	12.10	3/8	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	174	309	402	1.15	783	541	1.49	12.23	Pd
NPY14LAa	14.32	1/2	LBP	F	220-240V 50Hz ~1	CSIR	R	C-V	217	376	485	1.05	928	651	1.35	12.17	Pd
NPY14LAb	14.32	1/2	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	217	376	485	1.14	928	651	1.48	12.27	Pd
NPT16LA	16.15	1/2	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	254	440	564	1.16	1062	756	1.50	12.17	Pd
NPT18LA	18.00	1/2	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	269	473	611	1.13	1165	820	1.46	12.30	Pd
NX18FBa	18.40	3/4	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	243	471	611	1.11	1137	820	1.44	16.41	Xd
NX21FBa	20.72	3/4	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	267	517	675	1.11	1275	907	1.44	16.00	Xd
NX23FBa	23.20	7/8	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	297	572	746	1.09	1411	1003	1.41	16.75	Xd
NST26LA (**)	25.93	7/8	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	335	645	841	1.16	1591	1130	1.50	22.60	Sd
NST34LA (**)	34.42	1	LBP	F	220-240V 50Hz ~1	CSR	R	C-V	444	856	1116	1.16	2111	1500	1.50	23.00	Sd
NST38NA (**)	38.00	1 1/2	LMBP	F	220-240V 50Hz ~1	CSR	R	C-V	489	942	1228	1.14	2323	1650	1.49	23.00	Sd

R290 LBP | LMBP • 60 Hz

Natural Refrigerant

MODEL	DISPLACEMENT	POWER	APPLICATION	CPR COOLING	VOLTAGE FREQUENCY	MOTOR	STARTING	EXPANSION	REFRIGERATION CAPACITY							WEIGHT	DESIGN
									COP in W/W 1 W = 0,864 kcal/h = 3,415 BTU/h Evaporating Temperature °C								
									Cecomaf (W)					Ashrae			
									-40	-30	-25		-10	-23.3			
											W	COP		W	COP		
cm ³	hp													Kg			
NBC30NR	3.10	1/7	LMBP	S/F	115-127V 60Hz ~1	CSIR	R	C-V	50	89	118	1.07	242	159	1.40	6.10	Bf
NBC30NG (**)	3.10	1/8	LMHBP	S/F	220-240V 50/60Hz ~1	CSIR	R	C-V	52	92	122	1.10	250	165	1.45	5.80	Be
NUT35NRa (**)	3.50	1/8	LMBP	F	115-127V 60Hz ~1	CSIR	R	C-V	61	107	142	1.14	290	192	1.50	9.12	Be
NUT35NRb (**)	3.50	1/8	LMBP	F	115-127V 60Hz ~1	CSR	R	C-V	61	107	142	1.21	290	192	1.60	9.19	Be
NUT40NRa (**)	4.00	1/5	LMBP	F	115-127V 60Hz ~1	CSIR	R	C-V	72	128	169	1.15	347	229	1.51	915	Be
NUT40NRb (**)	4.00	1/5	LMBP	F	115-127V 60Hz ~1	CSR	R	C-V	72	128	169	1.23	347	229	1.62	9.22	Be
NUY45NRa	4.50	1/5	LMBP	F	115-127V 60Hz ~1	CSIR	R	C-V	76	136	180	1.15	363	243	1.50	9.12	Ub
NUY45NRb	4.50	1/5	LMBP	F	115-127V 60Hz ~1	CSR	R	C-V	73	137	182	1.23	369	247	1.60	9.19	Ub
NUC45NGa	4.50	1/5	LMBP	F	200-220/230V 50/60Hz ~1	RSIR	P	C	72	136	180	1.10	365	244	1.43	8.60	Ub
NUT55LRa	5.50	1/5	LBP	F	115-127V 60Hz ~1	CSIR	R	C-V	110	189	243	1.24	460	326	1.60	9.47	Ub
NUT55LRb	5.50	1/5	LBP	F	115-127V 60Hz ~1	CSR	R	C-V	110	193	247	1.34	463	331	1.73	9.54	Ub
NUT55LRc	5.50	1/5	LBP	S	115-127V 60Hz ~1	CSIR	R	C-V	110	189	243	1.24	460	326	1.60	9.47	Ub
NUT55LRd	5.50	1/5	LBP	S	115-127V 60Hz ~1	CSR	R	C-V	110	193	247	1.34	463	331	1.73	9.54	Ub
NUY55NRa (**)	5.50	1/5	LMBP	F	115-127V 60Hz ~1	CSIR	R	C-V	105	184	235	1.21	441	312	1.56	9.10	Ub
NUY55NRc (**)	5.50	1/5	LMBP	S	115-127V 60Hz ~1	CSIR	R	C-V	105	184	235	1.21	441	312	1.56	9.10	Ub
NUC55NGa	5.50	1/5	LMBP	F	200-220/230V 50/60Hz ~1	RSIR	P	C	106	186	237	1.15	445	314	1.48	8.60	Ub
NUC55NGc	5.50	1/5	LMBP	F	200-220/230V 50/60Hz ~1	CSIR	R	C-V	106	186	237	1.15	445	314	1.48	8.60	Ub
NUT60LRa	6.00	1/3	LBP	F	115-127V 60Hz ~1	CSIR	R	C-V	122	207	266	1.25	508	357	1.60	9.40	Ub
NUT60LRb	6.00	1/3	LBP	F	115-127V 60Hz ~1	CSR	R	C-V	122	213	273	1.34	513	366	1.73	9.50	Ub

● Green Cooling Models ● New Models (**) Under development

This table continues in the following page

R290 LBP | LMBP • 60 Hz

Natural Refrigerant

MODEL	DISPLACEMENT cm ³	POWER hp	APPLICATION	CPR COOLING	VOLTAGE FREQUENCY	MOTOR	STARTING	EXPANSION	REFRIGERATION CAPACITY							WEIGHT Kg	DESIGN
									COP in W/W 1 W = 0,864 kcal/h = 3,415 BTU/h Evaporating Temperature °C								
									Cecomaf (W)					Ashrae			
									-40	-30	-25		-10	-23.3			
											W	COP		W	COP		
NUT60LRc	6.00	1/3	LBP	S	115-127V 60Hz ~1	CSIR	R	C-V	122	207	266	1.24	508	357	1.60	9.40	Ub
NUT60LRd	6.00	1/3	LBP	S	115-127V 60Hz ~1	CSR	R	C-V	122	213	273	1.34	513	366	1.73	9.50	Ub
NUY60NRa	6.00	1/3	LMBP	F	115-127V 60Hz ~1	CSIR	R	C-V	121	209	269	1.22	513	361	1.58	9.55	Uc
NUY60NRc	6.00	1/3	LMBP	S	115-127V 60Hz ~1	CSIR	R	C-V	121	209	269	1.22	513	361	1.58	9.55	Uc
NUY70NRa	6.70	1/5	LMBP	F	115-127V 60Hz ~1	CSIR	R	C-V	129	231	297	1.22	551	398	1.57	9.40	Uc
NUY70NRb	6.70	1/5	LMBP	F	115-127V 60Hz ~1	CSR	R	C-V	129	231	297	1.30	551	398	1.68	9.40	Uc
NUY70NRc	6.70	1/5	LMBP	S	115-127V 60Hz ~1	CSIR	R	C-V	129	231	297	1.22	551	398	1.57	9.40	Uc
NUY70NRd	6.70	1/5	LMBP	S	115-127V 60Hz ~1	CSR	R	C-V	129	231	297	1.30	551	398	1.68	9.40	Uc
NUY70NGa	6.70	1/5	LMBP	F	200-220/220-230V 50/60Hz ~1	CSIR	R	C-V	127	228	294	1.17	542	393	1.51	8.95	Uc
NUY70NGb	6.70	1/5	LMBP	F	200-220/220-230V 50/60Hz ~1	CSR	R	C-V	127	228	294	1.23	542	393	1.58	8.95	Uc
NUY80NRa	8.10	1/4	LMBP	F	115-127V 60Hz ~1	CSIR	R	C-V	154	272	363	1.29	703	476	1.58	9.30	Uc
NUY80NRb	8.10	1/4	LMBP	F	115-127V 60Hz ~1	CSR	R	C-V	154	272	363	1.37	703	476	1.67	9.30	Uc
NUY90NRa	8.90	1/3	LMBP	F	115-127V 60Hz ~1	CSIR	R	C-V	167	300	391	1.21	767	528	1.55	9.40	Uc
NUY90NRb	8.90	1/3	LMBP	F	115-127V 60Hz ~1	CSR	R	C-V	167	300	391	1.29	767	528	1.65	9.40	Uc
NUY90Lfa	8.90	1/3	LMBP	F	208-230V 60Hz ~1	CSIR	R	C-V	168	297	383	1.10	724	514	1.42	9.28	Uc
NLY12NGa	10.70	3/8	LMBP	F	200-220/220-230V 50/60Hz ~1	CSIR	R	C-V	197	339	439	1.09	848	590	1.41	11.04	Ld
NLY12NGb	10.70	3/8	LMBP	F	200-220/220-230V 50/60Hz ~1	CSR	R	C-V	207	342	439	1.15	850	590	1.49	11.14	Ld
NLY12NRa	10.70	1/3	LMBP	F	115-127V 60Hz ~1	CSIR	R	C-V	188	338	437	1.10	835	587	1.42	10.94	Ld
NLY12NRb	10.70	1/3	LMBP	F	115-127V 60Hz ~1	CSR	R	C-V	191	343	443	1.16	845	595	1.49	11.04	Ld
NPY12LRa	12.10	3/8	LBP	F	115-127V 60Hz ~1	CSIR	R	C-V	199	362	473	1.04	927	637	1.35	11.77	Pd
NPY12LRb	12.10	3/8	LBP	F	115-127V 60Hz ~1	CSR	R	C-V	199	362	473	1.11	927	637	1.44	11.87	Pd
NPY14Lfa	14.32	1/2	LBP	F	208-230V 60Hz ~1	CSIR	R	C-V	269	466	603	1.04	1175	812	1.34	12.19	Pd
NPY14Lfb	14.32	1/2	LBP	F	208-230V 60Hz ~1	CSR	R	C-V	269	466	603	1.09	1175	812	1.42	12.29	Pd
NPT16LR	16.10	1/2	LBP	F	115-127V 60Hz ~1	CSR	R	C-V	288	492	637	1.10	1244	857	1.42	12.70	Pd

● Green Cooling Models ● New Models (**) Under development

R290 HMBP | HBP • 50 Hz

Natural Refrigerant

MODEL	DISPLACEMENT cm ³	POWER hp	APPLICATION	CPR COOLING	VOLTAGE FREQUENCY	MOTOR	STARTING	EXPANSION	REFRIGERATION CAPACITY								WEIGHT Kg	DESIGN
									COP in W/W 1 W = 0,864 kcal/h = 3,415 BTU/h Evaporating Temperature °C									
									Cecomaf (W)					Ashrae				
									-25	-15	5		10	7.2				
											W	COP		W	COP			
 NBC22RA	2.20	1/12	HMBP	F	220-240V 50Hz ~1	CSIR	R	C-V	54	93	222	1.87	264	265	2.21	5.20	Bc	
 NBC30RA	3.10	1/10	HMBP	F	220-240V 50Hz ~1	CSIR	R	C-V	100	157	354	2.21	421	423	2.61	5.80	Be	
 NUY45RAa	4.50	1/5	HMBP	F	220-240V 50Hz ~1	CSIR	R	C-V	142	231	516	2.36	610	615	2.77	9.30	Ub	
 NUY55RAa	4.50	1/5	HMBP	F	220-240V 50Hz ~1	CSIR	R	C-V	192	298	653	2.29	771	778	2.69	9.50	Ub	
 NUY60RAa	6.00	1/4	HMBP	F	220-240V 50Hz ~1	CSIR	R	C-V	208	328	714	2.32	841	850	2.72	9.48	Ub	
 NUY70RAa	6.70	1/4	HMBP	F	220-240V 50Hz ~1	CSIR	R	C-V	248	382	817	2.34	961	972	2.75	9.60	Uc	
 NUY70Rab	6.70	1/4	HMBP	F	220-240V 50Hz ~1	CSR	R	C-V	248	382	817	2.47	961	972	2.90	9.70	Uc	
 NUY90Rab	8.90	3/8	HMBP	F	220-240V 50Hz ~1	CSR	R	C-V	290	461	1045	2.25	1240	1247	2.65	9.80	Uc	
 NLY12RAa	10.70	3/8	HMBP	F	220-240V 50Hz ~1	CSIR	R	C-V	379	584	1224	2.06	1432	1453	2.41	11.44	Ld	
 NLY12Rab	10.70	3/8	HMBP	F	220-240V 50Hz ~1	CSR	R	C-V	379	597	1249	2.28	1457	1480	2.66	11.54	Ld	
 NLY12RGa	10.70	1/2	HMBP	F	200-220/220-230V 50/60Hz ~1	CSIR	R	C-V	341	553	1217	2.03	1432	1448	2.39	12.14	Ld	
 NLY12RGb	10.70	1/2	HMBP	F	200-220/220-230V 50/60Hz ~1	CSR	R	C-V	355	554	1226	2.20	1450	1462	2.58	12.24	Ld	
 NPY12RAa	12.10	1/2	HBP	F	220-240V 50Hz ~1	CSIR	R	C-V	-	635	1460	2.08	1735	1745	2.45	12.16	Pd	
 NPY12Rab	12.10	1/2	HBP	F	220-240V 50Hz ~1	CSR	R	C-V	-	635	1460	2.28	1735	1745	2.70	12.26	Pd	
 NPT14RA	14.32	1/2	HBP	F	220-240V 50Hz ~1	CSR	R	C-V	-	763	1709	2.26	2085	2065	2.69	12.25	Pd	
 NPT16RA	16.10	2/3	HBP	F	220-240V 50Hz ~1	CSR	R	C-V	-	853	1911	2.18	2331	2310	2.55	12.34	Pd	
 NX18TBa	18.40	3/4	HMBP	F	220-240V 50Hz ~1	CSR	R	C-V	511	852	2039	2.22	2440	2445	2.61	16.14	Xd	
 NX21TBa	20.72	7/8	HMBP	F	220-240V 50Hz ~1	CSR	R	C-V	601	973	2267	2.18	2705	2714	2.55	16.09	Xd	

R290 HMBP | HBP • 60 Hz

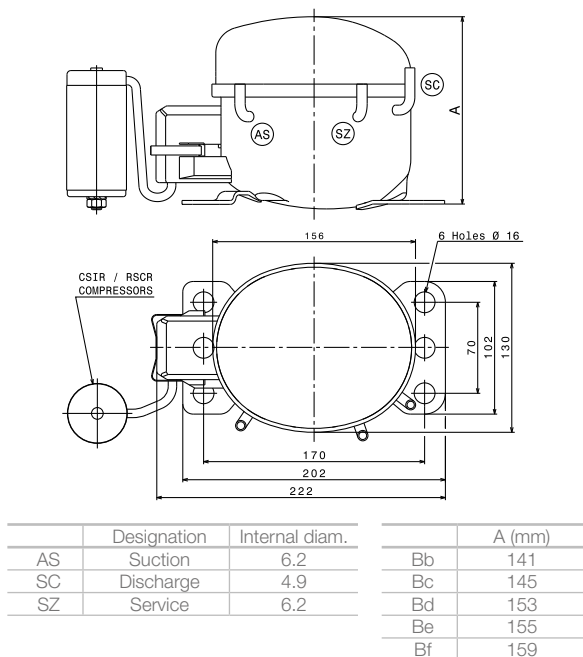
Natural Refrigerant

MODEL	DISPLACEMENT	POWER	APPLICATION	CPR COOLING	VOLTAGE FREQUENCY	MOTOR	STARTING	EXPANSION	REFRIGERATION CAPACITY						WEIGHT	DESIGN	
									COP in W/W 1 W = 0,864 kcal/h = 3,415 BTU/h Evaporating Temperature °C								
									Cecomaf (W)				Ashrae				
									-25	-15	5		10	7.2			
											W	COP		W			COP
🟡 NLT12RR	10.70	1/2	HMBP	F	115-127V 60Hz ~1	CSR	R	C-V	424	691	1501	2.15	1761	1784	2.51	11.91	Ld
🟡 NLY12RGa	10.70	1/2	HMBP	F	200-220/220-230V 50/60Hz ~1	CSIR	R	C-V	418	669	1445	2.07	1696	1718	2.41	12.14	Ld
🟡 NLY12RGb	10.70	1/2	HMBP	F	200-220/220-230V 50/60Hz ~1	CSR	R	C-V	429	679	1469	2.25	1727	1747	2.63	12.24	Ld
🟡 NPT14RR	14.32	1/2	HMBP	F	115-127V 60Hz ~1	CSR	R	C-V	590	938	1987	2.20	2323	2357	2.56	13.35	Pd
🟡 NPT16RR	16.15	2/3	HMBP	F	115-127V 60Hz ~1	CSR	R	C-V	629	963	2204	2.11	2633	2640	2.46	13.74	Pd

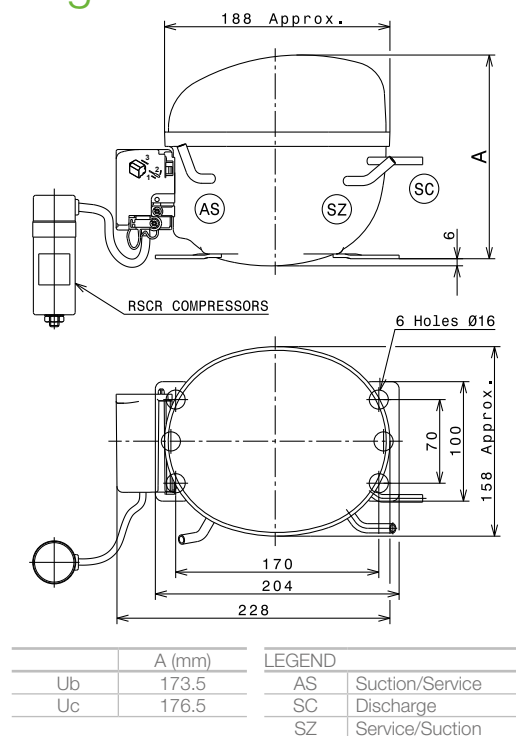
● Green Cooling Models ● New Models (**) Under development

Dimensional Drawing

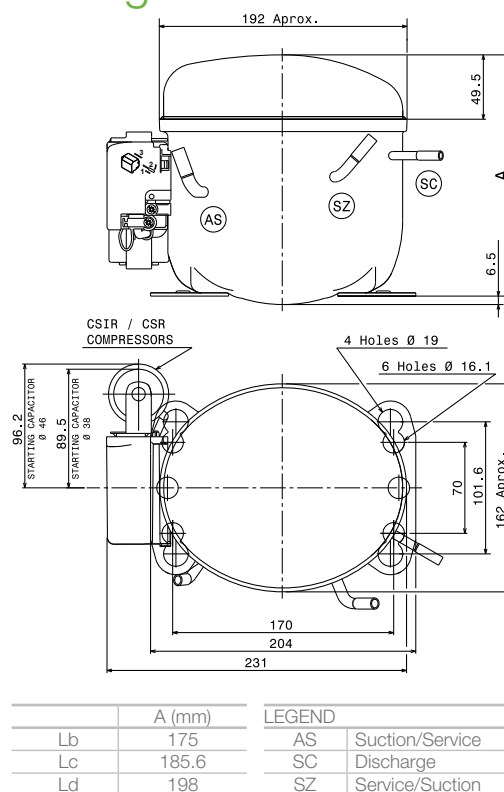
B range



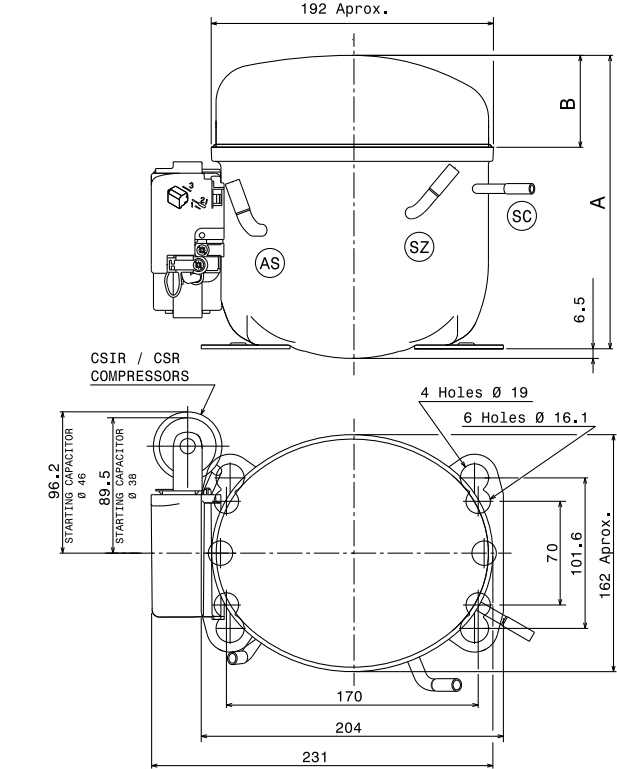
U range



L range



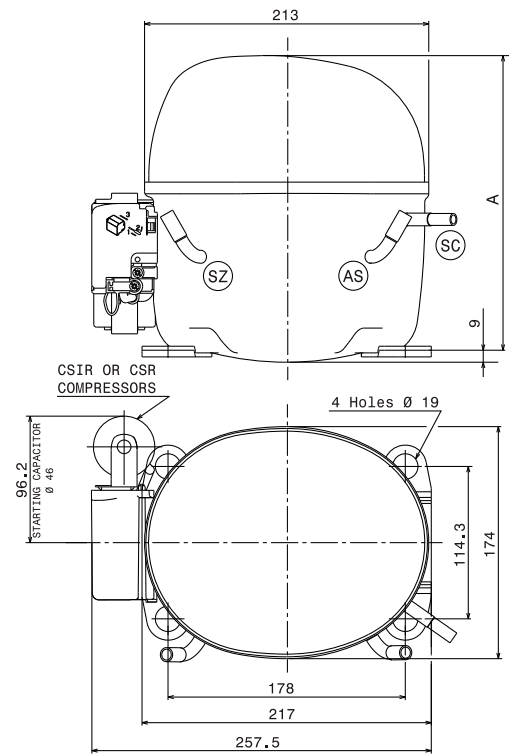
P range



	A (mm)	B (mm)
Pc	198.1	62
Pd	210.5	62
Pe	215.5	67

LEGEND	
AS	Suction/Service
SC	Discharge
SZ	Service/Suction

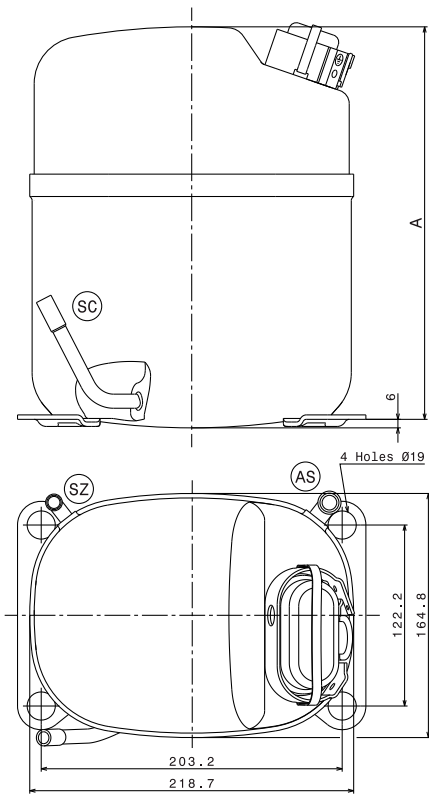
X range



	A (mm)
Xc	215
Xd	221

LEGEND	
AS	Suction/Service
SC	Discharge
SZ	Service/Suction

S range (Tube)



	A (mm)
Sb	252
Sc	265
Sd	276

LEGEND (TUBE)	
AS	Suction/Service
SC	Discharge
SZ	Service/Suction



R290 COMPRESSORS CATALOGUE · 09/2019



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