# SRVIEC

# **PRODUCT GUIDE**

HVAC-R compressors for commercial and industrial applications



#### ADVANCED COMPRESSOR TECHNOLOGIES

**SRM** has 80+ years' experience in compressors technology and has always been at the fore-front of innovation.

**SRM Sweden** invented the screw compressor in 1935, and then many other manufacturers have used this patent to manufacture their own compressors.

#### **SRM Italy** was the first in the world:

- to invent a semi-hermetic ammonia compressor.
- to have automatic regulation of the compression ratio (Vi), without the need for electronics or electromechanical device.
- to have a centrifugal oil separator, 80% more efficient than a standard oil separator by demister.

This continuous innovation allows our compressors to have superior efficiency.

This increased efficiency is nowadays extremely important for all our customers wanting to reduce the operating costs of their applications.





# **MADE IN ITALY**

New production facility in Italy



# **CONTINUOUS INNOVATION**

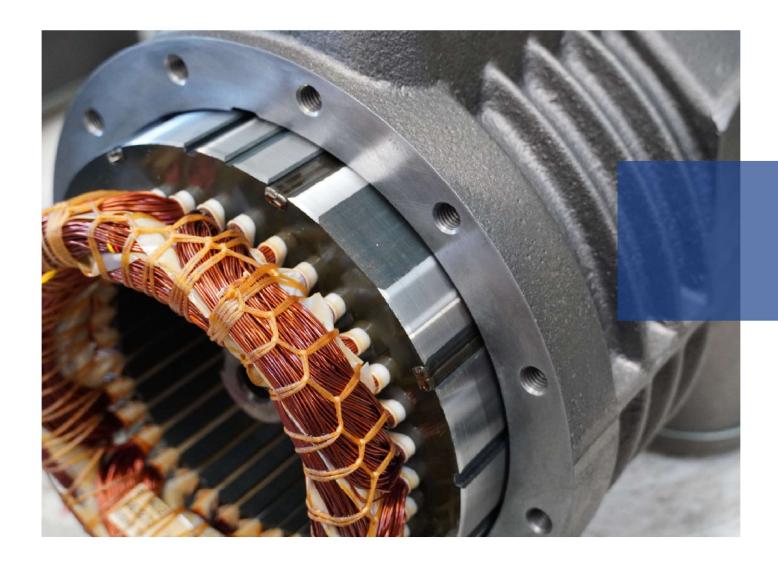
The most advanced technologies for HVAC-R compressors







## **SRM ITALY**



## **MADE IN ITALY COMPRESSORS**

**SRM Italy is manufacturing both SRMTec and RefComp brand** in a new facility of 11.000 m<sup>2</sup>, located in Northern Italy, between Milan and Venice.

The main focus is put on:

- Precision: for instance, 8-micron tolerance achieved on the complex rotors profiles
- Reliability: thanks to manufacturing technology, and extensive tests

**SRM Italy R&D center** has been at the origin of the main technological brekthroughs of the recent years in semi-hermetic compressors (auto-Vi, semi-hermetic ammonia compressor, centrifugal oil separator integrated in the compressor).

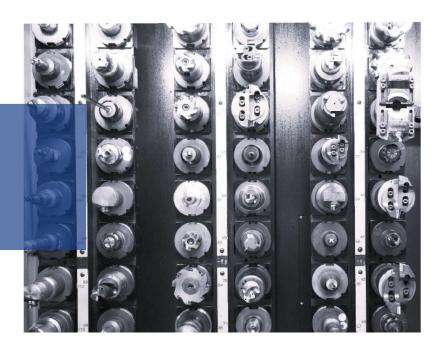
# **SRM ITALY**



# **SRM ITALY**

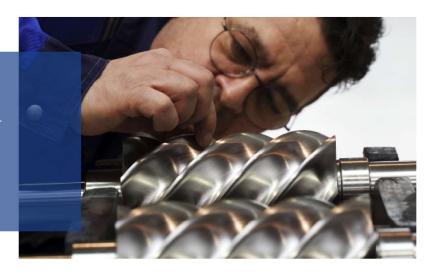
## **High capacity CNC machines**

Automatized production is allowing consistent quality, steady reliability, and a high quantity of compressors produced.



#### High precision screw manufacturing

The screws, or rotors, are the heart of a compressor. In order to reach a superior reliability, a top-notch precision is required. That's why they are produced in a controlled temperature workshop, with high precision machines.



## **High-capacity stock**

In order to deliver the goods all over the world, our customers can rely on a large storage area.





#### **BRANDS**

Depending on the markets and on the customers, SRM Italy is able to produce the three brands of compressors of the group.



SRMTec blue is the line for commercial compressors.

Suitable for all refrigerants, except ammonia.

A complete line of semi-hermetic piston and screw compressors.



SRMTec Orange is the line for industrial compressors.

Suitable for ammonia refrigerant.

Semi-hermetic and open type screw compressors.



The historical Italian of RefComp brand is continued. Suitable for commercial applications, with new models available.



# **Our history**

"Fujian Snowman Group" is the mother company of SRM Italy. Listed on the Shenzen stock exchange, it has one of the highest growth rates in the HVAC-R compressor sector.



SRM (Svenska Rotor Maskineer) is founded in Stockholm (Sweden).





**Invention of screw compressor.**Alf Lysholm, chief engineer in SRM Sweden, patent the screw compressor technology.





RefComp is founded in Lonigo, Italy. Becoming in the following years a worldwide leading company in semi-hermetic compressor.





**Fujian Snowman is founded in China.** Production of Ice machines and refrigeration systems.







Fujian Snowman acquires SRM Sweden.





Fujian Snowman acquires RefComp.





#### SRMTec brand is launched

SRMTec brand is merging the knowledge of RefComp Italy, SRM Sweden, and Fujian Snowman Group:

- -SRMTec blue : commercial compressors (HFC/HFO)
- -SRMTec orange: industrial compressors (ammonia)





### SRM Italy is founded in Lonigo Italy

SRM Italy is founded and starts the production of SRMTec blue compressors in a new building.





# SRM Italy produces ammonia compressors.

SRM Italy begins production of SRMTec orange (ammonia compressors)



# **Snowman Group**

**Fujian Snowman Group** was born from the union of different companies that merged the knowledge and the know-how in HVAC sector. Fujian Snowman has multiple subsidiaries all around the globe.



# **Snowman Group**

The main associated companies are:

- **SRM** (Svenska Rotor Maskiner) located in Sweden;
- **RefComp** located in Italy;
- SRMTec Group located in Germany



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Fujian Snowman Co., Ltd. established in March, 2000 and public-listed at Shenzhen Stock Exchange in Dec, 2011 (Stock code: 002639). Snowman, is a high-tech enterprise with compressor technology as a core, specialized in development, designing, manufacturing, sales, installation, and after-sales service of industrial & commercial refrigeration and cold storage units as well as complete packages of refrigeration systems and ice making system.









# **Snowman Group**



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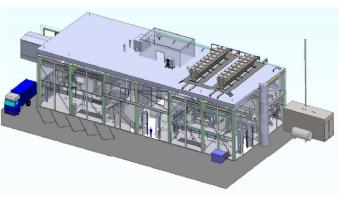




# Svenska Rotor Maskiner (SRM) - Sweden

Svenska Rotor Maskiner (SRM) is a global high-tech company leading innovation and development of compressors and pumps for different working medias such as refrigerants, raw biogas, industrial air and hydrogen. We offer a wide range of service areas, applications and products, all with our unique rotor technology as its core.







# **COMPRESSOR RANGE**

# 1 Reciprocating compressors



RANGE	CONFIGURATION	REFRIGERANT	TEMPER LOW	ATURE HIGH	PAGE
RP1 / RP2	Single-stage	HFC/HFO	0	0	20
SP1	Transcritical	CO <sub>2</sub>	0	0	26
TP1	Single-stage	Hydrocarbons	0	0	30
PP1 / PP2	Double-stage	HFC/HFO	0		34
DP1	Subcritical	CO <sub>2</sub>	0		38

# 2 Compact screw compressors (with oil separator)



RANGE	CONFIGURATION	REFRIGERANT	TEMPERATURE LOW HIGH	PAGE
ES3	High efficiency	HFC/HFO	0	42
RS3	Multipurpose	HFC/HFO	0	46
RS5	Very high efficiency	HFC/HFO	0	50
PS3	HC optimized	Hydrocarbons	0 0	54
PS5	HC optimized	Hydrocarbons	0 0	58
SRS-C	High separation	Ammonia	0 0	60

# **COMPRESSOR RANGE**

# 3 Screw compressors (without oil separator)



RANGE	CONFIGURATION	REFRIGERANT	TEMPERATURE LOW HIGH	PAGE
SRS	Single-stage	Ammonia	0	64
RW3	Versatile	HFC/HFO	0	66
RW5	High efficiency	HFC/HFO	0	72
SRS 2 STAGE	Double-stage	Ammonia	0	76

# 4 Open-type compressors





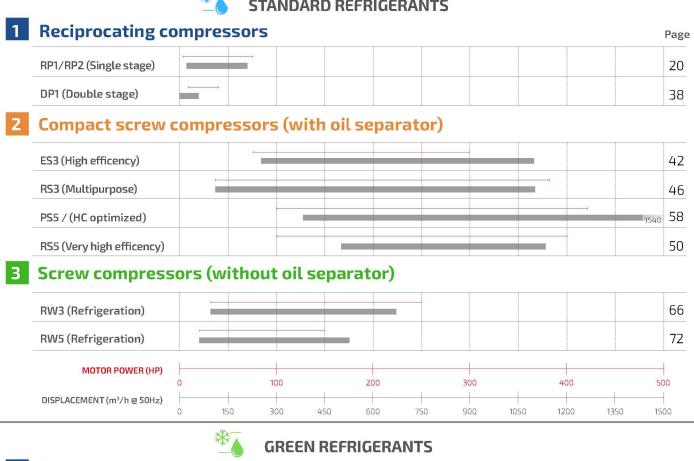


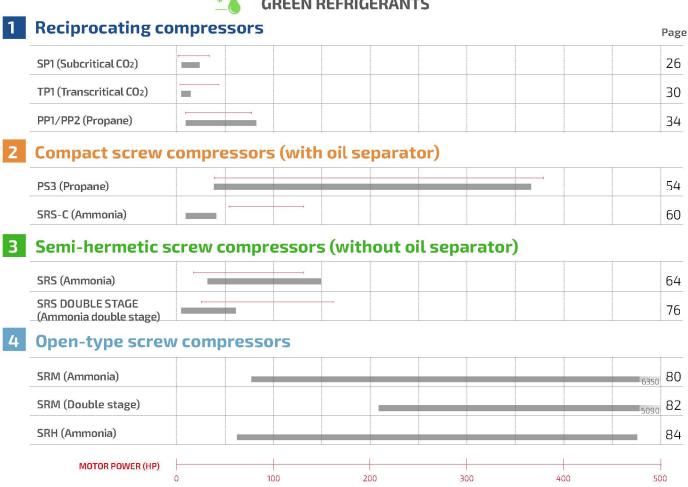
RANGE	CONFIGURATION	REFRIGERANT	TEMPERATURE LOW HIGH	PAGE
SRM	Single-stage	Ammonia	0	80
SRM 2 STAGE	Double-stage	Ammonia	0	82
SRH	High pressure	Ammonia	0	84

#### DISPLACEMENT AND POWER



#### STANDARD REFRIGERANTS





DISPLACEMENT (m3/h@50Hz)

#### MODEL DESIGNATION

4 08 - S L O RP2- H RP2 Compressor type • H Motor Size L = Small size motor / H = Full size motor • 4 No. of cylinders • 08 Nominal power [Hp] Specification of lubrication type (where required) F: Forced lubrication (with oil gear pump) S: Splasher lubrication (without oil gear pump) Accessories voltage L = Electrical accessories 220V AC 50/60Hz M = Electrical accessories 110V AC 50/60Hz Y = Electrical accessories 24V AC 50/60Hz U = Electrical accessories UL approved 220V AC 50/60Hz (only for S series) V = Electrical accessories UL approved 110V AC 50/60Hz (only for S series) . 0 Partial load control (0/1/2)0 = without steps capacity control; 1 = 1 steps capacity control (100-50% step) made with 1 solenoid valve (where available) Z = Z steps capacity control (100-66-33% step) made with Z solenoid valve (where available)

140 -L 4 H ES3 Compressor type . H Motor Size L = Small size motor / H = Full size motor • 140 Nominal power [Hp] Accessories voltage L = Electrical accessories 220V AC 50/60Hz M = Electrical accessories 110V AC 50/60Hz Y = Electrical accessories 24V AC 50/60Hz U = Electrical accessories UL approved 220V AC 50/60Hz (only for S series) V = Electrical accessories UL approved 110V AC 50/60Hz (only for S series) • 4 Partial load control (0/4/Z) 0 = without steps capacity control 4 = 4 steps capacity control (100-75-50% - minimum step) made with 3 solenoid valves (only for S series)  $Z = Infinite\ capacity\ control\ (from\ minimum\ capacity\ to\ 100\%\ or\ from\ 50\ to\ 100\%)\ (only\ for\ S\ series)$ 



High compression ratio version (if required)

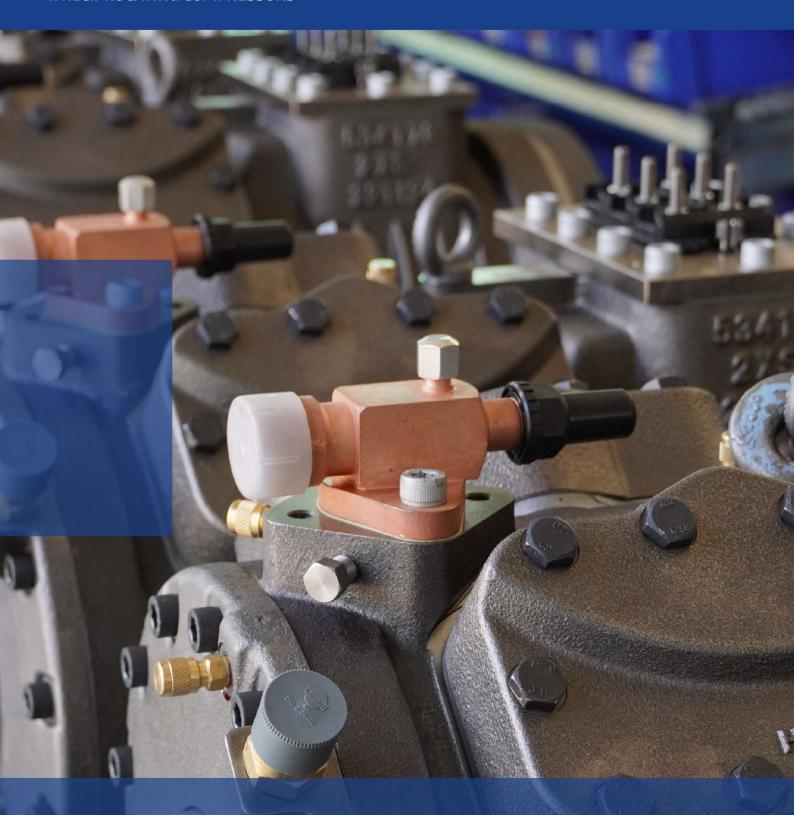
# RECIPROCATING COMPRESSORS

Semi-hermetic reciprocating compressors with 2, 4, 6 or 8 cylinders, offering high performance and efficiency within a robust and reliable package.

There are 5 ranges available for a total of 122 models offer displacements from 1,5 m $^3$ /h to 268 m $^3$ /h within a 0,5HP to 70HP range. Specific models can be set up for optimized operation with standard refrigerants, propane, and CO $_2$ .

SRMTec Italy reciprocating compressors, designed for low and medium temperature operations, offer a wide applicability within commercial and industrial refrigeration systems, as well as specific air conditioning applications.





Semi-hermetic reciprocating compressors working with HFC/HFO, propane and CO<sub>2</sub>. Developed for low, medium and high temperatures, in the field of commercial refrigeration, industrial refrigeration and for air conditioning.

# **RP1 / RP2**

Reciprocating compressor

#### For HFC/HFO refrigerants

#### **REFRIGERANTS**

- R22
- R1233ze
- R134a
- R448A
- R407C
- R449A
- R404A
- R1233zde
- R507A

#### **KEY ADVANTAGES**

- Low noise and vibrations: internal chambers and volumes dampening pressure pulsations
- Superior compression efficiency: "Computational Fluid Dynamics" (CFD) optimized reed valves
- Advanced oil management system
- Reliability: long life sleeve bearings
- In addition, for RP2:
- Ultra-compact design: most compact dimensions in its power range
- Heavy loads: 30+ bars

#### STANDARD EXTENT OF DELIVERY

- Pressure relieve valve
- Sight glass
- Lubrication oil charge
- Motor PTC tempetature sensor
- Suction shut-off valve
- Nitrogen protection
- Motor protector INT69B2
- IP54 electrical box
- D.O.L. starting connection
- Discharge shut-off valve

### **APPLICATIONS**

Low and medium evaporating temperatures

- Refrigeration
- Liquid chiller
- Heat pumps
- Process cooling
- Supermarkets cells
- Refrigerated counter



Refrigeration



Heat pumps



Air conditioning



# **RP1 / RP2**

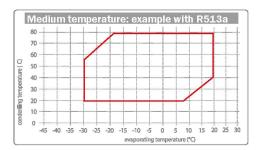
Reciprocating compressor

For HFC/HFO refrigerants

## **OPTIONS**

							l - moto	r				
				2	cylinde	rs				4 cyli	nders	
Options	Model	RP2-H2015-5	RP2-H2020-5	RP2-H2021-5	RP2-H2030-5	RP2-H2031-5	RP2-H2035-5	RP2-H2040-5	RP2-H405-S	RP2-H406-S	RP2-H407-5	RP2-H409-S
	Displacement (m³/h @50Hz)	5,4	6,7	8,2	9,8	11,6	13,6	16,5	19,3	23,1	27,3	33,1
	Nominal motor power (HP)	1,5	2	2	3	3	3,5	4	5	6	8	9
	Lenght Width Height (cm)	37 20 28	37 20 28	37 20 28	44 25 32	44 25 32	44 25 32	44 25 32	45 29 29	45 29 29	48 29 29	65 34 40
	Weight (kg)	48,7	50,7	50,3	108,4	73,8	77,5	79,7	84	84,5	89,5	92
1	Version with splasher (-S)	S	S	S	S	S	S	S	S	S	S	S
2	Version with oil pump (-F)	-	Ţ	-	1	-	1	-	I	_	1	-
3	Standard motor voltage				400VY	- 230 V D	/3/50Hz -	440V/3/	60HzY			
4	Motor with special voltage	0	0	0	0	0	0	0	0	0	0	0
5	Motor with DUAL voltage	0	0	0	0	0	0	0	0	0	0	0
6	Start Unloading device	Т	-	1	T	1	I	-	0	0	0	0
7	Crankcase heater	0	0	0	0	0	0	0	0	0	0	0
8	1x Capacity control head with coil		п		0	-	1	i i	0	0	0	0
9	2x Capacity control head with coil	Ī	ī	n-	ī	1	î	-	ī	-	ī	-
10	Additional fan	-	-	-	ï	-	1	-	0	0	0	0
11	Liquid injection kit with LCM module	-	1	-	ī	-	1	-	1	-	ī	-
12	Electronic oil pressure safety switch	-	J	-	1	-	1	-	1	-	J	-
13	Opto-electronic oil level sensor	0	0	0	0	0	0	0	0	0	0	0
14	Discharge temperature sensor	0	0	0	0	0	0	0	0	0	0	0
15	Oil&Gas equalizing fittings for parallel operation	1	-	-	1	1	1	1	1	-	1	-
16	Oil service valve	T)	1		ī	1	ī	-	1	-	1	-
17	Rubber vibration dampers	S	S	S	S	5	S	S	S	S	S	S
18	Spring vibration dampers	_	=	_	i i	_	1	_	9	-	-	_
19	Special wooden package	0	0	0	0	0	0	0	0	0	0	0

S: Standard O: Optional (0): Optional for -F version -: Not available





	H - motor													
					4 cyli	nders				6	cylind	ers	8 cylir	ıders
Options	Model	RP1-H410-S	RP1-H412-5	RP1-H415-S	RP1-F420-S	RP1-H422-F	RP1-H425-F	RP1-H430-F	RP1-H435-F	RP1-H637-F	RP1-F640-F	RP1-H650-F	RP1-+860-F	RP1-H870-F
	Displacement (m³/h @50Hz)	35	42	49	56	64,7	75	86,1	102,9	112,5	129,1	154,4	186	222
	Nominal motor power (HP)	10	12	15	20	22	25	30	35	37	40	50	60	70
	Lenght Width Height (cm)	65 34 40	65 34 40	68 44 40	68 44 40	72 51 46	72 51 46	72 51 46	72 51 46	81 56 50	81 56 50	79 56 50	91 51 54	91 51 54
	Weight (kg)	143	146	152	155	193	206	209	238	241	246	250	345	350
1	Version with splasher (-S)	S	S	S	S	-	-	-	-	-	-	-	-	-
2	Version with oil pump (-F)	(0)	(0)	(0)	(0)	S	S	S	S	S	S	S	S	S
3	Standard motor voltage				_	400	V/3/50H	z - 440V	//3/60Hz	PW				
4	Motor with special voltage	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Motor with DUAL voltage	0	0	0	0	0	0	0	0	0	0	0	-	-
6	Start Unloading device	0	0	0	0	0	0	0	0	0	0	0	-	-
7	Crankcase heater	0	0	0	0	0	0	0	0	0	0	0	0	0
8	1x Capacity control head with coil	0	0	0	0	0	0	0	0	0	0	0	0	0
9	2x Capacity control head with coil	-	-	-	-	-	-	-	-	0	0	0	0	0
10	Additional fan	0	0	0	0	0	0	0	0	0	0	0		-
11	Liquid injection kit with LCM module	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Electronic oil pressure safety switch	(0)	(0)	(0)	(0)	0	0	0	0	0	0	0	0	0
13	Opto-electronic oil level sensor	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Discharge temperature sensor	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Oil&Gas equalizing fittings for parallel operation	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Oil service valve	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Rubber vibration dampers	=	J	3	-	ı	_	1	-	7	-	Ţ	S	S
18	Spring vibration dampers	5	5	5	5	S	S	5	S	5	S	5	0	0
19	Special wooden package	0	0	0	0	0	0	0	0	0	0	0	0	О



# **RP1 / RP2**

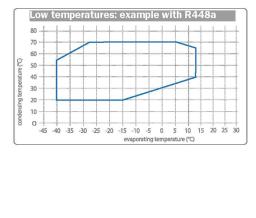
Reciprocating compressor

For HFC/HFO refrigerants

## **OPTIONS**

						ī	moto	r				
				2	cylinde	rs				4 cyli	nders	
Options	Model	RP2-L2010-5	RP2-L2015-5	RP2-L2016-5	RP2-L2C20-5	RP2-L2021-5	RP2-L2025-5	RP2-L2G30-5	RP2-L403-5	RP2-L404-5	RP2-L405-5	RP2-L406-5
	Displacement (m³/h @50Hz)	5,4	6,7	8,2	9,8	11,6	13,6	16,5	19,3	23,1	27,3	33,1
	Nominal motor power (HP)	1	1,5	1,5	2	2	2,5	3	3	4	5	6
	Lenght Width Height (cm)	37 20 28	37 20 28	37 20 28	37 20 28	44 25 32	44 25 32	44 25 32	45 29 29	45 29 29	45 29 29	48 29 29
	Weight (kg)	46,8	48,5	48,5	50,3	73,8	73,8	77,5	82,5	83	83,5	89
1	Version with splasher (-S)	5	S	S	S	S	S	S	S	5	5	S
2	Version with oil pump (-F)	1	Ш	1	1	-	=	-	-	-	-	-
3	Standard motor voltage				400V Y	′ - 230V D	/3/50Hz -	440V/3/6	50HzY			
4	Motor with special voltage	0	0	0	0	0	0	0	0	0	0	0
5	Motor with DUAL voltage	0	0	0	0	0	0	0	0	0	0	0
6	Start Unloading device	=	j.	E	11-12 ×	E.	1	1	0	0	0	0
7	Crankcase heater	0	0	0	0	0	0	0	0	0	0	0
8	1x Capacity control head with coil	-	-	-	-	-		-	0	0	0	0
9	2x Capacity control head with coil	-	ī	-	1-1	1	-	_	-	-	-	-
10	Additional fan	-		-	-	-	1	-	0	0	0	0
11	Liquid injection kit with LCM module	-	-	-	-	-		-	-	-	-	
12	Electronic oil pressure safety switch	-	Į.	-	_	-		-	-	-	-	-
13	Opto-electronic oil level sensor	0	0	0	0	0	0	0	0	0	0	0
14	Discharge temperature sensor	0	0	0	0	0	0	0	0	0	0	0
15	Oil&Gas equalizing fittings for parallel operation	1	1	1	)	1	1	1	1	1	1	-
16	Oil service valve	-	- J	_	12	_	_	_	_	1	- U	-
17	Rubber vibration dampers	S	S	S	S	S	S	S	S	S	S	S
18	Spring vibration dampers	_	-	-		-		-	0	0	0	0
19	Special wooden package	0	0	0	0	0	0	0	0	0	0	0

S: Standard O: Optional (0): Optional for -F version -: Not available





	L - motor													
					4 cyli	nders				6	cylind	ers	8 cylir	ıders
Options	Model	RP1-L406-S	RP1-L408-5	RP1-L410-5	RP1-L412-5	RP1-L415-F	RP1-L418-F	RP1-L422-F	RP1-L425-F	RP1-L627-F	RP1-L630-F	RP1-L640-F	RP1-L850-F	RP1-L860-F
	Displacement (m³/h @50Hz)	35	42	49	56	64,7	75	86,1	102,9	112,5	129,1	154,4	186	222
	Nominal motor power (HP)	6	8	10	12	15	18	22	25	27	30	40	50	60
	Lenght Width Height h (cm)	65 34 40	65 34 40	65 34 40	65 34 40	72 51 46	72 51 46	72 51 46	72 51 46	81 56 50	81 56 50	79 56 50	91 51 54	91 51 54
	Weight (kg)	134	139	144	146	182	186	195	220	230	236	247	340	345
1	Version with splasher (-S)	S	S	S	S	1	-	J	_	1	_	-	_	· ·
2	Version with oil pump (-F)	(0)	(0)	(0)	(0)	S	S	S	S	S	S	S	S	S
3	Standard motor voltage					400	)V/3/50H	lz - 440\	//3/60Hz	PW				
4	Motor with special voltage	0	0	0	0	0	0	0	0	0	0	0	0	0
5	Motor with DUAL voltage	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Start Unloading device	0	0	0	0	0	0	0	0	0	0	0		
7	Crankcase heater	0	0	0	0	0	0	0	0	0	0	0	0	0
8	1x Capacity control head with coil	0	0	0	0	0	0	0	0	0	0	0	0	0
9	2x Capacity control head with coil	9	_	-	_	1	1	-	_	0	0	0	0	0
10	Additional fan	0	0	0	0	0	0	0	0	0	0	0		
11	Liquid injection kit with LCM module	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Electronic oil pressure safety switch	(0)	(0)	(0)	(0)	0	0	0	0	0	0	0	0	0
13	Opto-electronic oil level sensor	0	0	0	0	0	0	0	0	0	0	0	0	0
14	Discharge temperature sensor	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Oil&Gas equalizing fittings for parallel operation	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Oil service valve	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Rubber vibration dampers		=	=	-	-	-	-	-	ī	-	-	S	S
18	Spring vibration dampers	S	S	S	S	S	S	S	S	S	S	S	0	0
19	Special wooden package	0	0	0	0	0	0	0	0	0	0	0	0	0





Reciprocating compressor **CO2 Subcritical** 

#### REFRIGERANTHS

• CO<sub>2</sub>

#### **KEY ADVANTAGES**

- Low noise and vibrations: internal chambers and volumes dampening pressure pulsations
- Innovative piston heads: reduced internal discharge-to-suction heat transfer
- "Computational Fluid Dynamics" optimized reed valves, for superior compression efficiency
- Compact design
- Suitable for heavy loads: shaft, body and all components designed for up to 50 bars working pressure
- Advanced oil management system, high efficiency splasher with anti-foaming design
- Reliability: long life sleeve bearings

Developed for low GWP CO2 and for operation in subcritical applications, with displacements from 1,5 to  $48,5 \text{ m}^3/\text{h}$  and motor powers spanning 0,5-30HP. Typically used for cascade and 2-stage compound systems.

Available in 2 or 4 cylinder configurations for low and medium temperature applications.

#### STANDARD EXTENT OF DELIVERY

- Pressure relieve valve
- Sight glass
- Lubrication oil charge
- Motor PTC temperature sensor
- Suction & discharge shut-off valves
- Motor protector INT69B2
- IP54 electrical box
- Nitrogen protection
- · D.O.L. starting connections

# **APPLICATIONS**

Refrigeration and low evaporating temperatures

- Refrigeration
- Cascade and booster systems







# **OPTIONS**

							H - moto	or				
						7	2 cylinde	rs				
Options	Model	S-500ZH-LdS	SP1-H2007-S	S-8002H-L4S	S-010ZH-1dS	SP1-H2020-S	S-0E0ZH-LdS	SP1-H2031-S	SP1-H2040-5	SP1-H2041-S	SP1-H2050-S	SP1-H2060-S
	Displacement (m³/h @50Hz)	1,5	1,8	2,3	2,8	3,6	4,5	5,5	6,7	7,8	9,2	11,2
	Nominal motor power (HP)	0,5	0,7	0,7	1	2	3	3	4	4	5	6
	Lenght Width Height (cm)	37 20 30	37 20 30	37 20 30	37 20 30	37 20 30	37 20 30	39 20 30	39 20 30	44 26 35	44 26 35	46 26 35
	Weight (kg)	47	47	48	48	50	50	52	52	78	80	84
1	Version with splasher (-5)	5	5	5	5	S	5	5	5	5	S	S
2	Standard motor voltage				400	V Y - 230V	D/3/50Hz	- 440V/3/6	OHZ Y			
3	Motor with special voltage	0	0	0	0	0	0	0	0	0	0	0
4	Crankcase heater	0	0	0	0	0	0	0	0	0	0	0
5	PAG oil charge	0	0	0	0	0	0	0	0	0	0	0
6	Additional fan	0	0	0	0	0	0	0	0	0	0	0
7	Opto-electronic oil sensor	0	0	0	0	0	0	0	0	0	0	0
8	Discharge temperature sensor	0	0	0	0	0	0	0	0	0	0	0
9	Rubber vibration dampers	5	S	S	S	S	S	S	5	S	S	S
10	Special wooden package	0	0	0	0	0	0	0	0	0	0	0

S: Standard

0: Optional

(0): Optional for -F version

- : Not available



			H-m	notor					
					4 cyli	nders			
Options	Model	SP1-H4070-S	SP1-H4090-S	SP1-H4100-5	SP1-H4120-S	SP1-H4150-S	SP1-H4200-S	SP1-H4250-S	SP1-H4300-S
	Displacement (m³/h @50Hz)	13	15,6	18,4	22,3	28,7	34,7	41,3	48,5
	Nominal motor power (HP)	7	9	10	12	15	20	25	30
	Lenght Width Height (cm)	51 32 40	51 32 40	53 31 40	53 31 40	22 34 41	22 34 41	77 34 41	77 34 41
	Weight (kg)	97	98	103	103	158	162	172	175
1	Version with splasher (-S)	5	5	5	5	5	5	5	S
2	Standard motor voltage			400\	J/3/50Hz - 4	440V/3/60H	Iz PW		
3	Motor with special voltage	0	0	0	0	0	0	0	0
4	Crankcase heater	0	0	0	0	0	0	0	0
5	PAG oil charge	0	0	0	0	0	0	0	0
6	Additional fan	0	0	0	0	0	0	0	0
7	Opto-electronic oil sensor	0	0	0	0	0	0	0	0
8	Discharge temperature sensor	0	0	0	0	0	0	0	0
9	Rubber vibration dampers	5	5	5	5	5	5	5	S
10	Special wooden package	0	0	0	0	0	0	0	0





**CO2 Transcritical** 

#### REFRIGERANTS

• CO<sub>2</sub>

#### **KEY ADVANTAGES**

- Low noise and vibrations: internal chambers and volumes dampening pressure pulsations
- Innovative piston heads for reduced internal discharge-to-suction heat transfer
- CFD optimized reed valves for superior compression efficiency
- Compact design
- Suitable for heavy loads: shaft, body and all components designed for up to 140 bars working pressure
- Advanced oil management system, high efficiency splasher with anti-foaming design
- Reliability: long life sleeve bearings

#### STANDARD EXTENT OF DELIVERY

- Pressure relieve valve
- Sight glass
- Lubrication oil
- Motor PTC temperature sensor
- Suction & discharge shut-off valves
- Motor protector INT69B2
- IP54 electrical box
- Nitrogen protection
- · Rubber vibration dampers
- · D.O.L. starting connections

# **APPLICATIONS**

Low refrigeration temperatures with natural refrigerant and sub or trans-critical cycles

- Heat pumps
- Commercial refrigeration and supermarkets
- · AC



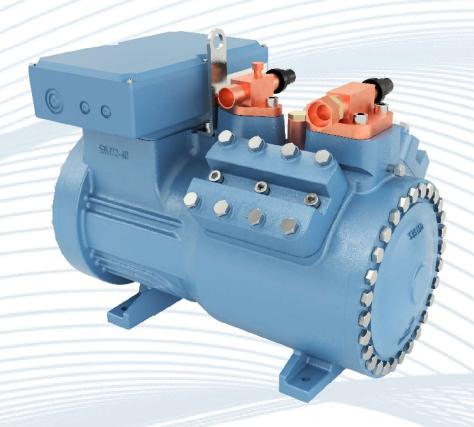
Refrigeration



Heat pumps



Air conditioning





# **OPTIONS**

						H-n	notor				
						4 cyli	inders				
Options	Model	TP1-H4070-S	Z-1704H-I4T	TP1-H4090-S	S-1604H-141	TP1-H4150-5	TP1-H4200-S	TP1-H4250-S	Z-00E#H-L41	Z-0754H-I7T	TP1-H4400-S
	Displacement (m³/h @50Hz)	4,4	5,4	6,6	8	9,2	11,9	14,4	17,8	21,9	25,5
	Nominal motor power (HP)	7	7	9	9	15	20	25	30	37	<b>/10</b>
	Lenght Width Height (cm)	51     51     51     54     67     67     67     72     72       31     31     31     35     35     35     35       40     40     40     41     41     41     41     41							72 35 41		
	Weight (kg)	102	102	109	114	158	165	170	182	188	195
1	Version with splasher (-S)	5	5	5	S	S	5	S	S	S	S
2	Standard motor voltage	400		V D/3/50 /60Hz Y	Hz -		400V/3	/50Hz - 4	40V/3/60	Hz PW	
3	Motor with special voltage	0	0	0	0	0	0	0	0	0	0
4	Crankcase heater	0	0	0	0	0	0	0	0	0	0
5	PAG oil charge	0	0	0	0	0	0	0	0	0	0
6	Additional fan	0	0	0	0	0	0	0	0	0	0
7	Opto-electronic oil sensor	0	0	0	0	0	0	0	0	0	0
8	Discharge temperature sensor	0	0	0	0	0	0	0	0	0	0
9	Suction & discharge shut-off valve	5	5	5	S	S	S	5	S	5	S
10	Rubber vibration dampers	5	5	5	5	S	5	5	S	S	S
11	Special wooden package	0	0	0	0	0	0	0	0	0	0

S: Standard

0: Optional

(0): Optional for -F version -: Not available



			L - motor										
						4	cylinde	rs					
Options	Model	TP1-L4060-S	TP1-L4061-S	TP1-L4070-S	TP1-L4071-5	TP1-L4090-S	TP1-L4100-S	TP1-L4150-S	TP1-L4200-S	TP1-L4201-S	TP1-L4250-5	TP1-L4300-S	
	Displacement (m³/h @50Hz)	4,4	5,4	6,6	8	9,6	9,2	11,9	14,4	17,8	21,9	25,5	
	Nominal motor power (HP)	6	6	7	7	9	10	15	20	20	25	30	
	Lenght Width Height (cm)	51 31 40	31 31 31 35 35 35 35								35	72 35 41	
	Weight (kg)	98	100	103	110	112	154	158	165	170	182	188	
1	Version with splasher (-S)	5	5	5	5	5	5	5	5	S	5	5	
2	Standard motor voltage	400 VY	′ - 230V D,	/3/50Hz -	440V/3/	60Hz Y		400V/3	/50Hz - <sup>∠</sup>	140V/3/60	OHz PW		
3	Motor with special voltage	0	0	0	0	0	0	0	0	0	0	0	
4	Crankcase heater	0	0	0	0	0	0	0	0	0	0	0	
5	PAG oil charge	0	0	0	0	0	0	0	0	0	0	0	
6	Additional fan	0	0	0	0	0	0	0	0	0	0	0	
7	Opto-electronic oil sensor	0	0	0	0	0	0	0	0	0	0	0	
8	Discharge temperature sensor	0	0	0	0	0	0	0	0	0	0	0	
9	Suction & discharge shut-off valve	5	5	5	5	5	5	5	5	S	5	5	
10	Rubber vibration dampers	5	S	S	5	5	S	S	S	S	S	S	
11	Special wooden package	0	0	0	0	0	0	0	0	0	0	0	





Reciprocating compressor

For hydrocarbons refrigerants

#### REFRIGERANTS

- R290 (propane)
- R600A (isobutane)
- R1270 (propylene)

#### **KEY ADVANTAGES**

- Special reed valves for hydrocarbons gasses, "Computational Fluid Dynamics" (CFD) optimized
- Low noise and vibrations: internal chambers and volumes dampening pressure pulsations
- Suitable for heavy loads: shaft, body and all components designed to work at 30+ bars
- Advanced oil management system, high efficiency "splasher" with anti-foaming effect, or pump operating even with reduced oil level
- Long life sleeve bearings
- Advanced sealing materials to avoid refrigerant leakages

#### STANDARD EXTENT OF DELIVERY

- Pressure relieve valve
- Sight glass
- Lubrication oil charge
- Motor PTC temperature sensor
- Discharge shut-off valves
- Motor protector (to be mounted in separate box)
- IP54 electrical box
- Nitrogen protection
- Kit bridges for D.O.L. start

## **APPLICATIONS**

Low and medium evaporating temperatures

- Process cooling
- Chillers
- Heat pumps



Refrigeration



Heat pumps



Air conditioning





Reciprocating compressor

For hydrocarbons refrigerants

## **OPTIONS**

		H - motor											
		4 cylinders											
Options	Model	PP2-H405-S	PP2-H406-5	PP2-H407-S	PP2-H409-S	PP1-H410-S	PP1-H412-S	PP1-H415-S	PP1-H420-S	PP1-H422-F	PP1-H425-F	PP1-H430-F	PP1-H435-F
	Displacement (m³/h @50Hz)	19,3	23,1	27,3	33,1	35	42	49	56	64,7	75	86,1	102,9
	Nominal motor power (HP)	5	6	8	9	10	12	15	20	22	25	30	35
	Lenght Width Height (cm)	45 29 29	45 29 29	48 29 29	48 29 29	65 34 40	65 34 40	68 34 40	68 34 40	73 51 46	73 51 46	73 51 46	73 51 46
	Weight (kg)	84	84,5	89,5	92	143	146	152	155	193	206	209	238
1	Version with splasher (-S)	S	S	S	S	S	S	S	S	-,	Ü	-	=
2	Version with oil pump (-F)	-	-	_	_	(0)	(0)	(0)	(0)	S	S	S	S
3	Standard motor voltage	400VY - 230V D/3/50Hz - 440V/3/60Hz Y				400V/3/50Hz - 440V/3/60Hz PW							
4	Motor with special voltage and with DUAL voltage	0	0	0	0	0	0	0	0	0	0	0	0
5	SU device + discharge temperature sensor	0	0	0	0	0	0	0	0	0	0	0	0
6	Crankcase heater	0	0	0	0	0	0	0	0	0	0	0	0
7	1x Capacity control head with coil	0	0	0	0	0	0	0	0	0	0	0	0
8	2x Capacity control head with coil	_	-	-	1	_	-	_	-	_	-	_	-
9	1x&2x capacity control head with Atex coil	0	0	0	0	0	0	0	0	0	0	0	0
10	Additional fan	0	0	0	0	0	0	0	0	0	0	0	0
11	Electronic oil pressure safety switch	-	-	-	-	(0)	(0)	(0)	(0)	0	0	0	0
12	Opto-electronic oil level sensor	0	0	0	0	0	0	0	0	0	0	0	0
13	Discharge temperature sensor	0	0	0	0	0	0	0	0	0	0	0	0
14	Oil&Gas equalizing fittings for parallel operation	0	0	0	0	0	0	0	0	0	0	0	0
15	Oil service valve	0	0	0	0	0	0	0	0	0	0	0	0
16	Suction shut-off valve	S	S	S	S	S	S	S	S	S	S	S	S
17	Rubber vibration dampers	S	S	S	S	0	0	0	0	0	0	0	0
18	Spring vibration dampers	-	-	-	-	S	S	S	S	S	5	S	S
19	Special wooden package	0	0	0	0	0	0	0	0	0	0	0	0

S: Standard

0: Optional

(0): Optional for -F version

- : Not available



	H-	- motor				
			6 cylinders		8 cyli	nders
Options	Model	PP1-H637-F	PP1-H640-F	PP1-H650-F	PP1-H860-F	PP1-H870-F
	Displacement (m³/h @50Hz)	112,5	129,1	154,4	186	222
	Nominal motor power (HP)	37	40	50	60	70
	Lenght Width Height (cm)	81 56 50	81 56 50	v79 56 50	91 51 54	91 51 54
	Weight (kg)	241	246	250	345	350
1	Version with splasher (-S)	-	-	=>	=	-
2	Version with oil pump (-F)	S	S	S	S	S
3	Standard motor voltage		400V/3/5	50Hz - 440V/3,	/60Hz PW	
4	Motor with special voltage and with DUAL voltage	0	0	0	0	0
5	SU device + discharge temperature sensor	0	0	0	-	-
6	Crankcase heater	0	0	0	0	0
7	1x Capacity control head with coil	0	0	0	0	0
8	2x Capacity control head with coil	0	0	0	0	0
9	1x&2x capacity control head with Atex coil	0	0	0	0	0
10	Additional fan	0	0	0	=	-
11	Electronic oil pressure safety switch	0	0	0	0	0
12	Opto-electronic oil level sensor	0	0	0	0	0
13	Discharge temperature sensor	0	0	0	0	0
14	Oil&Gas equalizing fittings for parallel operation	0	0	0	0	0
15	Oil service valve	0	0	0	0	0
16	Suction shut-off valve	S	S	S	S	S
17	Rubber vibration dampers	0	0	0	S	5
18	Spring vibration dampers	S	5	S	0	0
19	Special wooden package	0	0	0	0	0



# DP1

Double-stage reciprocating compressor

# For HFC/HFO refrigerants

### REFRIGERANTS

- R404A
- R407F
- R507A
- R448A
- R449A

#### **KEY ADVANTAGES**

- Two consecutive compression stages, able to reach lower temperature and higher compression ratio with enhanced efficiency
- Advanced oil management system, with integrated oil pump and venturi recovery system
- · High efficiency oil filter
- Suction and discharge valves made with a specific material for low temperatures

# STANDARD EXTENT OF DELIVERY

- Pressure relieve valve
- Sight glass
- Lubrication oil
- Motor PTC temperature sensor
- Suction & discharge shut-off valves
- Oil Pump
- Motor protector INT69B2
- IP54 electrical box
- Nitrogen protection
- · D.O.L. starting connections
- Spring vibration dampers
- Suction shut-off valve

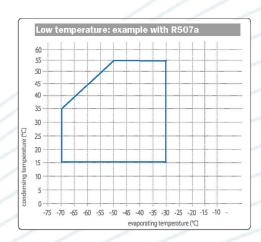
# **APPLICATIONS**

Low and very low evaporating temperatures

- Food processing
- · Process cooling
- Cooling tunnels



Refrigeration





# **OPTIONS**

and the same of th		L - motor										
		4 cylin	ders		6 cylir	nders						
Options	Model	DP1-L412-F	DP1-L414-F	DP1-L616-F	DP1-L620-F	DP1-L625-F	DP1-L630-F					
	Displacement (m³/h @50Hz) 1st stage/2nd stage	43,0/27,6	51,5/27,6	64,7/32,4	75,0/37,5	86,1/43	102,9/51,5					
-	Nominal motor power (HP)	12	14	16	20	25	30					
	Lenght Width Height (cm)	72 49 51	72 49 51	82 55 53	82 55 53	82 55 53	182 55 53					
	Weight (kg)	197	201	205	215	225	232					
1	Version with oil pump (-F)	S	5	S	5	S	S					
2	Standard motor voltage	400V/3/ 440V/3/6		40	0V/3/50Hz - 4	40V/3/60Hz F	νV					
3	Motor with special voltage	0	0	0	0	0	0					
4	Crankcase heater	0	0	0	0	0	0					
5	Liquid injection kit with LCM module	0	0	0	0	0	0					
6	Electronic oil pressure safety switch	0	0	0	0	0	0					
7	Opto-electronic oil level sensor	0	0	0	0	0	0					
8	Discharge temperature sensor	0	0	0	0	0	0					
9	Oil service valve	0	0	0	0	0	0					
10	Spring vibration dampers	S	S	S	S	S	5					
11	Rubber vibration dampers	0	0	0	0	0	0					
12	Liquid sub-cooler, not mounted	0	0	0	0	0	0					
13	Liquid sub-cooler, mounted	0	0	0	0	0	0					
14	Special wooden package	0	0	0	0	0	0					

S: Standard

0: Optional

(0): Optional for -F version

- : Not available



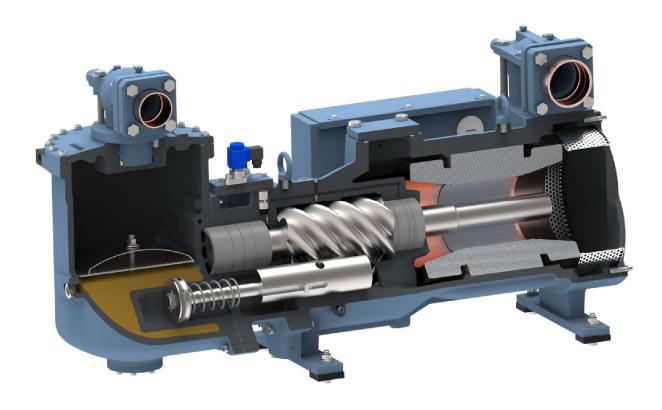
# COMPACT SCREW COMPRESSORS

Compact screw compressors for operation with standard refrigerants and propane, including versions optimised for R134a and R1234.

There are 5 specific ranges and a total of 86 models offer displacements from 118 m³/h to 1540 m³/h and motor powers in the 40HP to 420HP range.

A wide spectrum of applications and conditions is ideal for refrigerants, including chillers, heat pumps, refrigeration, and flooded systems.

SRMTec Italy offers elevated efficiency levels, with high efficiency and ultra-efficient models, as well as versions with an internal frequency inverter.





# ES3

Compact screw compressor with oil separator

# R134a/R1234yf/R1234ze/R513a Optimized

# REFRIGERANTS

- R134a
- R1234yf
- R1234ze
- R513A
- R450

# **KEY ADVANTAGES**

- Compact dimensions
- Standard Vi: 3,2; optional Vi: 2,2 2,6 4,4
- Easy maintenance: accessible refrigerant and oil filters, integrated oil cooling connections
- Internal Capacity control system: step or stepless
- Modern rotor profile for higher specific displacement
- Integral check valve with negligible pressure drop
- Electronic motor protection with 6 PTC sensors
- Suitable for variable speed operations with external inverter

- Built-in volumetric ratio Vi=3,2
- Suction side solder connection
- Integrated discharge check valve
- Integrated safety relief valve
- Flanged-on oil separator
- Discharge shut-off valve
- Kit oil cooling connection
- Oil sight glasses
- Electrical box with IP54 enclosure class
- Nitrogen protective charge
- Electronic protection device INT69SNY
- Oil filter, oil charge/drain valve
- Oil charge POE170
- Capacity control
- Electrical motor with 6 PTC temperature sensors embedded
- Rubber vibration dampers
- Suction bushing (Suction soldering bushing only for ES3-L400/450/500)

# Medium and high evaporating temperatures

- High condensing temperatures
- Data center cooling
- Flooded evaporator
- Chillers and AC systems
- Medium temperature heat pumps



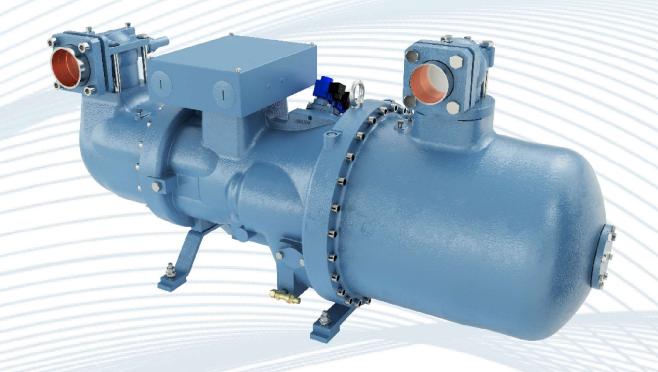
Refrigeration



Heat pumps



Air conditioning





Compact screw compressor with oil separator

# R134a/R1234yf/R1234ze/R513a Optimized

# **OPTIONS**

				L-m	otor						
Options	Model	ES3-L070	ES3-L080	ES3-L090	E53-L100	ES3-L110	ES3-L120				
	Displacement (m³/h @50Hz)	270	307	344	380	413	480				
	Nominal motor power (HP)	70	80	90	100	110	120				
	Lenght Width Height (cm)	139 50 66	139 50 66	139 50 66	139 50 66	154 53 77	154 53 77				
	Weight (kg)	510	518	532	538	660	670				
1	Standard motor voltage		4(	00V/3/50Hz - 4	40V/3/60Hz P	0V/3/60Hz PW					
2	Motor with special voltage	0	0	0	0	0	0				
3	Kit connection for liquid injection without solenoid valve	0	0	0	0	0	0				
4	Kit ECO connection with shut-off valve	0	0	0	0	0	0				
5	Suction shut-off valve	0	0	0	0	0	0				
6	Photoelectric oil level control switch	0	0	0	0	0	0				
7	Kit oil flow switch	0	0	0	0	0	0				
8	Kit bridges for D.O.L. start	0	0	0	0	0	0				
9	Rubber vibration dampers	5	5	S	5	5	S				
10	Kit oil cooling connection	5	5	S	5	5	S				
11	Extra for H-Motor	0	0	0	0	0	0				
12	Extra for special Vi (=2,2/2,6/4,4)	0	0	0	0	0	0				
13	Extra for UL Certification	0	0	0	0	0	0				
14	Special wooden package	0	0	0	0	0	0				

S: Standard

0: Optional

(0): Optional for -F version

- : Not available





	L - motor												
Options	Model	E53-L140	ES3-L160	E53-L180	E53-L210	ES3-L220	ES3-L240	ES3-L270	ES3-L300				
	Displacement (m³/h @50Hz)	560	640	720	805	850	910	1000	1100				
	Nominal motor power (HP)	140	160	180	210	220	240	270	300				
	Lenght Width Height (cm)	154 53 77	178 62 82	178 62 82	178 62 82	178 62 82	209 70 88	209 70 88	209 70 88				
	Weight (kg)	680	930	940	950	980	1330	1350	1390				
1	Standard motor voltage	400V/3/50Hz - 440V/3/60Hz YD											
2	Motor with special voltage	0	0	0	0	0	0	0	0				
3	Kit connection for liquid injection without solenoid valve	0	0	0	0	0	0	0	0				
4	Kit ECO connection with shut-off valve	0	0	0	0	0	0	0	0				
5	Suction shut-off valve	0	0	0	0	0	0	0	0				
6	Photoelectric oil level control switch	0	0	0	0	0	0	0	0				
7	Kit oil flow switch	0	0	0	0	0	0	0	0				
8	Kit bridges for D.O.L. start	0	0	0	0	0	0	0	0				
9	Rubber vibration dampers	5	5	5	5	5	5	5	5				
10	Kit oil cooling connection	S	5	5	5	5	5	5	5				
11	Extra for H-Motor	0	0	0	0	0	0	0	0				
12	Extra for special Vi (=2,2/2,6/4,4)	0	0	0	0	0	0	0	0				
13	Extra for UL Certification	0	0	0	0	0	0	0	0				
14	Special wooden package	0	0	0	0	0	0	0	0				



# RS3

# Compact screw compressor with oil separator

# For HFC/HFO refrigerants

### REFRIGERANTS

- R22
- R407C
- R404A
- R507
- R1233ze
- R448A
- R449A
- R407F
- R134a
- R1234yf
- R1234ze
- R245fa

### **KEY ADVANTAGES**

- Compact dimensions
- Four Vi ratio available. Standard Vi: 2,6; optional Vi: 2,2 3,2
- Easy maintenance: accessible refrigerant and oil filters, integrated oil cooling connections
- Internal Capacity control system: step or stepless
- Modern rotor profile for higher specific displacement
- Suitable for heavy loads and continuous operations
- Electronic motor protection with 6 PTC sensors
- Suitable for variable speed operations with external inverter
- Long life rolling bearings with low noise operation

- Built-in volumetric ratio Vi=2.6
- Crankcase heater (230V/1/50-60 Hz)
- Integrated discharge check valve
- Integrated safety relief valve
- Flanged-on oil separator
- Oil sight glasses
- Electrical box with IP54 enclosure class
- Nitrogen protective charge
- Electronic protection device INT69B2
- Oil filter, oil charge/drain valve
- Oil charge POE170
- Capacity control
- Electrical motor with 6 PTC temperature sensors embedded
- Rubber vibration dampers
- Suction & discharge shut-off valve
- Crankcase heater

# Medium and high evaporating temperatures

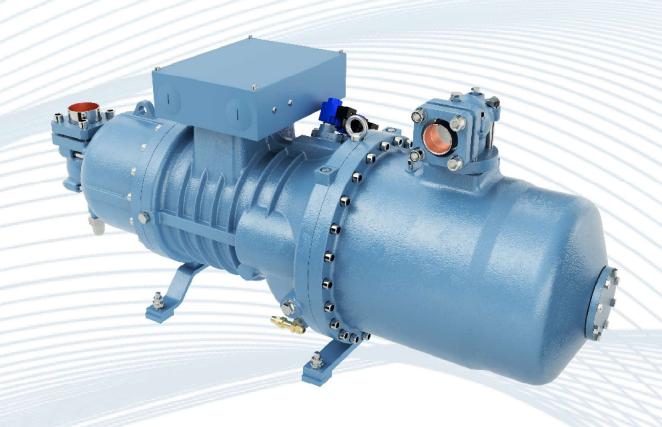
- Chillers and AC systems
- High temperature heat pump
- Flooded evaporator
- Tropicalized systems



Heat pumps



Air conditioning



www.srmtec.it

# RS3

Compact screw compressor with oil separator

For HFC/HFO refrigerants

# **OPTIONS**

					H-m	otor			
Options	Model	R53-H040	RS3-H050	RS3-H050	R53-H070	R53-H080	RS3-H100	RS3-H110	RS3-H120
	Displacement (m³/h @50Hz)	118	150	175	205	237	286	318	341
	Nominal motor power (HP)	40	50	60	70	80	100	110	120
	Lenght Width Height (cm)	121 43 50	121 43 50	121 43 50	145 44 64	145 44 64	152 48 66	152 48 66	152 48 66
	Weight (kg)	325	330	335	510	515	615	590	625
1	Standard motor voltage			400\	//3/50Hz - 4	+40V/3/60H	z PW		
2	Motor with DUAL voltage	S	5	5	5	-	-	Ť	-
3	Motor with special voltage	0	0	0	0	0	0	0	0
4	Kit connection for liquid injection without solenoid valve	0	0	0	0	0	0	0	0
5	Kit ECO connection with shut-off valve	0	0	0	0	0	0	0	0
6	Photoelectric oil level control switch	0	0	0	0	0	0	0	0
7	Suction & discharge shut-off valve	S	5	S	S	5	5	S	S
8	Kit oil flow switch	0	0	0	0	0	0	0	0
9	Oil pressure safety switch - mechanic	0	0	0	0	0	0	0	0
10	Kit bridges for D.O.L. start	0	0	0	0	0	0	0	0
11	Discharge temperature sensor	0	0	0	0	0	0	0	0
12	Rubber vibration dampers	S	5	5	S	5	S	S	5
13	Kit oil cooling connection	0	0	0	0	0	0	0	0
14	Extra for UL Certification	0	0	0	0	0	0	0	0
15	Special wooden package	0	0	0	0	0	0	0	0

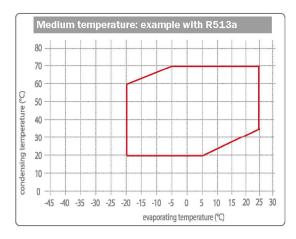
S: Standard

0: Optional

(0): Optional for -F version

- : Not available







			ŀ	l - moto	r						
Options	Model	RS3-H140	RS3-H160	RS3-H180	RS3-H200	RS3-H220	RS3-H240	RS3-H280	RS3-H300	RS3-H350	RS3-H390
	Displacement (m³/h @50Hz)	402	445	510	562	600	700	860	910	1000	1100
	Nominal motor power (HP)	140	160	180	200	220	240	280	300	350	390
	Lenght Width Height (cm)	162 53 76	162 53 76	162 53 76	173 59 81	173 59 81	173 59 81	178 62 82	209 70 88	209 70 88	209 70 88
	Weight (kg)	730	740	775	1010	1030	1020	980	1400	1400	1400
1	Standard motor voltage	400V/3/50Hz - 440V/3/60Hz YD									
2	Motor with DUAL voltage	Ţ	ī	-			î	ī		1	-
3	Motor with special voltage	0	0	0	0	0	0	0	0	0	0
4	Kit connection for liquid injection without solenoid valve	0	0	0	0	0	0	0	0	0	0
5	Kit ECO connection with shut-off valve	0	0	0	0	0	0	0	0	0	0
6	Photoelectric oil level control switch	0	0	0	0	0	0	0	0	0	0
7	Suction & discharge shut-off valve	5	S	S	5	5	S	S	5	5	S
8	Kit oil flow switch	0	0	0	0	0	0	0	0	0	0
9	Oil pressure safety switch - mechanic	0	0	0	0	0	0	0	0	0	0
10	Kit bridges for D.O.L. start	0	0	0	0	0	0	0	0	0	0
11	Discharge temperature sensor	0	0	0	0	0	0	0	0	0	0
12	Rubber vibration dampers	S	5	5	5	5	5	5	5	5	5
13	Kit oil cooling connection	0	0	0	0	0	0	0	0	0	0
14	Extra for UL Certification	0	0	0	0	0	0	0	0	0	0
15	Special wooden package	0	0	0	0	0	0	0	0	0	0



# RS5

High efficiency compact screw compressor with centrifugal oil separator

# For HFC/HFO refrigerants

### REFRIGERANTS

- R22
- R449A
- R407C
- R407F
- R404A
- R134a
- R507
- R1234yf
- R1233ze
- R1234ze
- R448A
- R245fa

## **KEY ADVANTAGES**

- The most innovative compressor of the Air Conditioning range
- Compact dimensions
- Patented automatic compression ratio (Auto-Vi) system to always reach the best compression efficiency even in continuous varying working conditions
- Easy maintenance: accessible refrigerant and oil filters, integrated oil cooling connections, oil flow switch, and oil level sensor
- Internal Capacity control system: step and stepless
- Modern rotor profile for higher specific displacement
- Suitable for heavy loads and continuous operations
- Electronic motor protection with 6 PTC sensors
- · Suitable for variable speed operations with external inverter
- Long life rolling bearings with low noise operation

- Built-in variable Vi=2,6÷3,5
- Integrated discharge check valve
- Integrated safety relief valve
- Flanged-on centrifugal oil separator
- Electronic protection device INT695NY
- Oil sight glasses
- Electrical box with IP54 enclosure class
- Nitrogen protective charge
- Rubber vibration dampers
- Oil filter, oil charge/drain valve
- Oil charge POE170
- Discharge shut-off valve
- Electrical motor with 6 PTC temperature sensors embedded
- Kit oil cooling connection
- Kit conversion from step to stepless capacity control
- Kit conversion from stepless to step capacity control

# Medium and high evaporating temperatures

- Air Conditioning
- Data center
- Heat pump
- Flooded evaporator
- High efficiencysystems



Heat pumps



Air conditioning



Ammonia



scan here



# RS5

High efficiency compact screw compressor with centrifugal oil separator

# For HFC/HFO refrigerants

# **OPTIONS**

	110113										
						H - n	notor				
Options	Model	RSS-H1ZS	RSS-H140	RSS-H160	RSS-H180	RSS-HZ10	RSS-H240	RSS-HZ70	RSS-H300	RSS-H350	RS5-H400
	Displacement (m³/h @50Hz)	365	415	480	550	620	710	830	930	1020	1150
	Nominal motor power (HP)	125	140	160	180	210	240	270	300	350	400
	Housing size	4	4	5	5	6	6	7	7	8	8
	Lenght Width Height (cm)	141 55 74	141 55 74	146 61 67	146 61 67	164 66 88	164 66 88	200 75 101	200 75 101	203 76 106	203 76 106
1	Standard motor voltage	400V/3/50Hz - 440V/3/60Hz YD									
2	Motor with special voltage	0	0	0	0	0	0	0	0	0	0
3	Kit connection for liquid injection without solenoid valve	0	0	0	0	0	0	0	0	0	0
4	Kit ECO connection with shut-off valve	0	0	0	0	0	0	0	0	0	0
5	Photoelectric oil level control switch	0	0	0	0	0	0	0	0	0	0
6	Discharge shut-off valve	S	S	5	S	S	5	S	5	S	S
7	Suction shut-off valve	0	0	0	0	0	0	0	0	0	0
8	Kit oil flow switch	0	0	0	0	0	0	0	0	0	0
9	Kit bridges for D.O.L. start	0	0	0	0	0	0	0	0	0	0
10	Rubber vibration dampers	5	5	5	5	5	5	5	5	S	5
11	Kit oil cooling connection	5	S	5	5	5	5	S	5	5	5
12	Special wooden package	0	0	0	0	0	0	0	0	0	0

S: Standard 0: Optional (0): Optional for -F version - : Not available Additional models are being added to the range to cover displacements of 365-1150  $\,\mathrm{m}^3/\mathrm{h}$  (@50Hz) and motor powers of 100-400HP





			L	- moto	ſ						
Options	Model	RS5-L100	RS5-L110	RS5-L125	RS5-L140	RS5-L160	RS5-L180	RS5-L210	RS5-L240	RS5-L270	RS5-L300
	Displacement (m³/h @50Hz)	365	415	480	550	620	710	830	980	1020	1150
	Nominal motor power (HP)	100	110	120	140	160	180	210	240	270	300
	Housing size	4	4	5	5	6	6	7	7	8	8
	Lenght Width Height (cm)	141 55 74	141 55 74	146 61 67	146 61 67	164 66 88	164 66 88	200 75 101	200 75 101	203 76 106	203 76 106
1	Standard motor voltage	- 440V/	3/50Hz /3/60Hz W			400V/3	3750Hz - 4	440V/3/6	iOHz YD		
2	Motor with special voltage	0	0	0	0	0	0	0	0	0	0
3	Kit connection for liquid injection without solenoid valve	0	0	0	0	0	0	0	0	0	0
4	Kit ECO connection with shut-off valve	0	0	0	0	0	0	0	0	0	0
5	Photoelectric oil level control switch	0	0	0	0	0	0	0	0	0	0
6	Discharge shut-off valve	5	S	S	5	5	5	S	S	S	S
7	Suction shut-off valve	0	0	0	0	0	0	0	0	0	0
8	Kit oil flow switch	0	0	0	0	0	0	0	0	0	0
9	Kit bridges for D.O.L. start	0	0	0	0	0	0	0	0	0	0
10	Rubber vibration dampers	5	S	5	5	5	5	5	5	S	S
11	Kit oil cooling connection	5	S	5	5	5	5	S	5	5	5
12	Special wooden package	0	0	0	0	0	0	0	0	0	0





Compact screw compressor with oil separator

# For hydrocarbons refrigerants

## REFRIGERANTS

- Propane (R290)
- R600A
- R1270

#### **KEY ADVANTAGES**

- Compact dimensions
- Four Vi ratio available
- Easy maintenance: accessible refrigerant and oil filters, integrated oil cooling connections
- Modern rotor profile for higher specific displacement
- Suitable for heavy loads and continuous operations
- Electronic motor protection with 6 PTC sensors
- Suitable for variable speed operations with external inverter
- Long life rolling bearings with low noise operation

- Built-in volumetric ratio Vi=2,6
- Integrated discharge check valve
- Integrated safety relief valve
- Flanged-on oil separator
- Electronic protection device INT69SNY (to be mounted in Safe Zone)
- Electrical box with IP54 enclosure class
- Nitrogen protective charge
- Oil filter, oil charge/drain valve
- Oil charge PAG170
- Discharge Shut-off valve
- Electrical motor with 6 PTC temperature sensors embedded
- Rubber vibration dampers
- Oil sight glasses

Air Conditioning and high evaporating temperatures

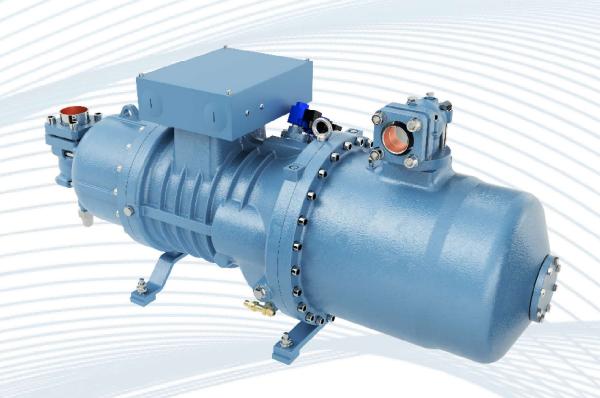
- Air Conditioning
- Process cooling
- Heat pumps



Heat pumps



Air conditioning



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# Compact screw compressor with oil separator

For hydrocarbons refrigerants

# **OPTIONS**

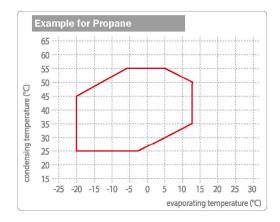
					H-m	notor			
Options	Model	PS3-H040	RS5-H050	RS5-H060	RSS-H070	RSS-H080	RS5-H100	RSS-H110	RS5-H120
	Displacement (m³/h @50Hz)	118	150	175	205	237	286	318	314
	Nominal motor power (HP)	40	50	60	70	80	100	110	120
	Lenght Width Height (cm)	121 43 50	121 43 50	121 43 50	145 44 64	145 44 64	152 48 66	152 48 66	152 48 66
	Weight (kg)	325	330	335	510	515	615	590	625
1	Standard motor voltage			400V/	′3/50Hz - 4	140V/3/60	Hz PW		
2	Motor with special voltage	0	0	0	0	0	0	0	0
3	Kit connection for liquid injection without solenoid valve	0	0	0	0	0	0	0	0
4	Kit ECO connection with shut-off valve	0	0	0	0	0	0	0	0
5	Photoelectric oil level control switch (no Ex)	0	0	0	0	0	0	0	0
6	Photoelectric IIG Ex oil level control switch	0	0	0	0	0	0	0	0
7	Discharge shut-off valve	5	5	5	5	S	5	5	5
8	Suction shut-off valve	0	0	0	0	0	0	0	0
9	Kit oil flow switch (no Ex)	0	0	0	0	0	0	0	0
10	Kit oil flow switch - IIG Ex	0	0	0	0	0	0	0	0
11	Oil pressure safety switch - mechanic	0	0	0	0	0	0	0	0
12	Kit bridges for D.O.L. start	0	0	0	0	0	0	0	0
13	Oil charge (shipped separately)	0	0	0	0	0	0	0	0
14	Kit oil cooling connection	0	0	0	0	0	0	0	0
15	Special wooden package	0	0	0	0	0	0	0	0

S: Standard

0: Optional

(0): Optional for -F version -: Not available







	H - motor										
Options	Model	RSS-H140	RSS-H160	RSS-H180	RSS-H200	RSS-HZZ0	RS5-H240	RS5-H280	RS5-H300	RSS-H3S0	RS5-H390
	Displacement (m³/h @50Hz)	402	445	510	562	600	700	860	910	1000	1100
	Nominal motor power (HP)	140	160	180	200	220	240	280	300	350	390
	Lenght Width Height (cm)	162 53 76	162 53 76	162 53 76	173 59 81	173 59 81	173 59 81	178 62 82	202 70 88	202 70 88	202 70 88
	Weight (kg)	730	740	775	1010	1030	1020	980	1400	1400	1400
1	Standard motor voltage		400V/3/50Hz - 440V/3/60Hz YD								
2	Motor with special voltage	0	0	0	0	0	0	0	0	0	0
3	Kit connection for liquid injection without solenoid valve	0	0	0	0	0	0	0	0	0	0
4	Kit ECO connection with shut-off valve	0	0	0	0	0	0	0	0	0	0
5	Photoelectric oil level control switch (no Ex)	0	0	0	0	0	0	0	0	0	0
6	Photoelectric IIG Ex oil level control switch	0	0	0	0	0	0	0	0	0	0
7	Discharge shut-off valve	S	.5	S	5	5	5	5	5	5	5
8	Suction shut-off valve	0	0	0	0	0	0	0	0	0	0
9	Kit oil flow switch (no Ex)	0	0	0	0	0	0	0	0	0	0
10	Kit oil flow switch - IIG Ex	0	0	0	0	0	0	0	0	0	0
11	Oil pressure safety switch - mechanic	0	0	0	0	0	0	0	0	0	0
12	Kit bridges for D.O.L. start	0	0	0	0	0	0	0	0	0	0
13	Oil charge (shipped separately)	0	0	0	0	0	0	0	0	0	0
14	Kit oil cooling connection	0	0	0	0	0	0	0	0	0	0
15	Special wooden package	0	0	0	0	0	0	0	0	0	0





# Compact screw compressor with oil separator

# For hydrocarbons refrigerants

# REFRIGERANTS

- Propane (R290)
- R600A
- R1270

#### **KEY ADVANTAGE**

- Compact dimensions
- Four Vi ratio available
- Easy maintenance: accessible refrigerant and oil filters, integrated oil cooling connections
- Modern rotor profile for higher specific displacement
- Suitable for heavy loads and continuous operations
- Electronic motor protection with 6 PTC sensors
- Suitable for variable speed operations with external inverter
- Long life rolling bearings with low noise operation

# STANDARD EXTENT OF DELIVERY

- Built-in volumetric ratio Vi=2,6
- Integrated discharge check valve
- Integrated safety relief valve
- Flanged-on oil separator
- Electronic protection device INT69SNY (to be mounted in Safe Zone)
- Electrical box with IP54 enclosure class
- Nitrogen protective charge
- · Oil filter, oil charge/drain valve
- Oil charge POE170
- Discharge Shut-off valve
- Electrical motor with 6 PTC temperature sensors embedded
- Rubber vibration dampers
- Oil sight glassesvv

# **APPLICATIONS**

# Medium and high evaporating temperatures

- High efficiency systems
- Air Conditioning
- Process cooling
- Heat pumps



Heat pumps



Air conditioning





# **OPTIONS**

						H-m	otor				
Options	Model	PSS-H125	PSS-H140	PS5-H160	PS5-H180	PS5-H210	PSS-H240	PS5-H270	PSS-H300	PSS-H350	PS5-H400
and the same of th	Displacement (m³/h @50Hz)	365	415	480	550	620	710	830	930	1020	1150
	Nominal motor power (HP)	125	140	160	180	210	240	270	300	350	400
The state of the s	Housing size	4	4	5	5	6	6	7	7	8	8
	Lenght Width Height (cm)	141 55 74	141 55 74	146 61 67	146 61 67	164 66 88	164 66 88	200 75 101	200 75 101	203 76 106	203 76 106
1	Standard motor voltage				L	400V/3/	50Hz - 44	40V/3/6	OHz YD		
2	Motor with special voltage	0	0	0	0	0	0	0	0	0	0
3	Kit connection for liquid injection without solenoid valve	0	0	0	0	0	0	0	0	0	0
4	Kit ECO connection with shut-off valve	0	0	0	0	0	0	0	0	0	0
- 5	Photoelectric oil level control switch (no Ex)	0	0	0	0	0	0	0	0	0	0
- 6	Photoelectric IIG Ex oil level control switch	0	0	0	0	0	0	0	0	0	0
7	Discharge shut-off valve	S	5	5	5	5	5	5	5	S	5
8	Suction shut-off valve	0	0	0	0	0	0	0	0	0	0
9	Kit oil flow switch (no Ex)	0	0	0	0	0	0	0	0	0	0
10	Kit oil flow switch - IIG Ex	0	0	0	0	0	0	0	0	0	0
11	Oil pressure safety switch - mechanic	0	0	0	0	0	0	0	0	0	0
12	Kit bridges for D.O.L. start	0	0	0	0	0	0	0	0	0	0
13	Oil charge (shipped separately)	0	0	0	0	0	0	0	0	0	0
14	Kit oil cooling connection	0	0	0	0	0	0	0	0	0	0
15	Special wooden package	0	0	0	0	0	0	0	0	0	0

S: Standard

0: Optional

(0): Optional for -F version

- : Not available





Compact screw compressor With centrifugal oil separator and coalescing filter

For Ammonia

### REFRIGERANTS

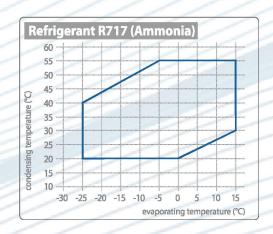
Ammonia (R717)

### **KEY ADVANTAGES**

- Compact dimensions
- Centrifugal oil separator
- Coalescing oil separation stage
- Patented automatic compression ratio (Auto-Vi)
- Easy maintenance: accessible refrigerant and oil filters, integrated oil cooling connections, oil flow switch, and oil level sensor
- Internal Capacity control system: step and stepless
- Modern rotor profile for higher specific displacement
- Suitable for heavy loads and continuous operations
- Electronic motor protection with 6 PTC sensors
- Suitable for variable speed operations with external inverter
- Long life rolling bearings with low noise operation

# **OPTIONS**

			Motor	
	Model	SRS-C-12S	SRS-C-14S	SRS-C-17S
10	Displacement (m³/h @50Hz)	140	280	480
Options	Nominal motor power (kW)	54	90	134
Ор	Housing size	1	3	5
	Length Width Height (cm)	120 97 223	143 119 257	170 141 314



Low and medium evaporating temperatures

- Air ConditioningHeat pumpsChillers



Heat pumps



Air conditioning



Ammonia



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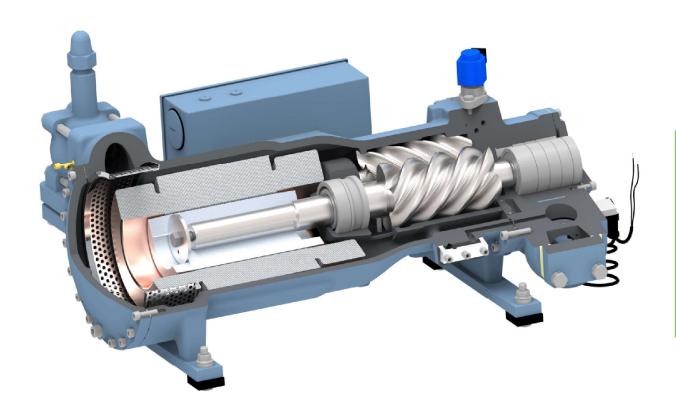
# **SCREW COMPRESSORS**

Screw compressors specifically developed for low and medium temperature refrigeration, ensuring optimum performance and high reliability.

A total of 5 ranges, with 120 models spanning from 85 m<sup>3</sup>/h to 10.850 m<sup>3</sup>/h displacement range, offer operation with both Standard refrigerants and Ammonia, including the unique semi-hermetic configuration using Ammonia (SRS).

Typical applications include marine refrigeration, petrochemical, pharmaceutical and chemical processes, industrial refrigeration, cold chain logistics, ultra-low temperature refrigeration, high temperature ammonia heat pumps and NH3/CO2 cascade refrigeration systems.

The SRMTec range offers high efficiency variable frequency configurations (RW5), open type versions including high pressure configurations and single or 2-stage models. Customer specified Vi control and the possibility to apply variable frequency drive ensure highest efficiency levels. Specified Vi control ensures further efficiency gains. All models are suitable for variable frequency drive.





Screw compressors working with HFC/HFO and ammonia. Developed for low and medium temperatures in the field of refrigeration, pharmaceutical, cold chain logistics and marine refrigeration.



High efficiency screw compressor without oil separator

#### For Ammonia

# **REFRIGERANTS**

•Ammonia (R717)

# **KEY ADVANTAGES**

- Compact design
- High power permanent magnet motor
- Aluminium windings (PMSM)
- Variable Vi ratios
- Computational Fluid Dynamics (CFD) optimized
- i-series rotor design (5+7 lobes)
- Low pulsations and vibrations
- Suitable for inverter control

# **APPLICATIONS**

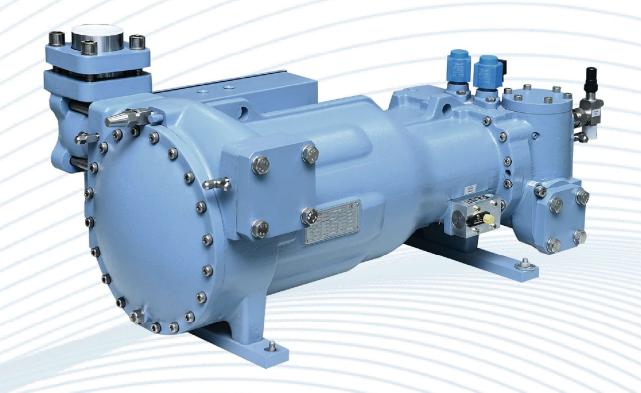
Low evaporating temperatures

- Food processing and storage
- Refrigeration
- Industrial process chillers

# **OPTIONS**

		H - motor											
	Model	SRS08SL	SRSO8ML	SRS10SL	SRS12SL	SRS12ML	SRS14SR	SRS14MR	SRS16SR	SRS16MR			
10	Displacement (m³/h @50Hz)	84	100	140	210	230	310	340	420	450			
Options	Nominal motor power (kW)	22	27	45	54	62	90	90	134	134			
Ор	Housing size	1	1	Z	3	3	4	4	5	5			
	Length Width Height (cm)	80 47 41	80 47 41	89 49 39	104 59 49	104 59 49	128 60 50	128 60 50	135 80 63	135 80 63			
	Weight (cm)	185	195	240	370	375	505	510	680	690			





										The same of the sa		The same of the sa	1000	1000	1000
L - moto															
	Model	SRS08SH	SRS08MH	SRSOBLH	SRS10SH	SRS10LH	SRS12SH	SRS1ZMH	SRS1ZLH	SRS14SM	SRS14MM	SRS14LM	SRS16SM	SRS16MM	SRS16LM
10	Displacement ( m³/h @50Hz)	84	100	120	140	168	210	230	250	310	340	370	420	450	500
Options	Nominal motor power (kW)	22	27	33	45	45	54	62	72	90	90	107	134	134	134
Op	Housing size	1	1	1	2	2	3	3	3	4	4	4	5	5	5
	Length Width Height (cm)	80 47 41	80 47 41	80 47 41	89 49 39	89 49 39	104 59 49	104 59 49	104 59 49	128 60 50	128 60 50	128 60 50	135 80 63	135 80 63	138 80 63
	Weight (cm)	185	195	205	240	260	370	375	380	505	510	515	680	690	700



Screw compressor without oil separator

# For HFC/HFO refrigerants

#### REFRIGERANTS

- R22
- R407C
- R404A
- R507
- R1233ze
- R448A
- R449A

# Key advantages

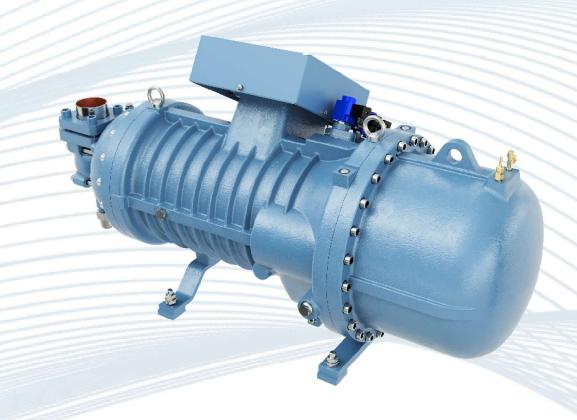
- Silent and vibration free operations
- Easy installation and maintenances
- Compact dimensions
- Different compression ratio (Vi) to select the best solution according to customer application
- Internal Capacity control system: step or stepless
- Modern rotor profile for higher specific displacement
- Suitable for heavy loads and continuous operations
- Electronic motor protection with 6 PTC sensors
- Suitable for variable speed operations with external inverter
- Long life rolling bearings with low noise operation

- Integrated discharge check valve
- Integrated safety relief valve
- Capacity control (Step or stepless, please specify)
- Nitrogen protection
- Rubber vibration damper
- Motor PTC temperature sensor
- Motor protector INT69SNY
- IP54 electrical box
- Oil circuit kit (solenoid valve, changeable oil filter, oil flow switch, sight glass, INT69VS elec. protection module and capacitor)
- Built-in volumetric ratio Vi = 4,0 (for L-motor)
- Built-in volumetric ratio Vi = 2,6 (for H-motor)

Low and medium evaporating temperatures

- Refrigeration
- Process cooling





Screw compressor without oil separator

# For HFC/HFO refrigerants

# **OPTIONS**

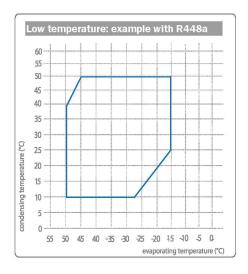
					H - n	otor			
Options	Model	RW3-H040	RW3-H050	RW3-H060	RW3-H075	RW3-H090	RW3-H105	RW3-H115	RW3-H125
	Displacement (m³/h @50Hz)	118	150	175	205	237	286	318	341
	Nominal motor power (HP)	40	50	60	75	90	105	115	125
	Lenght Width Height (cm)	94 56 47	94 56 47	94 56 47	115 52 60	115 52 60	132 60 66	132 60 66	132 60 66
	Weight (kg)	245	255	265	410	420	535	540	545
1	Standard motor voltage			400\	//3/50Hz <b>-</b> 4	140V/3/60H	z PW		
2	Motor with special voltage	0	0	0	0	0	0	0	0
3	Suction & discharge shut-off valve	5	5	S	5	5	5	S	5
4	Adapter for liquid injection	0	0	0	0	0	0	0	0
5	Adapter & shut-off valve for ECO connection	0	0	0	0	0	0	0	0
6	Bridges for D.O.L. start	0	0	0	0	0	0	0	0
7	Rubber vibration dampers	5	5	S	5	S	5	S	5
8	Special wooden package	0	0	0	0	0	0	0	0

S: Standard



<sup>0:</sup> Optional

<sup>(0):</sup> Optional for -F version -: Not available





	H - motor												
Options	Model	RW3-H140	RW3-H160	RW3-H190	RW3-H210	RW3-H240	RW3-H250						
	Displacement (m³/h @50Hz)	402	445	510	562	600	700						
	Nominal motor power (HP)	140	160	190	210	240	250						
	Lenght Width Height (cm)	144 72 67	144 72 67	144 72 67	148 75 67	148 75 72	148 75 72						
	Weight (kg)	665	675	710	1030	1050	980						
1	Standard motor voltage		40	00V/3/50Hz - 4	440V/3/60Hz	YD							
2	Motor with special voltage	0	0	0	0	0	0						
3	Suction & discharge shut-off valve	S	5	5	5	5	S						
4	Adapter for liquid injection	0	0	0	0	0	0						
5	Adapter & shut-off valve for ECO connection	0	0	0	0	0	0						
6	Bridges for D.O.L. start	0	0	0	0	0	0						
7	Rubber vibration dampers	S	5	5	5	5	S						
8	Special wooden package	0	0	0	0	0	0						

Screw compressor without oil separator

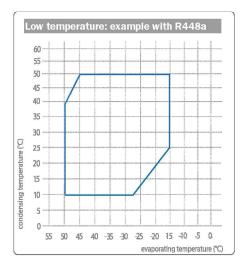
# For HFC/HFO refrigerants

# **OPTIONS**

					L-m	otor			
Options	Model	RW3-L030	RW3-L040	RW3-L050	RW3-L060	RW3-L70	RW3-L80	RW3-L095	RW3-L105
	Displacement (m³/h @50Hz)	118	150	175	205	237	286	318	341
	Nominal motor power (HP)	30	40	50	60	70	80	95	105
	Lenght Width Height (cm)	94 56 47	94 56 47	94 56 47	115 52 60	115 52 60	132 60 66	132 60 66	132 60 66
	Weight (kg)	245	255	265	410	420	520	525	530
1	Standard motor voltage			400V	//3/50Hz - 4	40V/3/60H	z PW		
2	Motor with special voltage	0	0	0	0	0	0	0	0
3	Suction & discharge shut-off valve	5	S	5	S	S	5	S	5
4	Adapter for liquid injection	0	0	0	0	0	0	0	0
5	Adapter & shut-off valve for ECO connection	0	0	0	0	0	0	0	0
6	Bridges for D.O.L. start	0	0	0	0	0	0	0	0
7	Rubber vibration dampers	5	5	5	S	5	5	5	5
8	Special wooden package	0	0	0	0	0	0	0	0

S: Standard O: Optional (0): Optional for -F version -: Not available







	L - motor											
Options	Model	RW3-L115	RW3-L130	RW3-L160	RW3-L180	RW3-L200	RW3-L220					
	Displacement (m³/h @50Hz)	402	445	510	562	600	700					
	Nominal motor power (HP)	115	130	160	180	200	220					
	Lenght Width Height (cm)	144 72 67	144 72 67	144 72 67	148 75 72	148 75 72	148 75 72					
	Weight (kg)	665	675	710	1030	1050	980					
1	Standard motor voltage	400V/3/50Hz - 440V/3/60Hz YD										
2	Motor with special voltage	0	0	0	0	0	0					
3	Suction & discharge shut-off valve	5	S	5	5	5	5					
4	Adapter for liquid injection	0	0	0	0	0	0					
5	Adapter & shut-off valve for ECO connection	0	0	0	0	0	0					
6	Bridges for D.O.L. start	0	0	0	0	0	0					
7	Rubber vibration dampers	5	5	5	5	5	5					
8	Special wooden package	0	0	0	0	0	0					



# High efficiency screw compressor without oil separator For HFC/HFO refrigerants

### REFRIGERANTS

- R22
- R1233ze
- R407C
- R448A
- R404A
- R449A
- R507

### **KEY ADVANTAGES**

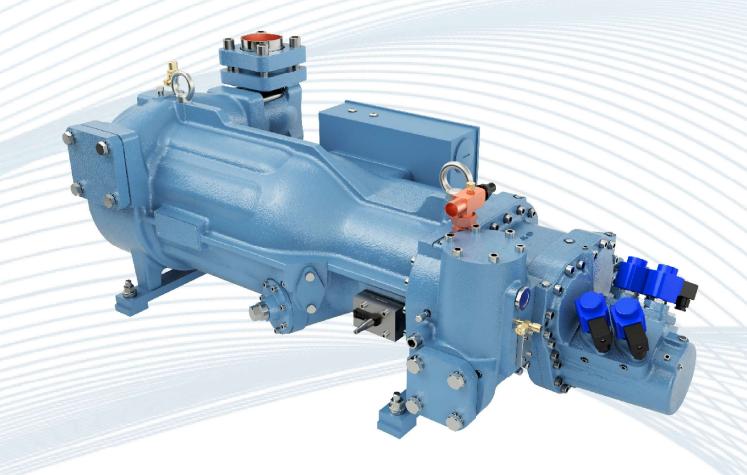
- The most innovative compressor for refrigeration applications
- Silent and vibration free
- Easy installation and maintenance: valves can be repositioned left hand side or right hand side
- Compact dimensions
- Patented variable compression ratio (Vi)
- Built in capacity control system: step or stepless
- Modern rotor profile for higher specific displacement
- Suitable for heavy loads and continuous operations
- Electronic motor protection with 6 PTC sensors
- Suitable for variable speed operations with external inverter

- Built-in volumetric ratio Vi=4.0
- Integrated discharge check valve
- Integrated safety relief valve
- Two phases partial load check
- Pressure relieve valve
- Motor PTC temperature sensor
- Motor protector INT695NY
- IP54 electrical box
- Nitrogen protection
- Rubber vibration damper
- IP54 electrical box
- Oil circuit kit (solenoid valve, changeable oil filter, oil flow switch, sight glass, INT69VS elec. protection module, and capacitor)

Low and medium evaporating temperatures

- Refrigeration
- High efficiency systems
- Process cooling





## RW5

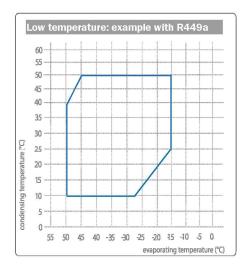
## High efficiency screw compressor without oil separator For HFC/HFO refrigerants

#### **OPTIONS**

					L-m	otor			
Options	Model	RW5-L020	RWS-LOZS	RW5-L030	RWS-L040	RW5-L050	RW5-L060	RW5-L070	RW5-L075
	Displacement (m³/h @50Hz)	84	100	120	140	168	210	230	250
	Nominal motor power (HP)	20	25	30	40	50	60	70	75
	Housing size	1	1	1	2	2	3	3	3
	Lenght Width Height (cm)	80 47 41	80 47 41	80 47 41	89 49 39	89 49 39	104 59 49	104 59 49	104 59 49
	Weight (kg)	190	200	210	245	250	365	370	375
1	Standard motor voltage			400V	/3/50Hz - 44	40V/3/60Hz	PW		
2	Motor with special voltage	0	0	0	0	0	0	0	0
3	Shut-off valve for oil injection	1	ı	Ţ	-	į	5	5	S
4	Suction & discharge shut-off valve	S	5	S	5	5	S	5	5
5	Adapter for liquid injection	0	0	0	0	0	0	0	0
6	Adapter & shut-off valve for ECO connection	0	0	0	0	0	0	0	0
7	External oil circuit kit*	S	S	S	S	5	-	-	-
8	Oil flow switch	S	5	S	S	S	0	0	0
9	Oil filter differential pressure switch	-	-	-	-	-	0	0	0
10	Vi adjust device - automatic	-	-	,-	-	-	-	-	-
11	Internal oil filter & internal oil stop valve	-	-	-	-	-	5	5	5
12	Special wooden box	0	0	0	0	0	0	0	0



S: Standard 0: Optional (0): Optional for -F version -: Not available \* Including solenoid valves, coils, oil filter with replaceable cartridge, sight glass, oil filow switch, and electrolytic condenser





		L-ma	otor				
Options	Model	RWS-L090	RW5-L100	RW5-L110	RWS-L125	RW5-L140	RW5-L150
	Displacement (m³/h @50Hz)	310	340	370	420	450	500
	Nominal motor power (HP)	90	100	110	125	140	150
	Housing size	4	4	4	5	5	5
	Lenght Width Height (cm)	128 60 50	128 60 50	128 60 50	135 80 63	135 80 63	135 80 63
	Weight (kg)	505	510	515	680	690	700
1	Standard motor voltage		40	00V/3/50Hz - 4	440V/3/60Hz	YD	3
2	Motor with special voltage	0	0	0	0	0	0
3	Shut-off valve for oil injection	5	5	5	5	5	5
4	Suction & discharge shut-off valve	S	5	5	S	5	5
5	Adapter for liquid injection	0	0	0	0	0	0
6	Adapter & shut-off valve for ECO connection	0	0	0	0	0	0
7	External oil circuit kit*	-	-	-	-	-	-
8	Oil flow switch	0	0	0	0	0	0
9	Oil filter differential pressure switch	0	0	0	0	0	0
10	Vi adjust device - automatic	0	0	0	0	0	0
11	Internal oil filter & internal oil stop valve	5	5	5	5	5	5
12	Special wooden box	0	0	0	0	0	0





Screw compressor without oil separator

For Ammonia

#### **REFRIGERANTS**

• Ammonia (R717)

#### **KEY ADVANTAGES**

- Compact solution
- Two compressors on one single drive-shaft

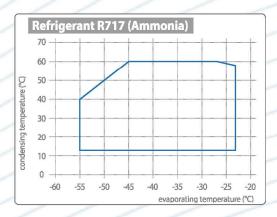


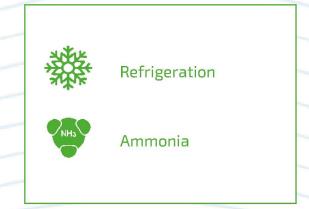




Very low temperatures

- Food processing
- Blast
- Spiral and tunnel-freezing
- Marine refrigeration
- Very low cold storage





#### **OPTIONS**

				L - motor		
	Model	SRS1008SS	SRS1008LL	SRS121055	SRS1210LL	SRS1612LS
ns	Displacement (m³/h)#	141	221	332	463	652
Options	Nominal motor power (kW)#	28,8	44,4	67,2	90	155
)	Lenght Width Height (cm)	133 67 46	140 67 46	147 73 47	154 73 47	198 78 69
	Weight (kg)	362	445	500	700	1161

# Referred to rated speed 3600rpm

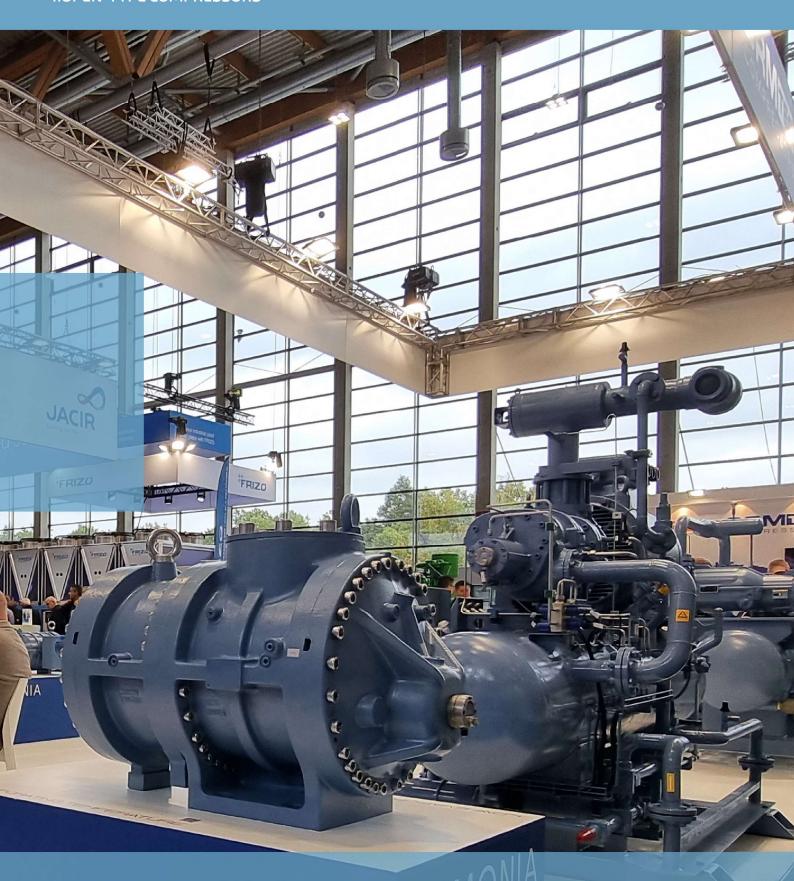
# OPEN-TYPE COMPRESSORS

Open screw compressors ideal for industrial refrigeration: petrolchemical, pharmaceutical, chemical, low temperatures, storage and marine refrigeration.

This compressors are characherized by low noise levels, i-profile rotor design (5+7 lobes) and Auto-Vi regulation.







Open screw compressors working with ammonia.



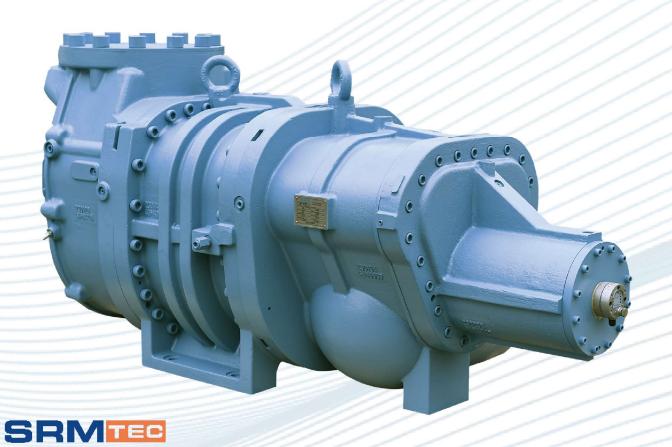
#### For Ammonia

#### **REFRIGERANTS**

• Ammonia (R717)

#### **KEY ADVANTAGES**

- Low noise levels
- Fixer moving parts
- High life spour bearings
- Low mainteneance
- i-profile rotor design (5+7 lobes)
- Stepless capacity control
- Auto-Vi regulation
- Variable speed with external inverter

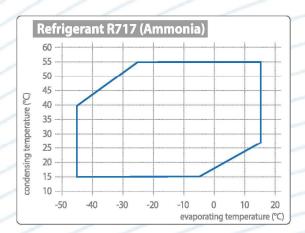






#### Industrial refrigeration

- Petrolchemical
- Pharmaceutical
- Chemical
- Low temperatures
- Storage
- Marine refrigeration





Refrigeration



Ammonia

#### **OPTIONS**

									L-m	otor							
	Model	SRM1ZL	SBIM16S	SRM16M	SRM16L	SRM20S	SRMZOM	SRMZOL	SRMZOLL	SBZM38S	SRMZ6M	SRMZ6L	SRMZ6LL	SRM34S	SRM34M	SRM34L	SRM34LL
ns	Displacement (m³∕h @50Hz)	265	435	5/4/4	652	850	1100	1270	1496	1659	2075	2478	2940	3360	4280	5090	6350
Options	Max speed (rpm)	6000	4800	4800	4800	4800	4800	4800	4800	4500	4500	4500	4500	3600	3600	3600	3600
	Length Width Height (cm)	107 38 45	107 50 55	113 50 55	121 50 55	122 57 56	134 57 56	142 57 56	168 57 56	153 72 81	164 72 81	173 72 81	186 72 81	192 85 77	207 85 77	221 85 77	243 85 77
	Weight (kg)	280	470	514	530	745	789	850	990	1680	1800	1920	2075	2970	3190	3395	3741





Double stage, open-type compressor

For Ammonia

#### **REFRIGERANTS**

• Ammonia (R717)

## Key advantages

- High efficent
- High compression ratio
- No side loads on the high storage are needed







Ultra low temperature in industrial refrigeration

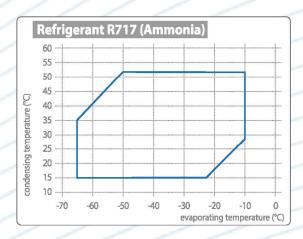
- Food freezing
- Cold chain logistics
- Marine refrigeration



Refrigeration



Ammonia



#### **OPTIONS**

-						
-				L - motor		
	Model	SRM1612LS	SRMZ016LS	SRMZ6Z0MS	SRMZ6Z0LS	SRM3426LS
ns	Displacement (m³/h @50Hz)	652	1270	2075	2478	5090
Options	Max speed (rpm)	3600	3600	3600	3600	3000
	Length Width Height (cm)	152 66 66	211 53 60	232 69 85	232 69 85	389 84 97
	Weight (kg)	990	1170	2200	2320	4300



High pressure, open-type compressor

#### For Ammonia

#### **REFRIGERANTS**

- Ammonia (R717)
- CO<sub>2</sub>

## Key advantages

- High compression ratio
- 63 bars
- Auto-Vi regulation
- High wear resistant slide bearings
- i-profile rotor (6+8 lobes)







## High temperatures Ammonia heat pumps

 $\bullet$  Ammonia Heat pumps and  $\mathrm{CO_2}$  cascade systems



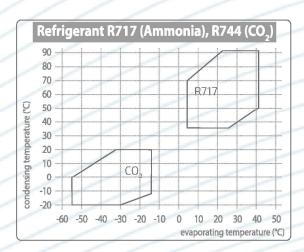
Refrigeration



**Heat Pumps** 



Ammonia



#### **OPTIONS**

				H - motor		
				L - motor		
	Model	SRH1ZM	SRH16M	SRH18M	SRHZOM	SRHZ6M
-	Displacement (m³/h @50Hz)	161	322	480	854	1409
Options	Max speed (rpm)	4200	3600	3600	3600	3600
Opti	Length Width Height (cm)	103 56 73	118 61 79	125 67 79	145 71 89	167 97 117
	Weight (kg)	380	965	1260	1477	2150

SRMIEC



#### **COMMERCIAL REFRIGERATION**

SRMTec compressors ensure customers to receive fresh and safe food all year round, with a 24/7 reliability these processes demand.



#### **INDUSTRIAL REFRIGERATION**

SRMTec has already served countless industrial customer needs worldwide, with specific products and solutions this industry needs.



#### **COLD CHAIN LOGISTICS**

The ideal solution for all temperature-controlled transport and storage requirements along the entire cold chain.



#### **PROCESS COOLING**

From industrial processes to data centres and machinery, SRMTec compressors ensure efficient and reliable operation all year round.



#### **AIR CONDITIONING**

Human comfort and well-being in the most varying commercial, residential, and institutional air conditioning applications.



#### **HEAT PUMPS**

All heat pump applications, whether low, medium or high temperature, find their perfect companion with SRMTec compressors.



#### **WORLDWIDE NETWORK**



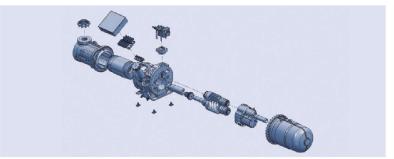
#### **SERVICES**



#### **SELECTION SOFTWARE**

Download the selection software





#### REFCOMP & SRMTe c SPARE PARTS

- All spare parts of SRMTec compressors available and revision of old products.
- Worldwide service network to repair Refcomp & SRMTec compressors.



#### **TECHNICAL SUPPORT**

We help you choose the right product, fit in your application, and we give you assistance after installation.

Phone: +39 0444 726 726 Email: info@srmtec.it



# SRMI

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