

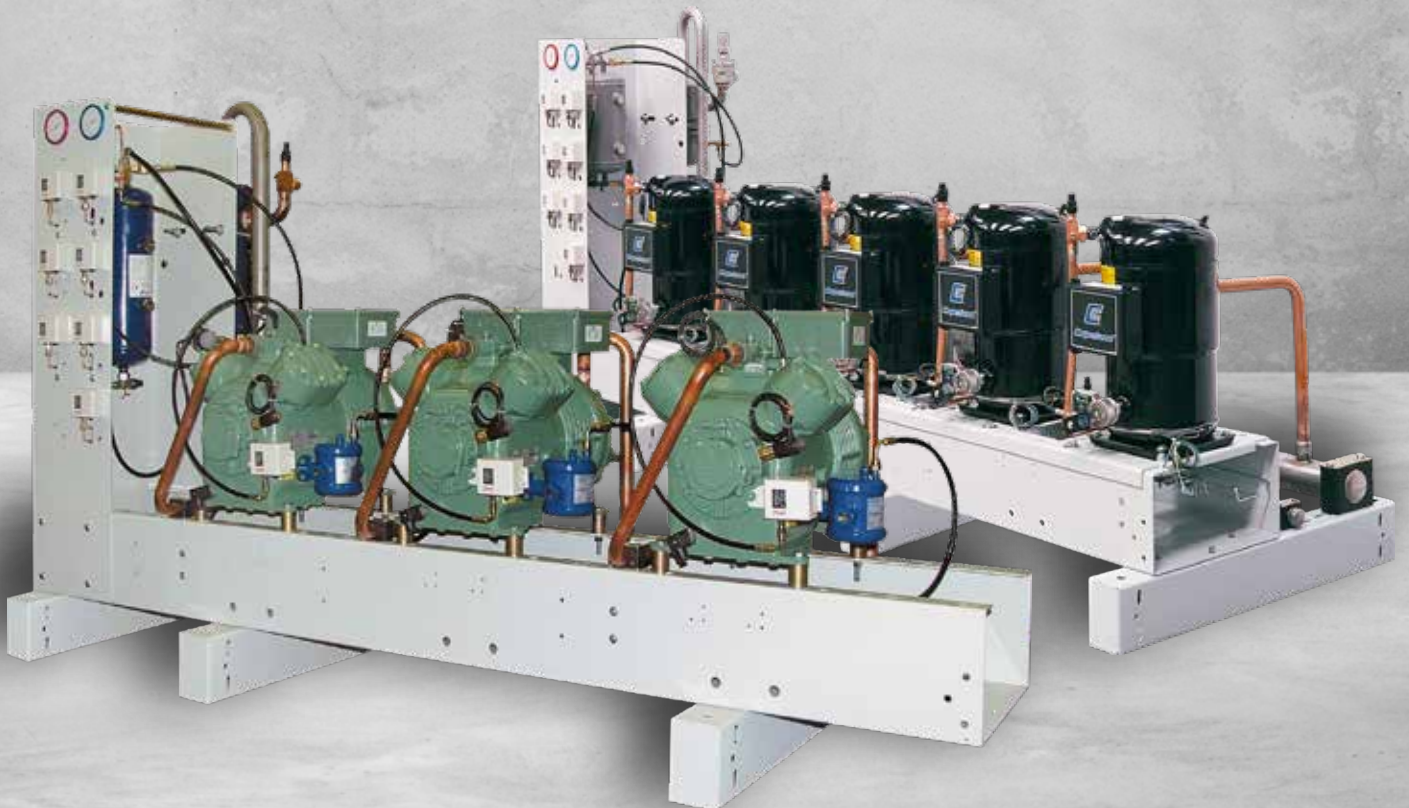
FRIGA-BOHN

MOPSH | MOSC

Semi-hermetic and Scroll compressor rack



HFC



|||| MT 57 - 385 kW
|||| LT 23 - 120 kW



- # **Modular rack** to best meet the needs of your application, available with Scroll (Copeland), Semi-Hermetic (Copeland or Bitzer) compressors.
- # **Compact design** (width from 800 to 1,000 mm) that fits perfectly in restricted and hard-to-access areas.

CONTROL AND SAFETY DEVICES

- # 1 LP general safety pressure switch
- # 1 or 2 HP cartridge pressure switch(es) with automatic reset per compressor.
- # 2 pressure gages (LP + HP).
- # Differential oil pressure switch per compressor. **MOPSH**

OPTIONS

- ALF** Height-adjustable float coolant level alarm.
- ALR** Optoelectronic refrigerant level alarm.
- BAC** Liquid separator. **MOPSH**
- VFA** Suction valve and filter on each compressor. **MOPSH**
- SIL** Delivery muffler (1 per compressor). **MOPSH**

LIQUID STATION

- # Liquid station delivered separately.
- # Inlet/outlet shut-off valves.
- # Liquid outlet equipped with a removable filter dryer unit ≤ 150 l. and 2 parallel units with shut-off valves > 150 l.
- # Indicator and general shut-off valve on outlet.
- # Single or double safety valve (according to PED).

OPTIONS

- RLS** Oversized liquid receiver.
- SSD** Double safety valve with 3-way valve (for receivers < 120 litres).
- BD1** Single liquid drier bypass (1 filter unit) in operation.

MANIFOLDS

- # Suction and delivery all stainless steel 304 L.
- # One Schrader pressure port with shut-off valve per manifold (mano pressure switch connection, etc.).
- # Polypropylene collars on the suction and high temperature resistant polyamide on the delivery.
- # A general suction filter unit with removable cartridge up to 186 kW cooling capacity in positive and 47 kW in negative. One unit per compressor on top. **MOPSH**
- # A removable cartridge filter unit mounted on the suction manifold. **MOSC**

OPTION

- BDR** Condensate drain pan under suction manifolds.



COMPRESSORS

With Rotalock valves on suction and delivery + cylinder head fan in negative, crankcase heater and oil pump.

MOPSH

Equipped with Rotalock suction and delivery valves, crankcase heaters HP cartridge safety pressure switches and rigid suspension elements. **MOSC**

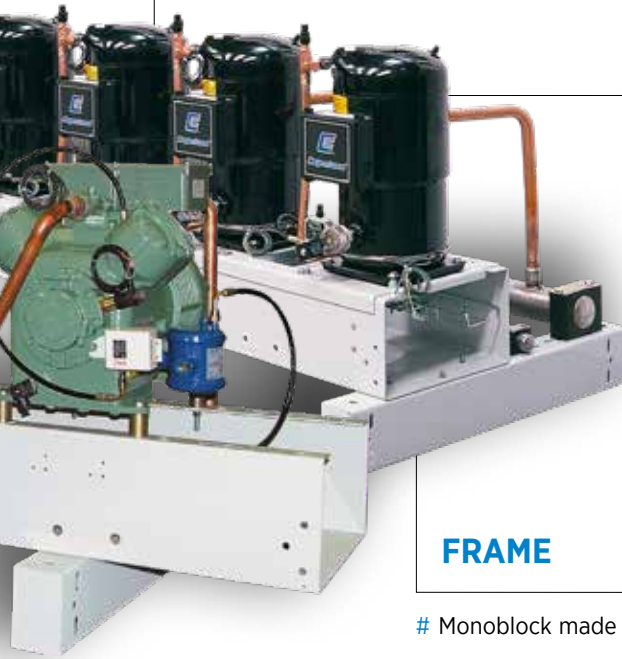
Negative models also include an injection system with different configurations depending on the compressors: shut-off valve, filter, solenoid valve and capillary. **MOSC**

OPTION

VAR

Power variation.

CONTACT US



OIL LINE

Removable oil separator and oil receiver with high/low indicators and shut-off valves.

Oil manifold with flexible connections at the ends.

LP oil return line with filter, indicator and shut-off valve per compressor.

Degassing valve.

Float level controllers. **MOPSH**

OPTIONS

TXL

Electronic oil level controllers. **MOPSH**

EVH

Oil return solenoid valve.

FRAME

Monoblock made from painted folded U-profile sheet steel, thickness 4 mm.

OPTIONS

CCB

Terminal block control wiring.

ARM

Electrical cabinet. **CONTACT US**

CAR

Casing (with integrated electrical cabinet). **CONTACT US**

PAV

Anti-vibration pads. **KIT TO INSTALL**

ANM

Rack handling rings (delivered not assembled with the rack). **KIT TO INSTALL**

PACK

OPTIONS

PR1

Connection pack

Customer connection valves (1 delivery, 1 suction, 1 liquid).

PR2

Customer connection valves (1 delivery, 2 suction, 2 liquid).

PR3

Customer connection valves (1 delivery, 3 suction, 3 liquid).

Safety pack

BPS

LP safety pressure switch per compressor.

HPG

HP general pressure switch (automatic).

Regulation pack

BP1

LP pressure switch (automatic) per compressor.

HPS

Additional HP pressure switches.

CDP

HP/LP pressure sensors signal 4-20 mA.

Do you have a specific request?

Contact us to design the unit
that meets your needs.

MOPSH^(A) 2^(B)P^(C) 4JE-15Y^(D)

- (A) MOPSH = Semi-hermetic compressor - MOSC = Scroll compressor
- (B) Number of compressors
- (C) P = Positive range - N = Negative range
- (D) Compressor type

The MOPSH is available with HFCs.
For more information,
please consult our software.

MOPSH | Semi-Hermetic

Positive range

MOPSH ...			2P 4JE-15Y	2P 4HE-18Y	2P 4GE-23Y	3P 4JE-15Y	3P 4HE-18Y	4P 4JE-15Y	3P 4GE-23Y	4P 4HE-18Y	3P 4FE-28Y
Power (l)	R449A	kW	62,3	73,1	84,9	93,4	109,6	124,5	127,3	146,2	151,2
Power consumption (l)		kW	25,0	30,0	35,6	37,4	45,0	49,9	53,4	59,9	62,4
Compressor		Nb	2	2	2	3	3	4	3	4	3
Max. current drawn		A	58,6	69,8	83,3	87,9	104,7	117,2	125,0	139,6	149,5
Receiver volume		l.	60	60	120	150	150	150	150	150	250
Connection pack standard option	Delivery	Ø	1"3/8	1"5/8	1"5/8	1"5/8	1"5/8	2"1/8	2"1/8	2"1/8	2"1/8
	Suction	Ø	2"5/8	2"5/8	3"1/8	3"1/8	3"1/8	2x2"5/8	2x2"5/8	2x2"5/8	2x2"5/8
	Liquid	Ø	1"1/8	1"1/8	1"3/8	1"3/8	1"3/8	2x1"3/8	2x1"3/8	2x1"3/8	2x1"3/8
Rack dimensions	L	mm	1915	1915	1915	2515	2515	3115	2515	3115	2515
	D	mm	800	800	800	800	1000	1000	1000	1000	1000
	H	mm	1500	1500	1500	1500	1500	1450	1450	1450	1450
	A	mm	655	655	655	755	755	755	755	755	755
Weight		kg	610	620	630	850	860	1100	900	1140	960

MOPSH ...			4P 4GE-23Y	3P 6GE-34Y	4P 4FE-28Y	3P 6FE-44Y	5P 4FE-28Y	4P 6GE-34Y	4P 6FE-44Y	5P 6GE-34Y	5P 6FE-44Y
Power (l)	R449A	kW	169,8	189,3	201,6	226,8	252,0	252,5	302,4	315,6	378,1
Power consumption (l)		kW	71,2	78,8	83,2	94,2	103,9	105,1	125,6	131,3	157,1
Compressor		Nb	4	3	4	3	5	4	4	5	5
Max. current drawn		A	166,7	186,9	199,3	222,9	249,1	249,2	297,2	311,5	371,6
Receiver volume		l.	250	250	250	250	350	250	350	350	350
Connection pack standard option	Delivery	Ø	2"1/8	2"5/8	2"5/8	2"5/8	3"1/8	3"1/8	3"1/8	3"1/8	3"1/8
	Suction	Ø	2x2"5/8	2x3"1/8	2x3"1/8	2x3"1/8	3x3"1/8	3x3"1/8	3x3"1/8	3x3"1/8	3x3"1/8
	Liquid	Ø	2x1"3/8	2x1"3/8	2x1"5/8	2x1"5/8	3x1"3/8	3x1"3/8	3x1"3/8	3x1"3/8	3x1"5/8
Rack dimensions	L	mm	3115	2515	3115	2515	3715	3115	3115	3715	3715
	D	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000
	H	mm	1450	1450	1580	1580	1580	1580	1580	1580	1780
	A	mm	755	755	755	755	755	755	755	755	755
Weight		kg	1160	1020	1240	1080	1540	1380	1430	1650	1720

(l) Evaporating temperature -10 °C / Ambient temperature +45 °C - Superheat: 10K - Subcool: 3K.

MOPSH^(A) 2^(B) N^(C) / 4HE-18Y^(D)

(A) **MOPSH** = Semi-hermetic compressor - **MOSC** = Scroll compressor
 (B) Number of compressors
 (C) **P** = Positive range - **N** = Negative range
 (D) Compressor type

The MOPSH is available with HFCs.
 For more information,
 please consult our software.

MOPSH | Semi-Hermetic

Negative range

MOPSH ...			2N 4HE-18Y	2N 4GE-23Y	2N 4FE-28Y	3N 4HE-18Y	3N 4GE-23Y	2N 6GE-34Y	4N 4HE-18Y	2N 6FE-44Y	3N 4FE-28Y
Power (l)	R449A	kW	20,0	24,2	29,0	30,1	36,4	37,4	40,1	43,4	43,4
Power consumption (l)		kW	14,4	17,4	20,7	21,6	26,1	25,1	28,8	31,7	31,0
Compressor		Nb	2	2	2	3	3	2	4	2	3
Max. current drawn		A	49,1	57,7	72,8	73,6	86,5	90,4	98,2	112,4	109,2
Receiver volume		l.	60	60	120	120	150	120	150	150	150
Connection pack standard option	Delivery	Ø	1"3/8	1"3/8	1"3/8	1"3/8	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8
	Suction	Ø	2"5/8	2"5/8	2"5/8	2"5/8	2x2"5/8	2x2"1/8	2x2"5/8	2x2"5/8	2x2"5/8
	Liquid	Ø	7/8"	1"1/8	1"3/8	1"3/8	2x7/8"	2x7/8"	2x7/8"	2x7/8"	2x7/8"
Rack dimensions	L	mm	1915	1915	1915	2515	2515	1915	3115	1915	2515
	D	mm	800	800	800	800	800	800	800	800	1000
	H	mm	1500	1500	1500	1500	1450	1450	1450	1450	1450
	A	mm	655	655	655	655	755	755	755	755	755
Weight		kg	600	610	640	820	840	690	1060	720	930

MOPSH ...			3N 6GE-34Y	4N 4FE-28Y	3N 6FE-44Y	5N 4FE-28Y	4N 6GE-34Y	4N 6FE-44Y	5N 6GE-34Y	5N 6FE-44Y
Power (l)	R449A	kW	56,0	57,9	65,2	72,4	74,7	86,9	93,4	108,6
Power consumption (l)		kW	37,7	41,4	47,6	51,7	50,3	63,4	62,9	79,3
Compressor		Nb	3	4	3	5	4	4	5	5
Max. current drawn		A	135,6	145,6	168,6	182,0	180,8	224,8	226,0	281,0
Receiver volume		l.	150	250	250	250	250	250	350	350
Connection pack standard option	Delivery	Ø	1"5/8	1"5/8	1"5/8	1"5/8	1"5/8	2"1/8	2"1/8	2"1/8
	Suction	Ø	2x2"5/8	2x3"1/8	2x3"1/8	3x2"5/8	2x3"1/8	3x2"5/8	3x3"1/8	3x3"1/8
	Liquid	Ø	2x1"1/8	2x1"1/8	2x1"1/8	3x1"1/8	2x1"3/8	3x1"1/8	3x1"1/8	3x1"1/8
Rack dimensions	L	mm	2515	3115	2515	3715	3115	3115	3715	3715
	D	mm	1000	1000	1000	1000	1000	1000	1000	1000
	H	mm	1580	1580	1580	1580	1580	1580	1580	1780
	A	mm	755	755	755	755	755	755	755	755
Weight		kg	1000	1200	1050	1470	1290	1370	1610	1680

(l) Evaporating temperature **-35 °C** / Ambient temperature **+40 °C** - Superheat: 10K - Subcool: 3K.

MOSC^(A) 5^(B) P^(C) ZB50^(D)

- (A) **MOPSH** = Semi-hermetic compressor - **MOSC** = Scroll compressor
- (B) Number of compressors
- (C) **P** = Positive range - **N** = Negative range
- (D) Compressor type

The MOSC is available with HFCs.
For more information,
please consult our software.

MOSC | Scroll

Positive range

MOSC ...			5P ZB50	5P ZB76	6P ZB76	5P ZB95	5P ZB114	6P ZB95	6P ZB114
Power (1)	R449A	kW	57,5	84,9	101,9	103,5	122,4	124,2	146,9
Power consumption (1)		kW	26,2	37,9	45,4	49,4	58,6	59,2	70,3
Compressor		Nb	5	5	6	5	5	6	6
Max. current drawn		A	73	102	122	141	167	169	200
Receiver volume		l.	60	120	120	120	150	150	150
Connection pack standard option	Delivery	Ø	1"5/8	1"5/8	2"1/8	2"1/8	2"1/8	2"1/8	2"5/8
	Suction	Ø	2"5/8	3"1/8	3"1/8	3"1/8	3"1/8	4"1/8	4"1/8
	Liquid	Ø	1"1/8	1"3/8	1"3/8	1"3/8	1"5/8	1"5/8	1"5/8
Rack weight		kg	3115	3115	3715	3115	3115	3715	3715
Receiver size	L	mm	800	800	800	1000	1000	1000	1000
	D	mm	1500	1500	1500	1500	1500	1500	1500
	H	mm	655	655	755	755	755	755	755
Receiver weight		kg	820	820	980	890	930	1040	1100

(1) Evaporating temperature **-10 °C** / Ambient temperature **+45 °C** - Superheat: 10K - Subcool: 3K.

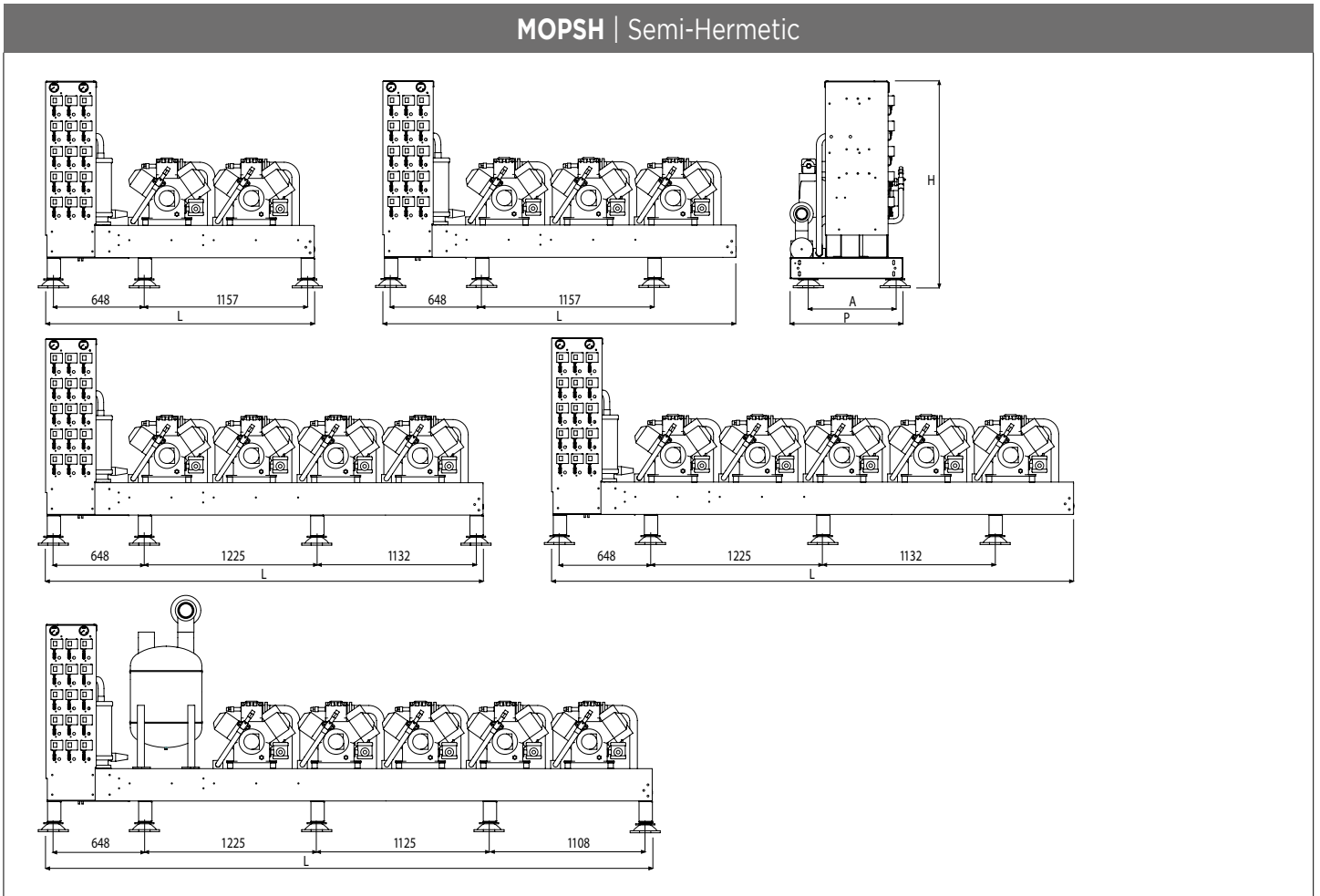
MOSC | Scroll

Negative range

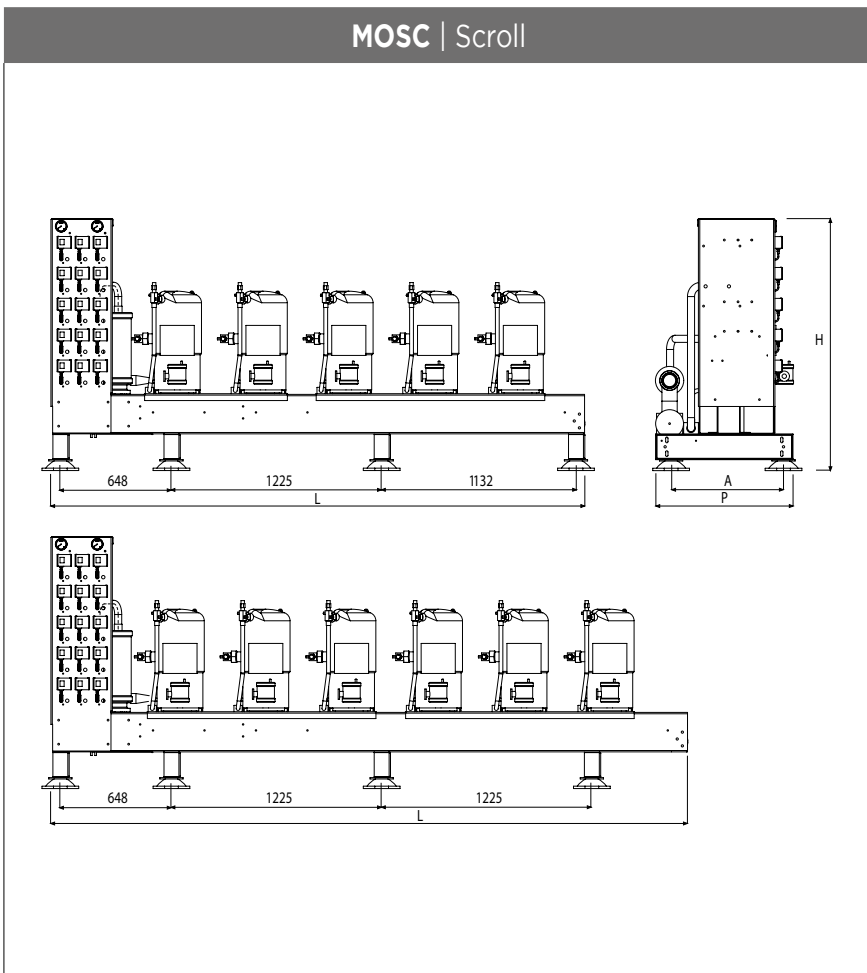
MOSC ...			5N ZF25	5N ZF34	6N ZF34	5N ZF41	6N ZF41	5N ZF49	6N ZF49
Power (1)	R449A	kW	22,4	29,4	35,2	35,8	42,9	44,1	52,9
Power consumption (1)		kW	18,9	25,6	30,7	29,1	34,9	38,3	45,9
Compressor		Nb	5	5	6	5	6	5	6
Max. current drawn		A	81	112	134	126	151	153	184
Receiver volume		l.	60	60	120	150	150	150	150
Connection pack standard option	Delivery	Ø	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8	1"3/8	1"5/8
	Suction	Ø	2"5/8	2"5/8	3"1/8	3"1/8	3"1/8	3"1/8	4"1/8
	Liquid	Ø	1"1/8	1"1/8	1"3/8	1"3/8	1"3/8	1"3/8	1"5/8
Rack weight		kg	3115	3115	3715	3115	3715	3115	3715
Receiver size	L	mm	800	800	800	800	800	800	1000
	D	mm	1500	1500	1500	1500	1500	1500	1500
	H	mm	655	655	755	755	755	755	755
Receiver weight		kg	820	820	980	890	1040	930	1100

(1) Evaporating temperature **-35 °C** / Ambient temperature **+40 °C** - Superheat: 10K - Subcool: 3K.

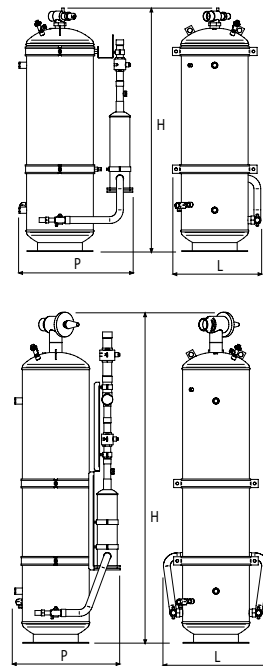
MOPSH | Semi-Hermetic



MOSC | Scroll



Liquid station



		60 l.	120 l.	150 l.	250 l.	350 l.
L'	mm	666	714	790	739	993
P'	mm	402	455	538	638	856
H'	mm	1366	1834	1605	2010	1942
Weight	kg	90	130	150	250	290

