# SCREWLine<sup>4</sup>-i MF

Multi-purpose reversible heat pump

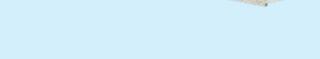
Air cooled

Outdoor installation

Capacity from 522 to 989 kW



- ✓ Screw compressors with inverter technology and EC Axialfans type
- Polyvalent technology configurable for 4-pipe
- Double independent circuits for high reliability
- ✓ Refrigerant R513A GWP = 631
- √ High full load and seasonal efficiency (Excellence version) for all 3 acoustic versions
- ✓ Domestic hot water up to 60°C, low water temperature down to -8°C
- ✓ Modular operation management, up to 7 units in cascade
- ✓ Integrated hot side and cold side hydronic assemblies





Clivet participates in the EUROVENT "Liquid Chilling Packages and Hydronic Heat Pumps". The products concerned feature on the website www.eurovent-certification.com



## functions and features







installation





Twin-screw



Inverter



expansion valve



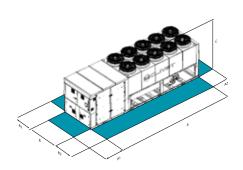
ECOBREEZE HydroPack

HYDRO

**PACK** 



# dimensions and clearances



#### CAUTION!

For trouble-free operation of the unit it is essential to maintain the safety distances indicated by the green areas.

Size	▶▶ WDAN-iK	4 MF	220.2	240.2	260.2	280.2	320.2	340.2	420.2
SC/LN/EN-EXC	A - Length	mm	7756	7756	8725	9700	10680	10755	10755
SC/LN/EN-EXC	B - Width	mm	2228	2228	2228	2228	2228	2228	2228
SC/LN/EN-EXC	C - Height	mm	2538	2538	2538	2538	2538	2538	2538
SC/LN/EN-EXC	A1	mm	1500	1500	1500	1500	1500	1500	1500
SC/LN/EN-EXC	A2	mm	700	700	700	700	700	700	700
SC/LN/EN-EXC	B1	mm	1200	1200	1200	1200	1200	1200	1200
SC/LN/EN-EXC	B2	mm	1200	1200	1200	1200	1200	1200	1200
SC/LN/EN-EXC	Operating weight	kg	7869	7869	9197	9708	10207	10516	11875

The above mentioned data are referred to standard units for the constructive configurations indicated. For all the other configurations, refer to the relative Technical Bulletin.

SC-EXC Compressors soundproofing (SC) - Excellence

LN-EXC Silenced acoustic configuration (LN) - Excellence

EN-EXC Supersilenced acoustic configuration (EN) - Excellence



## versions and configurations

VERSION:

**EXC** Excellence (Standard)

**ENERGY RECOVERY:** 

Total energy recovery (Standard)

ACOUSTIC CONFIGURATION:

SC Acoustic configuration with compressor soundproofing (Standard)

LN Silenced acoustic configuration EN Super-silenced acoustic configuration

#### **CONFIGURATION:**

Configuration for 4-pipe system

#### EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

Device for fan consumption reduction of the external section, ECOBREEZE type (Standard)

#### LOW TEMPERATURE:

Low temperature: not required (Standard)

Water low temperature

## technical data

Size		<b>▶▶</b> WDAN	I-iK4 MF	220.2	240.2	260.2	280.2	320.2	340.2	420.2
Cooling	100% - Heating 0%									
SC-EXC	Cooling capacity (EN 14511:2022)	(1)	kW	522	544	574	633	721	792	989
SC-EXC	Total power input (EN 14511:2022)	(1)	kW	183	193	190	206	240	266	351
SC-EXC	EER (EN 14511:2022)	(1)	-	2,85	2,82	3,02	3,07	3,01	2,98	2,82
SC-EXC	SEER	(6)	-	5,10	5,08	5,08	5,17	5,12	5,05	5,05
SC-EXC	η <sub>s,c</sub>	(6)	%	200,8	200,1	200,1	203,7	201,7	198,8	198,9
Cooling	0% - Heating 100%									
SC-EXC	Heating capacity (EN 14511:2022)	(2)	kW	504	509	538	632	697	777	908
SC-EXC	Total power input (EN 14511:2022)	(2)	kW	163	165	168	205	229	252	300
SC-EXC	COP (EN 14511:2022)	(2)	-	3,09	3,09	3,20	3,09	3,05	3,08	3,03
Cooling '	100% - Heating 100%									
SC-EXC	Cooling capacity (EN 14511:2022)	(3)	kW	523	544	575	634	718	792	990
SC-EXC	Heating capacity (EN 14511:2022)	(3)	kW	667	694	728	804	916	1012	1265
SC-EXC	Total power input (EN 14511:2022)	(3)	kW	158	164	168	186	216	241	301
SC-EXC	TER (EN 14511:2022)	(4)	-	7,54	7,57	7,75	7,71	7,55	7,49	7,50
SC-EXC	Refrigeration circuits		Nr				2			
SC-EXC	No. of compressors		Nr				2			
SC-EXC	Type of compressors		-		ISW					
SC-EXC	Refrigerant			R-513A						
SC-EXC	Standard power supply		V				400/3~/50			
SC-EXC	Sound power level	(5)	dB(A)	97	97	99	99	101	100	101
LN-EXC	Sound power level	(5)	dB(A)	90	91	91	92	92	92	94
EN-EXC	Sound power level	(5)	dB(A)	86	86	88	88	89	89	88
Directive	ErP (Energy Related Products)									
SC-EXC	SCOP - AVERAGE Climate - W35	(6)	-	4,03	4,03	4,12	-	-	-	-
SC-EXC	η <sub>s,H</sub>	(6)	%	158	158	162	-	-	-	-

<sup>(</sup>f) Data compliant to Standard EN 14511:2022 referred to the following conditions: Cold side water temperature = 12/7°C; Entering external exchanger air temperature = 35°C

(5) Sound pressure levels are referred to units operating at nominal load in nominal conditions. Measurements are carried out accordingly to UNI EN ISO 9614-1 at nominal standard conditions defined in respective regulations: EU 2016/2281, UE 813/2013, UE 811/2013 (6) Data calculated according to the EN 14825:2018 Regulation

The Product is compliant with the Erp (Energy Related Products) European Directive. It includes the Commission delegated Regulation (EU) No 811/2013 (rated heat output \$70 kW at specified reference conditions), the Commission delegated Regulation (EU) No 813/2013 (rated heat output \$400 kW at specified reference conditions) and the Commission delegated Regulation (EU) No 2016/2281, also known as Ecodesign Lot21.

### accessories

SPC1	Set-point compensation with 4-20 mA	RPRI	Refrigerant leak detector in the casing
SCP4	Set-point compensation with 4-20 MA Set-point compensation with 0-10 V	FMCHX	Cooling and heating side flow meters
SPC2	Set-point compensation with outdoor air temperature probe Inverter driven variable flow-rate user side control depending on the	RE-25	Electrical panel antifreeze protection for min. outdoor temperature down to -25°C
IVECDI	temperature differential	ECS	ECOSHARE function for the automatic management of a group of units
IVFHDT	Variable flow rate control heating side by inverter according to the	FC2	EMC filtering to reduce conducted compressor emissions
	temperature differential	PGFC	Finned coil protection grill
<b>IVFCDTS</b>	Variable flow control heating side by inverter according to the	PGCCH	Anti-hail protection grilles
	temperature differential with pressure drop sensor	RDVS	Switching valve with dual safety valves
<b>IVFHDTS</b>	Variable flow control heating side by inverter according to the	CCCA	Copper / aluminium condenser coil with acrylic lining
	temperature differential with pressure drop sensor	CCCA1	Condenser coil with Aluminium Energy Guard DCC treatment
IVFCDTF	Variable flow rate control cooling side by inverter according to the	1+1PMHS	VHydropack heating side with 1+1 inverter pump
	temperature differential with a flow meter	2PMHSV	Hydropack cooling side with 2 inverter pumps
IVFHDTF	Variable flow control heating side by inverter according to the	1+1PMHS	Hydropack heating side with 1+1 on-off pump
	temperature differential with pressure drop sensor	2PMHS	Hydropack heating side with 2 on-off pumps
CONTA3	M-bus total electricity meter	1+1PMCS	VHydropack cooling side with 1 + 1 inverter pump
CONTA4	Total electricity meters and m-bus pump group		Hydropack heating side with 2 inverter pumps
IFWX	Steel mesh strainer on the water side		Hydropack cooling side with 1+1 on-off pump
CSVX	Couple of manually operated shut-off valves	2PMCS	Hydropack cooling side with 2 on-off pumps
AMMX	Rubber antivibration mounts	MISTER1	
<b>AMMSX</b>	Anti-seismic spring antivibration mounts		temperature differential
RCMRX	Remote control via microprocessor control	MISTER2	·
PSX	Mains power supply		probes (available only with options: FMCHX)
CMSC9	Serial communication module for Modbus supervisor	MISTER3	Direct energy meter via m-bus (available only with options: FMCHX)
CNICCIO	6		, , , , , , , , , , , , , , , , , , , ,

Accessories whose code ends with "X" are supplied separately

CMSC10 Serial communication module for LonWorks supervisor CMSC11 Serial communication module for BACnet-IP supervisor

<sup>(2)</sup> Data compliant to Standard EN 14511:2022 referred to the following conditions: Hot side water temperature = 40/45°C; Entering external exchanger air temperature = 7°C D.B./6°C W.B.

<sup>(3)</sup> Data compliant to Standard EN 145ft:2022 referred to the following conditions: Cold side water temperature = \*/7°C; Hot side water temperature = \*/45°C (4) TER = (Cooling capacity + Heating capacity) / (Total power input)