

SCREWLine⁴-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

Screw INVERTER



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



compliant
ErP

functions and features



Heat pump



AIR



Outdoor
installation



R-513A



Semi-hermetic
Twin-screw



Full
Inverter



Electronic
expansion
valve



ECOBREEZE

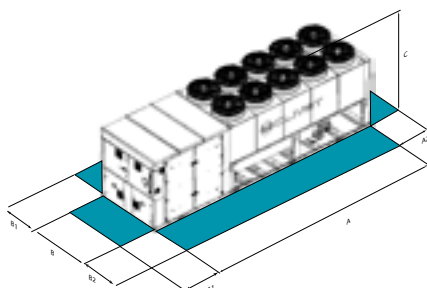


HydroPack



Intelliplant

dimensions and clearances



Size	►► WDAN-iK4 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

CAUTION!

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

versions and configurations

VERSION:

EXC Excellence (Standard)

ENERGY RECOVERY:

R Total energy recovery (Standard)

ACOUSTIC CONFIGURATION:

SC Acoustic configuration with compressor soundproofing (Standard)

LN Silenced acoustic configuration

EN Super-silenced acoustic configuration

CONFIGURATION:

4T Configuration for 4-pipe system

EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

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

LOW TEMPERATURE:

- Low temperature: not required (Standard)

B Water low temperature

technical data

Size			▶▶ WDAN-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_{sc}	(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_{sH}	(6)	%	158	158	162	-	-	-	-

(1) 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

(2) 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.

(3) Data compliant to Standard EN 14511:2022 referred to the following conditions: Cold side water temperature = 7/7°C; Hot side water temperature = 45/5°C

(4) TER = (Cooling capacity + Heating capacity) / (Total power input)

(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
SCP4	Set-point compensation with 0-10 V
SPC2	Set-point compensation with outdoor air temperature probe
IVFCDT	Inverter driven variable flow-rate user side control depending on the temperature differential
IVFHDT	Variable flow rate control heating side by inverter according to the temperature differential
IVFCDTS	Variable flow control heating side by inverter according to the temperature differential with pressure drop sensor
IVFHDT S	Variable flow control heating side by inverter according to the temperature differential with pressure drop sensor
IVFCDTF	Variable flow rate control cooling side by inverter according to the temperature differential with a flow meter
IVFHDTF	Variable flow control heating side by inverter according to the temperature differential with pressure drop sensor
CONTA3	M-bus total electricity meter
CONTA4	Total electricity meters and m-bus pump group
IFWX	Steel mesh strainer on the water side
CSVX	Couple of manually operated shut-off valves
AMMX	Rubber antivibration mounts
AMMSX	Anti-seismic spring antivibration mounts
RCMRX	Remote control via microprocessor control
PSX	Mains power supply
CMSC9	Serial communication module for Modbus supervisor
CMSC10	Serial communication module for LonWorks supervisor
CMSC11	Serial communication module for BACnet-IP supervisor

RPRI	Refrigerant leak detector in the casing
FMCHX	Cooling and heating side flow meters
RE-25	Electrical panel antifreeze protection for min. outdoor temperature down to -25°C
ECS	ECOSHARE function for the automatic management of a group of units
FC2	EMC filtering to reduce conducted compressor emissions
PGFC	Finned coil protection grill
PGCCH	Anti-hail protection grilles
RDVS	Switching valve with dual safety valves
CCCA	Copper / aluminium condenser coil with acrylic lining
CCCA1	Condenser coil with Aluminium Energy Guard DCC treatment
1+1PMHSV	Hydropack heating side with 1 + 1 inverter pump
2PMHSV	Hydropack cooling side with 2 inverter pumps
1+1PMHS	Hydropack heating side with 1 + 1 on-off pump
2PMHS	Hydropack heating side with 2 on-off pumps
1+1PMCSV	Hydropack cooling side with 1 + 1 inverter pump
2PMCSV	Hydropack heating side with 2 inverter pumps
1+1PMCS	Hydropack cooling side with 1 + 1 on-off pump
2PMCS	Hydropack cooling side with 2 on-off pumps
MISTER1	Indirect energy meter through pressure drops and unit probes temperature differential
MISTER2	Direct energy meter by flow rate and temperature differential with unit probes (available only with options: FMCHX)
MISTER3	Direct energy meter via m-bus (available only with options: FMCHX)

Accessories whose code ends with "X" are supplied separately

Data contained in this document are not binding and may be changed by the Manufacturer without notice