

SCREWLINE4-I MF

Air-cooled multi-functional reversible heat pump for outdoor installation
Capacity from 522 to 989 kW



Clivet participates in the EUROVENT "Liquid Chilling Packages and Hydronic Heat Pumps".
Check ongoing validity of certificate on www.eurovent-certification.com



Heat pump



Air cooled



Outdoor installation



R-513A



Semi-hermetic Twin-screw



Full Inverter



Electronic expansion valve



ECOBREEZE



HydroPack



INTELLIPLANT



ErP compliant

- ✓ Screw compressors with inverter technology and EC Axialfans type
- ✓ Polyvalent technology configurable for 4-pipe
- ✓ Refrigerant R513A - GWP = 631
- ✓ Hot water up to 60°C, low water temperature down to -8°C
- ✓ Double independent circuits for high reliability
- ✓ Three acoustic configurations: standard, silent and super-silent
- ✓ Modular operation management, up to 7 units in cascade
- ✓ Integrated hot side and cold side hydronic assemblies

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 Supersilenced acoustic configuration

CONFIGURATION:

4T Configuration for 4-pipe system

EXTERNAL SECTION FAN CONSUMPTION REDUCTION:

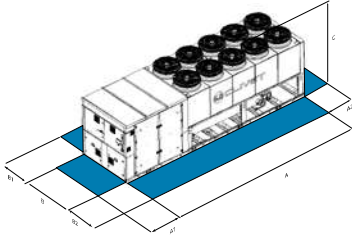
CREFB Device for fan consumption reduction of the external section, ECOBREEZE type (Standard)

BASSA TEMPERATURA:

- Low temperature: not required (Standard)

B Water low temperature

Dimensions and connections



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

Size	WDAN-iK4 MF	220.2	240.2	260.2	280.2	320.2	340.2	420.2
A - Length	mm	7756	7756	8725	9700	10680	10755	10755
B - Width	mm	2228	2228	2228	2228	2228	2228	2228
C - Height	mm	2538	2538	2538	2538	2538	2538	2538
A1	mm	1500	1500	1500	1500	1500	1500	1500
A2	mm	700	700	700	700	700	700	700
B1	mm	1200	1200	1200	1200	1200	1200	1200
B2	mm	1200	1200	1200	1200	1200	1200	1200
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.

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	$\eta_{s,c}$	(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	253	299
SC-EXC	COP (EN 14511:2022)	(2)	-	3.09	3.09	3.20	3.08	3.05	3.07	3.03
Cooling 100% - Heating 100%										
SC-EXC	Cooling capacity (EN 14511:2022)	(3)	kW	522	544	574	633	718	791	989
SC-EXC	Heating capacity (EN 14511:2022)	(3)	kW	667	694	728	805	917	1013	1266
SC-EXC	Total power input (EN 14511:2022)	(3)	kW	161	167	172	191	221	246	306
SC-EXC	TER (EN 14511:2022)	(4)	-	7.39	7.41	7.59	7.52	7.41	7.33	7.36
SC-EXC	Refrigeration circuits		Nr				2			
SC-EXC	No. of compressors		Nr				2			
SC-EXC	Type of compressors		-				SCREW INVERTER			
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	$\eta_{s,H}$	(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°C; Hot side water temperature = */45°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 14825:2022 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

CCCA	Copper / aluminium condenser coil with acrylic lining	AMMSX	Spring anti-seismic antivibration mounts
CCCA1	Condenser coil with Aluminium Energy Guard DCC treatment	RCMRX	Remote control via microprocessor control
1+1PMHSV	Hydropack heating side with 1 + 1 inverter pump	PSX	Mains power supply
2PMHSV	Hydropack cooling side with 2 inverter pumps	CMSC9	Serial communication module for Modbus supervisor
1+1PMHS	Hydropack heating side with 1 + 1 on-off pump	CMSC10	Serial communication module for LonWorks supervisor
2PMHS	Hydropack heating side with 2 on-off pumps	CMSC11	Serial communication module for BACnet-IP supervisor
1+1PMCSV	Hydropack cooling side with 1 + 1 inverter pump	RPRI	Refrigerant leak detector in the casing
2PMCSV	Hydropack heating side with 2 inverter pumps	FMCHX	Cooling and heating side flow meters
1+1PMCS	Hydropack cooling side with 1 + 1 on-off pump	RE-25	Electrical panel antifreeze protection for min. outdoor temperature down to -25°C
2PMCS	Hydropack cooling side with 2 on-off pumps	ECS	ECOSHARE function for the automatic management of a group of units
SPC1	Set point compensation with 4-20 mA signal	FC2	EMC filtering to reduce conducted compressor emissions
SCP4	Set-point compensation with 0-10 V signal	PGFC	Finned coil protection grilles
SPC2	Set-point compensation with outdoor air temperature probe	PGCCH	Anti-hail protection grilles
IVFCDT	Variable flow rate control heating side by inverter according to the temperature differential	RDVS	Switching valve with double safety valves
IVFHDT	Variable flow-rate control on hot use side by inverter based on the temperature difference	MISTER1	Indirect energy meter through pressure drops and unit probes temperature differential
IVFCDTS	Variable flow control cooling side by inverter according to the temperature differential with pressure drop sensor	MISTER2	Direct energy meter by flow rate and temperature differential with unit probes (available only with options: FMCHX)
IVFHDTs	Variable flow control heating side by inverter according to the temperature differential with pressure drop sensor	MISTER3	Direct energy meter via m-bus (available only with options: FMCHX)
IVFCDTF	Variable flow rate control cooling side by inverter according to the temperature differential with a flow meter (available only with options: FMCHX)	IOTX	IoT industrial module for cloud based interoperability & services
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 filter on the water side		
CSVX	Couple of manually operated shut-off valves		
AMMX	Spring antivibration mounts		

Accessories whose code ends with "X" are supplied separately