

SCREWLINE⁴-I

Liquid chiller

Water cooled

Indoor installation

Capacity from 340 to 1440 kW



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

- ✓ Screw compressors with inverter technology and spray shell & tube evaporator
- ✓ Low environmental impact solution, with one or two independent circuits for high reliability
- ✓ Refrigerant R513A - GWP = 631
- ✓ High seasonal efficiency with SEER values up to 8.60
- ✓ 3 operating modes: Cooling only, Heating only, Operation with water circuit change-over
- ✓ Two acoustic configurations: standard and super-silenced
- ✓ Modular operation management, up to 8 units in cascade
- ✓ Condenser water temperature up to 65°C with high water temperature version (HWT), evaporator water temperature down to -8°C

functions and features



Cooling only



Water cooled

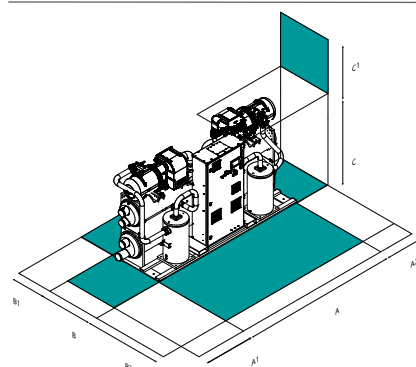
Indoor
installation

R-513A

Semi-hermetic
Twin-screwFull
InverterReversible
water circuitElectronic
expansion
valve

Intelliplant

dimensions and clearances



Size	» WDH-iK4	120.1	160.1	200.1	220.1	240.1	270.1	290.1	250.2	280.2	320.2	360.2	400.2	480.2	540.2
A - Length	mm	2639	2639	2902	2902	3527	3527	4187	4083	4083	4233	4384	4651	4651	4651
B - Width	mm	1195	1195	1400	1400	1400	1400	1450	1195	1195	1195	1450	1495	1495	1495
C - Height	mm	2103	2103	2293	2293	2293	2293	2375	2194	2194	2214	2375	2498	2498	2498
A1	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
A2	mm	700	700	700	700	700	700	700	700	700	700	700	700	700	700
B1	mm	700	700	700	700	700	700	700	700	700	700	700	700	700	700
B2	mm	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
C1	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
Operating weight	kg	3241	3328	4217	4207	4849	4884	5013	5484	5694	6475	7241	9225	9177	9225

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.

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)

LOW TEMPERATURE:

- Low temperature: not required (Standard)
B Water low temperature

OPERATION:

OCO Cooling-only operation (Standard)
OHO Heating-only operation
OHI Operation with water circuit change-over

ACOUSTIC CONFIGURATION:

ST Standard acoustic configuration (Standard)
EN Super-silenced acoustic configuration

HIGH WATER TEMPERATURE VERSION:

HWT High water temperature

technical data

Size	►►	WDH-iK4	120.1	160.1	200.1	220.1	240.1	270.1	290.1	250.2	280.2	320.2	360.2	400.2	480.2	540.2				
♦ Cooling capacity (EN 14511:2022)	(1)	kW	340	416	520	611	689	759	830	704	800	899	1065	1280	1355	1440				
Total power input (EN 14511:2022)	(1)	kW	66,8	81,0	102	119	138	150	166	138	156	177	209	249	270	289				
EER (EN 14511:2022)	(1)	-	5,08	5,13	5,11	5,13	5,00	5,06	5,00	5,10	5,12	5,08	5,11	5,13	5,02	4,98				
SEER	(4)	-	8,41	8,46	8,53	8,57	8,55	8,60	8,57	8,59	8,38	8,47	8,56	8,38	8,44	8,53				
η _{sc}	(4)	%	328,4	330,4	333,2	334,8	334,0	336	334,8	335,6	327,2	330,8	334,4	327,2	329,6	333,2				
♦ Heating capacity (EN 14511:2022)	(2)	kW	385	463	582	683	775	854	934	795	894	1006	1191	1431	1508	1680				
Total power input (EN 14511:2022)	(2)	kW	88,9	104	129	152	179	193	213	186	205	232	270	323	348	390				
COP (EN 14511:2022)	(2)	-	4,33	4,45	4,52	4,49	4,33	4,43	4,39	4,26	4,35	4,34	4,41	4,43	4,33	4,30				
Refrigeration circuits		Nr	1										2							
No. of compressors		Nr	1										2							
Type of compressors		-	SCREW INVERTER																	
Refrigerant		-	R-513A																	
Water flow-rate (User side)		l/s	16,1	19,7	24,6	29,0	32,7	36,0	39,4	33,4	38,0	42,7	50,5	60,7	64,3	68,3				
Water flow (Source side)		l/s	19,5	23,8	29,8	35,0	39,6	43,5	47,7	40,3	45,8	51,6	61,0	73,2	77,9	82,9				
Standard power supply		V	400/3~/50																	
ST Sound power level	(3)	dB(A)	94	96	97	97	97	98	98	100	101	101	102	102	102	103				
EN Sound power level	(3)	dB(A)	91	93	94	94	94	95	95	97	98	98	99	99	99	100				

(1) Performance data calculated in accordance with EN 14511:2022 referred to the following conditions: Internal exchanger water temperature = 12/7°C; External exchanger water temperature = 30/35°C

(2) HWT Version: Performance data calculated in accordance with EN 14511:2022 referred to the following conditions: Internal exchanger water temperature = 40/45°C; External exchanger water temperature = 10/7°C

(3) 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. Sound power level are not Eurovent certified.

(4) 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 2016/2281, also known as Ecodesign Lot21.

accessories

- AMRX

RCMRX

PSX

CONTA2

CMSC9

CMSC10

CMSC11

SCP4

SPC1

SPC2

ECS

IVMSX

MHP

SDV

CO3P
- Rubber antivibration mounts

Remote control via microprocessor control

Mains power supply

Energy meter

Serial communication module for Modbus supervisor

Serial communication module for LonWorks supervisor

Serial communication module for BACnet-IP supervisor

Set-point compensation with 0-10 V signal

Set point compensation with 4-20 mA signal

Set-point compensation with outdoor air temperature probe

ECOSHARE function for the automatic management of a group of units

Source side 2-way modulating valve

High and low pressure gauges

Cutoff valve on compressor supply and return

3-step condenser
- AACT

AAR

CDR

CDCT

EV3P

ISS

IM

EHCS

EHWP

IFU2X

IFS2X

RPR

FC2

AMMSX

AMMX

IOTX
- Opposing evaporator water connections

DX evaporator water connections

DX condenser water connections

Opposing condenser water connections

3-step evaporator

Condenser insulation

20 mm thickness insulation for increased evaporator

Source side antifreeze electric heaters

User side water piping antifreeze electric heaters

Steel mesh filter on cold side

Steel mesh filter on hot side

Refrigerant leak detector

EMC filtering to reduce conducted compressor emissions

Anti-seismic spring antivibration mounts

Spring antivibration mounts

IoT industrial module for cloud based interoperability & services

Accessories whose code ends with "X" are supplied separately