

Water chiller
Water cooled
Indoor installation
Capacity from 325 to 1608 kW

SCREWLine³

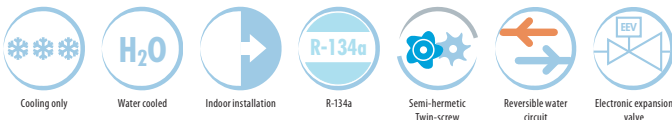
The SCREWLine³ WDH-SL3 units are water chillers with extremely high efficiency that feature:

- **MAXIMUM ENERGY SAVING** - Excellence version is placed in Eurovent Energy Efficiency Class A and stands for high efficiency at partial load operation with continuous modulation of the compressor capacity from 100% to 25%.
- **HIGH TEMPERATURES** - The configuration HWT (High Water Temperature) is particularly suitable for high leaving water temperature up to 65°C.
- **PERFECT FOR GREEN BUILDINGS** - Top efficiency figures match with demanding protocols such as ECBC and LEED certification requirements. The refrigerant is zero-ODP. Furthermore, its quantity is much smaller than most of the market chillers can do, such as flooded evaporator models, thus further increasing the relevant design credits.
- **RELIABLE TECHNOLOGY** - Excellent energy figures originate from high performance double screw compressor complete with electronic thermostatic valve and innovative shell & tube heat exchangers optimized for operation with R-134a. Single compressor units are especially suitable for parallel system configuration (Ecoshare), while two compressors design allows more reliability, higher flexibility and low starting current.
- **HIGHLY VERSATILE APPLICATION** - Suitable for all terminal types, from fan coil units to radiant systems and chilled beams, WDH-SL3 is also available for low temperature supply (Brine) in high dehumidification or industrial process applications. On the source side, it can easily benefit from tower, dry cooler or well water plant design.

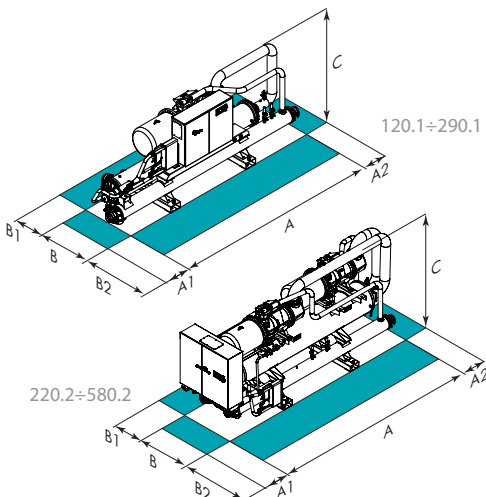


Unit listed on
www.eurovent-certification.com

functions and features



dimensions and clearances



Size – WDH-SL3		120.1	140.1	160.1	180.1	200.1	220.1	250.1	270.1	290.1
A - Length	mm	4624	4624	4624	4735	4735	4735	4735	4735	4735
B - Width	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350
ST-EXC	C - Height	mm	1552	1552	1552	1684	1684	1684	1684	1684
EN-EXC	C - Height	mm	1552	1552	1552	1770	1770	1770	1770	1770
A1	mm	700	700	700	700	700	700	700	700	700
A2	mm	700	700	700	700	700	700	700	700	700
B1	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000
B2	mm	700	700	700	700	700	700	700	700	700
ST-EXC	Operating weight	kg	2377	2457	2514	3263	3274	3352	3403	3530
EN-EXC	Operating weight	kg	2541	2650	2707	3486	3497	3575	3626	3753

Size – WDH-SL3		220.2	240.2	260.2	280.2	300.2	320.2	340.2	360.2	400.2	440.2	470.2	500.2	540.2	580.2
A - Length	mm	4630	4630	4630	4630	4630	4630	5025	5025	5025	5025	5025	5075	5075	5075
B - Width	mm	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
ST-EXC	C - Height	mm	1984	1984	1984	1984	1984	2223	2223	2223	2223	2223	2390	2390	2390
EN-EXC	C - Height	mm	1984	1984	1984	1984	1984	2280	2280	2280	2280	2280	2435	2435	2435
A1	mm	1410	1410	1410	1410	1410	1410	1410	1410	1410	1410	1410	1410	1410	1410
A2	mm	700	700	700	700	700	700	700	700	700	700	700	700	700	700
B1	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
B2	mm	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
ST-EXC	Operating weight	kg	3936	3967	4043	4068	4123	4179	5246	5473	5600	5750	5799	6641	6830
EN-EXC	Operating weight	kg	4264	4295	4400	4454	4509	4565	5662	5919	6046	6196	6245	7087	7276

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

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.
ST-EXC Standard (ST)-Excellence
EN-EXC Super-silenced (EN)-Excellence

versions and configurations

LOW TEMPERATURE:

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

VERSION:

- ▶ **EXC** Excellence (Standard)

ENERGY EFFICIENCY:

- ▶ - High water temperature: not requested (Standard)
- ▶ **HWT** High water temperature

ENERGY RECOVERY:

- ▶ - Energy recovery: not required (Standard)
- ▶ **D** Partial energy recovery
- ▶ **R** Total energy recovery

OPERATION:

- ▶ **OCO** Cooling-only operation (Standard)
- ▶ **OHI** Operation with water circuit change-over

ACOUSTIC CONFIGURATION:

- ▶ **ST** Standard acoustic configuration (Standard)
- ▶ **EN** Extremely low noise acoustic configuration

APPLICATION:

- ▶ **T** Cooling tower application (Standard)
- ▶ **P** Groundwater application

DOUBLE SET POINT:

- ▶ - Double set point: not required (Standard)
- ▶ **DSP** Double set point

technical data

Size – WDH-SL3			120.1	140.1	160.1	180.1	200.1	220.1	250.1	270.1	290.1	
Eurovent	(*)											
ST/EN-EXC	▶ Cooling capacity (EN14511:2011)	(1)	kW	325	392	430	504	550	613	668	736	782
ST/EN-EXC	Total power input (EN14511:2011)	(1)	kW	63,0	76,6	85,0	96,6	106	118	130	144	155
ST/EN-EXC	EER (EN 14511:2011)	(1)	-	5,15	5,12	5,05	5,22	5,19	5,19	5,13	5,13	5,05
ST/EN-EXC	ESEER	-	-	5,51	5,50	5,46	5,56	5,56	5,55	5,54	5,52	5,41
ST/EN-EXC	▶ Heating capacity (EN14511:2011)	(2)	kW	360	439	482	560	612	682	745	821	874
ST/EN-EXC	Total power input (EN14511:2011)	(2)	kW	75,3	90,2	99,9	114	125	139	153	169	182
ST/EN-EXC	COP (EN 14511:2011)	(2)	-	4,79	4,87	4,83	4,92	4,91	4,90	4,86	4,87	4,81
ST/EN-EXC	Refrigeration circuits		Nr	1	1	1	1	1	1	1	1	1
ST/EN-EXC	No. of compressors		Nr	1	1	1	1	1	1	1	1	1
ST/EN-EXC	Type of compressors	(3)	-	DSW	DSW	DSW	DSW	DSW	DSW	DSW	DSW	DSW
ST/EN-EXC	Standard power supply		V	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50
ST-EXC	Sound pressure level	(4)	dB(A)	74	75	76	76	77	76	76	78	78
EN-EXC	Sound pressure level	(4)	dB(A)	69	70	71	72	72	71	71	73	73

Size – WDH-SL3			220.2	240.2	260.2	280.2	300.2	320.2	340.2	360.2	400.2	440.2	470.2	500.2	540.2	580.2	
Eurovent	(*)																
ST/EN-EXC	▶ Cooling capacity (EN14511:2011)	(1)	kW	599	638	693	780	817	855	922	975	1077	1207	1251	1329	1452	1535
ST/EN-EXC	Total power input (EN14511:2011)	(1)	kW	116	125	137	152	161	169	178	190	211	236	247	258	282	304
ST/EN-EXC	EER (EN 14511:2011)	(1)	-	5,16	5,12	5,05	5,13	5,07	5,05	5,19	5,13	5,11	5,12	5,06	5,15	5,14	5,05
ST/EN-EXC	ESEER	-	-	5,77	5,78	5,73	5,74	5,71	5,71	5,83	5,80	5,72	5,75	5,70	5,82	5,82	5,66
ST/EN-EXC	▶ Heating capacity (EN14511:2011)	(2)	kW	668	712	779	875	918	962	1030	1096	1210	1354	1409	1482	1618	1727
ST/EN-EXC	Total power input (EN14511:2011)	(2)	kW	137	149	163	179	190	199	210	225	248	278	292	304	333	360
ST/EN-EXC	COP (EN 14511:2011)	(2)	-	4,87	4,78	4,77	4,88	4,84	4,83	4,90	4,87	4,87	4,87	4,83	4,87	4,86	4,80
ST/EN-EXC	Refrigeration circuits		Nr	2	2	2	2	2	2	2	2	2	2	2	2	2	
ST/EN-EXC	No. of compressors		Nr	2	2	2	2	2	2	2	2	2	2	2	2	2	
ST/EN-EXC	Type of compressors	(3)	-	DSW	DSW	DSW	DSW	DSW	DSW	DSW	DSW	DSW	DSW	DSW	DSW	DSW	
ST/EN-EXC	Standard power supply		V	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	400/3~/50	
ST-EXC	Sound pressure level	(4)	dB(A)	77	77	78	78	78	79	80	79	79	79	80	81	81	
EN-EXC	Sound pressure level	(4)	dB(A)	71	72	73	73	73	74	74	74	74	74	75	75	76	77

Notes

- (*) The programme applies to air-cooled water chillers up to 600 kW and water-cooled water chillers up to 1500 kW.
- (1) Data calculated in compliance with Standard EN 14511:2011 referred to the following conditions: Internal exchanger water = 12/7°C; External exchanger water = 30/35°C
- (2) Data referred to unit in 'OHI - Operation with water circuit change-over' configuration; Data calculated in compliance with Standard EN 14511:2011 referred to the following conditions: Internal exchanger water = 12/7°C; External exchanger water = 40/45°C
- (3) DSW = twin-screw compressor
- (4) Sound levels refer to full load units, in test nominal conditions. The sound pressure level refers to 1 m. from the unit outer surface operating in open field. Measurements are carried out according to the UNI EN ISO 9614-2 standard, in compliance with the EUROVENT 8/1 certification. Data referred to the following conditions: Internal exchanger water = 12/7°C; External exchanger water = 30/35°C
- EN-EXC Extremely low noise(EN)-Excellence
ST-EXC Standard (ST)-Excellence

accessories

- ▶ **AMRX** Rubber antivibration mounts
- ▶ **RCMRX** Remote control via microprocessor control
- ▶ **PSX** Mains power supply
- ▶ **CONTA2** Energy meter
- ▶ **CMSC9** Serial communication module to Modbus supervisor
- ▶ **CMSC10** Serial communication module to LonWorks supervisor
- ▶ **CMSC11** Serial communication module for BACnet-IP supervisor
- ▶ **SCP4** Set-point compensation with signal 0-10 V
- ▶ **SPC1** Set point compensation with 4-20 mA signal
- ▶ **SPC2** Set-point compensation with outdoor air temperature probe
- ▶ **DML0-10** Demand limit with signal 0-10V
- ▶ **DML4-20** Demand limit with signal 4-20mA
- ▶ **CFSCE** Potential-free contacts for compressor status and enabling
- ▶ **ECS** ECOSHARE function for the automatic management of a group of units
- ▶ **PFCP** Power factor correction capacitors (cosfi > 0.9)
- ▶ **CBS** Overload circuit breakers
- ▶ **SFSTR2** Progressive compressor start-up device
- ▶ **EVE** Electronic expansion valves
- ▶ **PVXSX** Water flow valve
- ▶ **IVMSX** Modulating valve source side

Key to symbols and notes

- Accessories separately supplied

For compatibility between the various accessories, please refer to the dedicated Technical Bulletin or our website in the Systems and Products section.