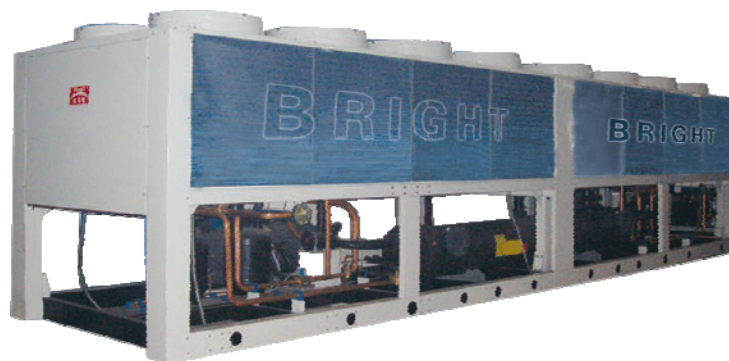


LSBLG(R) FC 180Z÷1730Z

Cooling capacity: 184.9÷1730 kW

Heating capacity: 194.1÷1816.5 kW



FEATURES

- 15 sizes available ranging from 184.9 kW to 1730 kW cooling capacity.
- Semi-hermetic screw compressor for all models. Each compressor is equipped with a crankcase heater and a thermal overload cut-out; the screw compressor is also complete with a built-in electronic protection with temperature sensor located directly in the motor winding and on the discharge line.
- External rotor type axial fans, equipped with three phase direct drive motors, low noise 8 poles, protection level IP54, provided with a protective outlet grille.
- Evaporator built with high efficiency shell and tube type heat exchanger, factory insulated with flexible close cell material.
- Condenser built with seamless copper tubes mechanically expanded into blue hydrophilic aluminum fins.
- Refrigerant circuit complete with charge valves, filter drier, sight glass, gas-liquid separator, thermostatic expansion valve, high & low pressure switch. The heat pump unit is completed also with 4-way valve, liquid receiver and one way valve.
- Hydraulic circuit built with galvanized pipe, complete with water discharge connection for shell and tube heat exchanger and flange type hydraulic connectors.
- Electric panel consist of: compressor contactor, fan motor contactor, compressor isolating switch, fan protection breaker, phase sequence relay and microprocessor with function display.
- Automatic operation dramatically reducing maintenance cost thanks to reliable microprocessor system.

OPTIONAL

- ◆ Metallic filter for hydraulic circuit;
- ◆ Rubber anti-vibration mounting.
- ◆ BMS interface
- ◆ Heat recovery and Low noise cabinet

NOMENCLATURE

LS BLG R F C 150 Z LN QH

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

- ① Water chiller
- ② BLG: semi-hermetic screw compressor
- ③ Unit type:
R : heat pump
- : cooling only
- ④ Air cooled

- ⑤ Refrigerant type
--: R22
A: R410a
B: R290
C: R407c
- ⑥ Size

- ⑦ Packaged type
- ⑧ Low noise design
--: Standard
LN: Low noise cabinet
- ⑨ Heat recovery
--: Standard
QH: Total heat recovery
H: Partial heat recovery

TECHNICAL DATA

Model		180Z	250Z	320Z	430Z	500Z	570Z	640Z	760Z	870Z	
Cooling capacity *	kW	184.9	247.6	315.6	432.5	495.6	563.2	631.2	752.4	865	
Heating capacity *	kW	194.1	260	331.4	454.1	520.4	591.4	662.8	790	908.3	
Cooling power input *	kW	58.4	73.4	97.2	125.1	154.2	170.6	194.4	222.3	250.1	
Heating power input *	kW	57.9	72.8	96.3	123.9	152.7	169.1	192.7	220.2	247.8	
Partial heat recovery	kW	37	49.5	63.1	86.5	99.1	112.6	126.2	150.5	173	
Total heat recovery	kW	207.7	278.2	354.6	485.9	556.8	632.8	709.2	840.5	971.8	
Power supply		380V/3PH /50Hz									
Max working current	A	107.9	134.6	178.9	228.8	282.5	313.6	357.9	407.7	457.3	
Max starting current	A	619.9	729.9	907.3	1089.3	1459.7	1001.2	1041.9	1268.2	1324.5	
Compressor		Semi-hermetic screw									
Compressor type		Semi-hermetic screw									
Qty/ refrigerant circuit	Nr.	1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	
Energy adjustment	\	25%~100% for single compressor									
Refrigerant		R407C									
Refrigerant Type		R407C									
Standard type	Kg										
Low noise type	Kg	48	60	100	130	152	60+100	2x100	100+130	2x130	
Partial heat recovery	Kg										
Total heat recovery	Kg	85	100	120	180	225	100+120	2x120	120+180	2x180	
Control methods	\	External balanced expansion valve									
Axial Fan											
Fan motor number	Nr.	4	4	6	6	8	10	12	12	12	
Air flow	m ³ /h	96000	96000	144000	144000	192000	240000	288000	288000	288000	
Evaporator											
Water flow rate	Standard	m ³ /h	31.8	42.6	54.3	74.4	85.2	96.9	108.5	129.4	148.8
	Partial heat recovery	m ³ /h	6.4	8.5	10.9	14.9	17.1	19.4	21.7	25.9	29.8
	Total heat recovery	m ³ /h	35.7	47.9	61	83.6	95.8	108.8	122	144.6	167.1
Water side pressure drop	Standard	kPa	41	42	42	42	42	43	43	44	45
	Partial heat recovery	kPa	46	46	47	48	48	50	50	49	52
	Total heat recovery	kPa	43	43	44	44	44	45	45	46	45
Pipe size	Standard	DN	80	80	100	125	125	125	125	125	150
	Partial heat recovery	DN	40	40	40	50	50	50	65	65	65
	Total heat recovery	DN	80	80	100	125	125	125	125	125	150
Physical dimensions											
Standard type (mm)	L	2636	2636	3426	3726	5270	6060	6850	7150	7450	
	W	2160	2160	2160	2160	2160	2160	2160	2160	2160	
	H	2430	2430	2430	2430	2430	2430	2430	2430	2430	
Low noise type (mm)	L	2636	2636	3426	3726	5270	6060	6850	7150	7450	
	W	2160	2160	2160	2160	2160	2160	2160	2160	2160	
	H	2530	2530	2530	2530	2530	2530	2530	2530	2530	
Partial heat recovery Total heat recovery	L	2636	2636	3426	3726	5270	6060	6850	7150	7450	
	W	2160	2160	2160	2160	2160	2160	2160	2160	2160	
	H	2700	2700	2700	2700	2700	2700	2700	2700	2700	
Net weight											
Standard type	kg	2050	2350	2750	3150	3850	4800	5250	5600	6150	
Low noise type	kg	2100	2400	2800	3200	3900	4900	5350	5700	6200	
Partial heat recovery	kg	2200	2550	3000	3420	4200	5200	5670	6050	6620	
Total heat recovery	kg	2410	2820	3240	3680	4590	5760	6330	6790	7420	
Sound pressure level **											
Standard type	dB(A)	76	76	77	77	78	80	81	81	81	
Low noise type	dB(A)	70	70	71	71	72	74	75	75	75	

* The performance values refer to the following conditions:

Cooling: ambient air temperature 35°C; evaporator water in/out temperature 12/7 °C;

Heating: ambient air temperature DB 7 °C, WB 6 °C; condenser water in/out temperature 40/45 °C.

** Sound pressure measured at a distance of 1 m and a height of 1.5 m above the ground in a dear field.

TECHNICAL DATA

Model		930Z	1000Z	1180Z	1260Z	1500Z	1730Z	
Cooling capacity *	kW	928.1	991.2	1180.6	1262.4	1496.2	1730	
Heating capacity *	kW	974.5	1040.8	1239.6	1325.5	1571	1816.5	
Cooling power input *	kW	279.2	308.3	347.3	388.8	444.5	500	
Heating power input *	kW	276.7	305.5	344.1	385.3	440.5	495.6	
Partial heat recovery	kW	---	---	---	---	---	---	
Total heat recovery	kW	---	---	---	---	---	---	
Power supply		380V/3PH /50Hz						
Max working current	A	511.1	564.8	636.3	715.7	815.2	914.3	
Max starting current	A	1688.5	1735.8	1402.9	1444.1	1497	1775.5	
Compressor		Semi-hermetic screw						
Compressor type		Semi-hermetic screw						
Qty/ refrigerant circuit	Nr.	2/2	2/2	3/3	3/3	4/4	4/4	
Energy adjustment	\	25%~100% for single compressor						
Refrigerant		R407C						
Refrigerant Type		R407C						
Standard type	Kg	130+152	2x152	100+2x130	3x130	2x100+2x130	4x130	
Low noise type	Kg							
Partial heat recovery	Kg	---	---	---	---	---	---	
Total heat recovery	Kg	---	---	---	---	---	---	
Control methods	\	External balanced expansion valve						
Axial Fan								
Fan motor number	Nr.	14	16	18	18	24	24	
Air flow	m ³ /h	336000	384000	432000	432000	576000	576000	
Evaporator								
Water flow rate	Standard type	m ³ /h	159.6	170.5	203	217.1	257.3	297.5
	Partial heat recovery	m ³ /h	---	---	---	---	---	---
	Total heat recovery	m ³ /h	---	---	---	---	---	---
Water side pressure drop	Standard type	kPa	45	43	43	42	43	43
	Partial heat recovery	kPa	---	---	---	---	---	---
	Total heat recovery	kPa	---	---	---	---	---	---
Pipe size	Standard type	DN	150	150	100 150	125 150	125 150	150
	Partial heat recovery	DN	---	---	---	---	---	---
	Total heat recovery	DN	---	---	---	---	---	---
Physical dimensions								
Standard type (mm)	L	8994	10538	10874	11174	14594	15194	
	W	2160	2160	2160	2160	2160	2160	
	H	2610	2610	2610	2610	2610	2610	
Low noise type (mm)	L	8994	10538	10874	11174	14594	15194	
	W	2160	2160	2160	2160	2160	2160	
	H	2710	2710	2710	2710	2710	2710	
Partial heat recovery	L							
	W	---	---	---	---	---	---	
Total heat recovery	H							
Net weight								
Standard type	kg	6900	7600	9050	11000	11800	12600	
Low noise type	kg	7000	7700	11500	13000	14200	15300	
Partial heat recovery	kg							
Total heat recovery	kg	---	---	---	---	---	---	
Sound pressure level **								
Standard type	dB(A)	82	83	84	84	84	84	
Low noise type	dB(A)	76	77	78	78	78	78	

* The performance values refer to the following conditions:

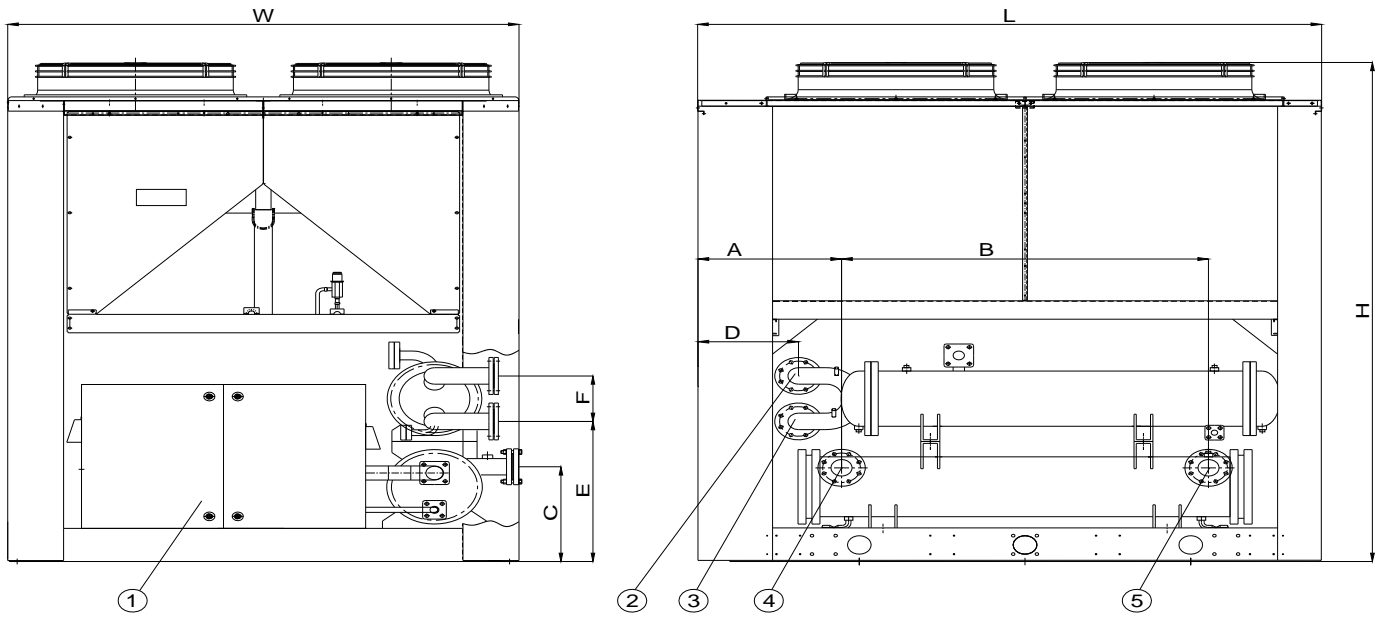
Cooling: ambient air temperature 35°C; evaporator water in/out temperature 12/7 °C;

Heating: ambient air temperature DB 7 °C, WB 6 °C; condenser water in/out temperature 40/45 °C.

** Sound pressure measured at a distance of 1 m and a height of 1.5 m above the ground in a dear field.

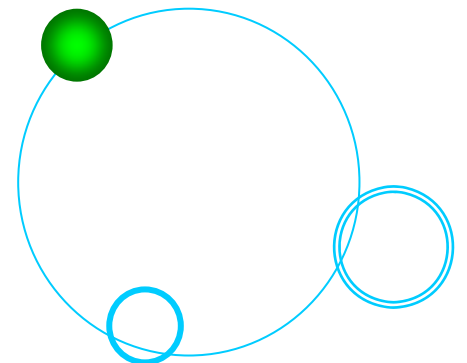
OVERALL DIMENSIONS

LSBLGRFC180/250Z

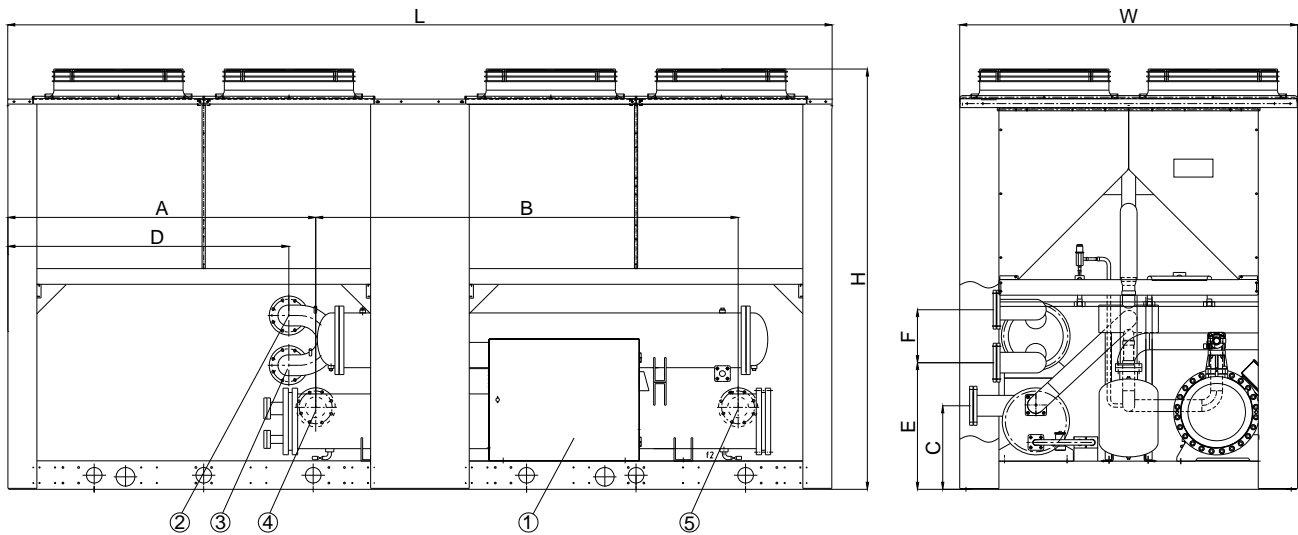


① Electric control board	② Water outlet for heat recovery type	③ Water inlet for heat recovery type
④ Water outlet	⑤ Water inlet	
Provides 2m service space around the unit.		

Physical dimensions		L	W	H	A	B	C	D	E	F
Model		mm	mm	mm	mm	mm	mm	mm	mm	mm
180/250	LSBLGRFCZG	2636	2160	2430	606.5	1550	514	---	---	---
	LSBLGRFCZGLN	2636	2160	2530	606.5	1550	514	---	---	---
	LSBLGRFCZGH	2636	2160	2700	606.5	1550	514	549.5	737	153.5
	LSBLGRFCZGLNH	2636	2160	2700	606.5	1550	514	549.5	737	153.5
	LSBLGRFCZGQH	2636	2160	2700	606.5	1550	514	424.5	760	247
	LSBLGRFCZGLNQH	2636	2160	2700	606.5	1550	514	424.5	760	247



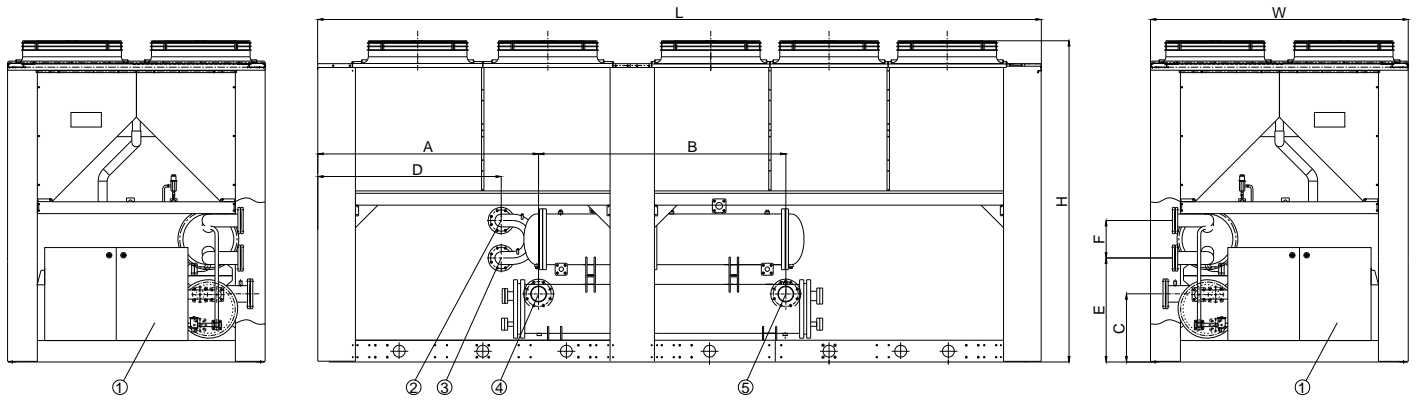
LSBLGRFC320/430/500Z



① Electric control board	② Water outlet for heat recovery type	③ Water inlet for heat recovery type
④ Water outlet	⑤ Water inlet	
<i>Provides 2m service space around the unit.</i>		

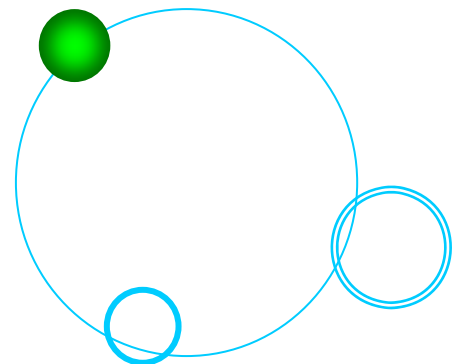
Physical dimensions		L	W	H	A	B	C	D	E	F
Model		mm	mm	mm	mm	mm	mm	mm	mm	mm
320	LSBLGRFCZG	3426	2160	2430	931.5	2030	535	---	---	---
	LSBLGRFCZGLN	3426	2160	2530	931.5	2030	535	---	---	---
	LSBLGRFCZGH	3426	2160	2700	931.5	2030	535	858.5	766	153
	LSBLGRFCZGLNH	3426	2160	2700	931.5	2030	535	858.5	766	153
	LSBLGRFCZGQH	3426	2160	2700	931.5	2030	535	674.5	779	315
	LSBLGRFCZGLNQH	3426	2160	2700	931.5	2030	535	674.5	779	315
430	LSBLGRFCZG	3726	2160	2430	826.5	2400	505.5	---	---	---
	LSBLGRFCZGLN	3726	2160	2530	826.5	2400	505.5	---	---	---
	LSBLGRFCZGH	3726	2160	2700	826.5	2400	505.5	873	747	153.5
	LSBLGRFCZGLNH	3726	2160	2700	826.5	2400	505.5	873	747	153.5
	LSBLGRFCZGQH	3726	2160	2700	826.5	2400	505.5	620	766	271
	LSBLGRFCZGLNQ	3726	2160	2700	826.5	2400	505.5	620	766	271
500	LSBLGRFCZG	5270	2160	2430	1967.5	2700	525.5	---	---	---
	LSBLGRFCZGLN	5270	2160	2530	1967.5	2700	525.5	---	---	---
	LSBLGRFCZGH	5270	2160	2700	1967.5	2700	525.5	1911	760	174
	LSBLGRFCZGLNH	5270	2160	2700	1967.5	2700	525.5	1911	760	174
	LSBLGRFCZGQH	5270	2160	2700	1967.5	2700	525.5	1795	802	340
	LSBLGRFCZGLNQH	5270	2160	2700	1967.5	2700	525.5	1795	802	340

LSBLGRFC570Z

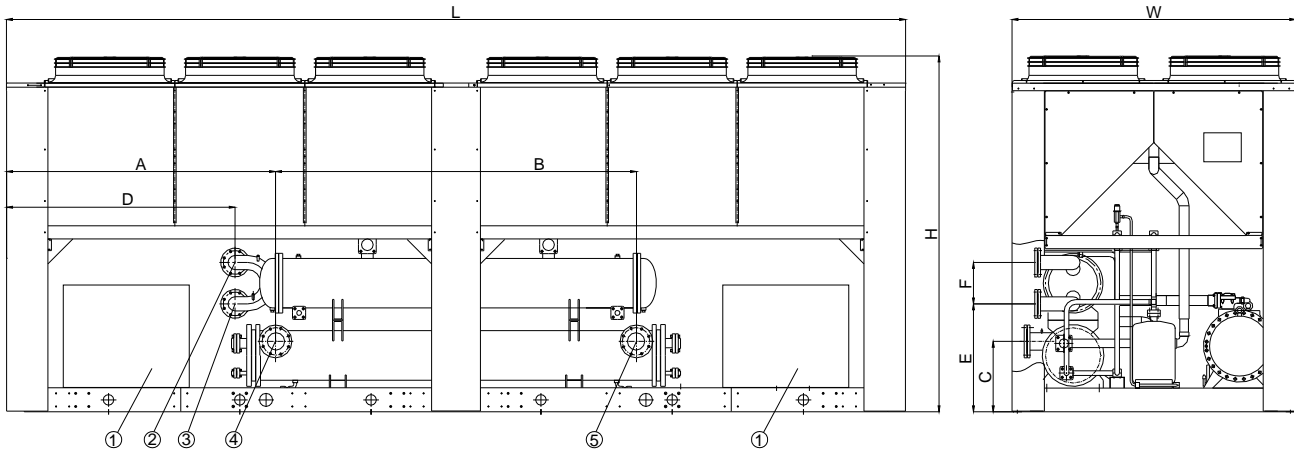


①Electric control board	② Water outlet for heat recovery type	③Water inlet for heat recovery type
④Water outlet	⑤Water inlet	
Provides 2m service space around the unit.		

Physical dimensions		L	W	H	A	B	C	D	E	F
Model		mm	mm	mm	mm	mm	mm	mm	mm	mm
570	LSBLGRFCZG	6060	2160	2430	1848.5	2070	570	---	---	---
	LSBLGRFCZGLN	6060	2160	2530	1848.5	2070	570	---	---	---
	LSBLGRFCZGH	6060	2160	2700	1848.5	2070	570	1670.5	843.5	178.5
	LSBLGRFCZGLNH	6060	2160	2700	1848.5	2070	570	1670.5	843.5	178.5
	LSBLGRFCZGQH	6060	2160	2700	1848.5	2070	570	1536	870	315
	LSBLGRFCZGLNQH	6060	2160	2700	1848.5	2070	570	1536	870	315



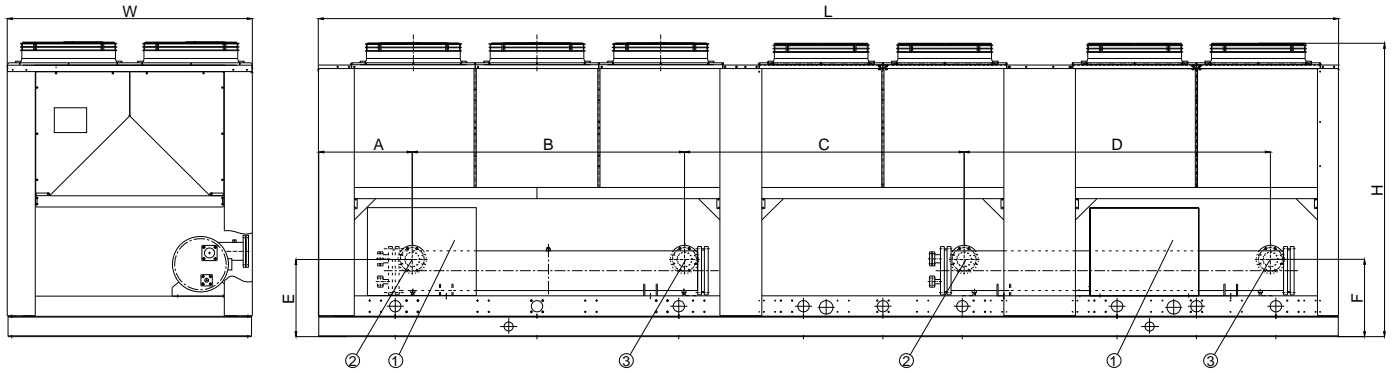
LSBLGRFC640/760/870Z



① Electric control board	② Water outlet for heat recovery type	③ Water inlet for heat recovery type
④ Water outlet	⑤ Water inlet	
Provides 2m service space around the unit.		

Physical dimensions		L	W	H	A	B	C	D	E	F
Model		mm	mm	mm	mm	mm	mm	mm	mm	mm
640	LSBLGRFCZG	6850	2160	2430	2048.5	2750	535.5	---	---	---
	LSBLGRFCZGLN	6850	2160	2530	2048.5	2750	535.5	---	---	---
	LSBLGRFCZGH	6850	2160	2700	2048.5	2750	535.5	1847.5	787.5	199
	LSBLGRFCZGLNH	6850	2160	2700	2048.5	2750	535.5	1847.5	787.5	199
	LSBLGRFCZGQH	6850	2160	2700	2048.5	2750	535.5	1740	821	315
	LSBLGRFCZGLNQH	6850	2160	2700	2048.5	2750	535.5	1740	821	315
760	LSBLGRFCZG	7150	2160	2430	2230	2390	606	---	---	---
	LSBLGRFCZGLN	7150	2160	2530	2230	2390	606	---	---	---
	LSBLGRFCZGH	7150	2160	2700	2230	2390	606	1940	873	199
	LSBLGRFCZGLNH	7150	2160	2700	2230	2390	606	1940	873	199
	LSBLGRFCZGQH	7150	2160	2700	2230	2390	606	1806	918	315
	LSBLGRFCZGLNQH	7150	2160	2700	2230	2390	606	1806	918	315
870	LSBLGRFCZG	7450	2160	2430	2138.5	3170	578	---	---	---
	LSBLGRFCZGLN	7450	2160	2530	2138.5	3170	578	---	---	---
	LSBLGRFCZGH	7450	2160	2700	2138.5	3170	578	2215	849	199
	LSBLGRFCZGLNH	7450	2160	2700	2138.5	3170	578	2215	849	199
	LSBLGRFCZGQH	7450	2160	2700	2138.5	3170	578	2100	910	315
	LSBLGRFCZGLNQH	7450	2160	2700	2138.5	3170	578	2100	910	315

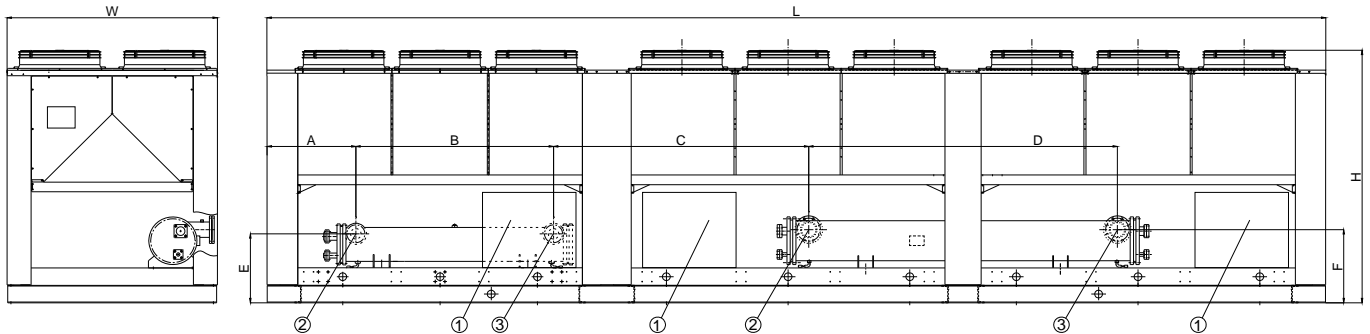
LSBLGRFC930/1000Z



① Electric control board	② Water outlet	③ Water inlet
<i>Provides 2m service space around the unit.</i>		

Physical dimensions		L	W	H	A	B	C	D	E	F
Model		mm	mm	mm	mm	mm	mm	mm	mm	mm
930	LSBLGRFCZG	8994	2160	2610	825	2400	2465	2700	685.5	705.5
	LSBLGRFCZGLN	8994	2160	2710	825	2400	2465	2700	685.5	705.5
1000	LSBLGRFCZG	10538	2160	2610	1967.5	2700	2568	2700	705.5	705.5
	LSBLGRFCZGLN	10538	2160	2710	1967.5	2700	2568	2700	705.5	705.5

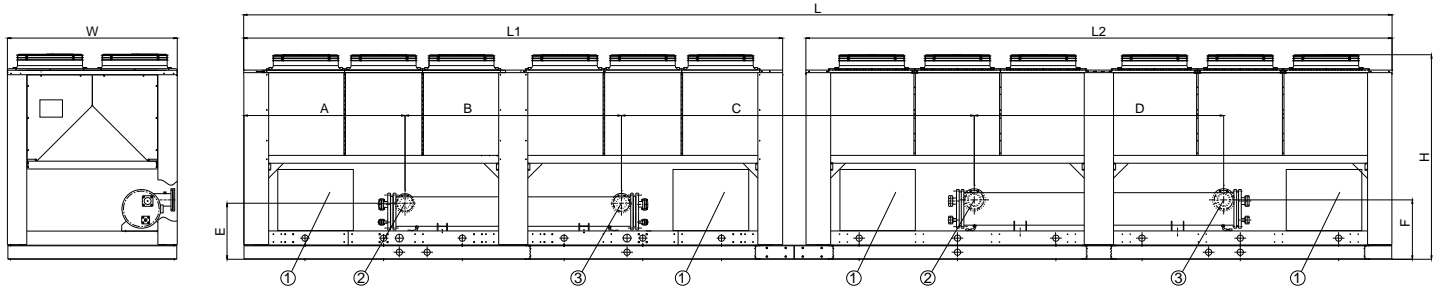
LSBLGRFC1180/1280Z



① Electric control board	② Water outlet	③ Water inlet
<i>Provides 2m service space around the unit.</i>		

Physical dimensions		L	W	H	A	B	C	D	E	F
Model		mm	mm	mm	mm	mm	mm	mm	mm	mm
1180	LSBLGRFCZG	10874	2160	2610	910	2030	2621	3170	715	758
	LSBLGRFCZGLN	10874	2160	2710	910	2030	2621	3170	715	758
1260	LSBLGRFCZG	11174	2160	2610	826.5	2400	2636	3170	685.5	758
	LSBLGRFCZGLN	11174	2160	2710	826.5	2400	2636	3170	685.5	758

LSBLGRFC1500/1730Z



① Electric control board	② Water outlet	③ Water inlet
Provides 2m service space around the unit.		

Physical dimensions		L	L1	L2	W	H	A	B	C	D	E	F
Model		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1500	LSBLGRFCZG	14594	6850	7450	2160	2610	2047	2750	4484	3170	715.5	758
	LSBLGRFCZGLN	14594	6850	7450	2160	2710	2047	2750	4484	3170	715.5	758
1730	LSBLGRFCZG	15194	7450	7450	2160	2610	2137	3170	4574	3170	758	758
	LSBLGRFCZGLN	15194	7450	7450	2160	2710	2137	3170	4574	3170	758	758

