

XBW Series

**Water-Cooled w/
Bitzer Screw Compressor**





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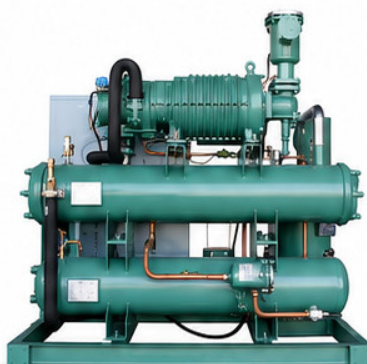


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**XBW Series Water-Cooled Unit
with Bitzer Screw Compressor**





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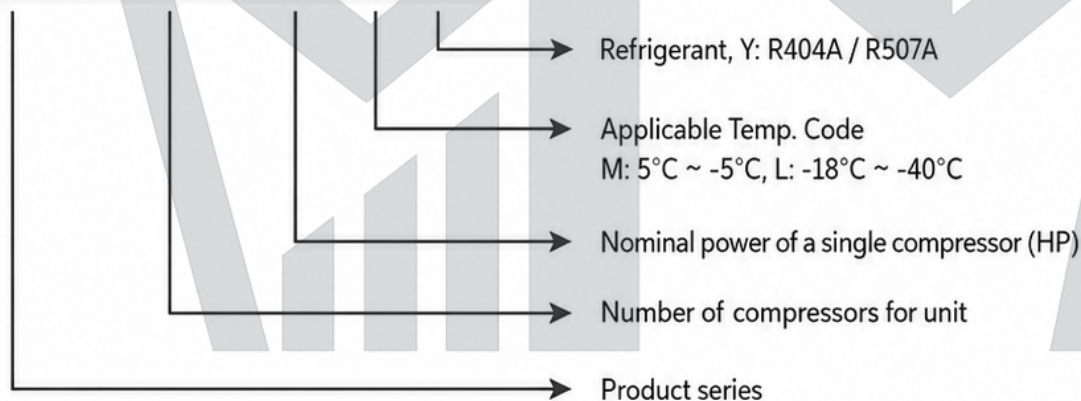
1. Product Description:

XBW series semi-hermetic screw unit is mainly used in cold storage projects with large cooling capacity requirements.

- 1 Adopts BITZER HSN series low screw compressor with single unit and parallel unit. It mainly meets the requirements of low-temperature refrigeration storage at -20°C and quick-frozen storage at -35°C ;
- 2 The standard design of the unit adopts the form of water cooling, adopts high efficient shell and tube type water cooling condenser, and is equipped with a separate liquid receiver;
- 3 The unit is equipped with an economizer system and an oil cooler system;
- 4 The unit is controlled by Siemens PLC and the key electrical components are controlled by Schneider. With compressor start and stop, energy regulation, oil cooling system, economizer system, cooling water pump and cooling tower fan control and various protection functions.
- 5 The unit standard uses R404A or R507A refrigerant.

2. Model Description:

XBW - 1 - 50 L Y





3. TECHNICAL DATA

1) REFRIGERANT R404A/R507A WITH ECO :



MODEL		XBW-1-50LY	XBW-1-60LY	XBW-1-70LY	XBW-1-75LY	XBW-1-110LY	XBW-1-125LY	
APPLY TEMP. (°C)		-18°C ~ -40°C						
POWER SUPPLY		3P / 380V / 50Hz						
MAX. CURRENT (A)		76	98	124	144	197	216	
COMP.	MODEL	HSN6461-50	HSN7461-60	HSN7461-70	HSN7471-75	HSN8561-110	HSN8571-125	
	NUMBER	1	1	1	1	1	1	
CAPA./POWER (KW)	EVAP.	-25°C	69.2 / 42.6	84.1 / 51.1	96.5 / 55.2	100.4 / 60.7	142.2 / 90.1	165.1 / 96.0
		-30°C	57.2 / 40.8	69.0 / 50.0	78.7 / 53.4	82.9 / 58.1	115.3 / 96.9	136.3 / 91.5
		-35°C	46.7 / 39.0	55.7 / 48.9	63.9 / 51.5	67.7 / 55.5	92.2 / 83.6	111.2 / 87.5
		-40°C	37.5 / 37.2	44.2 / 47.6	51.0 / 49.6	54.5 / 53.0	72.3 / 80.7	89.4 / 83.9
		-45°C	29.5 / 35.4	34.2 / 46.1	39.9 / 47.7	43.0 / 50.7	55.5 / 78.7	70.5 / 80.7
TYPE OF CONDENSER		HIGH EFFICIENCY SHELL AND TUBE TYPE						
WATER FLOW (m³/h)		22	27	30	32	46	51	
WATER CONNECT		G2-1/2"	G2-1/2"	G2-1/2"	G2-1/2"	DN60	DN80	
OIL COOLER TYPE		PLATE TYPE						
OIL COOLER NOZZLE		DN25	DN32	DN32	DN32	DN32	DN32	
RECEIVER (L)		80	80	80	100	150	150	
LIQUID LINE (mm)		Φ28	Φ28	Φ28	Φ28	Φ35	Φ35	
SUCTION LINE (mm)		DN50	DN80	DN80	DN80	DN100	DN100	
SIZE	L (mm)	1650	1650	1650	1920	2330	2330	
	W (mm)	1000	1000	1000	1000	1100	1100	
	H (mm)	1510	1660	1660	1660	1845	1845	

REMARK: CONDENSATION TEMP. 40°C.

MODEL		XBW-1-160LY	XBW-2-50LY	XBW-2-60LY	XBW-2-70LY	XBW-2-75LY	XBW-2-110LY	
APPLY TEMP. (°C)		-18°C ~ -40°C						
POWER SUPPLY		3P / 380V / 50Hz						
MAX. CURRENT (A)		274	158	196	248	288	394	
COMP.	MODEL	HSN8591-160	HSN6461-50	HSN7461-60	HSN7461-70	HSN7471-75	HSN8561-110	
	NUMBER	1	1	1	1	1	1	
CAPA./POWER (KW)	EVAP.	-25°C	206.0 / 123.5	138.4 / 85.2	168.2 / 102.2	191.0 / 110.4	200.8 / 121.4	284.4 / 180.2
		-30°C	169.4 / 119.3	114.4 / 81.6	138.0 / 100.0	157.4 / 106.8	165.8 / 116.2	230.6 / 173.8
		-35°C	137.8 / 114.9	93.4 / 78.0	111.4 / 97.8	127.8 / 103.0	135.4 / 111.0	184.4 / 167.2
		-40°C	110.3 / 110.2	75.0 / 74.4	88.4 / 95.2	102.0 / 99.2	109.0 / 106.0	144.6 / 161.4
		-45°C	86.4 / 104.9	59.0 / 70.8	68.4 / 92.2	79.3 / 95.4	86.0 / 101.4	111.0 / 157.4
TYPE OF CONDENSER		HIGH EFFICIENCY SHELL AND TUBE TYPE						
WATER FLOW (m³/h)		65	44	53	59	63	91	
WATER CONNECT		DN100	DN80	DN80	DN80	DN100	DN125	
OIL COOLER TYPE		PLATE TYPE						
OIL COOLER NOZZLE		DN50	DN32	DN50	DN50	DN50	DN50	
RECEIVER (L)		230	150	150	150	210	230	
LIQUID LINE (mm)		Φ42	Φ35	Φ35	Φ35	Φ42	DN50	
SUCTION LINE (mm)		DN100	DN80	DN100	DN100	DN100	DN125	
SIZE	L (mm)	2600	2330	2330	2330	2330	3300	
	W (mm)	1200	1800	1800	1800	1800	1950	
	H (mm)	1950	1950	2090	2090	2190	2275	

REMARK: CONDENSATION TEMP. 40°C.



MODEL			XBW-2-125LY	XBW-2-160LY	XBW-2-50LY	XBW-3-60LY	XBW-3-70LY	XBW-3-75LY
APPLY TEMP. (°C)			-18°C ~ -40°C					
POWER SUPPLY			3P / 380V / 50Hz					
MAX. CURRENT (A)			432	548	237	294	372	432
COMP.	MODEL		HSN8571-125	HSN8591-160	HSN6461-50	HSN7451-60	HSN7461-70	HSN7471-75
	NUMBER		2	2	3	3	3	3
CAPA./POWER (KW)	EVAP.	-25°C	330.2 / 192.0	412.0 / 247.0	207.6 / 127.8	252.3 / 153.3	286.5 / 165.6	301.2 / 182.1
		-30°C	272.6 / 183.0	338.8 / 238.6	171.6 / 122.4	207.0 / 150.0	236.1 / 160.2	248.7 / 174.3
		-35°C	222.4 / 175.0	275.6 / 229.8	140.1 / 117.0	167.1 / 146.7	191.7 / 154.5	203.1 / 166.5
		-40°C	178.8 / 167.8	220.6 / 220.4	112.5 / 111.6	132.6 / 142.8	153.0 / 148.8	163.5 / 159.0
		-45°C	141.0 / 161.4	172.8 / 209.8	88.5 / 106.2	102.6 / 138.3	119.7 / 143.1	129.0 / 152.1
TYPE OF CONDENSER			HIGH EFFICIENCY SHELL AND TUBE TYPE					
WATER FLOW (m³/h)			102	129	66	80	89	95
WATER CONNECT			DN125	DN125	DN100	DN100	DN125	DN125
OIL COOLER TYPE			PLATE TYPE					
OIL COOLER NOZZLE			DN50	DN65	DN50	DN50	DN50	DN50
RECEIVER (L)			280	350	200	200	280	280
LIQUID LINE (mm)			DN50	DN50	Φ42	Φ42	DN50	DN50
SUCTION LINE (mm)			DN125	DN125	2×DN65	2×DN100	2×DN100	2×DN100
SIZE	L (mm)		3030	3030	3030	3030	3030	3030
	W (mm)		1950	1950	1800	1800	1800	1800
	H (mm)		2275	2275	1945	2090	2190	2190

REMARK: CONDENSATION TEMP. 40°C.

MODEL		XBW-3-110LY	XBW-3-125LY	XBW-3-160LY	XBW-4-50LY	XBW-4-60LY	
APPLY TEMP. (°C)		-18°C ~ -40°C					
POWER SUPPLY		3P / 380V / 50Hz					
MAX. CURRENT (A)		591	648	822	316	392	
COMP.	MODEL	HSN8561-110	HSN8571-125	HSN8591-160	HSN6461-50	HSN7451-60	
	NUMBER	3	3	3	4	4	
CAPA./POWER (KW)	EVAP.	-25°C	426.6 / 270.3	495.3 / 288.0	618.0 / 370.5	276.8 / 170.4	336.4 / 204.4
		-30°C	345.9 / 260.7	408.9 / 274.5	508.2 / 357.9	228.8 / 163.2	314.8 / 200.0
		-35°C	276.6 / 250.8	333.6 / 262.5	413.4 / 344.7	186.8 / 156.0	222.8 / 195.6
		-40°C	216.9 / 242.1	268.2 / 251.7	330.9 / 330.6	150.0 / 148.8	176.8 / 190.4
		-45°C	333.0 / 236.1	211.5 / 242.1	259.2 / 314.7	118.0 / 141.6	136.8 / 184.4
TYPE OF CONDENSER		HIGH EFFICIENCY SHELL AND TUBE TYPE					
WATER FLOW (m³/h)		136	153	193	88	106	
WATER CONNECT		DN125	DN150	DN200	DN125	DN125	
OIL COOLER TYPE		PLATE TYPE					
OIL COOLER NOZZLE		DN80	DN65	DN80	DN50	DN65	
RECEIVER (L)		330	430	430	240	240	
LIQUID LINE (mm)		DN50	DN50	DN50	Φ42	Φ42	
SUCTION LINE (mm)		2×DN125	2×DN125	2×DN125	2×DN80	2×DN100	
SIZE	L (mm)	3600	3600	3600	3600	3600	
	W (mm)	2000	2000	2000	1800	1800	
	H (mm)	2375	2375	2375	1945	2190	

REMARK: CONDENSATION TEMP. 40°C.



3. TECHNICAL DATA

MODEL			XBW4-70LY	XBW4-75LY	XBW4-110LY	XBW4-125LY	XBW4-160LY
Applicable Ambient Temp. (°C)			-18°C ~ 40°C				
Power Supply			3P / 380V / 50Hz				
Max. Current (A)			496	576	788	864	1096
Model			HSN7461-70	HSN7471-75	HSN8561-110	HSN8571-125	HSN8591-160
Number of Compressors			4	4	4	4	4
Capacity / Power	Evap. Temp.	-25°C	382.0/220.8	401.6/242.8	568.8/360.4	660.4/384.0	824.0/494.0
		-30°C	314.8/213.6	331.6/232.4	461.2/347.6	545.2/366.0	677.6/477.2
		-35°C	255.6/206.0	270.8/222.0	368.8/334.4	444.8/350.0	551.2/459.6
		-40°C	204.0/198.4	218.0/212.0	289.2/322.8	357.6/335.6	441.2/440.8
		-45°C	159.6/190.8	172.0/202.8	220.6/314.8	282.0/322.8	345.6/419.6
Condenser Type			High Efficiency Shell and Tube Type				
Water Flow (m³/h)			118	126	182	205	258
Water Connection			DN125	DN125	DN150	DN200	DN200
Oil Cooler Type			Plate Type				
Oil Cooler Connection			DN65	DN65	DN80	DN80	DN80
Receiver (L)			330	330	430	630	630
Liquid Line (mm)			DN50	DN50	DN50	DN65	DN65
Suction Line (mm)			2×DN100	2×DN100	2×DN125	2×DN125	2×DN125
Dimensions (mm)	L (mm)		3600	3600	3955	4010	4010
	W (mm)		1800	1800	2000	2150	2150
	H (mm)		2290	2290	2375	2375	2375

Note: Applicable ambient temperature 40°C. Remark: Condensation temperature 40°C.

4. STANDARD CONFIGURATION AND OPTIONAL CONFIGURATION

ITEMS	CONFIGURATION	
	X × LY series	Units of X × LY
Screw Compressor	●	
Oil Separator	●	
Oil Level Stop Check Valve	●	
Water-cooled Condenser	●	
Receiver	●	
Sight Glass	●	
Economizer Assembly	●	
Oil Line Assembly	●	
Oil Cooler	●	
Suction Filter	●	
Oil Pressure & Low Pressure Control	●	
HP/LP Switch for Compressor	●	
HP/LP Gauge	●	
Liquid Line Valve	●	
Suction Line Valve	▲	
Electrical Control Unit (PLC + 10" Touch Screen): Includes motor, water pump, condenser fan control	●	

Legend: ● Standard Configuration; ▲ Optional Configuration

Remarks: 1. Standard Configuration; 2. Optional, need extra cost.

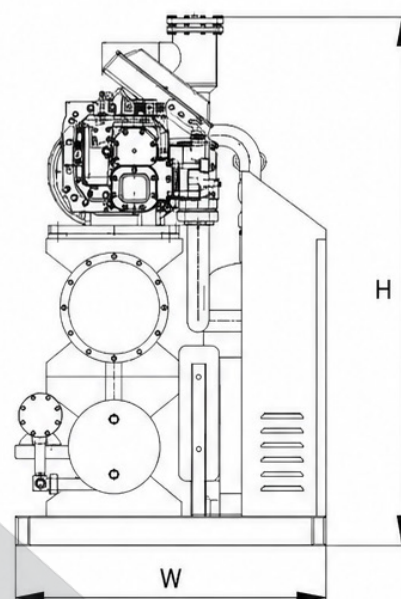
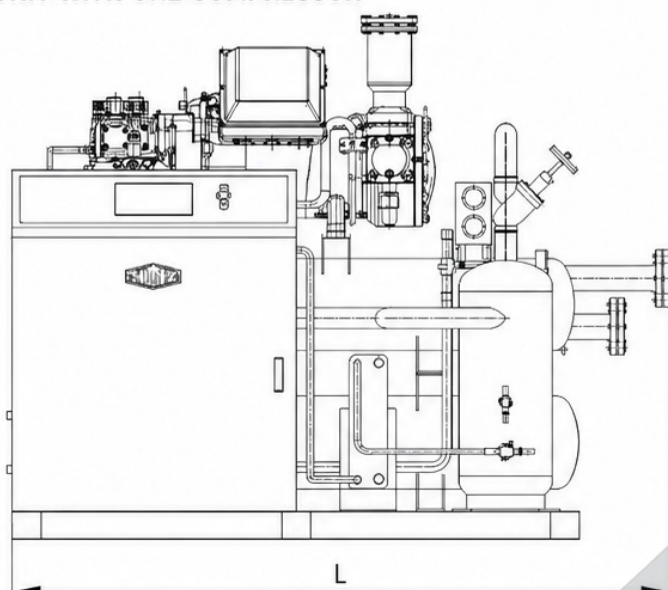
For electric control part, please provide the control requirements of storage temperature, air cooler, and oil cooler.

The unit does not contain frozen oil.



5. DIMENSION DRAWING

1) UNIT WITH ONE COMPRESSOR



2) UNIT WITH MULTIPLE COMPRESSORS

