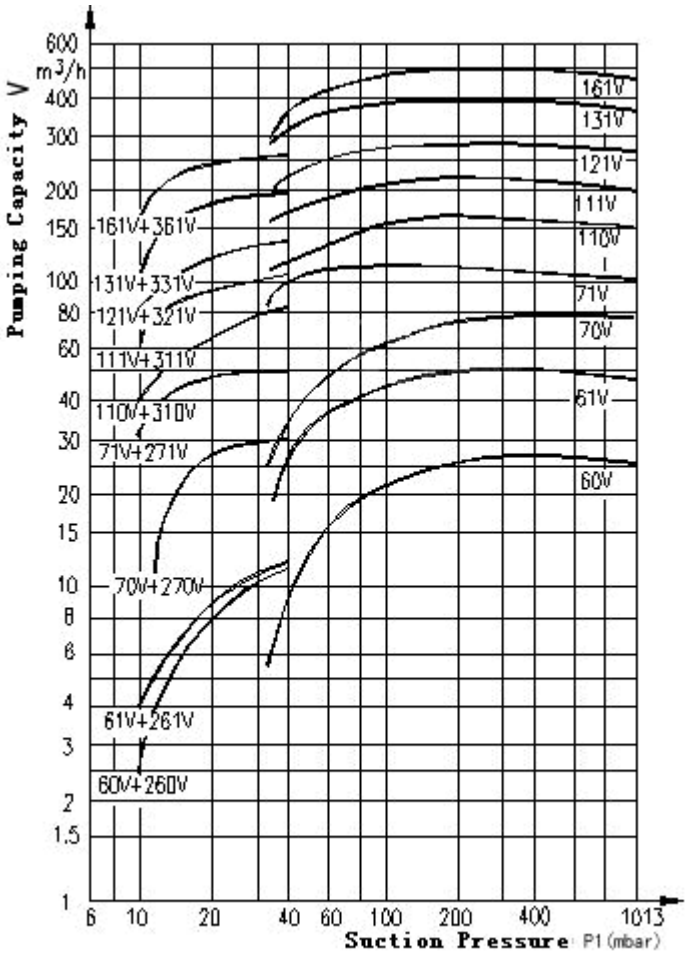
2BV SERIES VACUUM PUMP









Notes:

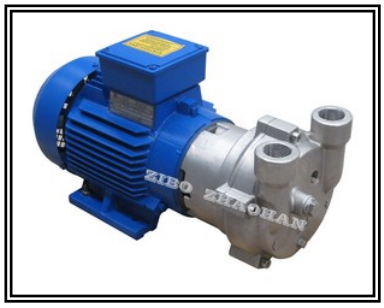
This function curve is saturated air serve as 20 ℃ at the inhalation medium, 15 ℃s' work liquid temperature, and exhausts to get under the state of pressure 1013mba. The function permits to differ from the ± 10%, and the nearside is the function curve joins in marriage with the atmosphere ejector in the picture

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Summary



2BV series Liquid ring vacuum pumps are suitable for pumping gases and steam. Its suction pressure can reach 33mbar (abs) (i.e. 97 % vacuum degree). If the transformer oil is used as the operating liquid, these pumps are called oil ring vacuum pump and the suction pressure can reach 6.7mbar (abs) (i.e. 99 % vacuum degree). So the oil ring vacuum pumps can replace the reciprocated vacuum pumps completely. When the liquid ring vacuum pumps work under the condition near the limited vacuum for a long time, we will add our cavitations protection pipe to get rid of the screaming and protect the pump.

When the compressors work, the maximum pressure is 0.26MPa(abs). And the discharge pressure is higher, the power is bigger. So it is necessary to get the data of the discharge pressure is to choose the proper motor.
2BV series liquid ring vacuum pumps and compressors will replace the SK and 2SK series water ring pumps and the W, WY, WL series reciprocated vacuum pumps completely with their superior performance and advantages.
2BV2-Ex,2BV6 series Liquid ring vacuum pumps and compressors are mainly used for pumping the explosive gases or work in the flammable and explosive environment. The technical parameter of each type is the same as the corresponding type of the 2BV2 or 2BV5 series products.

2BV series stainless steel pumps can be used under the conditions with higher requirements for the corrosive-proof or the lustration.

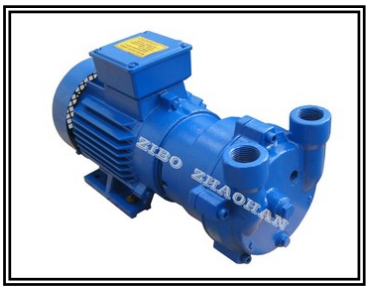


According to the working situation, the material of all the parts where the liquid flows (i.e. pump casing, pump cover, port plate, impeller)are made of various stainless steel as bellow:
SUS304(0Cr18Ni9)
SUS316(0Cr17Ni12Mo2)
SUS316L(00Cr17Ni14Mo2)
The material of the shaft is 2Cr13 or 0Cr18Ni12Mo2Ti
The mechanical seals are used the John Crane products and the seals material is optional for FPM or PTFE.

Comparing with the SK, 2SK, SZ water ring vacuum pumps, the 2BV series products has more advantages:

- The close-coupled design is convenient to install and can save space.
- The standard seals are all used the John Crane or Burgman mechanical seals.
- 2BV series products have the cavitations protection port. When they work under the condition near the limited vacuum, the cavitations protect port opens (or connects with the separator) to get rid of the screaming to protect the pump.
- Aluminium bronze impeller is of high intensity and wearing well. The erosive-proof capacity of the pump can be improved by using it. If the parts where the liquid flows are made of the stainless steel, the pumps can be used under the more rigorous condition.
- The unique design of the discharge port can protect the pump from the over-pressure to ensure the best efficient performance in the working range of the pump.
- The motors are all adopted Y2 series products. The protection class is IP54 or IP55 (normal is IP44) and the insulation grade is F.
- The bearings are all used the imported products with brand name of NTN or NSK.

2BV SERIES VACUUM PUMP



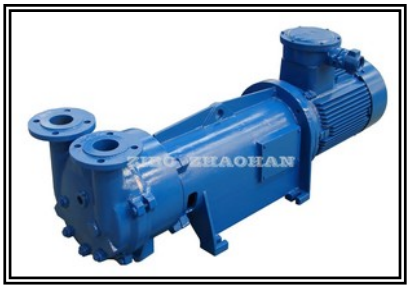
2BV2



2BV5



2BV6

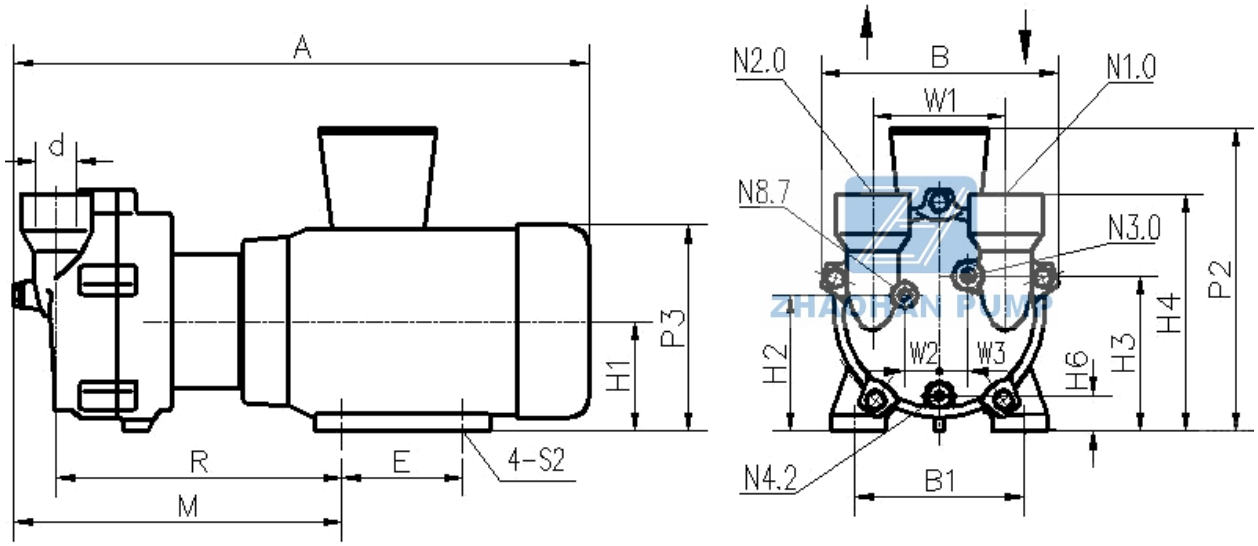


2BV6

- **TECHNICAL DATA SHEET**

TYPE	Max amount of Pumping gas m^3/min	Limit Pressure mbar(MPa)	Motor power kW	Flame Proof Class	Motor Protection Class	Pump speed r.p.m	Working liquid Capacity L/min	NOISE dB(A)	WEIGHT kg
2BV2 060	0.45	33mbar (-0.098MPa)	0.81		IP54	2840	2	62	31
2BV2 061	0.86		1.45			2840	2	65	35
2BV2 070	1.33		2.35			2860	2.5	66	56
2BV2 071	1.83		3.85			2880	4.2	72	65
2BV2 060-Ex	0.45		1.1	dIIBT4	IP55	2840	2	62	39
2BV2 061-Ex	0.86		1.5			2840	2	65	45
2BV2 070-Ex	1.33		3			2860	2.5	66	66
2BV2 071-Ex	1.83		4			2880	4.2	72	77
2BV5 110	2.75		4		IP54	1440	6.7	63	103
2BV5 111	3.83		5.5			1440	8.3	68	117
2BV5 121	4.66		7.5			1440	10	69	149
2BV5 131	6.66		11			1460	15	73	205
2BV5 161	8.33		15			970	20	74	331
2BV6 110-Ex	2.75		4	dIIBT4	IP55	1440	6.7	63	153
2BV6 111-Ex	3.83		5.5			1440	8.3	68	208
2BV6 121-Ex	4.66		7.5			1440	10	69	240
2BV6 131-Ex	6.66		11			1460	15	73	320
2BV6 161-Ex	8.33		15			970	20	74	446

2BV2 INSTALLATION DARWING

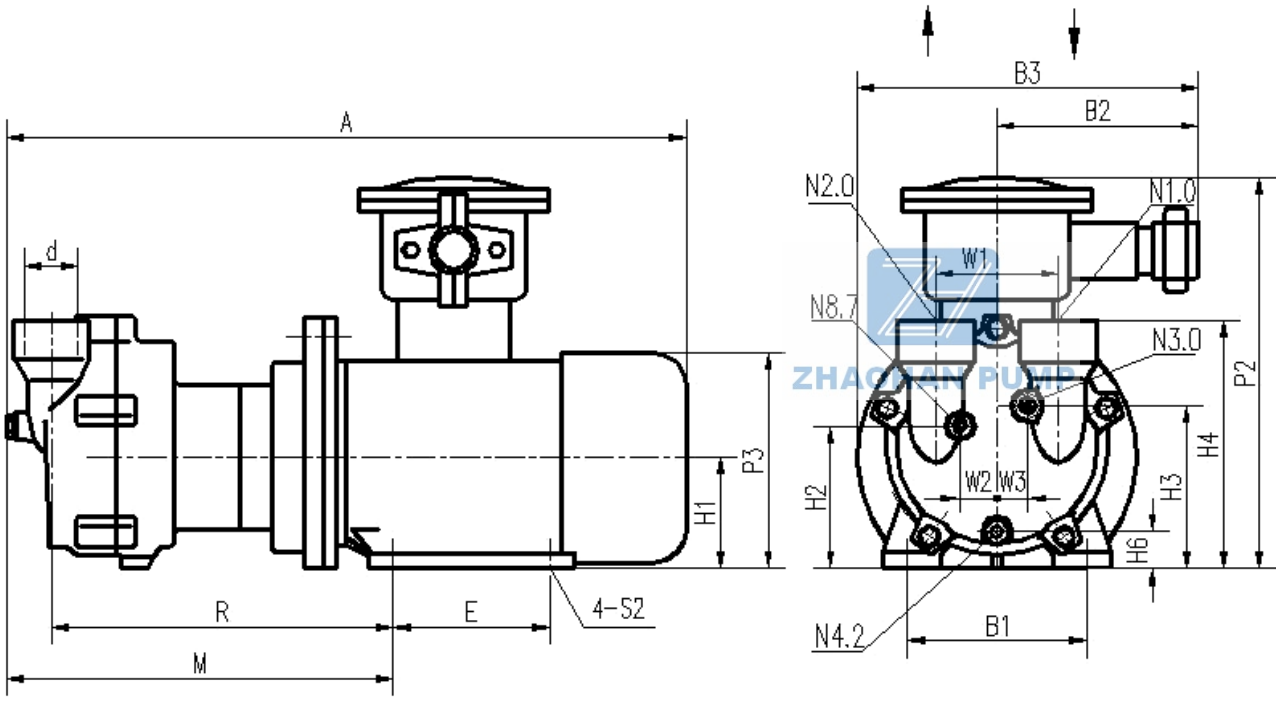


N1.0 Inlet **N2.0 Outlet** **N3.0 Operating liquid connection**

N4.2 Drain port **N8.7 Cavitation connection**

TYPE	A	B	B1	E	H1	H2	H3	H4	H6	M	P2
2BV2060	455	186	140	100	90	118	126	195	37.5	244	250
2BV2061	476	186	140	100	90	118	126	195	37.5	263	250
2BV2070	545	223	160	140	100	128	146	222	33	280	270
2BV2071	566	223	190	140	112	140	158	234	45	309	300
TYPE	P3	R	S2	W1	W2	W3	d	N3.0	N4.2	N8.7	
2BV2060	180	217	φ10	110	25.5	21	G1"	G3/8"	G1/4"	G3/8"	
2BV2061	180	236	φ10	110	25.5	21	G1"	G3/8"	G1/4"	G3/8"	
2BV2070	203	252	φ12	110	33	27	G11/2"	G3/8"	G1/4"	G3/8"	
2BV2071	225	278	φ12	110	33	27	G11/2"	G3/8"	G1/4"	G3/8"	

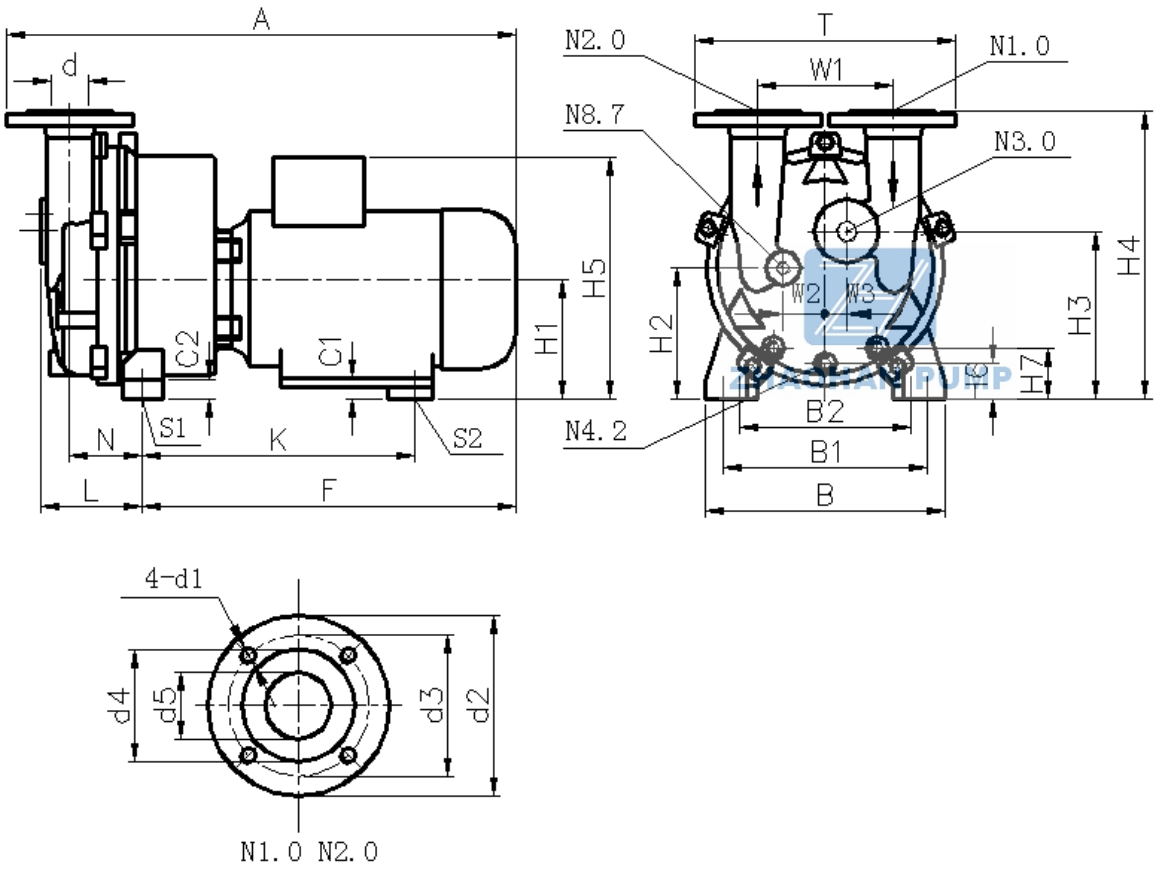
2BV2-EX INSTALLATION DARWING



N1.0 Inlet **N2.0 Outlet** **N3.0 Operating liquid connection**
N4.2 Drain port **N8.7 Cavitation connection**

TYPE	A	B1	B2	B3	E	H1	H2	H3	H4	H6	M
2BV2060-Ex	522	125	180	280	100	80	108	116	185	27.5	282
2BV2061-Ex	555	140	180	280	100	90	118	126	195	37.5	301
2BV2070-Ex	634	160	180	305	140	100	128	146	222	33	317
2BV2071-Ex	674	190	200	325	140	112	140	158	234	45	344
TYPE	P2	P3	R	S2	W1	W2	W3	d	N3.0	N4.2	N8.7
2BV2060-Ex	320	165	255	φ10	110	25.5	21	G1"	G3/8"	G1/4"	G3/8"
2BV2061-Ex	350	180	274	φ10	110	25.5	21	G1"	G3/8"	G1/4"	G3/8"
2BV2070-Ex	400	205	289	φ12	110	33	27	G11/2"	G3/8"	G1/4"	G3/8"
2BV2071-Ex	420	230	313	φ12	110	33	27	G11/2"	G3/8"	G1/4"	G3/8"

2BV5 INSTALLATION DARWING

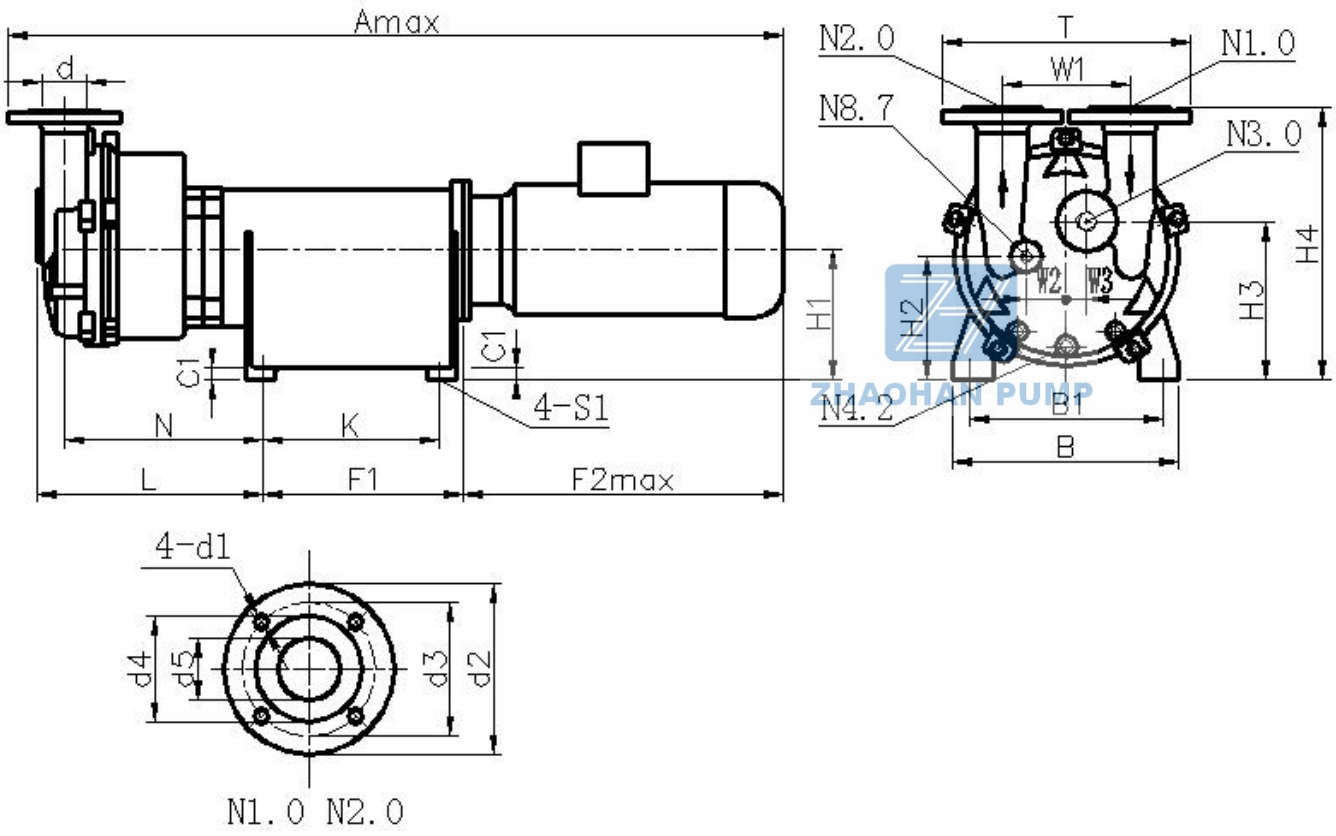


N1.0 Inlet **N2.0 Outlet** **N3.0 Operating liquid connection**

N4.2 Drain port **N8.7 Cavitation connection**

TYPE	A	B	B1	B2	C1	C2	H1	H2	H3	H4	H5
2BV5110	637	325	255	190	41	26	140	156	202	361	328
2BV5111	679	325	265	216	36	26	150	166	212	371	363
2BV5121	771	347	265	216	36	26	150	167	217	385	363
2BV5131	852	377	300	254	35	30	175	194	249	427	435
2BV5161	1044	479	370	279	30	30	210	225	303	521	485
TYPE	H6	H7	K	L	F	N	S1	S2	T	d1	d2
2BV5110	38	57	342	130	464	92	φ12	φ12	340	19	160
2BV5111	48	68	348	130	500	92	φ12	φ12	340	19	160
2BV5121	39	60	430	147	584	97	φ12	φ12	381.5	19	182
2BV5131	53	76	477.5	147	658.5	103	φ15	φ15	381.5	19	182
2BV5161	51	80	565	201	808	138	φ15	φ15	450	22	200
TYPE	d3	d4	d5	W1	W2	W3	d	N3.0	N4.2	N8.7	
2BV5110	123	97	52	180	52	27	DN50	G3/4"	G3/8"	G3/8"	
2BV5111	123	97	52	180	52	27	DN50	G3/4"	G3/8"	G3/8"	
2BV5121	142	113	66.5	200	57	29	DN65	G3/4"	G3/8"	G3/8"	
2BV5131	142	113	66.5	200	57	29	DN65	G3/4"	G3/8"	G3/8"	
2BV5161	156	130	80	250	81	41	DN80	G3/4"	G3/8"	G3/8"	

2BV6 INSTALLATION DARWING



N1.0 Inlet **N2.0 Outlet** **N3.0 Operating liquid connection**

N4.2 Drain port **N8.7 Cavitation connection**

TYPE	Amax	B	B1	C1	F1	F2max	H1	H2	H3	H4	K	L	N	W1
2BV6110-Ex	1190	325	255	26	291	450	160	173	223	381	250	319	281	180
2BV6111-Ex	1237	325	279	26	360	470	180	196	242	401	320	365	327	180
2BV6121-Ex	1368	347	279	26	360	575	180	197	247	415	320	384	342	200
2BV6131-Ex	1495	377	320	26	461	585	215	234	287	467	414	405	357	200
2BV6161-Ex	1625	479	370	26	461	640	215	230	310	526	414	480	416	250

TYPE	W2	W3	S1	T	d1	d2	d3	d4	d5	d	N3.0	N4.2	N8.7	
2BV6110-Ex	52	27	φ13	340	19	160	123	97	52	DN50	G3/4"	G3/8"	G3/8"	
2BV6111-Ex	52	27	φ13	340	19	160	123	97	52	DN50	G3/4"	G3/8"	G3/8"	
2BV6121-Ex	57	29	φ13	381.5	19	182	142	113	66.5	DN65	G3/4"	G3/8"	G3/8"	
2BV6131-Ex	57	29	φ15	381.5	19	182	142	113	66.5	DN65	G3/4"	G3/8"	G3/8"	
2BV6161-Ex	81	41	φ15	450	22	200	156	130	80	DN80	G3/4"	G3/8"	G3/8"	

Notes: the above curve is obtained under the following conditions

1. **Discharge pressure is 1013mbar.**
2. **saturated air temperature is 20℃**
3. **The operating liquid temperature is 15℃**
4. **Allowance tolerance is ±10%**

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