



## اطلاعات فنی | TECHNICAL DATA

SBS	MODEL	SBS.095	SBS.120	SBS.145	SBS.160	SBS.190	SBS.240	SBS.290	SBS.330
Type		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
System		air cooled	air cooled	air cooled	air cooled	air cooled	air cooled	air cooled	air cooled
Cooling capacity	kW	98.4	122.6	144.7	161.2	189	236	288.9	319.9
E.E.R. at design point	kW/kW	3.8	3.6	3.3	3.1	3.68	3.47	3.26	3.09
Inlet water fluid temperature	°C	12	12	12	12	12	12	12	12
Outlet water fluid temperature	°C	7	7	7	7	7	7	7	7
Fluid type	Type	water	water	water	water	water	water	water	water
Minimum ambient temperature	°C	-20	-20	-20	-20	-20	-20	-20	-20
Design ambient temperature	°C	35	35	35	35	35	35	35	35
Elevation a.s.l.	m	0	0	0	0	0	0	0	0
Type of refrigerant gas	R	410A	410A	410A	410A	410A	410A	410A	410A
Electrical feed according EN 60204-1	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Electrical cabinet	IP	54	54	54	54	54	54	54	54
<b>COMPRESSOR DATA</b>									
Number of compressors	N°	2	2	2	2	4	4	4	4
Number of circuits	N°	1	1	1	1	2	2	2	2
Compressor E.E.R.	kW/kW	4.43	4.03	3.56	3.34	4.3	3.89	3.56	3.33
Total Compressors Nominal Absorbed Power	kW	22.2	30.4	40.6	48.3	44	60.6	81.2	96.2
Total Compressors Running current RLA	A	39.1	53.6	71.5	85.1	77.5	106.8	143.1	169.5
Steps	N°	2	2	2	2	4	4	4	4
<b>EVAPORATOR DATA</b>									
Number of evaporators	N°	1	1	1	1	1	1	1	1
Type of evaporator	Type	Plate	Plate	Plate	Plate	ST	ST	ST	ST
Nominal flow rate	m3/h	16.87	21.02	24.81	27.64	32.41	40.47	49.54	54.86
Minimum flow rate	m3/h	13.00	16.00	16.00	20.00	23.00	29.00	36.00	38.00
Maximum flow rate	m3/h	23.00	23.00	42.00	42.00	42.00	53.00	66.00	70.00
Pressure drops (evaporator + valves + piping)	kPa	49.85	53.61	54.62	53.78	46.74	39.94	40.90	46.76
Hydraulic connections	BSP/DN	DN65	DN65	DN80	DN80	DN80	DN80	DN100	DN100
<b>PROCESS PUMP DATA</b>									
Pump P3 (optional)									
Maximum pump absorbed power	kW	3.46	4.56	4.56	4.56	8.30	8.30	8.30	8.30
Maximum pump absorbed current	A	6.33	7.75	7.75	7.75	14.10	14.10	14.10	14.10
Available pressure with single pump (WP option)	kPa	241.01	211.22	207.07	204.64	273.83	273.61	260.55	245.54
Available pressure with double pump (DP option)	kPa	230.05	195.33	200.12	194.68	260.90	264.63	247.58	229.62
Pump P5 (optional)									
Maximum pump absorbed power	kW	6.12	10.20	10.20	10.20	16.22	16.22	16.22	16.22
Maximum pump absorbed current	A	10.40	17.40	17.40	17.40	26.60	26.60	26.60	26.60
Available pressure with single pump (PH option)	kPa	406.02	448.21	443.68	441.49	487.55	490.88	482.28	470.24
Available pressure with double pump (DPH option)	kPa	395.06	432.33	436.73	431.53	474.62	481.90	469.31	454.32
<b>TANK DATA (optional)</b>									
Volume (optional)	dm3	150	150	150	150	300	300	300	300
Expansion vessel volume (XV option)	dm3	19	19	19	19	19	19	19	19
<b>AIR AXIAL FANS AND CONDENSER DATA</b>									
Number of condenser coils	N°	2	2	2	2	4	4	4	4
Number of fans	N°	2	2	2	2	4	4	4	4
Total absorbed power	kW	3.68	3.68	3.68	3.68	7.36	7.36	7.36	7.36
Total absorbed current	A	7.66	7.66	7.66	7.66	15.32	15.32	15.32	15.32
Total air flow	m3/h	41200	41200	41200	41200	82400	82400	82400	82400
<b>TOTAL ELECTRIC DATA (standard configuration)</b>									
Nominal absorbed power	kW	25.88	34.08	44.28	51.98	51.36	67.96	88.56	103.56
Maximum absorbed current (FLA)	A	67.70	80.50	96.90	111.60	135.30	161.10	193.80	223.10
Maximum peak current (LRA)	A	211.70	269.10	324.30	362.30	279.30	349.60	421.20	473.80
Maximum peak current with soft-start (LRA) (SF option)	A	176.90	224.10	269.90	300.30	244.50	304.60	366.80	411.80
<b>NOISE DATA</b>									
Sound pressure level at 10m according ISO3744	dBA	58	60	62	62	61	63	65	65
Sound pressure level at 10m (low noise version)	dBA	57	58	59	59	60	61	62	62
Sound pressure level at 10m (super low noise version)	dBA	54	56	57	57	57	59	60	60
Sound pressure level at 10m (extra low noise version)	dBA	54	55	56	56	57	58	59	59
<b>DIMENSIONS</b>									
Structure in galvanized steel	RAL	7035	7035	7035	7035	7035	7035	7035	7035
Length	mm	1610	1610	1610	1610	2910	2910	2910	2910
Width	mm	2210	2210	2210	2210	2210	2210	2210	2210
Height	mm	2500	2500	2500	2500	2500	2500	2500	2500
<b>WEIGHT</b>									
Empty	kg	1030	1200	1250	1280	1900	2220	2320	2350
<b>FREE SPACE</b>									
Electrical panel side	mm	1500	1500	1500	1500	1500	1500	1500	1500
Opposite side of electrical panel	mm	1500	1500	1500	1500	1500	1500	1500	1500
Condensing coil sides	mm	2500	2500	2500	2500	2500	2500	2500	2500

## NOTE

All data subject to change

\*\* pump P5 includes the soft start (SF) option

\* 45 feet container required for shipment.

With glycol percentage over 30% and leaving water temperature lower than 0°C, pump need to be checked by technical department

TR45 option required with ambient temperature higher than 40°C

LW option required with leaving water temperature lower than 4°C

SBS comply with the European Regulation (EU) 2016/2281, referring to high temperature process chillers, according to minimum SEPR value.



## اطلاعات فنی | TECHNICAL DATA

SBS	MODEL	SBS.330/F6	SBS.380	SBS.430	SBS.470	SBS.470/F8	SBS.530	SBS.570	SBS.610
Type		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
System		air cooled	air cooled	air cooled	air cooled	air cooled	air cooled	air cooled	air cooled
Cooling capacity	kW	345.5	387	433.3	464.8	490.9	527.4	563	603
E.E.R. at design point	kW/kW	3.53	3.5	3.26	3.15	3.46	3.42	3.34	3.23
Inlet water fluid temperature	°C	12	12	12	12	12	12	12	12
Outlet water fluid temperature	°C	7	7	7	7	7	7	7	7
Fluid type	Type	water	water	water	water	water	water	water	water
Minimum ambient temperature	°C	-20	-20	-20	-20	-20	-20	-20	-20
Design ambient temperature	°C	35	35	35	35	35	35	35	35
Elevation a.s.l.	m	0	0	0	0	0	0	0	0
Type of refrigerant gas	R	410A	410A	410A	410A	410A	410A	410A	410A
Electrical feed according EN 60204-1	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
Electrical cabinet	IP	54	54	54	54	54	54	54	54
<b>COMPRESSOR DATA</b>									
Number of compressors	N°	4	4	6	6	6	6	6	6
Number of circuits	N°	2	2	2	2	2	2	2	2
Compressor E.E.R.	kW/kW	3.98	3.89	3.56	3.41	3.86	3.78	3.67	3.51
Total Compressors Nominal Absorbed Power	kW	86.8	99.6	121.8	136.4	127.1	139.7	153.6	171.8
Total Compressors Running current RLA	A	153.0	175.5	214.6	240.4	224	246.2	270.7	302.8
Steps	N°	4	4	4	4	4	4	4	4
<b>EVAPORATOR DATA</b>									
Number of evaporators	N°	1	1	1	1	1	1	1	1
Type of evaporator	Type	ST	ST	ST	ST	ST	ST	ST	ST
Nominal flow rate	m3/h	59.25	66.36	74.30	79.70	84.18	90.44	96.54	103.40
Minimum flow rate	m3/h	38.00	47.00	60.00	62.00	62.00	79.00	79.00	81.00
Maximum flow rate	m3/h	70.00	87.00	110.00	120.00	120.00	145.00	145.00	150.00
Pressure drops (evaporator + valves + piping)	kPa	54.90	56.77	55.85	59.71	66.81	58.79	51.83	55.79
Hydraulic connections	BSP/DN	DN100	DN100	DN125	DN125	DN125	DN150	DN150	DN150
<b>PROCESS PUMP DATA</b>									
Pump P3 (optional)									
Maximum pump absorbed power	kW	8.30	10.20	10.20	10.20	10.20	16.22	16.22	16.22
Maximum pump absorbed current	A	14.10	17.40	17.40	17.40	17.40	26.60	26.60	26.60
Available pressure with single pump (WP option)	kPa	229.27	228.59	221.16	211.60	199.78	253.70	256.91	248.25
Available pressure with double pump (DP option)	kPa	210.31	219.62	211.18	199.66	185.82	237.76	238.97	239.29
Pump P5 (optional)									
Maximum pump absorbed power	kW	16.22	24.85	24.85	24.85	24.85	24.85	31.88	31.88
Maximum pump absorbed current	A	26.60	42.40	42.40	42.40	42.40	42.40	53.50	53.50
Available pressure with single pump (PH option)	kPa	455.48	482.04	475.30	463.88	450.50	449.52	455.33	448.60
Available pressure with double pump (DPH option)	kPa	436.51	473.08	465.32	451.93	436.54	433.58	437.39	439.63
<b>TANK DATA (optional)</b>									
Volume (optional)	dm3	300	380	380	380	380	500	500	500
Expansion vessel volume (XV option)	dm3	19	19	19	19	19	19	19	19
<b>AIR AXIAL FANS AND CONDENSER DATA</b>									
Number of condenser coils	N°	6	6	6	6	8	8	8	8
Number of fans	N°	6	6	6	6	8	8	8	8
Total absorbed power	kW	11.04	11.04	11.04	11.04	14.72	14.72	14.72	14.72
Total absorbed current	A	22.98	22.98	22.98	23	31	30.64	30.64	30.64
Total air flow	m3/h	123600	123600	123600	123600	164800	164800	164800	164800
<b>TOTAL ELECTRIC DATA (standard configuration)</b>									
Nominal absorbed power	kW	97.84	110.64	132.84	147.44	141.82	154.42	168.32	186.52
Maximum absorbed current (FLA)	A	230.80	260.10	290.60	320.00	327.70	357.00	386.40	415.40
Maximum peak current (LRA)	A	481.50	510.90	518.00	570.70	578.40	607.70	637.10	749.60
Maximum peak current with soft-start (LRA) (SF option)	A	419.50	448.90	463.60	508.70	516.40	545.70	575.10	668.00
<b>NOISE DATA</b>									
Sound pressure level at 10m according ISO3744	dBA	65	65	66	66	67	67	67	68
Sound pressure level at 10m (low noise version)	dBA	63	63	63	63	64	64	64	65
Sound pressure level at 10m (super low noise version)	dBA	61	61	62	62	62	62	62	64
Sound pressure level at 10m (extra low noise version)	dBA	60	60	60	60	61	61	61	62
<b>DIMENSIONS</b>									
Structure in galvanized steel	RAL	7035	7035	7035	7035	7035	7035	7035	7035
Length	mm	4210	4210	4210	4210	5900	5900	5900	5900
Width	mm	2210	2210	2210	2210	2210	2210	2210	2210
Height	mm	2500	2500	2500	2500	2500	2500	2500	2500
<b>WEIGHT</b>									
Empty	kg	2740	2850	3270	3320	3900	3950	4050	4100
<b>FREE SPACE</b>									
Electrical panel side	mm	1500	1500	1500	1500	1500	1500	1500	1500
Opposite side of electrical panel	mm	1500	1500	1500	1500	1500	1500	1500	1500
Condensing coil sides	mm	2500	2500	2500	2500	2500	2500	2500	2500

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\*\* pump P5 includes the soft start (SF) option

\* 45 feet container required for shipment.

With glycol percentage over 30% and leaving water temperature lower than 0°C, pump need to be checked by technical department

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