

# Bitzer, Compressor, S6F-30.2Y-40P, Compressor Selection, Semi-hermetic Reciprocating, 1450 min<sup>-1</sup> , 101,1 (LP) , 30hp

written by Lilianne | 15 December 2021

BITZER is raising the bar in terms of technology and capacity for expanded low temperature applications with the 2nd generation of 2-stage compressors. This series is the result of extensive research on the basis of years of experience in the construction of highly efficient and solid reciprocating compressors. The gas flow control and working valves are specially adapted for low temperature applications.

- Displacement at 1450 min<sup>-1</sup> : 101,1 (LP) 50,5 (HP)
- Number of cylinders : 6
- Oilcharge : 4,75 dm<sup>3</sup>

Displacement (1450 RPM 50Hz):101.10 / 50.50 m<sup>3</sup>/h Displacement  
(1750 RPM 60Hz):122.02 / 60.95 m<sup>3</sup>/h

The Bitzer Compressor is high quality!

Displacement (1450 RPM 50Hz):101.10 / 50.50 m<sup>3</sup>/h

Displacement (1750 RPM 60Hz):122.02 / 60.95 m<sup>3</sup>/h

No. of cylinder x bore LP/HP x stroke:6+6 x 82/ 82 mm x 55 mm

Max. pressure (LP/MP/HP):19 / 19 / 28 bar

Connection suction line:42 mm – 1 5/8 inch

Connection discharge line:35 mm – 1 3/8 inch

Oil type R404A/R507A:BSE32 (Standard)

Oil type R448A/R449A:BSE32 (Standard)

Oil type R22:B5.2 (Option) We can also provide the following models

4JTE-15K

GYD80485VAYB4  
GED60235VLB332  
GMD60137VBYR632  
GED60485VBYR3-1  
CSH7573-70Y-40P  
GYD80182VLYB632  
GYD60385VLYR2-2  
GED80154VLR332  
GYU80295VLR4-2  
GSU60120VLB6-2  
GED60137VAYB3-1  
GUU60154VLR532  
GUD80295VLR232  
GSD80295VLR6-1  
GTU60137VLYB3-1  
GUD60137VBYR5-1  
GYD80235VBYB332  
GYD60421VAYR332  
GMD60295VBR3-1  
GED80154VBYB6  
4NEH-14-40S  
GMU60154VLY  
GYD60154VAB4-2  
GYD80182VAYR4-2  
GYD80421VBR5-1  
GYD60385VLYR4-1  
4TE-9.F3Y-40S  
GMD60182VBYB3-2  
GMD80120VLR232  
GUD60120VBYR5-2  
GSD60154VAYR232  
GMD60154VBYR632  
44EES-12-40S  
GMD60154VBB432  
GUD80421VWR4-2  
GYD80385VAYR2-2  
GTD60385VLB632

GED60235VLB2  
GED60154VAYR4  
GSD80421VWR5 - 2  
GUD60421VBR5  
GYD80182VBYP5 - 1  
GED60295VBB5  
GED80421VAR4 - 1  
GED60385VLYB3  
GYU80421VLR2  
GSD80485VBB5 - 1  
GED60120VLB2  
GUD60421VBR332  
GTD60154VAB4 - 2  
GED60421VAYB6 - 1  
GMD60485VBB5 - 1  
GSD60485VAYR4  
GED80295VLYR6 - 1  
GSD60235VAYB232  
GTD60385VBYR3 - 1  
GUD60154VBB3 - 2  
GUD80295VWB6 - 2  
GED60421VAR5  
GMD80421VBR4  
GED80182VLR532  
GSD60154VBYP6 - 1  
GTD80421VBYR332  
GSD60182VAYB4 - 1  
GUD80485VWYR5 - 2  
GSU80295VLYR6 - 1  
GSD80182VLYR2 - 2  
GSU80385VLB432  
GED80295VAY  
GED80295VAB3 - 2  
GYD60120VAR4

## With liquid subcooling 50Hz (R404A/R507A)

Compressor type	Cond. temp.	Qo / Pe	Evaporating temperature °C											
				[°C]	-25	-30	-35	-40	-45	-50	-55	-60	-65	-70
S6F-30.2Y	30	Qo	43400	37400	31750	26500	21700	17420	13690	10540	7920	5800		
Pe	2,53	0,65	8,78	16,94	15,15	13,42	11,77	10,20	8,74	7,40				
35	Qo	42500	36600	31050	25900	21200	17030	13420	10340	7780	5680			
Pe	3,85	1,86	9,89	7,94	6,04	4,21	12,45	10,78	9,23	7,80				
40	Qo	41500	35700	30300	25300	20700	16680	13170	10150	7590				
Pe	25,20	23,10	21,01	18,96	16,95	15,00	13,14	11,37	9,72					
45	Qo	40450	34800	29550	24700	20300	1660	12930	9920					
Pe	26,59	24,37	22,16	19,98	17,86	15,80	13,83	11,96						
50	Qo	39500	34000	28850	24100	19870	16060	12650						
Pe	28,07	25,69	23,33	21,01	18,75	6,57	14,49							
55	Qo	38800	33250	28200	23600	19490	15740							
Pe	29,64	27,06	24,51	22,03	19,63	17,32								

Qo – Cooling capacity [Watt], Pe – Power consumption [kW]

## Without liquid subcooling 50Hz (R404A/R507A)

Compressor type	Cond. temp.	Qo / Pe	Evaporating temperature °C											
				[°C]	-25	-30	-35	-40	-45	-50	-55	-60	-65	-70
S6F-30.2Y	30	Qo	38050	31700	26050	21000	16620	12880	9790	7280	5300	3760		
Pe	1,26	18,81	16,61	14,64	12,90	11,37	10,02	8,86	7,85	7,00				
35	Qo	36000	29950	24500	19710	15570	12070	9180	6840	4980	3510			
Pe	22,11	19,66	17,41	15,37	13,53	11,88	10,42	9,13	8,02	5,72				
40	Qo	33800	28000	22900	18390	14530	11280	8590	6400	4620				
Pe	22,95	20,53	18,26	16,15	14,20	12,42	10,82	9,41	8,18					
45	Qo	31450	26050	21250	17080	13510	10500	8000	5920					
Pe	23,82	21,42	19,12	16,94	14,89	13,00	11,26	9,71						
50	Qo	28950	24000	19590	15770	12490	9710	7370						
Pe	24,72	22,31	19,98	17,74	15,61	13,61	11,76							
55	Qo	26400	21900	17890	14430	11440	8880							
Pe	25,67	23,19	20,80	18,52	16,34	14,27								

Qo – Cooling capacity [Watt], Pe – Power consumption [kW]









Type S6F-30.2Y-40P

S.No. 1600308267

BITZER KÜHLMASCHINENBAU GMBH  
Made in Germany



Nominal Voltage V 3Ph~	Frequ. Hz	Operat. C. A (max.)	Locked Rotor C.		Displacem. m³/h	Speed RPM
			A (Y)	A (YY)		
380-420	50	51	135	220	101,4	1450
440-480	60	51	135	220	122	1750

IP 54 LPI/HP max. 19 / 28 bar







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Compressor type Displacement at 1450 min-1 Number of  
cylinders Oil charge Weight Pipe connections Motor Max. operating

currentMax.	power	consumptionStarting
current(lockedrotor)	LPHPDLSLdm3Kgmpouce	mpouceAmpkW
Y/YYS6F-30.2Y101,150,567.752343513/842		
5415/8		
21/8380 ..420YY/3/50		
440 ..480 YY/3/605131,9135/220		