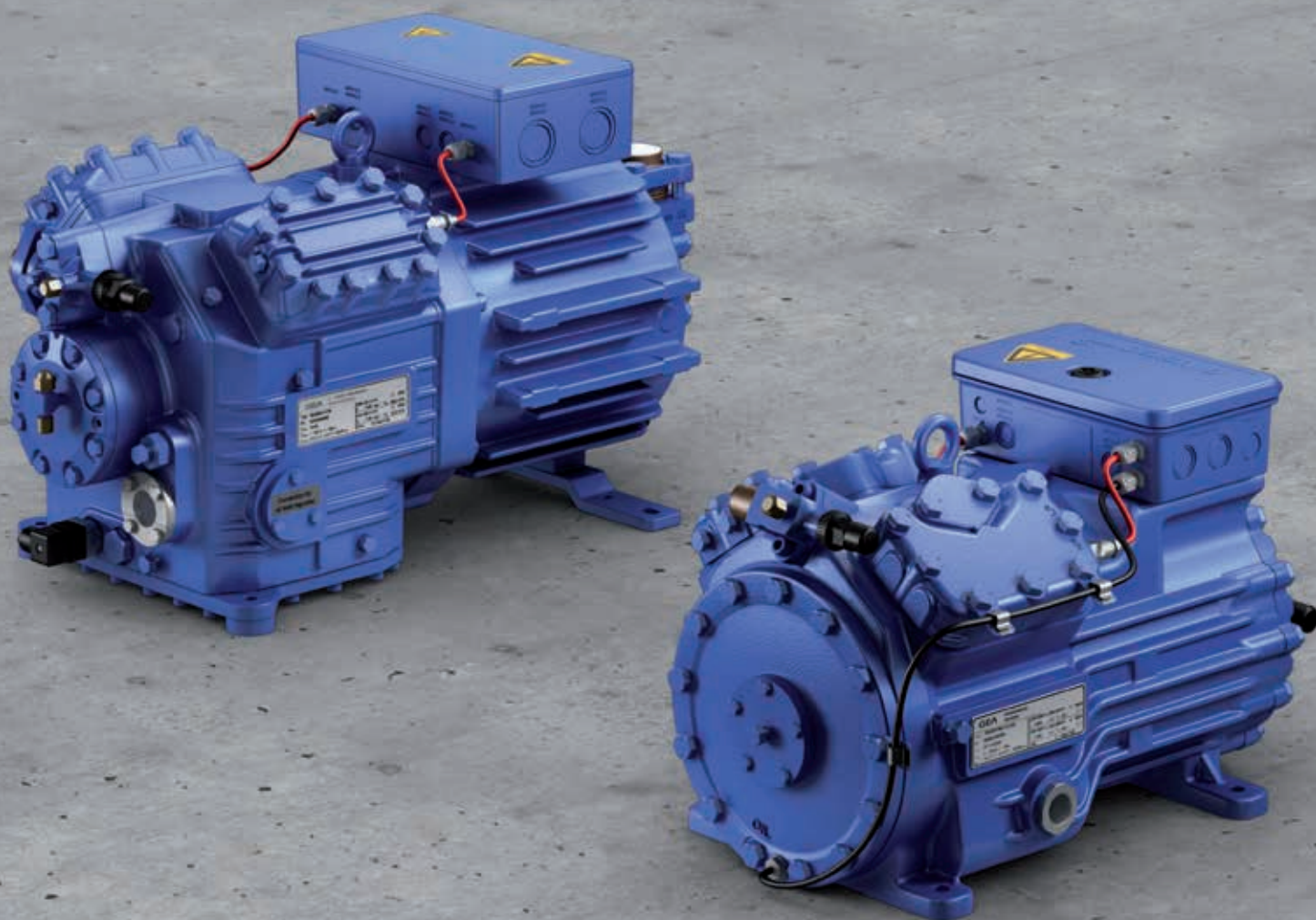




GEA Bock HC Compressors

Semi-hermetic Compressors for Hydrocarbons

Differences to a standard compressor

Electronic motor protection MP10
enclosed for installation in the
switch cabinet



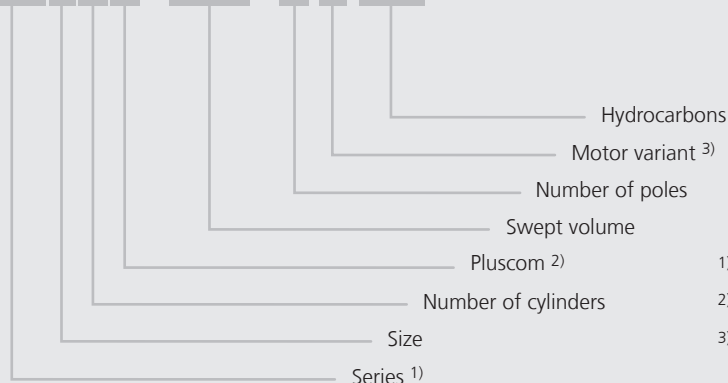
Thermal protection
thermostat

Oil sump heater
(necessary)

Special oil charge
Synth 68

Type key - compressors for hydrocarbons

HG34P/380-4S HC



¹⁾ HG = Hermetic Gas-cooled (suction gas-cooled)

²⁾ = Additional declaration for Pluscom compressors

³⁾ S = More powerful motor e.g. air-conditioning applications

Overview hydrocarbons

Refrigerant	Composition (Formula)	Name	ODP [R11=1,0]	GWP _(100a) ^{② ③} [CO ₂ =1,0]	Safety group ^①	Critical value [kg/m ³] ^②
R290	C ₃ H ₈	Propane	0	3	A3	0,008
R1270	C ₃ H ₆	Propylene	0	3	A3	0,008

^① Classification according to EN378-1 or ASHRAE 34

^② According to EN378-1

^③ Time horizon 100 years - according to IPCC II (1996) → Basis for Kyoto protocol

Semi-hermetic compressors for hydrocarbons

For various applications, such as the field of supermarket refrigeration, hydrocarbons have established as another natural alternative besides CO₂.

Due to the flammability of hydrocarbons the compressor has some safety related modifications.

Special features

Based on our current semi-hermetic product range GEA Bock offers now a low-cost compressor variant especially for the use with hydrocarbons.

Compressors in HC-design have the following features:

- Thermal protection thermostat
- Oil sump heater
- Special oil charge
- Motor protection MP10 for installation in the switch cabinet

Important notes

We would like to explicitly state that those compressors are a special edition and the compressors filled with hydrocarbons are to be operated by trained specialists only.

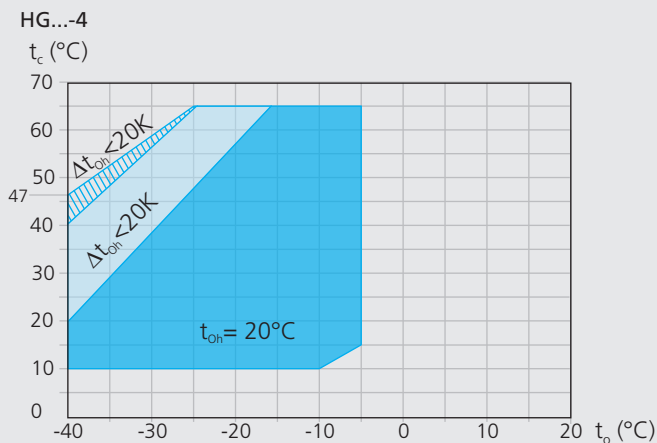
Please see assembly instructions for additional important instructions.

To ensure the safety measures, an additional agreement, hydrocarbons as refrigerant (GEA Bock-Art. No. 09996) has to be signed.

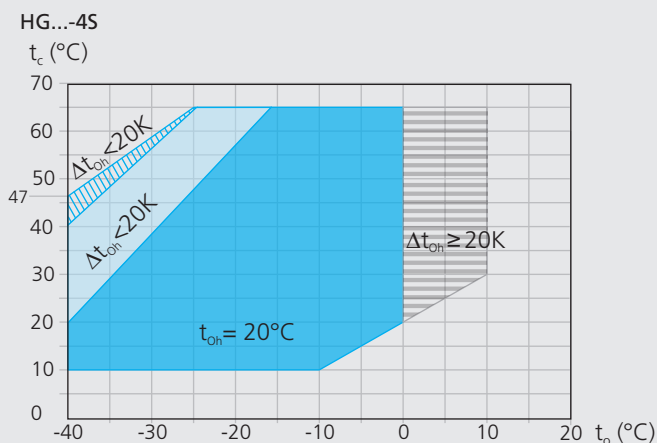
Available models	Displacement 50 Hz (1450 rpm)	Available models	Displacement 50 Hz (1450 rpm)
HG12P/60-4 S HC	5,40 m³/h		
HG12P/75-4 HC HG12P/75-4 S HC	6,70 m³/h	HG5/725-4 HC HG5/725-4 S HC	62,90 m³/h
HG12P/90-4 HC HG12P/90-4 S HC	8,00 m³/h	HG5/830-4 HC HG5/830-4 S HC	72,20 m³/h
HG12P/110-4 HC HG12P/110-4 S HC	9,40 m³/h	HG5/945-4 HC HG5/945-4 S HC	82,20 m³/h
HG22P/125-4 HC HG22P/125-4 S HC	11,10 m³/h	HG6/1080-4 HC HG6/1080-4 S HC	93,70 m³/h
HG22P/160-4 HC HG22P/160-4 S HC	13,70 m³/h	HG6/1240-4 HC HG6/1240-4 S HC	107,60 m³/h
HG22P/190-4 HC HG22P/190-4 S HC	16,50 m³/h	HG6/1410-4 HC HG6/1410-4 S HC	122,40 m³/h
HG34P/215-4 HC HG34P/215-4 S HC	18,80 m³/h	HG7/1620-4 HC HG7/1620-4 S HC	140,60 m³/h
HG34P/255-4 HC HG34P/255-4 S HC	22,10 m³/h	HG7/1860-4 HC HG7/1860-4 S HC	161,40 m³/h
HG34P/315-4 HC HG34P/315-4 S HC	27,30 m³/h	HG7/2110-4 HC HG7/2110-4 S HC	183,60 m³/h
HG34P/380-4 HC HG34P/380-4 S HC	33,10 m³/h	HG8/2470-4 HC HG8/2470-4 S HC	214,30 m³/h
HG4/465-4 HC HG4/465-4 S HC	40,50 m³/h	HG8/2830-4 HC HG8/2830-4 S HC	245,90 m³/h
HG4/555-4 HC HG4/555-4 S HC	48,20 m³/h	HG8/3220-4 HC HG8/3220-4 S HC	279,80 m³/h
HG4/650-4 HC HG4/650-4 S HC	56,60 m³/h		

Additionally, ATEX compressors are available that can be operated with hydrocarbons as well.
You can find more information on these compressors in our ATEX brochure.

R290 Operating limits



- Required minimum superheating $\Delta t_{oh} = 20 \text{ K}$
- Supplementary cooling or reduced suction gas temperature
- Supplementary cooling and reduced suction gas temperature



- Required minimum superheating $\Delta t_{oh} = 20 \text{ K}$
- Required minimum superheating $\Delta t_{oh} = 20 \text{ K}$, the suction gas temperature has to be adapted accordingly
- Supplementary cooling or reduced suction gas temperature
- Supplementary cooling and reduced suction gas temperature

- t_o Evaporating temperature (°C)
- t_c Condensation temperature (°C)
- t_{oh} Suction gas temperature (°C)
- Δt_{oh} Suction gas superheat (K)

Diagrams for other areas available on request

Max. permissible operating pressure (LP/HP)¹⁾: 19/28 bar

¹⁾ LP = low pressure HP = high pressure

The use of other hydrocarbons is permitted only following prior written approval from GEA Bock

Notes

Operating limits

Compressor operation is possible within the limits shown on the application diagrams. Please note the coloured areas. For the dark blue and gray application area a minimum superheating $\Delta t_{oh} = 20 \text{ K}$ must be applied. If necessary there must be planned an internal heat exchanger IHX.

Compressor application limits should not be chosen for design purposes or continuous operation.

Performance data

The performance data are based on 20 °C suction gas superheat without liquid subcooling, **at 50 Hz power supply frequency**.

These are computed, preliminary values. Variations cannot be excluded.

Please follow the notes to the suction gas superheating

Conversion factor for 60 Hz = 1,2

R290			Performance data										50 Hz
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_0$ [W]					Power consumption P_e [kW]					
			Evaporating temperature °C										
			10	5	0	-5	-10	-15	-20	-25	-30	-35	-40
HG12P/60-4 S HC	30	Q	5920	5030	4230	3540	2930	2390	1920	1520	1180	886	646
		P	0,792	0,836	0,857	0,857	0,840	0,807	0,763	0,709	0,648	0,584	0,518
	40	Q	5233	4429	3710	3100	2560	2080	1660	1300	990	725	498
		P	1,01	1,03	1,02	0,992	0,948	0,890	0,823	0,747	0,667	0,586	0,505
	50	Q	4524	3807	3170	2640	2170	1750	1390	1070	792	551	
		P	1,23	1,21	1,17	1,11	1,04	0,962	0,872	0,776	0,678	0,579	
HG12P/75-4 HC	30	Q				4250	3530	2900	2350	1870	1470	1120	826
		P				1,05	1,02	0,989	0,935	0,870	0,796	0,717	0,634
	40	Q				3710	3060	2500	2010	1590	1230	911	643
		P				1,21	1,16	1,09	1,01	0,924	0,826	0,724	0,621
	50	Q				3170	2600	2100	1680	1300	976	695	
		P				1,36	1,28	1,18	1,07	0,961	0,840	0,716	
HG12P/75-4 S HC	30	Q	7259	6184	5210	4370	3630	2970	2400	1900	1470	1110	796
		P	0,983	1,03	1,06	1,06	1,04	1,00	0,948	0,881	0,806	0,726	0,645
	40	Q	6437	5455	4570	3820	3150	2560	2050	1600	1220	885	603
		P	1,26	1,27	1,26	1,23	1,17	1,10	1,02	0,927	0,828	0,727	0,627
	50	Q	5553	4665	3880	3220	2640	2130	1690	1310	972	686	
		P	1,52	1,50	1,45	1,38	1,29	1,19	1,07	0,961	0,839	0,718	
HG12P/90-4 HC	30	Q				5070	4220	3480	2830	2270	1790	1380	1040
		P				1,27	1,24	1,18	1,11	1,02	0,920	0,813	0,703
	40	Q				4430	3670	3010	2440	1940	1510	1150	834
		P				1,46	1,39	1,30	1,20	1,08	0,968	0,843	0,720
	50	Q				3790	3120	2540	2040	1600	1230	906	
		P				1,63	1,53	1,41	1,28	1,15	1,01	0,877	
HG12P/90-4 S HC	30	Q	8498	7238	6100	5120	4250	3490	2820	2250	1760	1360	1030
		P	1,07	1,15	1,19	1,20	1,18	1,13	1,07	1,00	0,909	0,821	0,734
	40	Q	7551	6391	5360	4480	3710	3030	2430	1920	1490	1120	817
		P	1,42	1,45	1,44	1,40	1,34	1,26	1,16	1,05	0,945	0,835	0,731
	50	Q	6582	5534	4610	3840	3160	2560	2040	1600	1220	889	
		P	1,75	1,73	1,67	1,59	1,49	1,37	1,24	1,11	0,982	0,854	
HG12P/110-4 HC	30	Q				5950	4960	4080	3320	2670	2110	1640	1240
		P				1,49	1,46	1,39	1,30	1,20	1,08	0,955	0,824
	40	Q				5200	4310	3540	2870	2290	1790	1370	1010
		P				1,72	1,64	1,53	1,41	1,28	1,13	0,991	0,846
	50	Q				4460	3680	3010	2420	1910	1470	1090	
		P				1,92	1,80	1,66	1,51	1,35	1,19	1,03	
HG12P/110-4 S HC	30	Q	10058	8554	7210	6040	5010	4110	3320	2650	2080	1610	1230
		P	1,25	1,35	1,40	1,41	1,39	1,33	1,26	1,17	1,07	0,966	0,864
	40	Q	8877	7519	6310	5280	4370	3570	2880	2280	1770	1340	983
		P	1,67	1,70	1,69	1,65	1,58	1,48	1,36	1,24	1,11	0,982	0,860
	50	Q	7713	6503	5430	4530	3730	3040	2430	1900	1440	1050	
		P	2,05	2,03	1,97	1,87	1,75	1,62	1,47	1,31	1,15	1,00	
HG22P/125-4 HC	30	Q				7210	5930	4820	3850	3020	2300	1700	1200
		P				1,72	1,65	1,54	1,41	1,25	1,08	0,910	0,729
	40	Q				6390	5240	4240	3370	2620	1980	1430	960
		P				2,08	1,93	1,76	1,57	1,36	1,14	0,923	0,707
	50	Q				5530	4520	3630	2870	2200	1640	1150	
		P				2,41	2,19	1,95	1,69	1,42	1,15	0,896	
HG22P/125-4 S HC	30	Q	12586	10642	8850	7350	6020	4870	3870	3020	2290	1680	1170
		P	1,66	1,72	1,74	1,71	1,64	1,55	1,42	1,28	1,12	0,950	0,775
	40	Q	11235	9431	7840	6480	5300	4260	3370	2600	1950	1400	923
		P	2,23	2,21	2,14	2,04	1,91	1,75	1,57	1,38	1,17	0,963	0,753
	50	Q	9802	8170	6730	5550	4510	3610	2840	2180	1610	1130	
		P	2,79	2,68	2,54	2,36	2,16	1,94	1,70	1,45	1,20	0,951	
HG22P/160-4 HC	30	Q				8950	7360	5980	4780	3750	2880	2140	1520
		P				2,16	2,07	1,94	1,78	1,58	1,37	1,15	0,937
	40	Q				7950	6520	5280	4210	3280	2490	1820	1240
		P				2,63	2,45	2,24	2,00	1,73	1,46	1,19	0,93
	50	Q				6900	5640	4540	3600	2780	2080	1480	
		P				3,08	2,80	2,50	2,18	1,84	1,51	1,18	
HG22P/160-4 S HC	30	Q	15707	13252	11000	9120	7480	6060	4830	3780	2880	2120	1470
		P	2,04	2,13	2,16	2,12	2,04	1,92	1,77	1,59	1,39	1,17	0,962
	40	Q	13968	11676	9690	8020	6570	5300	4210	3270	2470	1780	1180
		P	2,76	2,75	2,68	2,56	2,40	2,20	1,97	1,73	1,47	1,21	0,950
	50	Q	12125	10199	8340	6880	5610	4520	3570	2750	2040	1420	
		P	3,47	3,35	3,18	2,97	2,72	2,45	2,15	1,84	1,52	1,20	

 Relating to $\Delta t_{oh} = 20$ K without liquid subcooling

 Supplementary cooling or red. suction gas temperature

 Supplementary cooling and red. suction gas temperature

The remaining areas are based on 20 °C suction gas temperature without liquid subcooling

R290			Performance data										50 Hz	
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_0$ [W]						Power consumption P_e [kW]					
			Evaporating temperature °C											
	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40			
HG22P/190-4 HC	30	Q				10900	8960	7310	5880	4650	3590	2700	1930	
		P				2,61	2,51	2,37	2,18	1,96	1,71	1,46	1,20	
	40	Q				9720	8010	6520	5230	4120	3160	2340	1640	
		P				3,18	2,98	2,73	2,46	2,16	1,85	1,53	1,22	
	50	Q				8510	6990	5670	4530	3550	2700	1960		
		P				3,73	3,41	3,07	2,70	2,32	1,93	1,55		
HG22P/190-4 S HC	30	Q	18828	15963	13300	11100	9070	7370	5910	4650	3580	2670	1900	
		P	2,48	2,58	2,62	2,58	2,49	2,35	2,17	1,96	1,73	1,49	1,24	
	40	Q	16903	14293	11900	9870	8120	6610	5290	4150	3170	2320	1580	
		P	3,34	3,33	3,25	3,11	2,92	2,69	2,42	2,14	1,84	1,54	1,23	
	50	Q	14876	12522	10400	8580	7060	5730	4580	3570	2690	1900		
		P	4,20	4,06	3,87	3,62	3,33	3,00	2,66	2,29	1,92	1,55		
HG34P/215-4 HC	30	Q				12200	9970	8090	6450	5040	3830	2800	1930	
		P				2,90	2,78	2,60	2,38	2,12	1,84	1,54	1,25	
	40	Q				10800	8770	7070	5600	4330	3240	2310	1520	
		P				3,47	3,24	2,96	2,64	2,29	1,93	1,56	1,20	
	50	Q				9230	7500	6000	4700	3590	2630	1820		
		P				4,00	3,65	3,26	2,84	2,40	1,95	1,51		
HG34P/215-4 S HC	30	Q	21043	17870	14900	12400	10100	8150	6450	4990	3750	2720	1860	
		P	2,82	2,92	2,93	2,88	2,77	2,61	2,40	2,16	1,90	1,62	1,33	
	40	Q	18826	15903	13200	10900	8860	7110	5580	4270	3160	2210	1430	
		P	3,70	3,67	3,57	3,40	3,18	2,92	2,62	2,29	1,95	1,60	1,24	
	50	Q	16506	13734	11300	9300	7540	6000	4670	3530	2550	1730		
		P	4,54	4,38	4,15	3,87	3,55	3,18	2,79	2,38	1,95	1,52		
HG34P/255-4 HC	30	Q				14400	11900	9590	7660	6000	4590	3390	2380	
		P				3,40	3,27	3,07	2,81	2,51	2,18	1,83	1,48	
	40	Q				12700	10500	8420	6690	5200	3930	2840	1910	
		P				4,09	3,83	3,50	3,13	2,73	2,30	1,87	1,44	
	50	Q				11000	8960	7200	5680	4370	3250	2280		
		P				4,74	4,33	3,88	3,39	2,88	2,35	1,83		
HG34P/255-4 S HC	30	Q	24970	21083	17600	14600	12000	9660	7680	5980	4530	3310	2290	
		P	3,30	3,42	3,45	3,39	3,27	3,08	2,84	2,55	2,24	1,90	1,55	
	40	Q	22267	18722	15600	12900	10600	8490	6720	5200	3890	2780	1830	
		P	4,34	4,31	4,20	4,01	3,76	3,46	3,11	2,73	2,33	1,92	1,50	
	50	Q	19359	16258	13400	11100	9020	7240	5700	4360	3210	2210		
		P	5,36	5,18	4,92	4,59	4,22	3,79	3,34	2,86	2,37	1,87		
HG34P/315-4 HC	30	Q				17900	14800	12000	9590	7520	5750	4260	3000	
		P				4,30	4,14	3,90	3,59	3,23	2,84	2,43	2,01	
	40	Q				15900	13100	10600	8400	6540	4950	3590	2440	
		P				5,11	4,79	4,41	3,97	3,49	2,98	2,47	1,97	
	50	Q				13800	11300	9060	7160	5520	4110	2910		
		P				5,84	5,37	4,83	4,26	3,66	3,05	2,44		
HG34P/315-4 S HC	30	Q	30507	25901	21700	18100	14900	12100	9650	7540	5740	4200	2900	
		P	4,08	4,23	4,28	4,22	4,08	3,86	3,58	3,24	2,87	2,46	2,04	
	40	Q	27328	23050	19300	16100	13200	10700	8460	6560	4930	3530	2320	
		P	5,32	5,29	5,17	4,96	4,67	4,32	3,92	3,47	3,00	2,50	2,00	
	50	Q	24046	20096	16700	13800	11300	9090	7180	5520	4080	2830		
		P	6,53	6,32	6,03	5,66	5,23	4,74	4,21	3,65	3,07	2,49		
HG34P/380-4 HC	30	Q				21800	18000	14700	11800	9300	7170	5370	3840	
		P				5,20	5,03	4,76	4,41	4,00	3,55	3,08	2,60	
	40	Q				19600	16100	13100	10500	8220	6290	4630	3220	
		P				6,20	5,85	5,42	4,92	4,37	3,79	3,21	2,63	
	50	Q				17100	14100	11400	9050	7060	5350	3870		
		P				7,14	6,61	6,01	5,35	4,67	3,96	3,26		
HG34P/380-4 S HC	30	Q	37354	31624	26500	22100	18200	14800	11800	9230	7050	5210	3670	
		P	4,97	5,20	5,27	5,20	5,02	4,74	4,39	3,99	3,55	3,11	2,68	
	40	Q	33705	28485	23800	19800	16300	13300	10600	8230	6240	4550	3120	
		P	6,55	6,56	6,42	6,16	5,80	5,35	4,85	4,31	3,75	3,19	2,67	
	50	Q	29752	25044	20800	17300	14200	11500	9130	7090	5330	3820		
		P	8,03	7,83	7,49	7,05	6,51	5,91	5,26	4,59	3,91	3,25		

Relating to $\Delta t_{on} = 20$ K
without liquid subcooling

Supplementary cooling or
red. suction gas temperature

Supplementary cooling and
red. suction gas temperature

The remaining areas are based on 20 °C suction gas temperature
without liquid subcooling

R290			Performance data										50 Hz	
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_o$ [W]					Power consumption P_e [kW]						
			Evaporating temperature °C											
			10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	
HG4/465-4 HC	30	Q				25800	21200	17300	13900	10900	8340	6200	4400	
		P				6,51	6,29	5,93	5,48	4,94	4,34	3,70	3,05	
	40	Q				22900	18800	15300	12200	9490	7210	5270	3610	
		P				7,73	7,27	6,69	6,04	5,32	4,56	3,77	3,00	
	50	Q				19900	16300	13200	10400	8040	6030	4290		
		P				8,83	8,13	7,33	6,48	5,58	4,66	3,73		
	HG4/465-4 S HC	30	Q	44704	37748	31600	26300	21600	17500	14000	10900	8290	6100	4260
			P	5,96	6,19	6,27	6,21	6,02	5,72	5,33	4,86	4,34	3,78	3,18
40		Q	40081	33719	28000	23200	19000	15400	12200	9440	7110	5120	3430	
		P	7,68	7,67	7,52	7,24	6,86	6,37	5,82	5,20	4,53	3,84	3,14	
	50	Q	35050	29184	24200	19900	16300	13100	10300	7930	5910	4170		
		P	9,26	9,02	8,66	8,18	7,61	6,95	6,24	5,47	4,68	3,87		
	HG4/555-4 HC	30	Q				30100	24800	20100	16000	12500	9450	6880	4720
			P				7,51	7,22	6,79	6,23	5,59	4,87	4,12	3,36
40		Q				26600	21800	17600	13900	10700	7960	5660	3700	
		P				8,82	8,26	7,58	6,80	5,94	5,04	4,11	3,19	
	50	Q				22900	18600	14900	11600	8820	6450	4420		
		P				9,96	9,13	8,20	7,19	6,12	5,03	3,94		
	HG4/555-4 S HC	30	Q	52759	44474	37000	30600	25000	20100	15900	12300	9250	6710	4600
			P	7,13	7,36	7,41	7,30	7,05	6,67	6,18	5,61	4,96	4,26	3,52
40		Q	46964	39355	32600	27000	22000	17700	14000	10800	7970	5620	3600	
		P	9,12	9,07	8,86	8,49	8,00	7,40	6,70	5,93	5,10	4,23	3,34	
	50	Q	40756	33930	28000	23100	18800	15100	11800	8950	6490	4340		
		P	10,90	10,60	10,10	9,52	8,80	7,99	7,09	6,13	5,13	4,11		
	HG4/650-4 HC	30	Q				35900	29500	24000	19200	15000	11500	8440	5920
			P				8,98	8,66	8,17	7,53	6,78	5,95	5,07	4,16
40		Q				31700	26000	21000	16700	13000	9760	7060	4770	
		P				10,60	9,97	9,18	8,28	7,28	6,23	5,15	4,07	
	50	Q				27400	22400	18000	14100	10900	8030	5650		
		P				12,00	11,10	10,00	8,85	7,61	6,33	5,05		
	HG4/650-4 S HC	30	Q	61921	52305	43800	36400	29800	24100	19100	14800	11200	8170	5670
			P	8,38	8,66	8,73	8,61	8,32	7,90	7,35	6,70	5,97	5,18	4,35
40		Q	54960	46301	38600	32000	26200	21100	16700	12900	9620	6850	4520	
		P	10,70	10,60	10,40	10,00	9,48	8,80	8,02	7,15	6,22	5,24	4,25	
	50	Q	47786	40090	33200	27500	22500	18100	14200	10900	7960	5470		
		P	12,90	12,50	12,00	11,30	10,50	9,58	8,57	7,49	6,37	5,23		
	HG5/725-4 HC	30	Q				40000	33000	26900	21600	17000	13100	9740	6930
			P				9,93	9,60	9,09	8,42	7,64	6,78	5,86	4,92
40		Q				35700	29400	23900	19100	15000	11400	8350	5760	
		P				11,70	11,00	10,20	9,28	8,25	7,15	6,02	4,90	
	50	Q				31100	25500	20600	16400	12800	9580	6890		
		P				13,30	12,30	11,20	9,99	8,70	7,38	6,05		
	HG5/725-4 S HC	30	Q	68767	58027	48500	40300	33100	26800	21300	16700	12700	9280	6460
			P	9,27	9,62	9,71	9,59	9,28	8,80	8,18	7,45	6,63	5,75	4,83
40		Q	61741	51836	43200	35800	29300	23700	18800	14600	11000	7830	5190	
		P	11,90	11,90	11,60	11,10	10,50	9,78	8,89	7,90	6,86	5,77	4,67	
	50	Q	54002	45140	37300	30800	25200	20200	16000	12300	9050	6300		
		P	14,30	13,90	13,30	12,60	11,60	10,60	9,47	8,25	6,99	5,71		
	HG5/830-4 HC	30	Q				46300	38300	31300	25200	19900	15400	11600	8340
			P				11,40	11,00	10,50	9,78	8,92	7,98	6,98	5,96
40		Q				41500	34200	27900	22400	17700	13600	10100	7030	
		P				13,50	12,80	11,90	10,80	9,73	8,52	7,30	6,08	
	50	Q				36400	29900	24300	19400	15200	11600	8380		
		P				15,50	14,40	13,10	11,80	10,40	8,95	7,50		
	HG5/830-4 S HC	30	Q	78836	66661	55900	46500	38300	31100	24800	19400	14800	10900	7550
			P	10,70	11,10	11,20	11,10	10,70	10,20	9,56	8,74	7,83	6,87	5,88
40		Q	71356	60090	50100	41600	34200	27700	22000	17100	13000	9350	6310	
		P	13,80	13,80	13,50	13,00	12,30	11,40	10,40	9,39	8,24	7,05	5,87	
	50	Q	63070	52713	43700	36200	29600	23800	18900	14600	10900	7740		
		P	16,70	16,20	15,60	14,70	13,70	12,50	11,30	9,98	8,60	7,21		

 Relating to $\Delta t_{oh} = 20$ K without liquid subcooling

 Supplementary cooling or red. suction gas temperature

 Supplementary cooling and red. suction gas temperature

The remaining areas are based on 20 °C suction gas temperature without liquid subcooling

R290												Performance data												50 Hz	
Type		Cond. temp. °C		Cooling capacity $\dot{Q}_o$ [W]								Power consumption P_e [kW]													
				Evaporating temperature °C																					
				10	5	0	-5	-10	-15	-20	-25	-30	-35	-40											
HG5/945-4 HC	30	Q				53100	43900	35900	28900	22900	17700	13300	9560												
		P				13,20	12,80	12,10	11,30	10,30	9,19	8,03	6,85												
	40	Q				47600	39300	32100	25800	20300	15600	11600	8110												
		P				15,70	14,80	13,80	12,60	11,20	9,87	8,46	7,08												
HG5/945-4 S HC	30	Q	90515	76500	64100	53400	44000	35800	28700	22600	17400	12900	9060												
		P	12,10	12,70	12,80	12,70	12,30	11,70	10,90	9,98	8,97	7,92	6,87												
	40	Q	81680	68847	57400	47800	39300	32000	25600	20100	15300	11200	7540												
		P	15,70	15,70	15,40	14,90	14,10	13,10	12,00	10,70	9,49	8,19	6,93												
HG6/1080-4 HC	30	Q	72036	60287	50100	41600	34100	27700	22100	17200	13000	9230													
		P	19,00	18,60	17,90	16,90	15,70	14,40	13,00	11,50	9,97	8,45													
	40	Q				59500	49100	39900	31900	25100	19200	14200	10100												
		P				14,50	14,10	13,30	12,40	11,30	10,10	8,80	7,45												
HG6/1080-4 S HC	30	Q	103705	87342	73000	60600	49600	40000	31700	24500	18400	13300	9090												
		P	13,80	14,40	14,50	14,30	13,80	13,10	12,20	11,10	9,91	8,64	7,34												
	40	Q	92207	77604	64500	53400	43600	35000	27600	21100	15700	11000	7120												
		P	17,70	17,70	17,30	16,60	15,70	14,50	13,20	11,70	10,20	8,66	7,10												
HG6/1240-4 HC	30	Q	80187	67053	55400	45700	37200	29700	23300	17700	12900	8820													
		P	21,20	20,70	19,80	18,70	17,30	15,70	14,00	12,20	10,40	8,59													
	40	Q				69100	57100	46600	37500	29600	22800	17100	12300												
		P				17,10	16,50	15,70	14,60	13,30	11,90	10,40	9,01												
HG6/1240-4 S HC	30	Q	117801	99791	83600	69700	57400	46600	37200	29100	22200	16400	11500												
		P	16,00	16,60	16,80	16,60	16,00	15,20	14,20	12,90	11,60	10,20	8,76												
	40	Q	107288	89682	74800	62200	51100	41300	32900	25600	19400	14000	9450												
		P	20,70	20,60	20,20	19,40	18,30	17,00	15,50	13,90	12,20	10,40	8,75												
HG6/1410-4 HC	30	Q	93840	78464	65100	53900	44000	35500	28100	21700	16200	11600													
		P	25,10	24,40	23,40	22,10	20,50	18,70	16,80	14,80	12,70	10,70													
	40	Q				78700	65000	53100	42800	33800	26200	19800	14300												
		P				19,70	19,10	18,10	16,90	15,40	13,80	12,00	10,30												
HG7/1620-4 HC	30	Q				70600	58300	47500	38100	30100	23200	17200	12100												
		P				23,50	22,30	20,70	18,90	16,90	14,90	12,80	10,80												
	40	Q				61900	51000	41400	33100	26000	19800	14500													
		P				27,10	25,20	23,00	20,70	18,30	15,80	13,40													
HG7/1620-4 S HC	30	Q	133910	113444	94900	79100	65100	53000	42400	33300	25500	18900	13400												
		P	18,30	19,10	19,30	19,10	18,50	17,50	16,30	14,90	13,40	11,80	10,30												
	40	Q	121458	102666	85100	70900	58400	47400	37900	29700	22600	16600	11400												
		P	23,60	23,70	23,20	22,30	21,10	19,60	17,90	16,00	14,10	12,20	10,40												
HG7/1620-4 S HC	30	Q	106984	89471	74400	61800	50800	41200	32800	25500	19300	13800													
		P	28,60	27,90	26,80	25,40	23,60	21,60	19,40	17,10	14,80	12,60													
	40	Q				91200	75500	61700	49600	39200	30300	22800	16400												
		P				22,80	22,20	21,20	19,80	18,20	16,40	14,60	12,70												
HG7/1620-4 S HC	30	Q				81700	67500	55000	44100	34700	26600	19700	13900												
		P				27,20	25,80	24,10	22,20	20,00	17,80	15,60	13,40												
	40	Q				71700	58900	47800	38100	29800	22600	16500													
		P				31,30	29,20	26,90	24,40	21,80	19,10	16,50													
HG7/1620-4 S HC	30	Q	157068	133523	112000	92700	76200	61800	49200	38300	29100	21400	14900												
		P	21,40	22,30	22,60	22,40	21,70	20,70	19,30	17,80	16,00	14,20	12,30												
	40	Q	140689	118771	98900	82200	67400	54500	43200	33500	25200	18200	12300												
		P	27,40	27,50	27,00	26,00	24,70	23,00	21,10	19,00	16,80	14,60	12,30												
HG7/1620-4 S HC	30	Q	123287	103003	85400	70800	58000	46700	37000	28500	21300	15100													
		P	33,10	32,30	31,00	29,40	27,40	25,20	22,70	20,20	17,60	15,00													

 Relating to $\Delta t_{on} = 20$ K without liquid subcooling

 Supplementary cooling or red. suction gas temperature

 Supplementary cooling and red. suction gas temperature

The remaining areas are based on 20 °C suction gas temperature without liquid subcooling

R290			Performance data										50 Hz
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_0$ [W]					Power consumption P_e [kW]					
			Evaporating temperature °C										
			10	5	0	-5	-10	-15	-20	-25	-30	-35	-40
HG7/1860-4 HC	30	Q				105000	86400	70600	56900	45100	35000	26300	19000
		P				26,20	25,50	24,30	22,70	20,80	18,80	16,70	14,60
	40	Q				93900	77500	63300	50900	40200	30900	23000	16200
		P				31,20	29,60	27,60	25,40	22,90	20,30	17,80	15,40
	50	Q				82400	67900	55200	44200	34700	26500	19400	
		P				35,90	33,50	30,80	27,90	24,90	21,90	18,90	
HG7/1860-4 S HC	30	Q	176198	150590	126000	106000	86900	70700	56500	44100	33500	24500	17000
		P	24,20	25,20	25,60	25,30	24,50	23,30	21,80	20,00	18,10	16,10	14,00
	40	Q	160932	135882	114000	94600	77800	63000	50100	38900	29300	21200	14400
		P	31,30	31,30	30,80	29,70	28,10	26,20	24,00	21,60	19,10	16,60	14,20
	50	Q	142646	119160	99000	82200	67300	54200	42900	33100	24800	17800	
		P	38,00	37,10	35,60	33,70	31,40	28,80	26,00	23,10	20,10	17,10	
HG7/2110-4 HC	30	Q				119000	98500	80600	65100	51600	40100	30300	22000
		P				29,70	28,90	27,60	25,90	23,80	21,50	19,10	16,60
	40	Q				107000	88300	72100	58100	45900	35400	26500	18800
		P				35,40	33,60	31,50	28,90	26,20	23,30	20,40	17,50
	50	Q				93900	77300	62900	50400	39700	30400	22300	
		P				40,70	38,10	35,10	31,80	28,40	24,90	21,60	
HG7/2110-4 S HC	30	Q	203382	172676	145000	121000	99200	80500	64200	50200	38300	28300	19900
		P	27,40	28,60	29,10	28,80	27,90	26,60	24,80	22,80	20,60	18,30	16,00
	40	Q	183199	155006	130000	108000	88400	71600	57000	44400	33600	24500	16900
		P	35,50	35,60	35,00	33,80	32,00	29,80	27,30	24,60	21,70	18,90	16,20
	50	Q	160986	135318	113000	93100	76300	61700	49000	38000	28700	20800	
		P	43,10	42,20	40,60	38,40	35,80	32,80	29,60	26,20	22,80	19,50	
HG8/2470-4 HC	30	Q				140000	116000	94000	75700	59800	46100	34500	24700
		P				34,80	33,80	32,20	30,10	27,60	25,00	22,20	19,40
	40	Q				125000	103000	83800	67100	52700	40300	29800	20800
		P				41,40	39,30	36,70	33,70	30,50	27,10	23,70	20,40
	50	Q				110000	89600	72600	57800	45000	34100	24700	
		P				47,70	44,50	41,00	37,20	33,20	29,10	25,20	
HG8/2470-4 S HC	30	Q	239629	202794	170000	142000	117000	94100	74800	58300	44100	32300	22400
		P	32,70	34,00	34,40	34,10	33,10	31,60	29,50	27,10	24,50	21,60	18,80
	40	Q	214576	181176	151000	126000	103000	82900	65700	50800	38100	27300	18300
		P	41,80	41,90	41,10	39,70	37,60	35,10	32,20	29,00	25,70	22,20	18,80
	50	Q	187477	157534	131000	108000	88100	70900	55900	43100	32000	22600	
		P	50,40	49,20	47,30	44,80	41,80	38,40	34,70	30,80	26,80	22,80	
HG8/2830-4 HC	30	Q				160000	132000	108000	86600	68600	53100	39900	28800
		P				39,90	38,80	37,00	34,60	31,80	28,70	25,50	22,30
	40	Q				143000	118000	96100	77100	60700	46700	34600	24300
		P				47,60	45,20	42,20	38,70	35,00	31,10	27,20	23,40
	50	Q				126000	103000	83600	66700	52200	39700	28900	
		P				54,70	51,10	47,00	42,60	38,00	33,40	28,80	
HG8/2830-4 S HC	30	Q	265807	225885	190000	159000	131000	107000	85000	66600	50800	37400	26100
		P	36,90	38,50	39,00	38,60	37,40	35,50	33,20	30,40	27,50	24,40	21,40
	40	Q	242916	205333	172000	143000	118000	95300	76000	59300	45000	32700	22300
		P	47,70	47,90	47,00	45,30	42,90	39,90	36,50	32,90	29,10	25,30	21,70
	50	Q	216006	180760	151000	125000	103000	82600	65500	50800	38200	27300	
		P	58,00	56,70	54,50	51,60	48,00	44,00	39,70	35,10	30,60	26,10	
HG8/3220-4 HC	30	Q				182000	151000	123000	99000	78400	60800	45700	33000
		P				45,30	44,10	42,10	39,40	36,30	32,80	29,10	25,30
	40	Q				163000	135000	110000	88100	69500	53500	39800	28000
		P				53,90	51,30	48,00	44,10	39,90	35,50	31,10	26,70
	50	Q				143000	118000	95500	76400	59800	45600	33400	
		P				62,10	58,00	53,50	48,50	43,30	38,00	32,90	
HG8/3220-4 S HC	30	Q	309101	263030	221000	184000	152000	123000	97800	76400	58100	42700	29900
		P	41,70	43,60	44,30	43,90	42,60	40,50	37,80	34,70	31,30	27,80	24,40
	40	Q	279353	235529	197000	164000	135000	109000	86600	67300	50800	36900	25300
		P	54,10	54,30	53,40	51,50	48,80	45,40	41,60	37,50	33,10	28,80	24,70
	50	Q	245554	206006	171000	142000	116000	93600	74100	57400	43200	31100	
		P	65,70	64,30	61,90	58,60	54,60	50,00	45,10	40,00	34,80	29,70	

 Relating to $\Delta t_{oh} = 20$ K without liquid subcooling

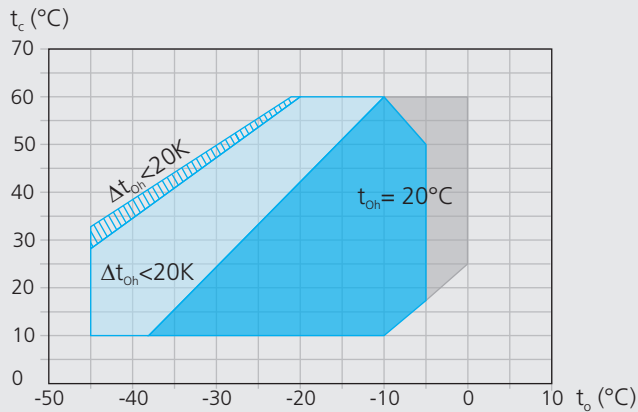
 Supplementary cooling or red. suction gas temperature

 Supplementary cooling and red. suction gas temperature

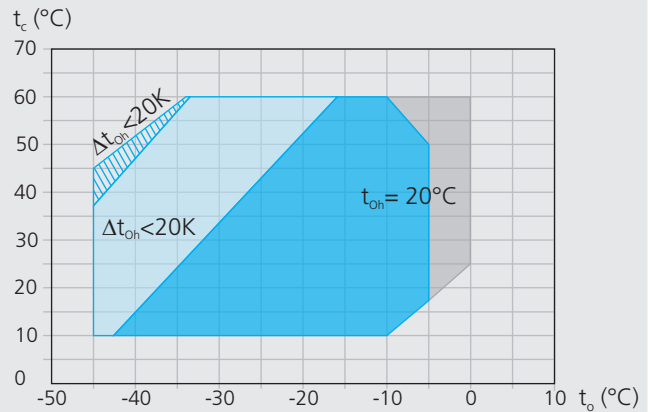
The remaining areas are based on 20 °C suction gas temperature without liquid subcooling

R1270 Operating limits

HG12P



HG22P to HG8



Diagrams for other areas available on request

Max. permissible operating pressure (LP/HP)¹⁾: 19/28 bar

¹⁾ LP = low pressure HP = high pressure

The use of other hydrocarbons is permitted only following prior written approval from GEA Bock

-  Required minimum superheating $\Delta t_{oh} = 20 \text{ K}$
-  Motor version -S- (more powerful motor) Required minimum superheating $\Delta t_{oh} = 20 \text{ K}$
-  Supplementary cooling or reduced suction gas temperature
-  Supplementary cooling and reduced suction gas temperature
- t_o Evaporating temperature (°C)
- t_c Condensation temperature (°C)
- t_{oh} Suction gas temperature (°C)
- Δt_{oh} Suction gas superheat (K)

Notes

Operating limits

Compressor operation is possible within the limits shown on the application diagrams. Please note the coloured areas. For the dark blue and gray application area a minimum superheating $\Delta t_{oh} = 20 \text{ K}$ must be applied. If necessary there must be planned an internal heat exchanger IHX.

Compressor application limits should not be chosen for design purposes or continuous operation.

Performance data

The performance data are based on 20 °C suction gas superheat without liquid subcooling, **at 50 Hz power supply frequency**.

These are computed, preliminary values. Variations cannot be excluded.

Please follow the notes to the suction gas superheating

Conversion factor for 60 Hz = 1,2

R1270			Performance data										50 Hz
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_0$ [W]					Power consumption P_e [kW]					
			Evaporating temperature °C										
			0	-5	-10	-15	-20	-25	-30	-35	-40	-45	
HG12P/60-4 S HC	30	Q	4960	4140	3430	2800	2270	1810	1420	1100	817	590	
		P	1,09	1,10	1,07	1,03	0,982	0,914	0,837	0,754	0,669	0,585	
	40	Q	4380	3640	3000	2450	1970	1560	1220	925			
		P	1,33	1,30	1,24	1,17	1,08	0,995	0,896	0,794			
	50	Q	3800	3150	2580	2100	1680	1320	1020				
		P	1,56	1,48	1,39	1,29	1,18	1,06	0,943				
HG12P/75-4 HC	30	Q		5140	4260	3490	2830	2270	1800	1400	1070	791	
		P		1,35	1,32	1,27	1,21	1,12	1,03	0,937	0,838	0,742	
	40	Q		4510	3730	3050	2470	1980	1560	1210			
		P		1,62	1,55	1,46	1,36	1,24	1,12	1,00			
	50	Q			3210	2620	2120	1690	1330				
		P			1,76	1,63	1,49	1,35	1,20				
HG12P/75-4 S HC	30	Q	6120	5120	4240	3470	2810	2250	1770	1360	1030	741	
		P	1,37	1,37	1,34	1,29	1,22	1,14	1,04	0,943	0,836	0,729	
	40	Q	5410	4510	3720	3040	2450	1950	1520	1160			
		P	1,66	1,61	1,54	1,45	1,35	1,24	1,11	0,992			
	50	Q	4700	3900	3210	2610	2090	1650	1280				
		P	1,93	1,84	1,73	1,60	1,47	1,32	1,17				
HG12P/90-4 HC	30	Q		6150	5100	4180	3390	2720	2140	1660	1260	926	
		P		1,61	1,58	1,52	1,44	1,33	1,22	1,09	0,968	0,842	
	40	Q		5400	4470	3650	2950	2360	1850	1420			
		P		1,93	1,85	1,73	1,60	1,46	1,31	1,15			
	50	Q			3830	3130	2520	2000	1570				
		P			2,09	1,93	1,75	1,57	1,38				
HG12P/90-4 S HC	30	Q	7310	6110	5060	4140	3350	2670	2090	1610	1210	873	
		P	1,63	1,63	1,59	1,53	1,45	1,35	1,23	1,11	0,990	0,865	
	40	Q	6450	5380	4440	3620	2920	2320	1810	1380			
		P	1,97	1,92	1,83	1,73	1,60	1,47	1,32	1,17			
	50	Q	5610	4660	3830	3120	2500	1970	1520				
		P	2,29	2,19	2,05	1,90	1,74	1,57	1,39				
HG12P/110-4 HC	30	Q		7230	5980	4900	3970	3180	2510	1950	1480	1090	
		P		1,91	1,87	1,79	1,69	1,57	1,44	1,29	1,14	0,983	
	40	Q		6360	5240	4280	3460	2760	2170	1670			
		P		2,27	2,17	2,05	1,90	1,74	1,56	1,38			
	50	Q			4510	3670	2960	2350	1840				
		P			2,46	2,29	2,10	1,90	1,69				
HG12P/110-4 S HC	30	Q	8600	7180	5940	4860	3940	3150	2480	1910	1440	1040	
		P	1,92	1,92	1,88	1,81	1,71	1,59	1,45	1,30	1,15	1,00	
	40	Q	7600	6320	5210	4250	3430	2730	2130	1630			
		P	2,33	2,27	2,17	2,04	1,89	1,73	1,55	1,37			
	50	Q	6600	5460	4480	3640	2920	2310	1800				
		P	2,72	2,59	2,43	2,25	2,05	1,84	1,63				
HG22P/125-4 HC	30	Q		8750	7270	5980	4850	3870	3040	2320	1720	1210	
		P		2,08	2,02	1,92	1,79	1,63	1,46	1,27	1,08	0,889	
	40	Q		7710	6390	5230	4230	3350	2600	1960	1400	919	
		P		2,54	2,39	2,21	2,01	1,79	1,56	1,32	1,09	0,862	
	50	Q			5530	4500	3610	2840	2170	1590	1080		
		P			2,71	2,46	2,19	1,91	1,62	1,34	1,06		
HG22P/125-4 S HC	30	Q	10500	8760	7280	5990	4860	3880	3050	2330	1730	1220	
		P	2,10	2,08	2,02	1,93	1,80	1,66	1,49	1,31	1,13	0,942	
	40	Q	9220	7730	6410	5260	4250	3380	2630	1980	1420	924	
		P	2,61	2,50	2,36	2,20	2,01	1,80	1,59	1,36	1,14	0,916	
	50	Q	8000	6690	5530	4520	3640	2870	2190	1600	1080		
		P	3,06	2,88	2,66	2,43	2,18	1,91	1,64	1,37	1,11		
HG22P/160-4 HC	30	Q		10900	9020	7420	6020	4820	3790	2910	2160	1520	
		P		2,64	2,56	2,43	2,27	2,07	1,85	1,62	1,38	1,14	
	40	Q		9600	7950	6510	5270	4190	3260	2470	1780	1180	
		P		3,22	3,03	2,81	2,56	2,28	1,99	1,69	1,40	1,12	
	50	Q			6890	5610	4510	3550	2730	2010	1390		
		P			3,45	3,13	2,79	2,44	2,08	1,72	1,37		
HG22P/160-4 S HC	30	Q	13000	10900	9050	7450	6050	4840	3810	2920	2170	1530	
		P	2,63	2,61	2,53	2,41	2,25	2,06	1,85	1,63	1,39	1,15	
	40	Q	11500	9620	7990	6550	5300	4220	3280	2480	1780	1180	
		P	3,28	3,15	2,97	2,76	2,52	2,26	1,98	1,70	1,41	1,13	
	50	Q	9990	8350	6900	5640	4540	3580	2750	2020	1380		
		P	3,87	3,63	3,36	3,06	2,74	2,41	2,06	1,72	1,38		

Relating to 20 °C suction gas temperature
without liquid subcooling

Supplementary cooling or
reduced suction gas temperature

Supplementary cooling and
reduced suction gas temperature

R1270			Performance data										50 Hz
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_0$ [W]					Power consumption P_e [kW]					
			Evaporating temperature °C										
			0	-5	-10	-15	-20	-25	-30	-35	-40	-45	
HG22P/190-4 HC	30	Q		13200	11000	9040	7370	5920	4680	3620	2720	1970	
		P		3,17	3,09	2,95	2,76	2,54	2,29	2,02	1,75	1,48	
	40	Q		11700	9710	7990	6500	5200	4070	3110	2290	1580	
		P		3,86	3,66	3,41	3,13	2,81	2,48	2,14	1,81	1,48	
HG22P/190-4 S HC	50	Q			8470	6950	5630	4470	3470	2600	1840		
		P			4,18	3,82	3,44	3,04	2,63	2,22	1,82		
	30	Q	15800	13300	11100	9130	7450	5990	4750	3680	2770	2000	
		P	3,16	3,13	3,05	2,92	2,74	2,53	2,30	2,04	1,77	1,51	
HG22P/190-4 S HC	40	Q	14000	11800	9800	8080	6580	5280	4150	3180	2330	1590	
		P	3,93	3,79	3,60	3,37	3,10	2,81	2,49	2,17	1,84	1,53	
	50	Q	12300	10300	8530	7020	5700	4540	3530	2640	1850		
		P	4,65	4,39	4,10	3,77	3,41	3,04	2,65	2,26	1,88		
HG34P/215-4 HC	30	Q		14700	12200	9990	8090	6440	5030	3820	2800	1940	
		P		3,49	3,39	3,23	3,01	2,75	2,46	2,14	1,82	1,49	
	40	Q		13000	10700	8740	7040	5560	4290	3190	2250	1440	
		P		4,19	3,96	3,68	3,35	2,99	2,61	2,21	1,81	1,41	
HG34P/215-4 S HC	50	Q			9230	7500	5990	4680	3540	2550	1690		
		P			4,43	4,03	3,60	3,14	2,67	2,19	1,72		
	30	Q	17600	14800	12300	10100	8100	6450	5040	3830	2800	1940	
		P	3,51	3,47	3,37	3,21	3,01	2,76	2,48	2,18	1,86	1,52	
HG34P/215-4 S HC	40	Q	15600	13000	10800	8760	7050	5580	4310	3210	2270	1440	
		P	4,29	4,12	3,90	3,63	3,32	2,98	2,61	2,23	1,85	1,46	
	50	Q	13500	11200	9200	7480	5990	4690	3560	2570	1700		
		P	4,97	4,67	4,33	3,96	3,55	3,12	2,68	2,23	1,78		
HG34P/255-4 HC	30	Q		17400	14500	11900	9650	7710	6050	4630	3430	2410	
		P		4,13	4,02	3,83	3,58	3,28	2,95	2,59	2,21	1,84	
	40	Q		15400	12800	10500	8430	6690	5200	3910	2800	1850	
		P		4,97	4,70	4,37	3,99	3,58	3,14	2,69	2,23	1,79	
HG34P/255-4 S HC	50	Q			11000	8970	7200	5660	4330	3170	2160		
		P			5,29	4,82	4,31	3,79	3,25	2,71	2,18		
	30	Q	20800	17500	14500	12000	9670	7730	6070	4650	3450	2430	
		P	4,12	4,09	3,99	3,81	3,57	3,29	2,97	2,62	2,25	1,89	
HG34P/255-4 S HC	40	Q	18400	15400	12800	10500	8470	6730	5230	3940	2820	1840	
		P	5,06	4,88	4,63	4,32	3,96	3,57	3,15	2,71	2,27	1,84	
	50	Q	16000	13400	11100	9000	7240	5700	4360	3190	2150		
		P	5,89	5,56	5,17	4,74	4,27	3,77	3,25	2,73	2,22		
HG34P/315-4 HC	30	Q		21700	18100	14900	12100	9640	7580	5810	4310	3040	
		P		5,11	4,97	4,75	4,46	4,11	3,72	3,29	2,85	2,40	
	40	Q		19200	15900	13100	10600	8370	6510	4910	3530	2340	
		P		6,10	5,79	5,41	4,97	4,49	3,98	3,45	2,91	2,37	
HG34P/315-4 S HC	50	Q			13800	11300	9020	7100	5440	4000	2750		
		P			6,50	5,97	5,39	4,78	4,15	3,52	2,89		
	30	Q	25800	21700	18100	14900	12100	9690	7620	5850	4340	3050	
		P	5,05	5,03	4,91	4,71	4,44	4,11	3,74	3,33	2,90	2,45	
HG34P/315-4 S HC	40	Q	22900	19200	16000	13100	10600	8450	6580	4960	3560	2340	
		P	6,17	5,97	5,69	5,34	4,94	4,49	4,00	3,49	2,97	2,45	
	50	Q	19900	16700	13800	11300	9080	7170	5500	4030	2730		
		P	7,15	6,79	6,37	5,88	5,35	4,78	4,19	3,59	2,99		
HG34P/380-4 HC	30	Q		26400	22000	18200	14800	11900	9420	7300	5500	3970	
		P		6,16	6,04	5,80	5,48	5,08	4,63	4,14	3,63	3,11	
	40	Q		23400	19500	16100	13100	10500	8180	6250	4590	3140	
		P		7,34	7,02	6,61	6,12	5,58	4,99	4,39	3,78	3,17	
HG34P/380-4 S HC	50	Q			17000	13900	11300	8950	6950	5210	3680		
		P			7,88	7,30	6,66	5,99	5,28	4,57	3,87		
	30	Q	31600	26600	22200	18400	15000	12100	9550	7410	5580	4020	
		P	6,18	6,16	6,02	5,79	5,47	5,08	4,63	4,15	3,64	3,13	
HG34P/380-4 S HC	40	Q	28100	23600	19700	16300	13300	10700	8360	6400	4690	3190	
		P	7,55	7,33	7,00	6,59	6,11	5,57	4,99	4,39	3,78	3,17	
	50	Q	24500	20600	17100	14100	11500	9110	7090	5300	3710		
		P	8,79	8,37	7,87	7,29	6,66	5,98	5,28	4,57	3,87		

Relating to 20 °C suction gas temperature
without liquid subcooling

 Supplementary cooling or
reduced suction gas temperature

 Supplementary cooling and
reduced suction gas temperature

R1270			Performance data										50 Hz
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_o$ [W]					Power consumption P_e [kW]					
			Evaporating temperature °C										
			0	-5	-10	-15	-20	-25	-30	-35	-40	-45	
HG4/465-4 HC	30	Q		32700	27300	22600	18500	14900	11900	9230	7000	5100	
		P		7,83	7,65	7,34	6,92	6,41	5,83	5,19	4,54	3,87	
	40	Q		29200	24300	20100	16400	13200	10400	7990	5920	4100	
		P		9,41	8,98	8,43	7,79	7,08	6,32	5,53	4,73	3,94	
	50	Q			21300	17500	14200	11400	8870	6690	4770		
		P			10,10	9,39	8,54	7,65	6,72	5,79	4,86		
HG4/465-4 S HC	30	Q		37700	31700	26400	21800	17800	14200	11200	8620	6450	4620
		P		7,55	7,49	7,29	6,97	6,54	6,03	5,46	4,83	4,17	3,49
	40	Q		33400	28100	23400	19200	15600	12500	9710	7370	5370	3640
		P		9,13	8,81	8,38	7,84	7,22	6,54	5,80	5,03	4,24	3,45
	50	Q		29100	24400	20300	16600	13400	10600	8180	6070	4230	
		P		10,40	9,91	9,27	8,54	7,74	6,90	6,02	5,12	4,23	
HG4/555-4 HC	30	Q		38100	31700	26000	21100	16900	13300	10200	7570	5360	
		P		8,96	8,72	8,33	7,81	7,18	6,47	5,70	4,90	4,09	
	40	Q		33700	27900	22900	18500	14700	11500	8620	6220	4140	
		P		10,60	10,10	9,45	8,66	7,80	6,87	5,91	4,94	3,98	
	50	Q			24200	19700	15800	12500	9530	7020	4820		
		P			11,20	10,30	9,32	8,23	7,10	5,96	4,83		
HG4/555-4 S HC	30	Q		44300	37100	30800	25200	20400	16200	12600	9530	6960	4810
		P		8,75	8,67	8,42	8,01	7,48	6,84	6,12	5,33	4,51	3,66
	40	Q		39100	32600	27000	22000	17700	13900	10700	7930	5570	3540
		P		10,50	10,10	9,63	8,96	8,18	7,31	6,37	5,40	4,40	3,41
	50	Q		33800	28100	23100	18700	14900	11700	8760	6290	4150	
		P		12,00	11,30	10,50	9,65	8,64	7,55	6,43	5,28	4,13	
HG4/650-4 HC	30	Q		45000	37400	30800	25100	20100	15900	12300	9240	6660	
		P		10,70	10,50	10,00	9,40	8,64	7,78	6,86	5,90	4,95	
	40	Q		39800	33100	27200	22000	17600	13800	10500	7650	5200	
		P		12,80	12,10	11,30	10,40	9,39	8,28	7,13	5,98	4,86	
	50	Q			28700	23500	19000	15100	11600	8640	6040		
		P			13,60	12,40	11,20	9,95	8,61	7,26	5,94		
HG4/650-4 S HC	30	Q		52800	44300	36800	30200	24400	19400	15100	11500	8450	5980
		P		10,40	10,30	10,00	9,62	9,01	8,28	7,45	6,55	5,61	4,63
	40	Q		46700	39100	32300	26400	21200	16800	13000	9670	6960	4700
		P		12,60	12,10	11,50	10,70	9,87	8,89	7,83	6,72	5,59	4,45
	50	Q		40500	33700	27800	22600	18000	14100	10800	7880	5480	
		P		14,40	13,60	12,60	11,60	10,40	9,27	8,00	6,71	5,43	
HG5/725-4 HC	30	Q		50000	41600	34200	27700	22200	17400	13400	9900	7010	
		P		11,60	11,30	10,80	10,10	9,33	8,42	7,42	6,38	5,31	
	40	Q		44300	36700	30000	24300	19300	15000	11300	8100	5380	
		P		13,70	13,00	12,20	11,20	10,10	8,94	7,70	6,44	5,18	
	50	Q			31700	25800	20700	16300	12500	9160	6270		
		P			14,50	13,30	12,00	10,60	9,24	7,78	6,32		
HG5/725-4 S HC	30	Q		58100	48700	40500	33200	26900	21400	16700	12700	9300	6500
		P		11,50	11,40	11,00	10,50	9,87	9,05	8,12	7,12	6,07	4,99
	40	Q		51300	42900	35600	29100	23400	18500	14300	10700	7530	4910
		P		13,90	13,40	12,70	11,80	10,80	9,71	8,52	7,28	6,02	4,76
	50	Q		44500	37100	30600	24800	19900	15500	11800	8510	5710	
		P		15,90	15,00	13,90	12,70	11,40	10,10	8,69	7,24	5,80	
HG5/830-4 HC	30	Q		58100	48400	39900	32600	26300	20800	16200	12200	8820	
		P		13,60	13,30	12,70	11,90	11,00	10,00	8,90	7,74	6,58	
	40	Q		51600	42900	35300	28700	23000	18100	13900	10300	7100	
		P		16,30	15,50	14,50	13,40	12,10	10,70	9,37	7,97	6,61	
	50	Q			37400	30700	24800	19800	15400	11600	8240		
		P			17,40	16,00	14,50	12,90	11,30	9,67	8,06		
HG5/830-4 S HC	30	Q		67200	56400	46900	38600	31400	25100	19800	15200	11300	8010
		P		13,30	13,20	12,80	12,20	11,50	10,60	9,56	8,44	7,25	6,05
	40	Q		59600	49900	41400	34000	27500	21900	17100	12900	9280	6190
		P		16,10	15,60	14,80	13,80	12,70	11,40	10,10	8,72	7,30	5,89
	50	Q		51800	43300	35800	29200	23500	18600	14300	10600	7240	
		P		18,60	17,60	16,40	15,00	13,60	12,00	10,40	8,79	7,16	

Relating to 20 °C suction gas temperature
without liquid subcooling

 Supplementary cooling or
reduced suction gas temperature

 Supplementary cooling and
reduced suction gas temperature

R1270			Performance data										50 Hz
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_0$ [W]					Power consumption P_e [kW]					
			Evaporating temperature °C										
			0	-5	-10	-15	-20	-25	-30	-35	-40	-45	
HG5/945-4 HC	30	Q		65500	54500	44900	36600	29400	23300	18000	13600	9850	
		P		15,60	15,20	14,50	13,50	12,40	11,20	9,86	8,49	7,13	
	40	Q		58100	48200	39600	32200	25700	20200	15400	11400	7770	
		P		18,60	17,60	16,40	15,00	13,50	11,90	10,20	8,61	7,01	
	50	Q			41900	34400	27800	22100	17100	12800	9020		
		P			19,70	18,10	16,20	14,30	12,40	10,40	8,55		
HG5/945-4 S HC	30	Q	76300	64200	53500	44100	35900	28800	22700	17500	13100	9400	
		P	15,10	15,00	14,60	14,00	13,10	12,10	10,90	9,68	8,34	6,97	
	40	Q	67700	56800	47300	38900	31600	25200	19700	15000	11000	7430	
		P	18,30	17,70	16,80	15,70	14,50	13,10	11,60	10,00	8,44	6,86	
	50	Q	59000	49400	41000	33600	27100	21500	16600	12400	8640		
		P	21,00	19,90	18,60	17,10	15,50	13,70	12,00	10,20	8,40		
HG6/1080-4 HC	30	Q		74100	61400	50300	40700	32400	25300	19300	14300	10000	
		P		17,10	16,60	15,80	14,70	13,40	12,00	10,50	9,00	7,42	
	40	Q		65400	54000	44100	35400	28000	21700	16200	11600	7620	
		P		20,20	19,10	17,80	16,20	14,50	12,70	10,80	8,94	7,07	
	50	Q			46500	37800	30200	23600	18000	13100	8920		
		P			21,10	19,30	17,30	15,10	13,00	10,70	8,60		
HG6/1080-4 S HC	30	Q	86300	72300	59900	49100	39600	31400	24400	18400	13400	9210	
		P	17,00	16,80	16,30	15,50	14,50	13,20	11,80	10,30	8,82	7,21	
	40	Q	76100	63500	52500	42700	34300	27000	20700	15300	10700	6800	
		P	20,40	19,70	18,60	17,30	15,80	14,10	12,30	10,50	8,61	6,72	
	50	Q	65700	54600	44900	36300	28900	22500	16900	12100	7930		
		P	23,20	21,90	20,30	18,60	16,60	14,60	12,40	10,20	8,12		
HG6/1240-4 HC	30	Q		84800	70300	57700	46800	37400	29300	22500	16700	11900	
		P		19,70	19,10	18,20	17,00	15,50	13,90	12,20	10,30	8,58	
	40	Q		74900	61900	50600	40800	32400	25200	19000	13800	9180	
		P		23,40	22,10	20,60	18,80	16,80	14,70	12,50	10,30	8,22	
	50	Q			53400	43500	34800	27400	21000	15500	10700		
		P			24,50	22,40	20,00	17,50	15,00	12,40	9,97		
HG6/1240-4 S HC	30	Q	102000	84700	70300	57700	46600	37100	29000	22100	16300	11500	
		P	19,80	19,60	19,00	18,10	16,90	15,50	13,90	12,20	10,40	8,58	
	40	Q	89400	74700	61800	50500	40700	32200	24800	18600	13300	8690	
		P	24,10	23,20	21,90	20,40	18,60	16,70	14,60	12,40	10,30	8,16	
	50	Q	77400	64500	53100	43200	34500	27000	20600	15000	10200		
		P	27,70	26,10	24,30	22,10	19,80	17,40	14,90	12,30	9,86		
HG6/1410-4 HC	30	Q		95800	79300	65000	52600	42000	32900	25200	18800	13300	
		P		22,50	21,80	20,60	19,20	17,50	15,60	13,60	11,40	9,26	
	40	Q		84300	69600	56800	45800	36300	28100	21200	15300	10100	
		P		26,70	25,20	23,30	21,20	18,90	16,50	13,90	11,30	8,72	
	50	Q			59900	48700	39000	30600	23400	17200	11800		
		P			27,80	25,30	22,60	19,70	16,70	13,70	10,70		
HG6/1410-4 S HC	30	Q	115000	96200	79900	65500	53100	42300	33100	25300	18700	13200	
		P	22,50	22,30	21,70	20,60	19,30	17,70	15,90	14,00	11,90	9,89	
	40	Q	102000	84800	70200	57400	46300	36700	28400	21400	15300	10100	
		P	27,20	26,10	24,80	23,10	21,10	19,00	16,60	14,20	11,80	9,42	
	50	Q	87800	73200	60400	49200	39500	31000	23700	17300	11800		
		P	31,00	29,20	27,20	24,90	22,40	19,70	16,90	14,10	11,40		
HG7/1620-4 HC	30	Q		109000	89800	73300	59000	46800	36400	27600	20200	14000	
		P		25,40	24,50	23,20	21,60	19,60	17,40	15,10	12,70	10,30	
	40	Q		95400	78500	63800	51100	40200	30800	22900	16200	10400	
		P		29,80	28,10	26,00	23,50	20,90	18,10	15,10	12,20	9,42	
	50	Q			67100	54200	43100	33500	25300	18200	12200		
		P			30,70	27,80	24,70	21,40	18,10	14,60	11,30		
HG7/1620-4 S HC	30	Q	131000	110000	91000	74600	60300	47900	37300	28200	20600	14200	
		P	26,10	25,80	25,00	23,90	22,30	20,40	18,40	16,10	13,70	11,30	
	40	Q	116000	96900	80000	65300	52400	41200	31700	23500	16500	10700	
		P	31,40	30,30	28,70	26,70	24,40	21,90	19,20	16,30	13,50	10,60	
	50	Q	101000	83500	68500	55400	44000	34200	25700	18500	12300		
		P	36,00	33,90	31,50	28,80	25,80	22,60	19,30	16,00	12,60		

Relating to 20 °C suction gas temperature
without liquid subcooling

 Supplementary cooling or
reduced suction gas temperature

 Supplementary cooling and
reduced suction gas temperature

R1270			Performance data									50 Hz
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_0$ [W]					Power consumption P_e [kW]				
			Evaporating temperature °C									
			0	-5	-10	-15	-20	-25	-30	-35	-40	-45
HG7/1860-4 HC	30	Q	125000	103000	83800	67600	53600	41800	31700	23300	16300	
		P	29,20	28,20	26,70	24,80	22,60	20,10	17,40	14,60	11,90	
	40	Q	110000	89800	73000	58500	46100	35500	26500	18800	12300	
		P	34,20	32,20	29,80	27,00	24,00	20,80	17,50	14,20	10,90	
	50	Q		76800	62100	49400	38500	29200	21200	14300		
		P		35,20	31,90	28,40	24,60	20,80	16,90	13,10		
	HG7/1860-4 S HC	30	Q	150000	126000	105000	85500	69200	55100	43000	32700	23900
		P	29,70	29,40	28,50	27,20	25,40	23,30	20,90	18,40	15,70	
40		Q	133000	111000	91700	74800	60200	47500	36600	27200	19200	
		P	35,70	34,40	32,60	30,30	27,70	24,90	21,80	18,60	15,40	
	50	Q	116000	95700	78600	63600	50700	39500	29800	21500	14400	
		P	40,80	38,50	35,80	32,70	29,30	25,70	22,00	18,20	14,50	
	HG7/2110-4 HC	30	Q		141000	117000	94900	76600	60800	47400	36100	26600
		P		33,50	32,40	30,60	28,50	25,90	23,00	20,00	16,80	
40		Q		124000	102000	82800	66500	52400	40400	30300	21600	
		P		39,30	37,00	34,20	31,00	27,60	23,90	20,10	16,30	
	50	Q			87300	70600	56300	44000	33500	24500	16700	
		P			40,50	36,70	32,60	28,30	23,90	19,50	15,20	
	HG7/2110-4 S HC	30	Q	171000	143000	119000	97500	79000	62900	49100	37400	27400
		P	34,00	33,60	32,60	31,00	29,00	26,60	23,90	21,00	17,90	
40		Q	152000	127000	105000	85400	68800	54300	41900	31300	22200	
		P	40,80	39,20	37,10	34,50	31,60	28,30	24,90	21,30	17,60	
	50	Q	132000	110000	89700	72800	58100	45300	34300	24900	16700	
		P	46,30	43,70	40,50	37,00	33,30	29,20	25,10	20,90	16,60	
	HG8/2470-4 HC	30	Q		166000	137000	112000	90000	71400	55500	42000	30800
		P		38,90	37,60	35,60	33,00	30,00	26,70	23,10	19,40	
40		Q		146000	120000	97300	77900	61200	47000	34900	24700	
		P		45,60	43,00	39,70	36,00	31,90	27,60	23,20	18,80	
	50	Q			103000	82600	65600	51000	38500	27800	18500	
		P			47,00	42,60	37,80	32,80	27,60	22,40	17,30	
	HG8/2470-4 S HC	30	Q	199000	167000	138000	113000	91200	72500	56600	43000	31500
		P	39,70	39,30	38,10	36,40	34,00	31,20	28,10	24,70	21,20	
40		Q	176000	147000	121000	98600	79100	62400	48100	35800	25200	
		P	47,80	46,00	43,60	40,70	37,20	33,40	29,40	25,10	20,80	
	50	Q	153000	127000	104000	83700	66600	51900	39200	28200	18700	
		P	54,70	51,70	48,00	43,90	39,50	34,70	29,80	24,80	19,80	
	HG8/2830-4 HC	30	Q		190000	157000	128000	103000	81700	63600	48300	35500
		P		45,10	43,70	41,40	38,50	35,00	31,10	26,90	22,60	
40		Q		167000	138000	112000	89200	70200	54000	40200	28600	
		P		53,00	49,90	46,20	41,90	37,20	32,20	27,00	21,90	
	50	Q			118000	94800	75300	58600	44400	32200	21800	
		P			54,70	49,50	44,00	38,10	32,10	26,10	20,10	
	HG8/2830-4 S HC	30	Q	227000	190000	158000	130000	105000	83000	64700	49200	36000
		P	45,60	45,10	43,80	41,70	39,00	35,70	32,10	28,10	24,00	
40		Q	201000	168000	139000	113000	90700	71500	55000	40900	29000	
		P	55,10	53,00	50,20	46,70	42,60	38,20	33,40	28,50	23,60	
	50	Q	175000	145000	119000	96000	76300	59400	44900	32400	21600	
		P	63,00	59,40	55,10	50,30	45,00	39,50	33,70	27,90	22,20	
	HG8/3220-4 HC	30	Q		214000	177000	145000	117000	92800	72400	55100	40600
		P		51,20	49,40	46,80	43,40	39,50	35,10	30,50	25,60	
40		Q		188000	155000	127000	102000	80100	61800	46200	32900	
		P		60,00	56,40	52,10	47,20	41,90	36,40	30,60	24,80	
	50	Q			133000	108000	86100	67300	51100	37300	25200	
		P			61,60	55,80	49,60	43,00	36,40	29,60	23,00	
	HG8/3220-4 S HC	30	Q	258000	217000	180000	148000	120000	94900	74200	56500	41500
		P	51,70	51,30	49,80	47,50	44,40	40,70	36,60	32,10	27,40	
40		Q	229000	191000	158000	129000	104000	81900	63300	47300	33600	
		P	62,50	60,20	57,00	53,10	48,60	43,50	38,20	32,60	26,90	
	50	Q	199000	165000	136000	110000	87400	68300	51800	37600	25200	
		P	71,50	67,50	62,70	57,30	51,40	45,10	38,50	31,90	25,30	

Relating to 20 °C suction gas temperature
without liquid subcooling



Supplementary cooling or
reduced suction gas temperature



Supplementary cooling and
reduced suction gas temperature

HC Type	Num- ber of cylinders	Displacement 50 / 60 Hz (1450 / 1740 rpm) m³/h	Electrical data				Weight kg	Connections ⑥		Oil charge Ltr.
			Voltage	Max. working current ②	Max. power consump- tion ②	Starting current (rotor locked)		Discharge line DV	Suction line SV	
			①	A	kW	A		mm inch	mm inch	
				Δ / Y		Δ / Y				
HG12P/60-4 S HC	2	5,40 / 6,40	③	6,8 / 3,9	2,2	40 / 23	48	12 1/2	16 5/8	0,8
HG12P/75-4 HC	2	6,70 / 8,10	③	7,1 / 4,1	2,3	40 / 23	49	12 1/2	16 5/8	0,8
HG12P/75-4 S HC	2	6,70 / 8,10	③	8,0 / 4,6	2,6	43 / 25	49	12 1/2	16 5/8	0,8
HG12P/90-4 HC	2	8,00 / 9,60	③	8,5 / 4,9	2,8	43 / 25	49	12 1/2	16 5/8	0,8
HG12P/90-4 S HC	2	8,00 / 9,60	③	9,1 / 5,3	3,0	45 / 26	49	12 1/2	16 5/8	0,8
HG12P/110-4 HC	2	9,40 / 11,30	③	9,2 / 5,3	3,1	43 / 25	48	12 1/2	16 5/8	0,8
HG12P/110-4 S HC	2	9,40 / 11,30	③	10,6 / 6,1	3,6	45 / 26	49	12 1/2	16 5/8	0,8
HG22P/125-4 HC	2	11,10 / 13,30	③	9,3 / 5,4	3,0	69 / 40	77	16 5/8	22 7/8	1,0
HG22P/125-4 S HC	2	11,10 / 13,30	③	10,8 / 6,2	3,6	69 / 40	77	16 5/8	22 7/8	1,0
HG22P/160-4 HC	2	13,70 / 16,40	③	11,3 / 6,5	3,8	69 / 40	77	16 5/8	22 7/8	1,0
HG22P/160-4 S HC	2	13,70 / 16,40	③	13,1 / 7,6	4,5	87 / 50	79	16 5/8	22 7/8	1,0
HG22P/190-4 HC	2	16,50 / 19,80	③	13,8 / 8,0	4,8	69 / 40	77	16 5/8	22 7/8	1,0
HG22P/190-4 S HC	2	16,50 / 19,80	③	16,2 / 9,4	5,6	87 / 50	78	16 5/8	22 7/8	1,0
HG34P/215-4 HC	4	18,80 / 22,60	③	14,0 / 8,1	4,8	87 / 50	92	22 7/8	28 1 1/8	1,3
HG34P/215-4 S HC	4	18,80 / 22,60	③	18,3 / 10,5	6,0	132 / 76	97	22 7/8	28 1 1/8	1,3
HG34P/255-4 HC	4	22,10 / 26,60	③	17,0 / 9,8	6,0	87 / 50	92	22 7/8	28 1 1/8	1,3
HG34P/255-4 S HC	4	22,10 / 26,60	③	21,1 / 12,2	7,2	132 / 76	96	22 7/8	28 1 1/8	1,3
HG34P/315-4 HC	4	27,30 / 32,80	③	21,1 / 12,2	7,4	111 / 64	94	22 7/8	28 1 1/8	1,3
HG34P/315-4 S HC	4	27,30 / 32,80	③	25,5 / 14,7	8,9	132 / 76	97	22 7/8	28 1 1/8	1,3
HG34P/380-4 HC	4	33,10 / 39,70	③	26,1 / 15,1	9,3	111 / 64	94	22 7/8	28 1 1/8	1,3
HG34P/380-4 S HC	4	33,10 / 39,70	③	31,2 / 18,0	11,1	132 / 76	97	22 7/8	28 1 1/8	1,3

HC Type	Num- ber of cylinders	Displacement 50 / 60 Hz (1450 / 1740 rpm)	Electrical data				Weight	Connections ⑥		Oil charge
			Voltage	Max. working current	Max. power consump- tion	Starting current (rotor locked)		Discharge line DV	Suction line SV	
			①	②	②	A		mm inch	mm inch	
				A	kW	A				
		m³/h		* PW 1+2		*PW1 / PW 1+2	kg			Ltr.
HG4/465-4 HC	4	40,50 / 48,60	④	20	11,8	57 / 75	149	28 1 1/8	35 1 3/8	2,7
HG4/465-4 S HC	4	40,50 / 48,60	④	25	14,2	82 / 107	152	28 1 1/8	35 1 3/8	2,7
HG4/555-4 HC	4	48,20 / 57,80	④	24	14,1	82 / 107	151	28 1 1/8	35 1 3/8	2,7
HG4/555-4 S HC	4	48,20 / 57,80	④	30	16,9	107 / 140	154	28 1 1/8	35 1 3/8	2,7
HG4/650-4 HC	4	56,60 / 67,90	④	29	16,8	82 / 107	153	28 1 1/8	42 1 5/8	2,7
HG4/650-4 S HC	4	56,60 / 67,90	④	37	20,9	107 / 140	156	28 1 1/8	42 1 5/8	2,7
HG5/725-4 HC	4	62,90 / 75,50	④	30	17,2	82 / 107	198	28 1 1/8	42 1 5/8	3,6
HG5/725-4 S HC	4	62,90 / 75,50	④	37	21,0	107 / 140	201	28 1 1/8	42 1 5/8	3,6
HG5/830-4 HC	4	72,20 / 86,70	④	35	20,3	82 / 107	197	28 1 1/8	42 1 5/8	3,6
HG5/830-4 S HC	4	72,20 / 86,70	④	42	24,5	126 / 160	203	28 1 1/8	42 1 5/8	3,6
HG5/945-4 HC	4	82,20 / 98,60	④	42	23,9	107 / 140	201	35 1 3/8	54 2 1/8	3,6
HG5/945-4 S HC	4	82,20 / 98,60	④	49	28,6	126 / 160	205	35 1 3/8	54 2 1/8	3,6
HG6/1080-4 HC	4	93,70 / 112,40	④	48	27,7	149 / 189	218	35 1 3/8	54 2 1/8	3,6
HG6/1080-4 S HC	4	93,70 / 112,40	④	59	33,7	156 / 193	223	35 1 3/8	54 2 1/8	3,6
HG6/1240-4 HC	4	107,60 / 129,10	④	57	32,5	156 / 193	222	35 1 3/8	54 2 1/8	3,6
HG6/1240-4 S HC	4	107,60 / 129,10	④	75	41,8	204 / 250	224	35 1 3/8	54 2 1/8	3,6
HG6/1410-4 HC	4	122,40 / 146,90	④	65	38,3	156 / 193	219	35 1 3/8	54 2 1/8	3,6
HG6/1410-4 S HC	4	122,40 / 146,90	④	76	42,3	204 / 250	222	35 1 3/8	54 2 1/8	3,6
HG7/1620-4 HC	6	140,60 / 168,80	⑤	72	39,5	223 / 340	278	42 1 5/8	54 2 1/8	4,5
HG7/1620-4 S HC	6	140,60 / 168,80	⑤	83	47,4	268 / 373	299	42 1 5/8	54 2 1/8	4,5
HG7/1860-4 HC	6	161,40 / 193,70	⑤	80	45,8	268 / 373	296	42 1 5/8	54 2 1/8	4,5
HG7/1860-4 S HC	6	161,40 / 193,70	⑤	104	56,7	291 / 429	292	42 1 5/8	54 2 1/8	4,5
HG7/2110-4 HC	6	183,60 / 220,30	⑤	97	53,1	291 / 429	289	42 1 5/8	64 2 5/8	4,5
HG7/2110-4 S HC	6	183,60 / 220,30	⑤	119	65,6	344 / 500	297	42 1 5/8	64 2 5/8	4,5
HG8/2470-4 HC	8	214,30 / 257,10	⑤	102	60,0	274 / 301	423	54 2 1/8	76 3 1/8	9,0
HG8/2470-4 S HC	8	214,30 / 257,10	⑤	145	76,1	475 / 551	423	54 2 1/8	76 3 1/8	9,0
HG8/2830-4 HC	8	245,90 / 295,10	⑤	151	79,0	475 / 551	420	54 2 1/8	76 3 1/8	9,0
HG8/2830-4 S HC	8	245,90 / 295,10	⑤	157	88,1	520 / 605	440	54 2 1/8	76 3 1/8	9,0
HG8/3220-4 HC	8	279,80 / 335,80	⑤	163	83,6	475 / 551	414	54 2 1/8	76 3 1/8	9,0
HG8/3220-4 S HC	8	279,80 / 335,80	⑤	176	101,4	520 / 605	434	54 2 1/8	76 3 1/8	9,0

* PW = Part Winding, motors for part winding start 1 = 1. part winding 2 = 2. part winding

Explanations

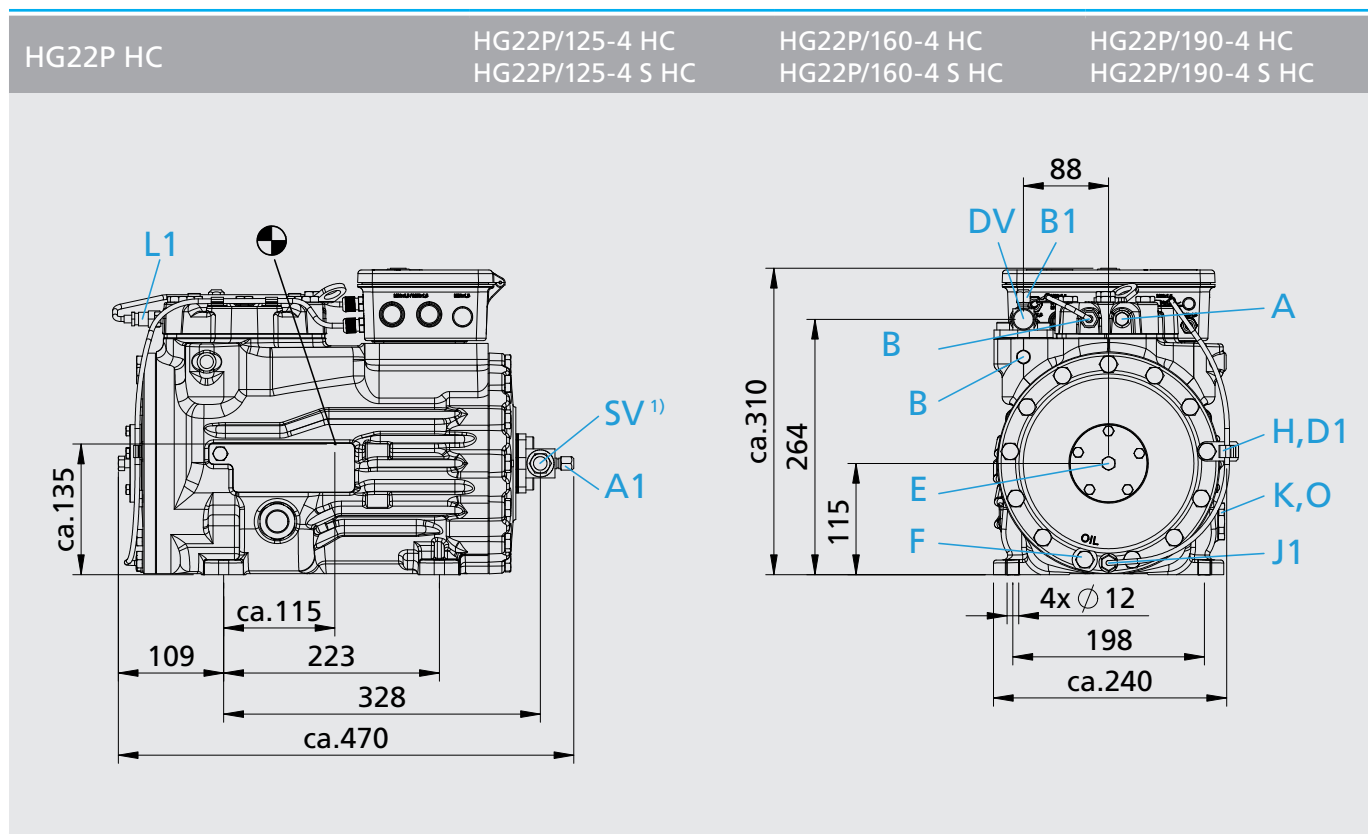
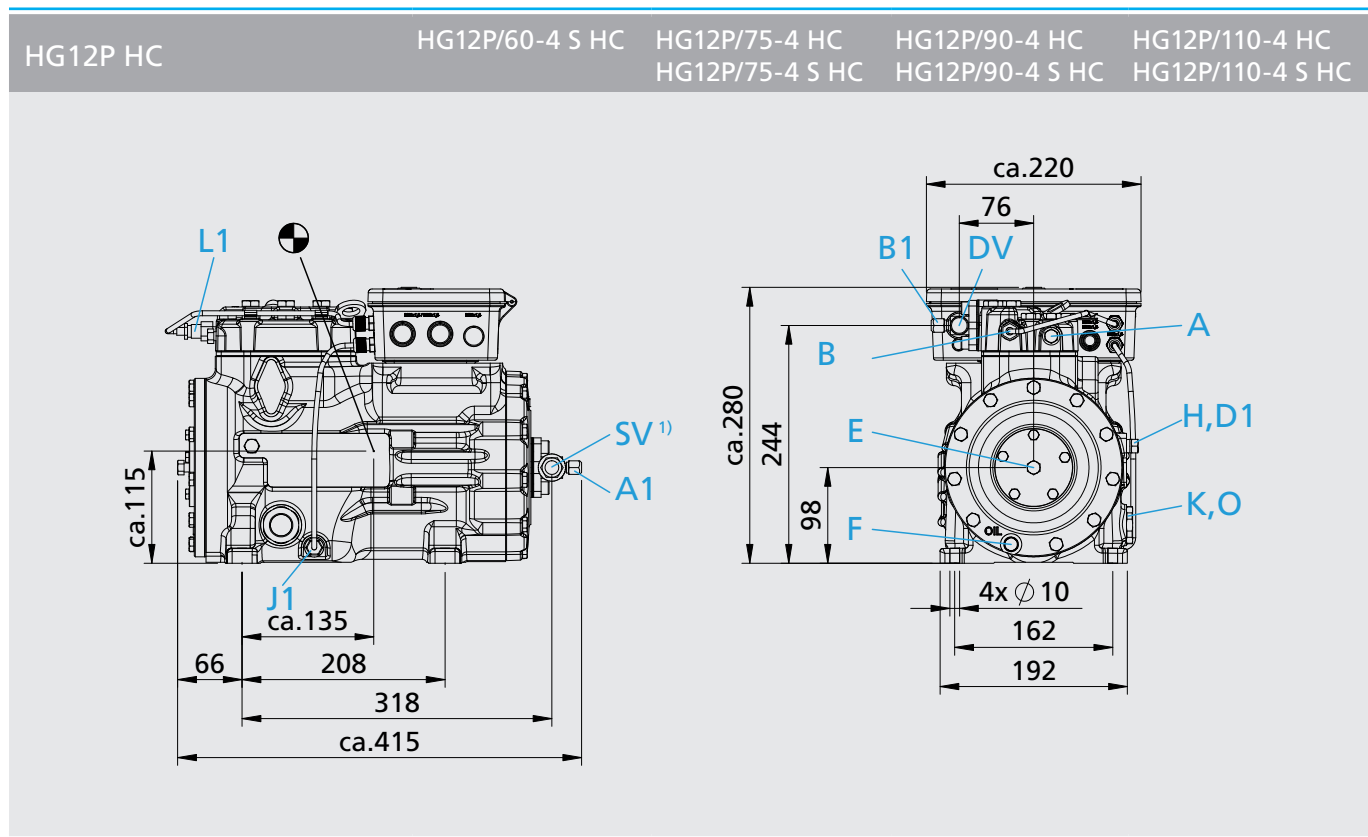
- ① Tolerance ($\pm 10\%$) relates to the mean value of the voltage range. Other voltages and current types on request.
- ② - The specifications for max. power consumption apply for 50 Hz operation. For 60 Hz operation, the specifications have to be multiplied by the factor 1.2.
The max. working current remains unchanged.
- Take account of the max. operating current / max. power consumption when designing contactors, leads and fuses.
Switches: service category AC3
- ③ 220-240 V Δ / 380-420 V Y - 3 - 50 Hz
265-290 V Δ / 440-480 V Y - 3 - 60 Hz
- ④ 380-420 V Y/YY - 3 - 50 Hz PW
440-480 V Y/YY - 3 - 60 Hz PW
PW = Part Winding, motors for part winding start (no start unloaders required)
- Winding ratio: HG4, HG5, HG6 = 66% / 33%
- Designs for Y/ Δ on request
- ⑤ 380-420 V Y/YY - 3 - 50 Hz PW
440-480 V Y/YY - 3 - 60 Hz PW
PW = Part Winding, motors for part winding start (no start unloaders required)
- Winding ratio: HG7, HG8 = 50% / 50%
- Designs for Y/ Δ on request
- ⑥ For soldering connections

Oil sump heater 110-240 V - 1 - 50/60 Hz (Option)

HG12P..HC, HG22P..HC, HG34P..HC: 50-120 W
PTC heater, self-regulating, installation in housing bore

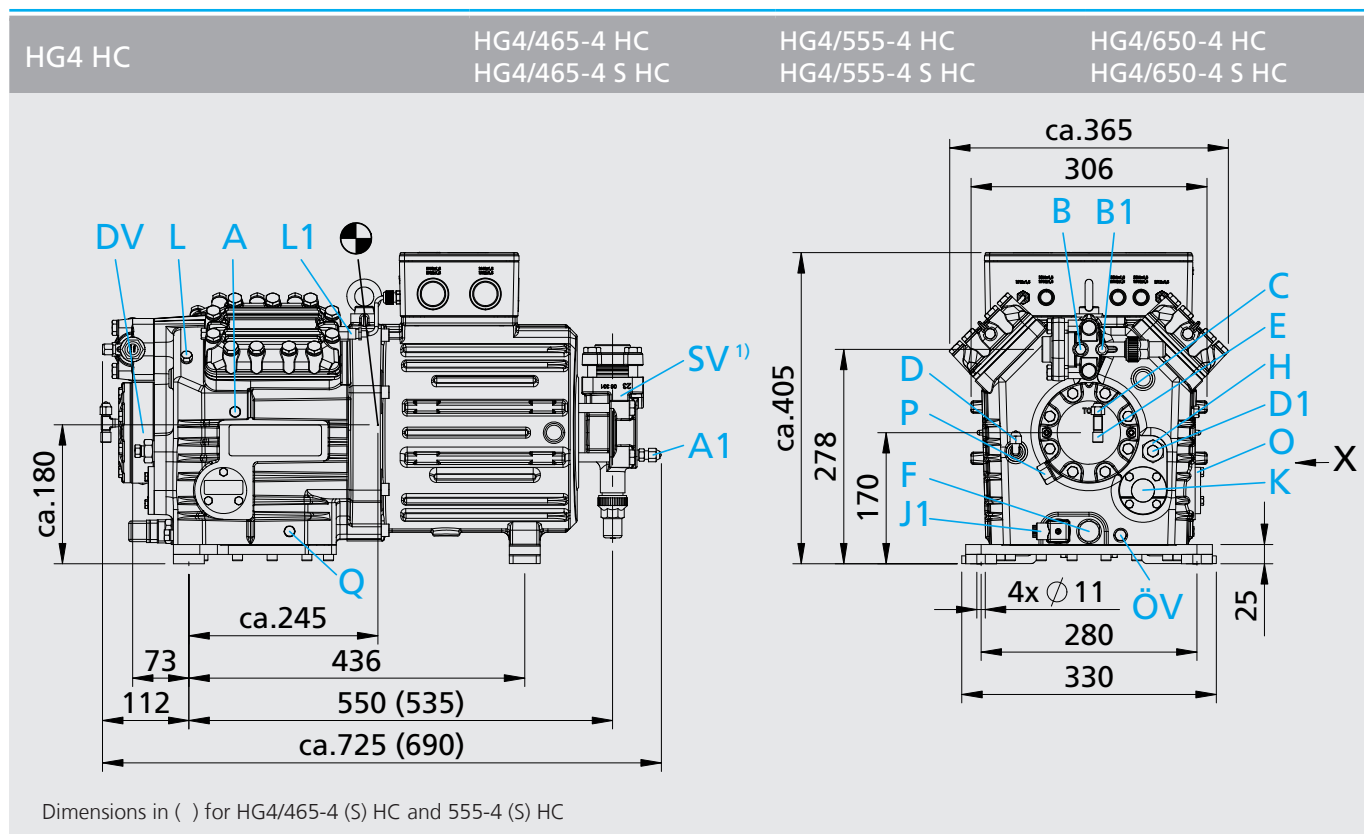
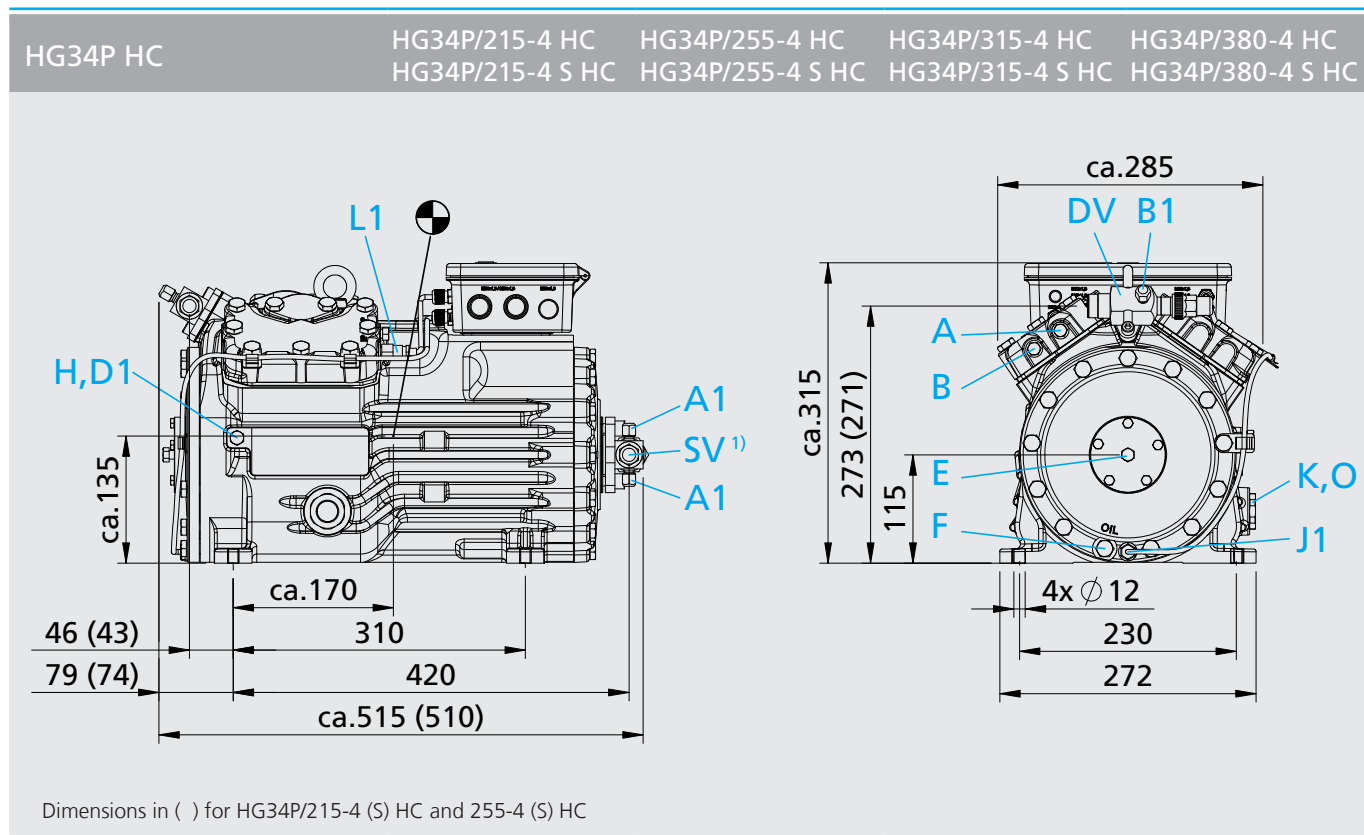
Oil sump heater 230 V - 1 - 50/60 Hz (Option)

HG4..HC: 80 W
HG5...HC, HG6...HC, HG7...HC: 140 W
HG8..HC: 200 W
Permanently set version, installation in immersion sleeve



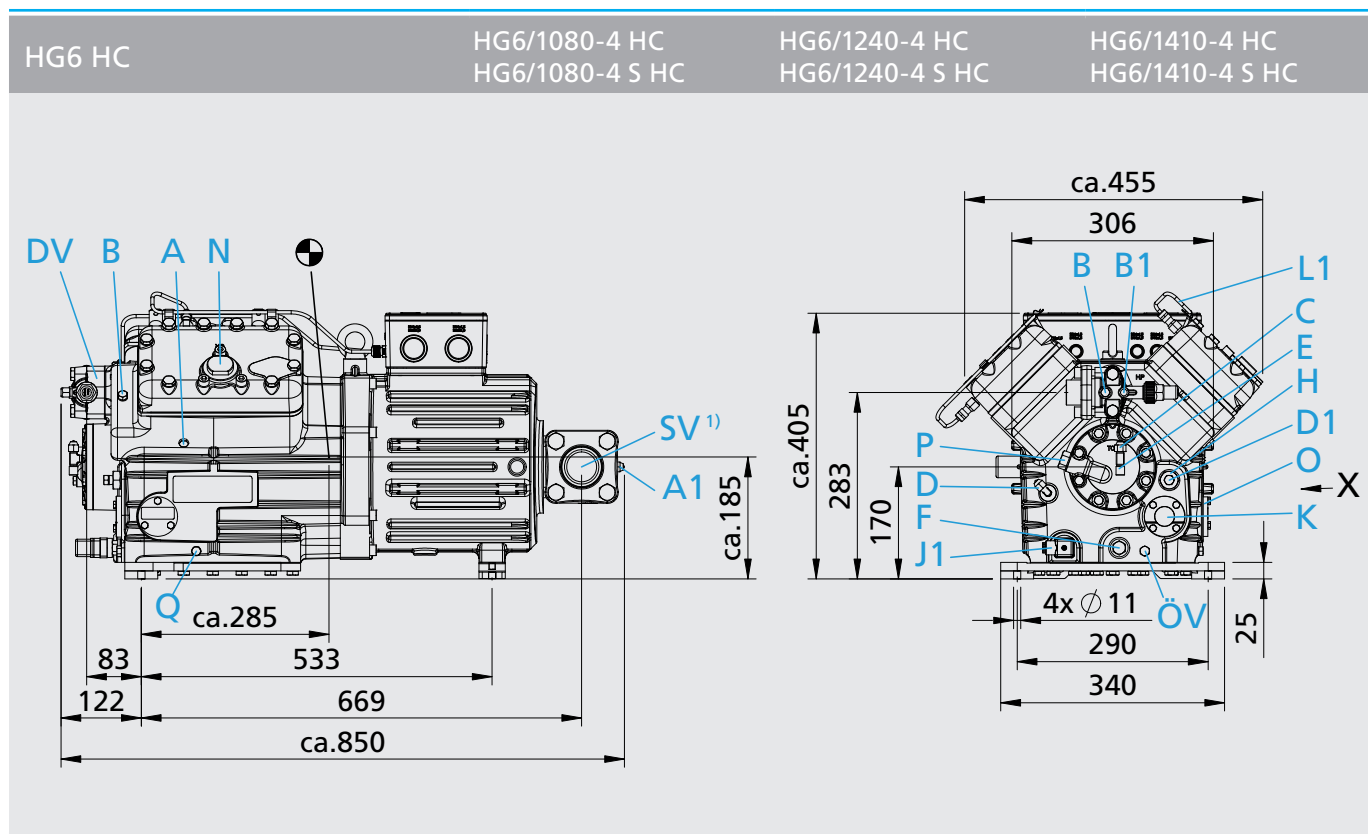
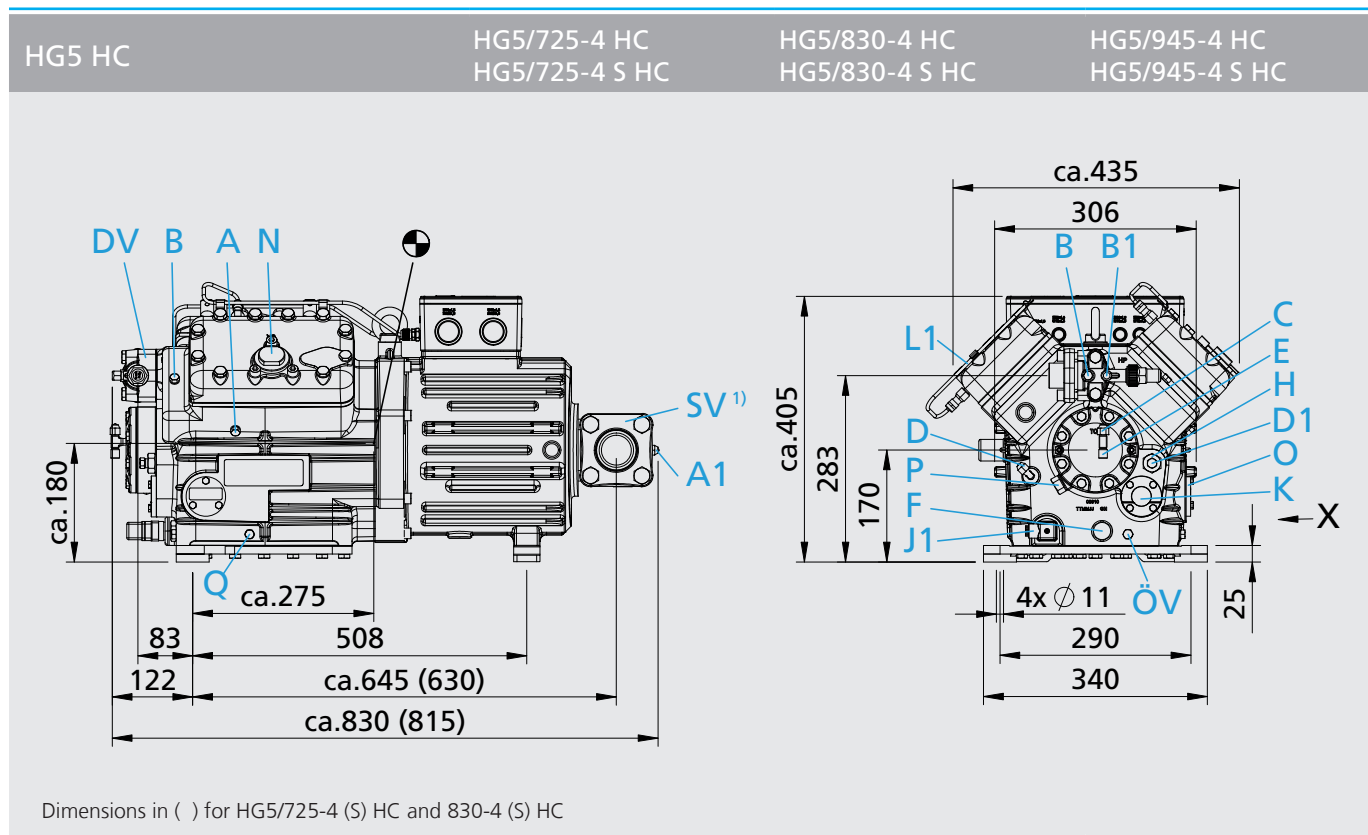
¹⁾ SV 90° rotatable
 ● Centre of gravity

Dimensions in mm



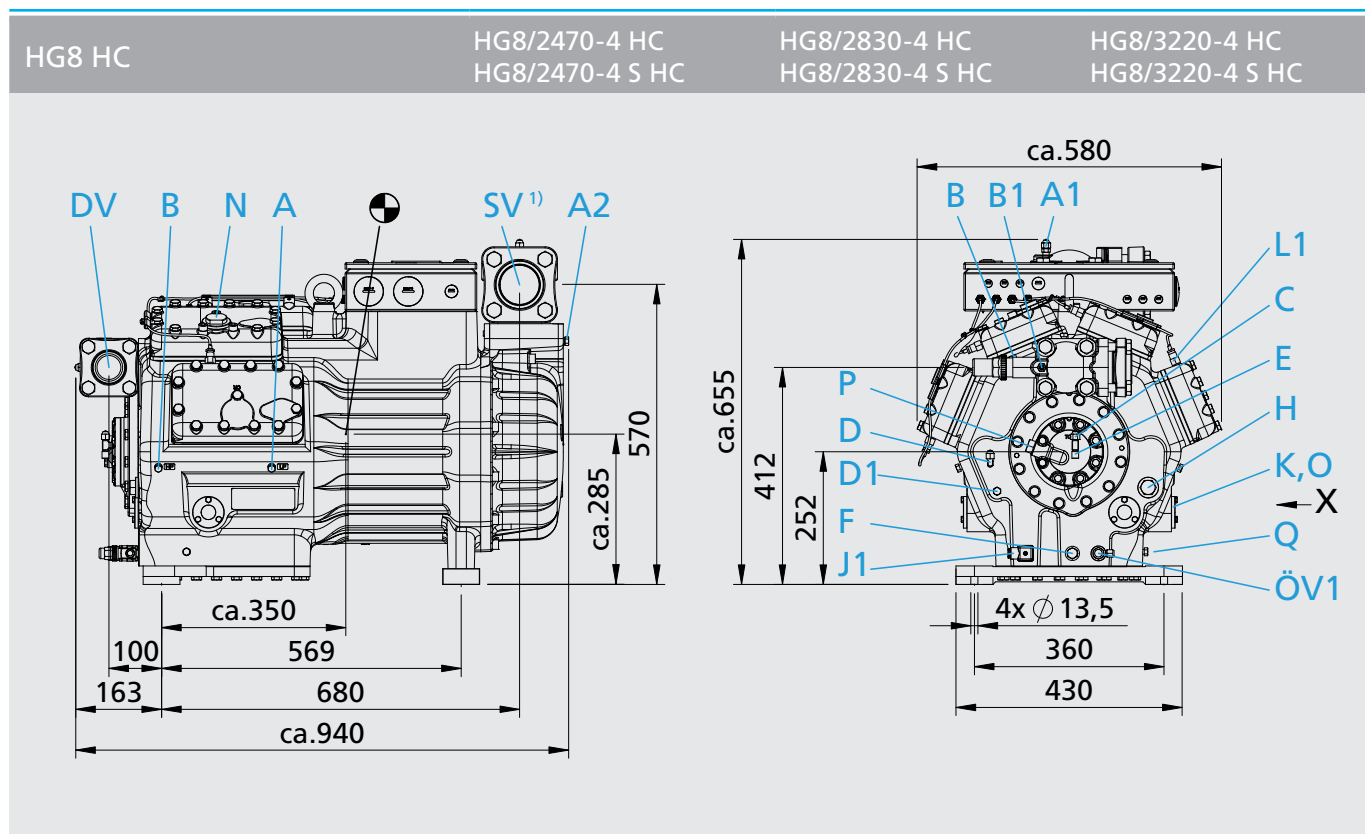
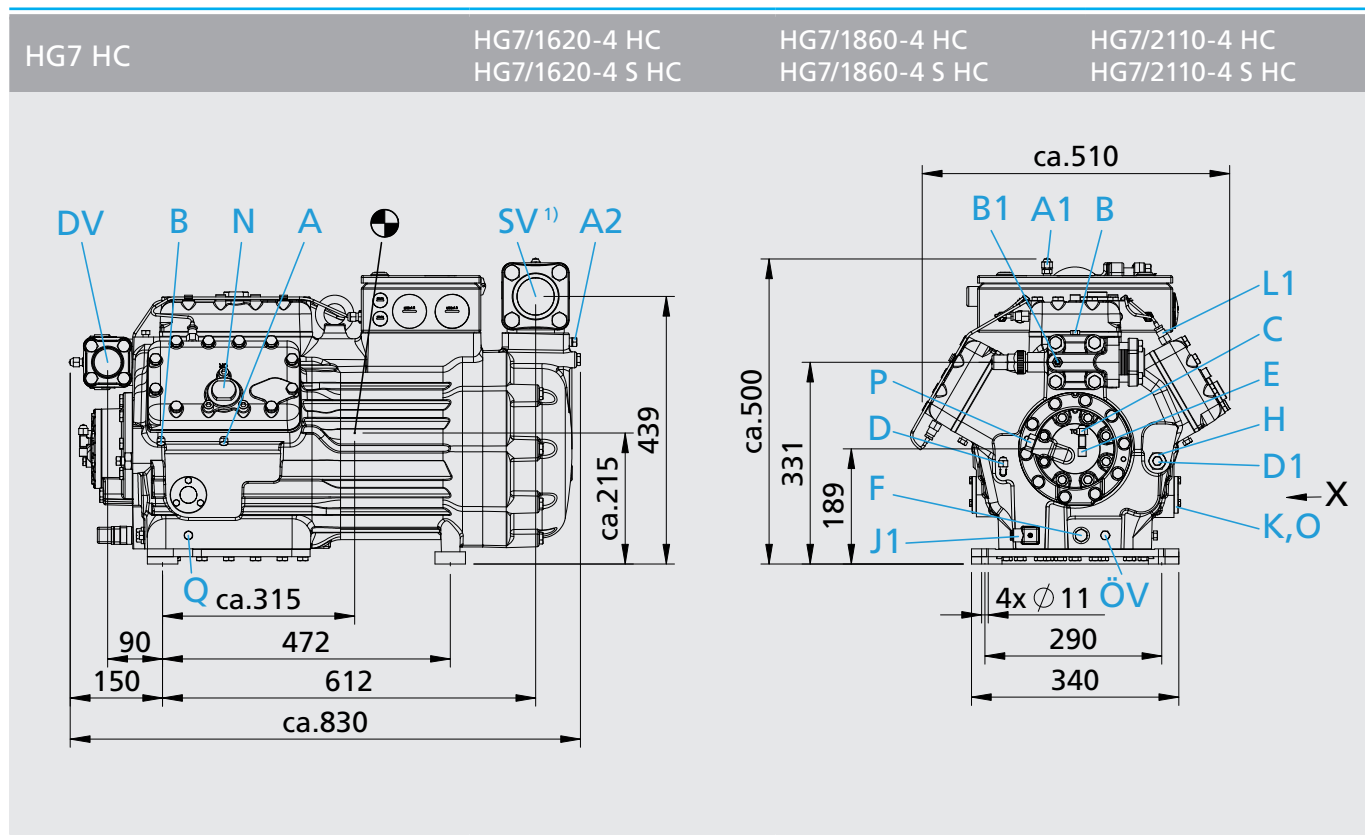
¹⁾ SV 90° rotatable
 Centre of gravity

Dimensions in mm
 - Dimensions for view X see page 23



¹⁾ SV 90° rotatable
 Centre of gravity

Dimensions in mm
 - Dimensions for view X see page 23



¹⁾ SV 90° rotatable
 ☉ Centre of gravity

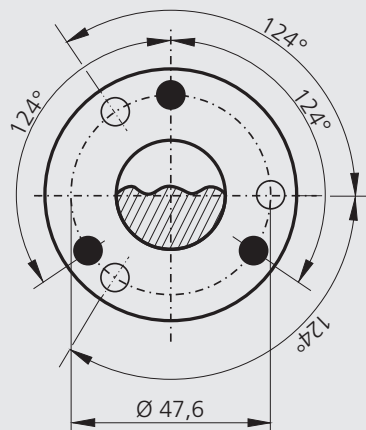
Dimensions in mm
 - Dimensions for view X see page 23

View X

Possibility to connect oil level regulator

**HG4...HC, HG5...HC, HG6...HC,
HG7...HC, HG8...HC**

- Three-hole connection for oil level regulator make ESK, AC+R, CARLY (3x M6, 10 deep)
- Three-hole connection for oil level regulator make TRAXOIL (3 x M6 x 10 deep)



Dimensions in mm

Connections		HG12P..HC	HG22P..HC	HG34P..HC	HG4..HC	HG5..HC	HG6..HC	HG7..HC	HG8..HC
SV	Suction line	please refer to Technical data page 16+17							
DV	Discharge line								
A	Connection suction side, not lockable	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF
A1	Connection suction side, lockable	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF
A2	Connection suction side, not lockable	-	-	-	-	-	-	1/4" NPTF	1/4" NPTF
B	Connection discharge side, not lockable	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF
B1	Connection discharge side, lockable	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF
C	Connection oil pressure safety switch OIL	-	-	-	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF
D	Connection oil pressure safety switch LP	-	-	-	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF
D1	Connection oil return from oil separator	1/4" NPTF	1/4" NPTF	1/4" NPTF	1/4" NPTF	1/4" NPTF	1/4" NPTF	1/4" NPTF	1/4" NPTF
E	Connection oil pressure gauge	1/8" NPTF	1/8" NPTF	1/8" NPTF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF	7/16" UNF
F	Oil drain	M 8	M 10	M 10	M 22 x 1,5	M 22 x 1,5	M 22 x 1,5	M 22 x 1,5	M 22 x 1,5
H	Oil charge plug	1/4" NPTF	1/4" NPTF	1/4" NPTF	M 22 x 1,5	M 22 x 1,5	M 22 x 1,5	M 22 x 1,5	M 33 x 2
J1	Oil sump heater (Accessories)	Ø 15 mm	Ø 15 mm	Ø 15 mm	M 22 x 1,5	M 22 x 1,5	M 22 x 1,5	M 22 x 1,5	M 22 x 1,5
K	Sight glass	1 1/8" - 18 UNEF	1 1/8" - 18 UNEF	1 1/8" - 18 UNEF	4 hole M 6	4 hole M 6	4 hole M 6	3 hole M 6	3 hole M 6
L1	Thermal protection thermostat (Accessories)	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF
N	Connection capacity controller	-	-	-	M 48 x 1,5	M 45 x 1,5	M 45 x 1,5	M 45 x 1,5	M 45 x 1,5
O	Connection oil level regulator	1 1/8" - 18 UNEF	1 1/8" - 18 UNEF	1 1/8" - 18 UNEF	①	①	①	①	①
ÖV	Connection oil service valve	-	-	-	1/4" NPTF	1/4" NPTF	1/4" NPTF	1/4" NPTF	-
ÖV1	Oil service valve	-	-	-	-	-	-	-	7/16" UNF
P	Connection oil pressure differential sensor	-	-	-	M 20 x 1,5	M 20 x 1,5	M 20 x 1,5	M 20 x 1,5	M 20 x 1,5
Q	Connection oil temperature sensor	-	-	-	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF	1/8" NPTF

① Dimensions see view X page 25

Attention:

Electric, respectively electronic components of the standard extent of delivery, from the accessories or that are obtained otherwise have to be handled and mounted in such a way that the corresponding regulations for the use of hydrocarbons are fulfilled.

Scope of supply	HG12P ...HC	HG22P ...HC	HG34P ...HC	HG4 ...HC	HG5 ...HC	HG6 ...HC	HG7 ...HC	HG8 ...HC
Semi-hermetic two cylinder reciprocating compressor with drive motor for direct start 220-240 V Δ / 380-420 V Y - 3 - 50 Hz 265-290 V Δ / 440-480 V Y - 3 - 60 Hz Single-section compressor housing with integrated electric motor	●	●						
Semi-hermetic four cylinder reciprocating compressor with drive motor for direct start 220-240 V Δ / 380-420 V Y - 3 - 50 Hz 265-290 V Δ / 440-480 V Y - 3 - 60 Hz Single-section compressor housing with integrated electric motor			●					
Semi-hermetic four cylinder reciprocating compressor with drive motor for part winding start 380-420 V Y/YY - 3 - 50 Hz 440-480 V Y/YY - 3 - 60 Hz Motor unit flanged onto the compressor housing				●	●	●		
Semi-hermetic six cylinder reciprocating compressor with drive motor for part winding start 380-420 V Y/YY - 3 - 50 Hz 440-480 V Y/YY - 3 - 60 Hz Single-section compressor housing with integrated electric motor							●	
Semi-hermetic eight cylinder reciprocating compressor with drive motor for part winding start 380-420 V Δ / YYY - 3 - 50 Hz 440-480 V Δ / YYY - 3 - 60 Hz Single-section compressor housing with integrated electric motor								●
Winding protection with PTC resistor sensors. Electronic triggering unit MP10 for installation in switch cabinet (enclosed)	●	●	●	●	●	●	●	●
Oil pump	●	●	●	●	●	●	●	●
Oil pump cover with screwed connection for differential oil pressure sensor (INT 250 Kriwan make)				●	●	●	●	●
Connection possibility of oil level controllers makes ESK, AC+R, CARLY oder Traxoil	● ¹⁾	● ¹⁾	● ¹⁾	● ²⁾	● ²⁾	● ²⁾	● ²⁾	● ²⁾
Oil service valve								●
Oil charge: HG: Fuchs Reniso Synth 68	●	●	●	●	●	●	●	●
Sight glass	●	●	●	●	●	●		
Two sight glasses							●	
Three sight glasses								●
Prepared for capacity regulator (1 cylinder cover)				●	●	●		
Prepared for capacity regulator (2 cylinder covers)							●	
Prepared for capacity regulator (3 cylinder covers)								●
Decompression valve				●	●	●	●	●
Suction and discharge line valve	●	●	●	●	●	●	●	●
Inert gas charge	●	●	●	●	●	●	●	●
4 anti-vibration pads enclosed	●	●	●	●	●	●	●	●

¹⁾ Adapter necessary

²⁾ Adapter for Traxoil necessary

Accessories	HG12P ...HC	HG22P ...HC	HG34P ...HC	HG4 ...HC	HG5 ...HC	HG6 ...HC	HG7 ...HC	HG8 ...HC
① Start unloader 230 V - 1 - 50/60 Hz, IP65, without check valve				●	●	●	●	●
② Start unloader by means of a ESS (Electronic Soft Start) IP20 (Connection clamps IP00) for installation in switch cabinet		●	●	●	●	●	● ¹⁾	
③ Capacity regulator 230 V - 1 - 50/60 Hz, IP65 1 Capacity regulator = 50% residual capacity			●	●	●	●		
Capacity regulator 230 V - 1 - 50/60 Hz, IP65 1-2 Capacity regulators = 66/33% residual capacity							●	
Capacity regulator 230 V - 1 - 50/60 Hz, IP65 1-3 Capacity regulators = 75/50/25% residual capacity								●
④ Thermal protective thermostat (PTC sensor) for each cylinder head	●	●	●	●	●	●	●	●
⑤ Oil sump heater 110-240 V - 1 - 50/60 Hz, 50-120 W PTC heater, self regulating	● ²⁾	● ²⁾	● ²⁾					
Oil sump heater 230 V - 1 - 50/60 Hz, 80 W				● ²⁾				
Oil sump heater 230 V - 1 - 50/60 Hz, 140 W					● ²⁾	● ²⁾	● ²⁾	
Oil sump heater 230 V - 1 - 50/60 Hz, 200 W								● ²⁾
⑥ Cylinder cover prepared for capacity regulator			●					
⑦ Oil differential pressure sensor (INT 250 Kriwan make)				●	●	●	●	●
⑧ Oil service valve				●	●	●	●	
⑨ Water-cooled cylinder covers				●	●	●	●	●
Sea water resistant water-cooled cylinder covers				●	●	●	●	●
⑩ Connection piece suction and discharge valve in welded construction				3)	3)	3)	3)	●
⑪ Intermediate adapter for discharge line valve				●	●	●	●	●
⑫ Additional fan 230 V Δ / 400 V Y - 3 - 50 Hz, 120 W, 230-265 V Δ / 400-460 V Y - 3 - 60 Hz, 190 W, IP54, Voltage range ± 10%	● ⁴⁾	● ⁴⁾	● ⁴⁾	● ⁴⁾	● ⁴⁾	● ⁴⁾	● ⁴⁾	● ⁴⁾
Special voltage and/or frequency (on request)	●	●	●	●	●	●	●	●

¹⁾ Not available HG7/2110-4 S

²⁾ necessary

³⁾ on request

⁴⁾ enclosed package

Attention:

Electric, respectively electronic components of the standard extent of delivery, from the accessories or that are obtained otherwise have to be handled and mounted in such a way that the corresponding regulations for the use of hydrocarbons are fulfilled.

Start unloader / Capacity regulator

① ③



ESS Electronic Soft Start

②



Thermal protection thermostat

④



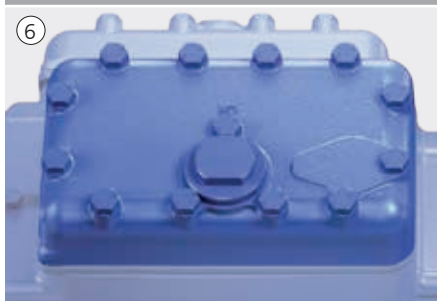
Oil sump heater (neccessary)

⑤



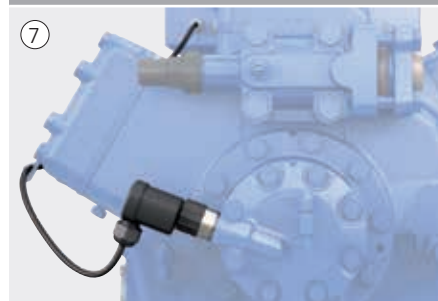
Preparation for capacity regulator

⑥



Oil pressure differential sensor

⑦



Oil service valve

⑧



Water-cooled cylinder covers

⑨



Connection piece in welded construction

⑩



Intermediate adapter for discharge line valve

⑪



Additional fan

⑫



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