

## **Semi-hermetic Bock Compressors**

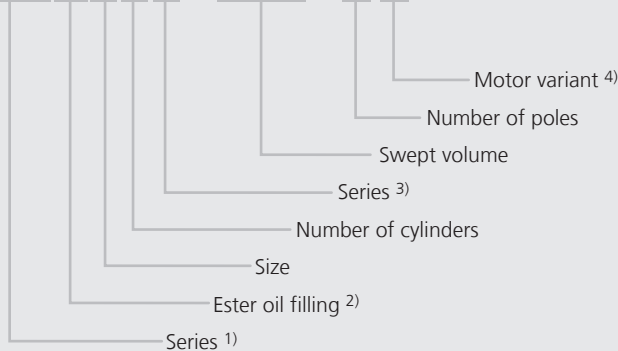
Single-stage and Two-stage Reciprocating Compressors HG (HA)



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Type key

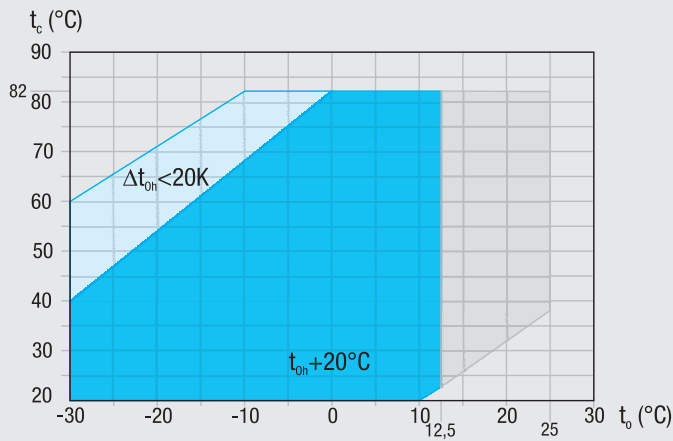
HGX34e / 215 - 4S



- 1) HG = Hermetic Gas-Cooled (suction gas-cooled)  
HA = Hermetic Air-Cooled (for deep-freezing)
- 2) X = Ester oil filling  
(HFC refrigerants e.g. R134a, R404A, R507, R407C)
- 3) e = Additional declaration for e-series compressors  
P = Additional declaration for Pluscom compressors
- 4) S = More powerful motor e.g. air-conditioning applications

R134a Operating limits

HGX12P / HGX22e / HGX34e  
HGX4 / HGX5 / HGX6 / HGX7 / HGX8



- Unlimited application range
- Supplementary cooling or reduced suction gas temperature
- Motor version -S- (more powerful motor)

- $t_o$  Evaporating temperature (°C)
- $t_c$  Condensing temperature (°C)
- $\Delta t_{oh}$  Suction gas superheat (K)
- $t_{oh}$  Suction gas temperature (°C)

1) LP = low pressure HP = high pressure

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

R134a Notes

Operating limits

Compressor operation is possible within the limits shown on the application diagrams. Please note the coloured areas. Compressor application limits should not be chosen for design purposes or continuous operation.

Restrictions to the operating limits may occur when using the Bock EFC (Electronic Frequency Control). Further explanation see separate brochure "Bock semi-hermetic compressors - Electronic Controls".

Performance data

The performance data for R134a are based on ISO-DIS 9309 (DIN 8928) with a 50 Hz power supply frequency. This signifies: 25 °C suction gas temperature without liquid subcooling.

For Pluscom compressors and HGX8/2470-4 operating at 50 Hz already comply with EN 12900. This signifies 20 °C suction gas temperature without liquid subcooling.

This results in significant differences compared to specifications with liquid undercooling and/or suction-gas temperatures.

A comprehensive modification to 20 °C suction gas temperature will follow at a later date.

Conversion factor for 60 Hz = 1,2

Performance data for other operating points, see GEA Bock software.

ASERCOM certified performance data



For compressors with this label, the performance data are certified according to the strict requirements of ASERCOM.

ASERCOM is the Association of European Refrigeration Compressors and Controls Manufacturers.

Information about the Association and the constantly updated overview of certified Bock compressors can be found at [www.asercom.org](http://www.asercom.org) and [www.bock.de](http://www.bock.de).

R134a		Performance data											50 Hz
Type	Cond. temp. °C	Cooling capacity $\dot{Q}_o$ [W]						Power consumption $P_e$ [kW]					
		Evaporating temperature °C											
		12,5	10	7,5	5	0	-5	-10	-15	-20	-25	-30	
HGX5/725-4	30	Q	57279	52351	47725	43390	35549	28736	22862	17835	13564	9960	6930
		P	10,01	9,65	9,30	8,97	8,34	7,75	7,18	6,62	6,04	5,45	4,81
	40	Q	51552	47064	42859	38926	31832	25690	20410	15901	12072	8834	6094
		P	11,27	10,84	10,42	10,01	9,23	8,48	7,75	7,02	6,28	5,51	4,69
	50	Q	44810	40821	37097	33626	27398	22047	17481	13610	10343	7589	5259
		P	12,58	12,05	11,54	11,04	10,07	9,13	8,20	7,27	6,32	5,34	4,31
60	Q	36939	33511	30327	27378	22136	17695	13963	10849	8264	6116	4314	
	P	13,92	13,29	12,67	12,06	10,87	9,71	8,55	7,38	6,19	4,97	3,69	
70	Q	27829	25020	22438	20070	15934	12523	9744	7508	5724			
	P	15,32	14,56	13,82	13,08	11,64	10,21	8,78	7,35	5,89			
HGX5/830-4	30	Q	65754	60097	54786	49810	40808	32988	26244	20474	15571	11433	7956
		P	11,49	11,08	10,68	10,30	9,58	8,90	8,24	7,59	6,94	6,25	5,53
	40	Q	59180	54028	49200	44686	36541	29491	23430	18254	13859	10141	6995
		P	12,94	12,44	11,96	11,49	10,60	9,74	8,90	8,06	7,21	6,32	5,39
	50	Q	51440	46861	42586	38601	31452	25309	20067	15623	11873	8712	6037
		P	14,44	13,83	13,25	12,67	11,56	10,48	9,42	8,35	7,26	6,13	4,95
60	Q	42405	38469	34814	31429	25412	20313	16029	12455	9487	7021	4952	
	P	15,98	15,26	14,55	13,85	12,48	11,14	9,81	8,47	7,11	5,70	4,24	
70	Q	31947	28722	25758	23040	18292	14376	11186	8619	6571			
	P	17,59	16,72	15,86	15,02	13,36	11,72	10,08	8,44	6,76			
HGX5/945-4	30	Q	74814	68376	62334	56673	46431	37533	29860	23294	17717	13009	9052
		P	13,08	12,60	12,15	11,71	10,89	10,12	9,38	8,64	7,89	7,12	6,29
	40	Q	67334	61471	55979	50842	41576	33554	26658	20768	15768	11538	7959
		P	14,73	14,16	13,61	13,08	12,06	11,08	10,12	9,17	8,20	7,19	6,13
	50	Q	58527	53317	48453	43920	35785	28796	22832	17776	13509	9913	6869
		P	16,43	15,74	15,07	14,42	13,16	11,93	10,71	9,50	8,26	6,98	5,64
60	Q	48247	43769	39611	35759	28913	23112	18237	14171	10794	7988	5635	
	P	18,19	17,36	16,55	15,76	14,20	12,68	11,16	9,64	8,09	6,49	4,82	
70	Q	36349	32680	29306	26214	20812	16356	12727	9807	7476			
	P	20,01	19,02	18,05	17,09	15,20	13,33	11,47	9,60	7,69			
HGX6/1080-4	30	Q	85736	78334	71386	64875	53098	42867	34049	26509	20114	14729	10219
		P	14,90	14,37	13,87	13,39	12,46	11,59	10,74	9,90	9,04	8,14	7,19
	40	Q	77231	70507	64206	58310	47666	38441	30501	23712	17939	13049	8906
		P	16,80	16,16	15,53	14,93	13,77	12,65	11,56	10,47	9,36	8,22	7,01
	50	Q	67028	61090	55541	50366	41068	33062	26213	20387	15449	11267	7704
		P	18,77	17,98	17,21	16,46	15,01	13,59	12,20	10,82	9,41	7,96	6,46
60	Q	54908	49861	45172	40824	33086	26510	20965	16315	12425	9163	6393	
	P	20,84	19,87	18,93	18,01	16,20	14,44	12,70	10,96	9,20	7,40	5,54	
70	Q	40651	36602	32879	29464	23497	18566	14537	11275	8647			
	P	23,02	21,85	20,71	19,59	17,38	15,22	13,08	10,93	8,77			
HGX6/1240-4	30	Q	98422	89924	81948	74474	60954	49209	39087	30432	23090	16908	11731
		P	17,10	16,50	15,92	15,37	14,31	13,31	12,33	11,36	10,38	9,35	8,25
	40	Q	88658	80940	73706	66937	54718	44128	35014	27220	20593	14979	10224
		P	19,29	18,55	17,83	17,14	15,81	14,52	13,27	12,02	10,75	9,43	8,05
	50	Q	76946	70129	63759	57818	47145	37954	30091	23403	17735	12934	8844
		P	21,55	20,64	19,76	18,90	17,23	15,61	14,01	12,42	10,80	9,14	7,41
60	Q	63033	57239	51856	46865	37981	30433	24067	18729	14264	10519	7339	
	P	23,92	22,81	21,73	20,67	18,60	16,58	14,58	12,58	10,56	8,50	6,36	
70	Q	46666	42017	37743	33824	26974	21313	16688	12944	9926			
	P	26,42	25,09	23,77	22,48	19,95	17,47	15,01	12,55	10,06			
HGX6/1410-4	30	Q	111982	102314	93239	84735	69352	55989	44472	34624	26271	19237	13347
		P	19,46	18,77	18,11	17,48	16,28	15,14	14,03	12,93	11,81	10,63	9,39
	40	Q	100873	92091	83861	76160	62257	50208	39838	30970	23431	17043	11632
		P	21,95	21,10	20,29	19,50	17,98	16,53	15,10	13,68	12,23	10,73	9,16
	50	Q	87547	79791	72544	65784	53640	43183	34237	26628	20179	14716	10062
		P	24,52	23,49	22,48	21,50	19,60	17,76	15,94	14,13	12,29	10,40	8,43
60	Q	71717	65125	59000	53322	43214	34626	27383	21309	16229	11968	8350	
	P	27,22	25,96	24,73	23,52	21,16	18,86	16,59	14,32	12,02	9,67	7,23	
70	Q	53096	47807	42943	38484	30690	24250	18987	14727	11294			
	P	30,06	28,54	27,05	25,58	22,70	19,88	17,08	14,28	11,45			
HGX7/1620-4	30	Q	121493	110976	101143	91966	75469	61262	49126	38837	30174	22916	16842
		P	16,46	16,72	16,84	16,83	16,46	15,69	14,61	13,32	11,90	10,44	9,03
	40	Q	108919	99297	90317	81950	66947	54067	43088	33788	25945	19339	13748
		P	21,03	20,91	20,66	20,30	19,29	17,97	16,41	14,72	12,99	11,29	9,73
	50	Q	95988	87281	79173	71637	58168	46654	36872	28600	21618	15703	10634
		P	25,19	24,70	24,11	23,42	21,82	19,98	17,99	15,95	13,94	12,05	10,37
60	Q	82743	74970	67755	61069	49175	39066	30521	23318	17235	12052	7545	
	P	28,86	28,03	27,11	26,12	23,97	21,65	19,28	16,92	14,68	12,64	10,89	
70	Q	69228	62411	56108	50292	40012	31348	24080	17985	12842			
	P	31,98	30,82	29,60	28,32	25,66	22,92	20,19	17,56	15,13			

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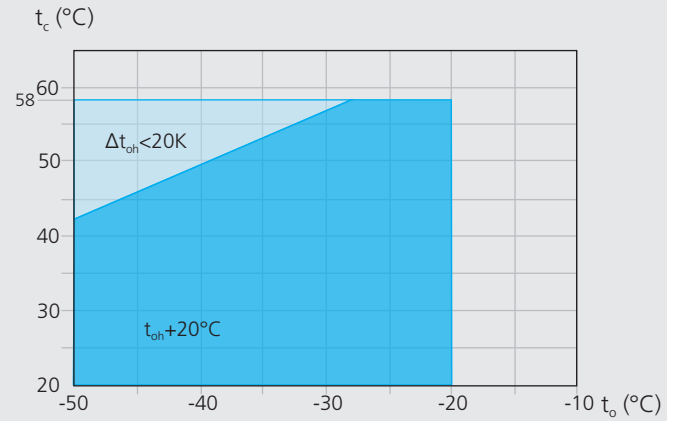
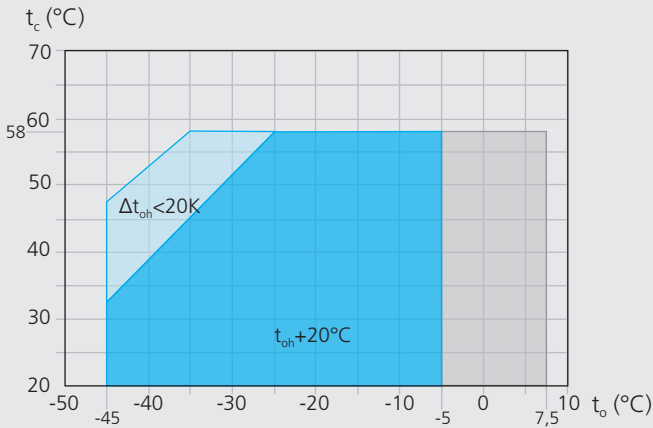
Relating to 25 °C suction gas temperature, without liquid subcooling

Supplementary cooling or reduced suction gas temp.

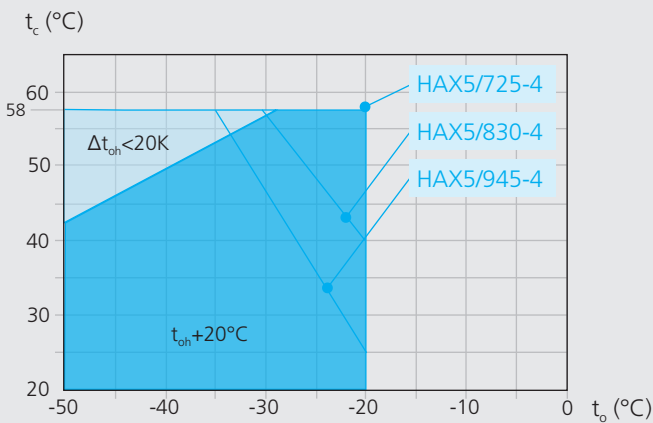
R404A/R507 Operating limits

HGX12P / HGX22e / HGX34e /  
HGX4 / HGX5 / HGX6<sup>①</sup> / HGX7 / HGX8<sup>②</sup>

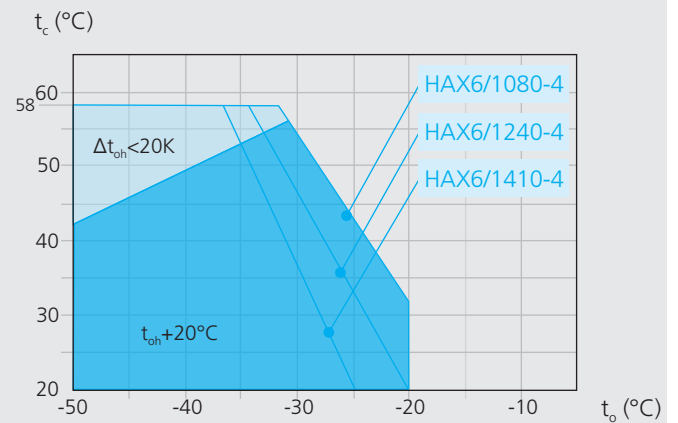
HAX12P / HAX22P / HAX34P / HAX4



HAX5



HAX6



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

<sup>1)</sup> LP = low pressure HP = high pressure

- ① **HGX6/1410-4S**  
Max. evaporating temperature  
 $t_o = 2\text{ °C}$   
**HGX6/1410-4**  
Max. evaporating temperature  
 $t_o = -7\text{ °C}$
- ② **HGX8/2830-4**  
Max. evaporating temperature  
 $t_o = 0\text{ °C}$

- Unlimited application range
- HG Supplementary cooling or reduced suction gas temperature
- HA reduced suction gas temperature
- Motor version -S- (more powerful motor)
- $t_o$  Evaporating temperature (°C)
- $t_c$  Condensing temperature (°C)
- $\Delta t_{oh}$  Suction gas superheat (K)
- $t_{oh}$  Suction gas temperature (°C)

R404A/R507		Performance data											50 Hz		
Type	Cond. temp. °C	Q	Cooling capacity $\dot{Q}_o$ [W]										Power consumption $P_e$ [kW]		
			Evaporating temperature °C												
			7,5	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	
HGX4/555-4 <sup>1)</sup>	30	Q	59014	54222	45450	37853	31129	25259	20184	15848	12194	9164	6702	4751	
		P	11,52	11,34	10,89	10,34	9,72	8,99	8,19	7,34	6,47	5,59	4,73	3,93	
		P	50452	46260	38616	32112	26279	21212	16857	13155	10050	7484	5401	3743	
HGX4/555-4 S <sup>1)</sup>	40	Q	13,64	13,29	12,51	11,84	10,88	9,86	8,81	7,74	6,69	5,67	4,72	3,85	
		P	41937	38348	31838	26484	21544	17286	13653	10589	8036	5938	4236		
		P	15,53	15,01	13,93	13,14	11,87	10,58	9,30	8,04	6,83	5,70	4,66		
HAX4/555-4	30	Q							21842	17569	13875	10713	8037	5799	
		P							8,84	7,84	6,87	5,93	5,01	4,12	
		P							18374	14675	11488	8766	6461	4528	
HAX4/555-4	40	Q							9,46	8,27	7,14	6,04	4,99	3,98	
		P							15013	11894	9220	6944	5018	3396	
		P							9,95	8,60	7,31	6,08	4,90	3,78	
HGX4/650-4 <sup>1)</sup>	30	Q	70903	65224	54821	44444	36811	30119	24302	19297	15039	11465	8510	6110	
		P	14,57	14,19	13,41	12,51	11,70	10,80	9,84	8,84	7,82	6,80	5,80	4,85	
		P	60855	55879	46795	37928	31232	25384	20322	15982	12298	9208	6647	4550	
HGX4/650-4 S <sup>1)</sup>	40	Q	16,80	16,29	15,22	14,30	13,15	11,94	10,70	9,45	8,21	7,01	5,86	4,79	
		P	50791	46523	38768	31303	25565	20586	16302	12650	9564	6980	4835		
		P	19,05	18,38	17,02	15,79	14,31	12,81	11,31	9,83	8,39	7,02	5,73		
HAX4/650-4	30	Q							24978	20136	15945	12352	9304	6747	
		P							9,71	8,62	7,57	6,54	5,55	4,57	
		P							21012	16819	13202	10107	7480	5268	
HAX4/650-4	40	Q							10,39	9,10	7,86	6,67	5,53	4,42	
		P							17167	13632	10596	8006	5809	3951	
		P							10,93	9,46	8,05	6,71	5,43	4,20	
HGX5/725-4 <sup>1)</sup>	30	Q	76254	70105	58815	48024	39230	31558	24934	19288	14546	10636	7486	5024	
		P	13,31	13,28	13,03	12,99	12,20	11,23	10,13	8,94	7,70	6,47	5,28	4,19	
		P	64689	59328	49517	40164	32541	25933	20266	15468	11467	8191	5568	3525	
HGX5/725-4 S <sup>1)</sup>	40	Q	16,28	16,01	15,29	14,87	13,61	12,22	10,76	9,25	7,76	6,32	4,98	3,78	
		P	53354	48782	40450	32498	26053	20515	15811	11869	8617	5982	3892		
		P	19,02	18,49	17,29	16,31	14,61	12,84	11,04	9,26	7,55	5,94	4,48		
HAX5/725-4	30	Q							26886	21437	16746	12756	9409	6644	
		P							10,67	9,42	8,19	7,01	5,86	4,75	
		P							22619	17905	13864	10437	7565	5189	
HAX5/725-4	40	Q							11,41	9,93	8,51	7,15	5,84	4,60	
		P							18487	14513	11125	8265	5874	3892	
		P							12,01	10,33	8,72	7,19	5,74	4,37	
HGX5/830-4 <sup>1)</sup>	30	Q	86623	79925	67508	54430	44830	36400	29056	22717	17300	12722	8900	5752	
		P	15,69	15,61	15,23	14,69	13,90	12,93	11,80	10,55	9,21	7,82	6,41	5,01	
		P	74069	68151	57216	45580	37311	30078	23798	18389	13769	9854	6561	3809	
HGX5/830-4 S <sup>1)</sup>	40	Q	19,30	18,89	17,91	16,93	15,69	14,28	12,75	11,13	9,45	7,74	6,04	4,38	
		P	61445	56332	46927	37034	30091	24051	18831	14348	10520	7263	4496		
		P	22,39	21,68	20,13	18,88	17,17	15,33	13,38	11,38	9,34	7,30	5,29		
HAX5/830-4	30	Q							30392	24266	19003	14530	10772	7655	
		P							12,06	10,65	9,29	7,96	6,67	5,43	
		P							25602	20281	15733	11882	8654	5976	
HAX5/830-4	40	Q							12,90	11,24	9,65	8,12	6,65	5,25	
		P									12641	9414	6718	4480	
		P									9,88	8,16	6,53	4,99	
HGX5/945-4 <sup>1)</sup>	30	Q	99975	91955	77277	63293	52168	42473	34090	26900	20783	15620	11291	7678	
		P	18,52	18,31	17,73	17,40	16,27	15,04	13,74	12,35	10,90	9,38	7,80	6,18	
		P	84751	77834	65213	52881	43552	35430	28395	22327	17107	12617	8737	5347	
HGX5/945-4 S <sup>1)</sup>	40	Q	22,17	21,71	20,66	19,84	18,30	16,69	14,99	13,23	11,40	9,52	7,59	5,61	
		P	69440	63623	53056	42757	35145	28515	22748	17723	13321	9424	5912		
		P	25,81	25,08	23,50	22,12	20,15	18,09	15,97	13,78	11,54	9,25	6,91		
HAX5/945-4	30	Q							27994	21989	16866	12548	8959		
		P							12,27	10,72	9,21	7,74	6,32		
		P									18205	13799	10088	6997	
HAX5/945-4	40	Q									11,13	9,39	7,71	6,11	
		P									10929	7834	5248		
		P									9,44	7,57	5,81		
HGX5/1080-4 <sup>1)</sup>	30	Q	113675	104548	87811	72501	59869	48801	39180	30889	23810	17826	12819	8672	
		P	22,05	21,89	21,27	20,82	19,21	17,56	15,88	14,16	12,40	10,60	8,76	6,86	
		P	96893	88944	74420	61734	50695	41062	32716	25541	19419	14233	9866	6200	
HGX5/1080-4 S <sup>1)</sup>	40	Q	26,74	26,17	24,80	23,74	21,61	19,46	17,30	15,13	12,94	10,72	8,49	6,22	
		P	80355	73583	61270	51086	41654	33468	26411	20366	15214	10840	7125		
		P	30,79	29,85	27,79	26,12	23,48	20,85	18,23	15,62	13,01	10,40	7,78		
HAX5/1080-4	30	Q							41973	33574	26360	20224	15061	10763	
		P							16,66	14,73	12,86	11,05	9,29	7,58	
		P								28072	21828	16539	12098	8401	
HAX5/1080-4	40	Q									13,36	11,27	9,26	7,33	
		P										17547	13107	9392	6297
		P										13,68	11,32	9,09	6,97

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Relating to 20 °C suction gas temp. without liquid subcooling

<sup>1)</sup> Compressors (R404A) are ASERCOM certified



Motor version -S- (more powerful motor)

Supplementary cooling or reduced suction gas temp.



R404A/R507		Performance data											50 Hz	
Type	Cond. temp. °C	Q P	Cooling capacity $\dot{Q}_0$ [W]										Power consumption $P_e$ [kW]	
			Evaporating temperature °C											
			7,5	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
HGX6/1240-4 <sup>1)</sup> HGX6/1240-4 S <sup>1)</sup>	30	Q	133368	122554	102765	83399	68935	56229	45169	35643	27538	20744	15146	10634
		P	27,78	27,28	26,04	23,70	22,26	20,54	18,62	16,56	14,43	12,29	10,21	8,25
	40	Q	113720	104299	87122	71042	58440	47422	37874	29684	22741	16931	12143	8265
	P	33,36	32,38	30,24	27,42	25,14	22,68	20,13	17,53	14,97	12,49	10,17	8,08	
	50	Q	94323	86295	71734	58323	47668	38420	30468	23698	17998	13257	9362	
	P	38,27	36,83	33,86	30,45	27,41	24,30	21,19		18,14	15,22	12,49	10,02	
HAX6/1240-4	30	Q								38742	30407	23329	17378	12423
		P								17,00	14,83	12,74	10,72	8,75
	40	Q									25193	19081	13958	9695
	P									15,43	13,01	10,69	8,48	
	50	Q									15126	10835	7265	
	P										13,08	10,49	8,05	
HGX6/1410-4 <sup>1)</sup> HGX6/1410-4 S <sup>1)</sup>	30	Q			112574	94071	76961	63138	51088	40671	31748	24176	17817	12528
		P			28,95	27,60	26,50	24,11	21,69	19,26	16,84	14,43	12,06	9,73
	40	Q			96228	80122	65316	53413	43056	34104	26417	19854	14276	9540
	P			33,76	31,54	30,24	26,98	23,78	20,67	17,65	14,74	11,96	9,32	
	50	Q			79925	66235	53148	43254	34677	27278	20915	15450	10739	
	P			37,91	34,88	33,29	29,21	25,29	21,54	17,98	14,63	11,49		
HAX6/1410-4	30	Q									33768	25918	19311	13807
		P									16,48	14,13	11,86	9,68
	40	Q										21163	15482	10756
	P										14,43	11,83	9,36	
	50	Q										16757	12003	8054
	P											14,53	11,62	8,90
HGX7/1620-4 <sup>1)</sup> HGX7/1620-4 S <sup>1)</sup>	30	Q	163130	150297	126636	106031	87518	71107	56728	44306	33770	25047	18065	12751
		P	32,39	32,05	30,98	30,00	28,31	26,22	23,83	21,24	18,56	15,88	13,30	10,93
	40	Q	139724	128531	107945	89756	73736	59585	47232	36603	27628	20232	14343	9890
	P	38,16	37,38	35,48	34,27	31,69	28,79	25,68	22,46	19,22	16,08	13,12	10,45	
	50	Q	115792	106272	88826	73671	60144	48254	37928	29093	21678	15609	10816	
	P	43,47	42,23	39,46	37,57	34,13	30,47	26,68	22,85	19,10	15,52	12,22		
HGX7/1860-4 <sup>1)</sup> HGX7/1860-4 S <sup>1)</sup>	30	Q	184191	169853	143432	119116	98208	79858	63906	50195	38563	28854	20907	14563
		P	37,41	37,14	36,15	35,68	32,91	30,00	27,00	23,95	20,89	17,88	14,95	12,15
	40	Q	157436	144933	121960	100333	82508	66907	53368	41734	31846	23543	16668	11061
	P	45,37	44,40	42,11	39,79	36,14	32,43	28,71	25,02	21,40	17,91	14,59	11,48	
	50	Q	130989	120333	100832	82100	67304	54394	43213	33601	25399	18448	12589	
	P	51,97	50,38	46,93	43,28	38,81	34,37	29,99	25,73	21,63	17,73	14,08		
HGX7/2110-4 <sup>1)</sup> HGX7/2110-4 S <sup>1)</sup>	30	Q	201969	186202	157288	130628	108549	89073	72027	57236	44527	33724	24655	17144
		P	46,49	45,47	43,22	40,64	37,84	34,82	31,63	28,33	24,95	21,53	18,14	14,81
	40	Q	173523	159904	134971	112651	93282	76227	61312	48362	37205	27665	19568	12741
	P	54,03	52,52	49,31	45,59	41,96	38,14	34,18	30,13	26,03	21,92	17,87	13,90	
	50	Q	144329	132872	111953	93475	77007	62564	49972	39055	29641	21555	14623	
	P	60,77	58,78	54,63	49,93	45,43	40,76	35,99	31,14	26,28	21,44	16,68		
HGX7/2470-4 <sup>1)</sup> HGX7/2470-4 S <sup>1)</sup>	30	Q	254335	233623	195759	157695	130257	106132	85092	66910	51360	38215	27249	18235
		P	53,08	52,10	49,73	47,03	43,16	39,21	35,21	31,15	27,05	22,90	18,73	14,53
	40	Q	216832	198811	165981	135212	111218	90157	71803	55931	42312	30721	20931	12715
	P	62,30	60,54	56,70	52,81	47,88	42,92	37,94	32,95	27,94	22,94	17,95	12,98	
	50	Q	179905	164564	136749	111576	91145	73270	57724	44281	32715	22799	14305	
	P	70,32	67,83	62,61	57,36	51,37	45,38	39,41	33,47	27,56	21,69	15,87		
HGX8/2830-4 <sup>1)</sup> HGX8/2830-4 S <sup>1)</sup>	30	Q	280334	258363	218657	182105	149962	121929	97702	76982	59466	44852	32841	23130
		P	58,49	57,89	57,29	54,05	50,41	46,43	42,19	37,75	33,17	28,54	23,91	19,37
	40	Q	240502	221237	187179	155251	127305	103039	82152	64342	49308	36749	26363	17849
	P	70,92	69,19	66,01	61,11	55,95	50,60	45,12	39,59	34,06	28,62	23,33	18,26	
	50	Q	200747	184227	155772	128523	104826	84382	66888	52043	39545	29094	20387	
	P	81,06	78,33	73,50	67,07	60,51	53,90	47,31	40,80	34,45	28,32	22,48		
HGX8/3220-4 <sup>1)</sup> HGX8/3220-4 S <sup>1)</sup>	30	Q	299972	277577	236052	199764	165297	135207	109154	86797	67796	51812	38503	27530
		P	66,91	66,12	63,90	63,87	59,10	54,07	48,87	43,59	38,29	33,07	28,00	23,17
	40	Q	260037	240407	204062	170917	141015	114985	92486	73180	56724	42781	31008	21066
	P	81,79	79,73	75,15	71,84	65,49	59,02	52,53	46,09	39,78	33,68	27,88	22,45	
	50	Q	217197	200466	169563	141839	116555	94639	75750	59548	45693	33845	23663	
	P	93,49	90,33	83,69	78,71	70,87	63,06	55,36	47,84	40,60	33,72	27,26		

Relating to 20 °C suction gas temp. without liquid subcooling

<sup>1)</sup> Compressors (R404A) are ASERCOM certified

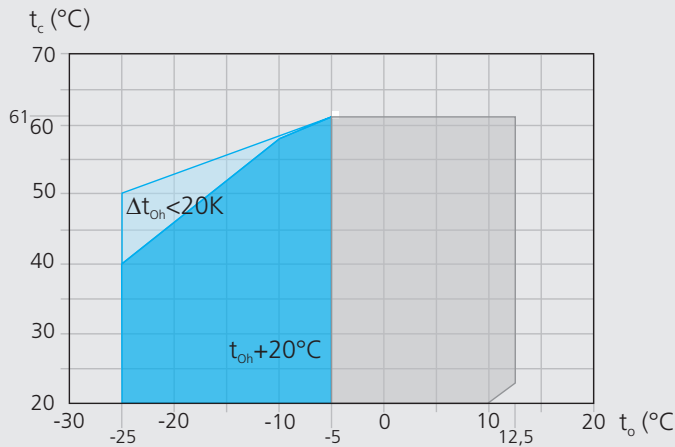


Motor version -S- (more powerful motor)

Supplementary cooling or reduced suction gas temp.

R407C Operating limits

HGX12P / HGX22e / HGX34e  
HGX4 / HGX5 / HGX6 / HGX7 / HGX8<sup>①</sup>



- Unlimited application range
- Supplementary cooling or reduced suction gas temperature
- Motor version -S (more powerful motor)

- $t_o$  Evaporating temperature (°C)
- $t_c$  Condensing temperature (°C)
- $\Delta t_{oh}$  Suction gas superheat (K)
- $t_{oh}$  Suction gas temperature (°C)

① HGX8/2470-4 - HGX8/2830-4 - HGX8/3220-4  
Max. evaporating temperature  $t_o = 0\text{ °C}$

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

<sup>1)</sup> LP = low pressure HP = high pressure

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R407C Notes

Operating limits

Compressor operation is possible within the limits shown on the application diagrams. Please note the coloured areas. Compressor application limits should not be chosen for design purposes or continuous operation.

Restrictions to the operating limits may occur when using the Bock EFC (Electronic Frequency Control). Further explanation see separate brochure "Bock semi-hermetic compressors - Electronic Controls".

Performance data

The performance data for R407C are based on ISO-DIS 9309 (DIN 8928) with a **50 Hz power supply frequency**.

This signifies: **25 °C suction gas temperature without liquid subcooling**. EN 12900 is already valid for Pluscom compressors, HGX4 and HGX8/2470-4 **operating at 50 Hz. 20 °C suction gas temperature without liquid subcooling**.

Evaporation and condensing temperatures are based on the dew point values (saturated vapour conditions).

A comprehensive modification to 20 °C suction gas temperature will follow at a later date.

This results in significant differences compared to specifications with liquid undercooling and/or suction-gas temperatures.

Conversion factor for 60 Hz = 1,2

Performance data for other operating points, see GEA Bock software.



R407C		Performance data										50 Hz
Type	Cond. temp. °C		Cooling capacity $\dot{Q}_0$ [W]								Power consumption $P_e$ [kW]	
			Evaporating temperature °C									
			12,5	10	7,5	5	0	-5	-10	-15	-20	-25
HGX4/465-4 HGX4/465-4 S	30	Q	52241	47689	43438	39475	32358	27293	21900	17313	13459	10267
		P	7,84	7,76	7,67	7,56	7,31	7,08	6,58	6,02	5,42	4,78
	40	Q	45881	41827	38049	34532	28226	23704	18952	14925	11550	8752
HGX4/555-4 HGX4/555-4 S	30	Q	62010	56703	51739	47101	38751	31207	25091	19907	15531	11833
		P	9,36	9,30	9,22	9,12	8,84	8,53	7,92	7,29	6,62	5,87
	40	Q	54852	50089	45636	41481	34003	27316	21859	17204	13225	9795
HGX4/650-4 HGX4/650-4 S	30	Q	73505	67118	61158	55607	45658	36887	29718	23650	18538	14235
		P	11,85	11,66	11,45	11,22	10,68	10,03	9,28	8,56	7,80	6,95
	40	Q	64535	58930	53705	48840	40118	32465	26041	20581	15939	11970
HGX5/725-4 HGX5/725-4 S	30	Q	82066	75111	68581	62458	51370	41718	33371	26199	20072	14859
		P	12,72	12,43	12,13	11,81	11,13	10,38	9,57	8,68	7,72	6,69
	40	Q	73653	67297	61341	55769	45715	37005	29506	23091	17627	12986
HGX5/830-4 HGX5/830-4 S	30	Q	94208	86225	78728	71699	58971	47891	38309	30076	23042	17057
		P	14,60	14,27	13,92	13,56	12,78	11,92	10,99	9,97	8,87	7,68
	40	Q	84551	77254	70417	64021	52480	42480	33872	26507	20235	14907
HGX5/945-4 HGX5/945-4 S	30	Q	107188	98104	89575	81578	67096	54489	43587	34219	26216	19407
		P	16,61	16,23	15,84	15,43	14,54	13,56	12,50	11,34	10,09	8,74
	40	Q	96200	87898	80118	72842	59710	48332	38539	30159	23023	16961
HGX6/1080-4 HGX6/1080-4 S	30	Q	122447	112071	102327	93191	76648	62246	49792	39091	29948	22170
		P	18,97	18,55	18,10	17,62	16,61	15,49	14,28	12,96	11,53	9,98
	40	Q	109895	100411	91524	83211	68210	55213	44025	34453	26301	19376
HGX6/1240-4 HGX6/1240-4 S	30	Q	140564	128652	117467	106980	87989	71456	57159	44875	34379	25450
		P	21,78	20,23	20,77	20,23	19,06	17,79	16,39	14,88	13,23	11,46
	40	Q	25450	115267	105066	95523	78303	63382	50539	39550	30193	22243
HGX6/1410-4 HGX6/1410-4 S	30	Q	159931	146378	133651	121719	100112	81301	65035	51058	39116	28957
		P	24,78	24,22	23,64	23,02	21,69	20,24	18,65	16,92	15,05	13,03
	40	Q	143537	131149	119452	108684	89091	72115	57503	45000	34352	25307
HGX7/1620-4 HGX7/1620-4 S	30	Q	176654	161203	146809	133424	109484	88991	71553	56778	44276	33654
		P	28,74	28,45	28,06	27,56	26,30	24,73	22,92	20,92	18,79	16,61
	40	Q	156630	142783	129901	117934	96552	78246	62623	49292	37862	27940
HGX7/1860-4 HGX7/1860-4 S	30	Q	202792	185054	168531	153166	125683	102158	82139	65179	50827	38633
		P	32,99	32,66	32,21	31,64	30,19	28,39	26,31	24,01	21,57	19,07
	40	Q	179805	163909	149121	135384	110838	89823	71888	56585	43464	32074

Relating to 25 °C suction gas temperature (HGX4 to 20 °C suction gas temperature) without liquid subcooling

Motor version -S- (more powerful motor)

Supplementary cooling or reduced suction gas temp.

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