



GEA Bock Plusbox

Plug & Play Units powered by GEA Bock Compressors

Flexible, efficient, reliable.

GEA gives you the freedom to choose:

With the Plusbox, GEA Bock presents for the first time a series of modular designed outdoor condensing units on the basis of semi-hermetic Bock compressors and GEA condensers.

The modular model kit of the new Plusbox condensing units enables the system manufacturer to configure the Plusbox individually according to his demands. This way, he can decide on the scope of supply and has for example the choice which control system suits best for his application.

Whether it's the basic design, the Plug & Play version or the individual version – with the Plusbox, GEA Bock offers top components with a fair price/performance ratio that facilitate work on the system for the system manufacturer due to the pre-assembly and delivery of the complete Plusbox unit.

Initially, GEA Bock offers the Plusbox with Bock compressors HG34e, which corresponds to refrigerating capacities of approx. 9 to 15 kW at normal cooling conditions (R404a at -10°C evaporation temperature and 32°C ambient temperature).

The extension of the Plusbox model range in larger and smaller capacity ranges is planned in 2013.

Basic:

Scope of supply:

- Bock semi-hermetic compressor
- Generously sized condenser for all climate zones
- Low noise fan
- Liquid receiver
- Weatherproofed powder coated steel sheets enclosure
- Compressor located in acoustically lined enclosure
- Main isolator



Plug & Play

Scope of supply:

- Basic scope of supply
- Complete liquid- and suction pipework arrangements
- Fan speed controller
- Electric switch board
- Electrical wiring of all components
- Oil sump heater
- High and low pressure switch

Individual

Scope of supply:

- Basic scope of supply

Components can be chosen individual

- Frequency converter
- Mechanical capacity regulator 50/50
- EC fan
- Oil separator
- Oil differential pressure sensor
- Thermal protection thermostat
- Complete liquid- and suction pipework arrangements
- Fan speed controller
- Electric switch board
- Electrical wiring of all components
- Oil sump heater
- High and low pressure switch

Configure your Plusbox online here:
www.bock.de/en/plusbox.html



Bock Plusbox Outdoor Condensing Units

R134a		Performance data									50 Hz	
Type	Amb. 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	
SHGX34e/215-4 PB	27	Q	13700	11600	9620	7830	6230	4820	3620	2620	1840	
		P	2,86	2,66	2,46	2,25	2,04	1,82	1,60	1,38	1,17	
	32	Q	12900	10900	8970	7270	5760	4430	3290	2370	1650	
		P	3,05	2,81	2,57	2,33	2,09	1,85	1,62	1,40	1,20	
	43	Q	11100	9240	7580	6080	4740	3580	2610	1830	1260	
		P	3,40	3,08	2,76	2,46	2,17	1,90	1,64	1,42	1,23	
SHGX34e/255-4 PB	27	Q	15900	13500	11300	9140	7270	5610	4200	3060	2210	
		P	3,53	3,28	3,02	2,74	2,46	2,17	1,90	1,64	1,41	
	32	Q	14900	12700	10500	8540	6760	5190	3850	2770	1980	
		P	3,76	3,48	3,18	2,87	2,55	2,24	1,94	1,67	1,42	
	43	Q	12900	10900	9010	7280	5710	4330	3160	2230	1550	
		P	4,21	3,85	3,47	3,09	2,71	2,34	2,00	1,69	1,43	
SHGX34e/315-4 PB	27	Q	18600	15800	13300	10900	8760	6880	5270	3940	2900	
		P	4,59	4,20	3,82	3,44	3,07	2,70	2,36	2,03	1,73	
	32	Q	17400	14900	12400	10200	8150	6370	4860	3600	2630	
		P	4,85	4,42	4,00	3,58	3,18	2,78	2,41	2,06	1,73	
	43	Q	15100	12800	10700	8650	6880	5330	4000	2910	2050	
		P	5,34	4,83	4,32	3,83	3,36	2,90	2,47	2,07	1,70	
SHGX34e/380-4 PB	27	Q	23000	19700	16500	13700	11100	8750	6770	5130	3830	
		P	5,59	5,13	4,67	4,21	3,76	3,32	2,89	2,48	2,10	
	32	Q	21600	18400	15500	12800	10400	8150	6290	4740	3510	
		P	5,92	5,41	4,91	4,40	3,91	3,43	2,97	2,53	2,12	
	43	Q	18700	15900	13300	10900	8770	6880	5250	3890	2810	
		P	6,55	5,94	5,34	4,74	4,16	3,60	3,07	2,57	2,11	

Relating to 20 °C suction gas temperature without liquid subcooling

Supplementary cooling or reduced suction gas temperature

R404A/R507		Performance data									50 Hz	
Type	Amb. temp. °C		Cooling capacity \dot{Q}_o [W]						Power consumption P_e [kW]			
			Evaporating temperature °C									
			5	0	-5	-10	-15	-20	-25	-30	-35	-40
SHGX34e/215-4 PB	27	Q	17500	15000	12500	10500	8510	6800	5280	3960	2850	1950
		P	4,85	4,52	4,20	3,83	3,43	3,03	2,62	2,22	1,84	1,49
	32	Q	16100	13800	11500	9520	7760	6170	4760	3540	2510	1680
		P	5,12	4,74	4,41	4,00	3,56	3,12	2,68	2,25	1,84	1,48
	43	Q	13000	11100	9190	7600	6150	4850	3700	2710	1890	1230
		P	5,64	5,15	4,73	4,24	3,74	3,24	2,75	2,28	1,84	1,45
SHGX34e/255-4 PB	27	Q	19800	17100	14300	12100	10100	8170	6500	5020	3750	2680
		P	6,01	5,58	5,18	4,71	4,23	3,76	3,29	2,83	2,39	1,97
	32	Q	18200	15700	13100	11100	9140	7420	5870	4500	3330	2350
		P	6,32	5,84	5,43	4,90	4,38	3,86	3,35	2,86	2,39	1,95
	43	Q	14700	12600	10600	8830	7260	5830	4550	3430	2490	1720
		P	6,90	6,32	5,84	5,21	4,60	3,99	3,41	2,86	2,34	1,87
SHGX34e/315-4 PB	27	Q	24200	21000	16800	14300	12000	9870	7910	6160	4640	3360
		P	7,37	6,80	6,53	5,90	5,29	4,69	4,10	3,54	3,00	2,49
	32	Q	22300	19300	15400	13100	11000	9010	7200	5570	4160	2970
		P	7,75	7,13	6,81	6,13	5,46	4,81	4,18	3,57	2,99	2,45
	43	Q	18200	15700	12400	10600	8770	7150	5660	4320	3150	2150
		P	8,45	7,73	7,31	6,51	5,73	4,98	4,25	3,56	2,90	2,29
SHGX34e/380-4 PB	27	Q	27500	24200	20500	17500	14700	12100	9730	7670	5870	4340
		P	9,55	8,75	8,11	7,30	6,53	5,78	5,06	4,36	3,69	3,05
	32	Q	25300	22200	18800	16000	13400	11100	8870	6960	5290	3880
		P	9,99	9,14	8,47	7,60	6,77	5,96	5,18	4,43	3,71	3,04
	43	Q	18100	15400	13000	10900	8860	7080	5500	4120	2940	
		P	9,85	9,15	8,14	7,17	6,23	5,34	4,48	3,67	2,91	

Relating to 20 °C suction gas temperature without liquid subcooling

SPB-version for air-conditioning range - Performance data for operating points that are **not** greyed-out, see GEA Bock software

Supplementary cooling or reduced suction gas temperature

Bock Plusbox Outdoor Condensing Units

R407F		Performance data							50 Hz
Type	Amb. temp. °C	Cooling capacity \dot{Q}_o [W]					Power consumption P_e [kW]		
		Evaporating temperature °C							
		10	5	0	-5	-10	-15	-20	
SHGX34e/215-4 PB SHGX34e/215-4 SPB	27	Q	20400	17400	14600	11800	9570	7580	5850
		P	5,14	4,77	4,38	4,02	3,59	3,15	2,73
	32	Q	19000	16100	13500	11000	8850	6990	5360
		P	5,44	5,01	4,58	4,19	3,72	3,25	2,80
	43	Q		13300	11100	9030	7260	5690	4310
		P		5,46	4,91	4,40	3,87	3,34	2,85
SHGX34e/255-4 PB SHGX34e/255-4 SPB	27	Q	23000	19700	16700	13600	11200	8990	7070
		P	6,34	5,89	5,39	4,94	4,39	3,87	3,38
	32	Q	21300	18300	15400	12600	10400	8290	6480
		P	6,67	6,17	5,62	5,14	4,55	3,98	3,45
	43	Q			12700	10500	8520	6770	5210
		P			6,00	5,43	4,74	4,10	3,50
SHGX34e/315-4 PB SHGX34e/315-4 SPB	27	Q	28000	24100	20400	16100	13400	10900	8620
		P	7,85	7,23	6,59	6,20	5,49	4,82	4,20
	32	Q	26000	22400	19000	15000	12400	10100	7940
		P	8,24	7,57	6,87	6,43	5,66	4,95	4,29
	43	Q		18700	15800	12400	10300	8270	6470
		P		8,16	7,35	6,77	5,90	5,09	4,36
SHGX34e/380-4 PB SHGX34e/380-4 SPB	27	Q	31700	27600	23700	19600	16300	13300	10600
		P	10,20	9,34	8,45	7,71	6,80	5,96	5,19
	32	Q	29400	25600	22100	18300	15100	12300	9710
		P	10,60	9,73	8,79	8,01	7,04	6,14	5,32
	43	Q			18500	15400	12700	10200	8010
		P			9,32	8,50	7,40	6,39	5,47

Relating to 20 °C suction gas temperature without liquid subcooling

SPB-version for air-conditioning range - Performance data for operating points that are **not** greyed-out, see GEA Bock software

Supplementary cooling or reduced suction gas temperature

R22		Performance data										50 Hz
Type	Amb. 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	
SHG34e/215-4 PB SHG34e/215-4 SPB	27	Q	20000	17300	14700	12000	9900	8120	6570	5230	4080	3100
		P	4,72	4,39	4,06	3,87	3,52	3,17	2,83	2,51	2,19	1,91
	32	Q	18800	16200	13800	11700	9650	7910	6400	5090	3960	2990
		P	5,10	4,72	4,34	3,96	3,59	3,23	2,88	2,54	2,22	1,93
	43	Q	16300	14000	11900	9980	8270	6770	5430	4250		
		P	5,89	5,39	4,90	4,42	3,96	3,51	3,09	2,68		
SHG34e/255-4 PB SHG34e/255-4 SPB	27	Q	22600	19600	16800	14200	11900	9750	7910	6320	4950	3800
		P	5,82	5,36	4,92	4,49	4,07	3,67	3,28	2,90	2,55	2,21
	32	Q	21200	18400	15700	13300	11100	9140	7410	5910	4600	3480
		P	6,25	5,73	5,24	4,76	4,29	3,84	3,41	3,01	2,62	2,27
	43	Q	18400	15900	13600	11500	9510	7800	6270	4920		
		P	7,15	6,50	5,88	5,28	4,70	4,16	3,64	3,15		
SHG34e/315-4 PB SHG34e/315-4 SPB	27	Q	28100	24300	20800	16900	14200	11800	9560	7660	6020	4610
		P	7,17	6,61	6,07	5,76	5,19	4,64	4,12	3,62	3,16	2,75
	32	Q	26400	22800	19500	15800	13300	11000	8930	7140	5570	4210
		P	7,70	7,07	6,46	6,07	5,45	4,85	4,28	3,74	3,25	2,82
	43	Q	22800	19700	16800	14200	11400	9330	7530	5920		
		P	8,80	8,01	7,25	6,52	5,92	5,21	4,53	3,91		
SHG34e/380-4 PB SHG34e/380-4 SPB	27	Q	32300	28100	24200	20600	17300	14300	11700	9320	7320	5610
		P	9,22	8,42	7,66	6,94	6,25	5,60	4,98	4,39	3,84	3,34
	32	Q	30300	26400	22700	19300	16200	13400	10900	8680	6770	5110
		P	9,83	8,95	8,11	7,32	6,57	5,85	5,17	4,54	3,95	3,42
	43	Q		22700	19500	16600	13900	11400	9170	7190		
		P		10,00	9,01	8,05	7,15	6,29	5,49	4,74		

Relating to 20 °C suction gas temperature without liquid subcooling

SPB-version for air-conditioning range - Performance data for operating points that are **not** greyed-out, see GEA Bock software

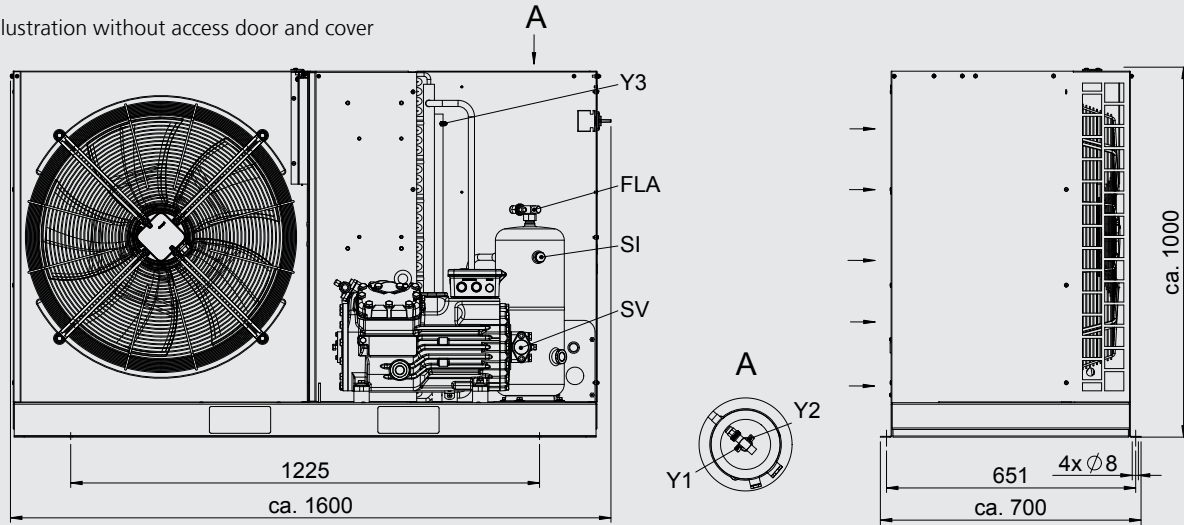
Supplementary cooling or reduced suction gas temperature

Supplementary cooling and reduced suction gas temperature

Bock Plusbox Outdoor Condensing Units

Dimensions

Illustration without access door and cover



SHG	Connections ①					
	SV	FLA	SI	Y1	Y2	Y3
Typ	mm inch	mm inch	inch	inch	inch	inch
SHG34e/215-4 PB	28 / 1 1/8	16 / 5/8	1/2 NPTF	7/16 UNF	7/16 UNF	7/16 UNF
SHG34e/215-4 S PB	28 / 1 1/8	16 / 5/8	1/2 NPTF	7/16 UNF	7/16 UNF	7/16 UNF
SHG34e/255-4 PB	28 / 1 1/8	16 / 5/8	1/2 NPTF	7/16 UNF	7/16 UNF	7/16 UNF
SHG34e/255-4 S PB	28 / 1 1/8	16 / 5/8	1/2 NPTF	7/16 UNF	7/16 UNF	7/16 UNF
SHG34e/315-4 PB	28 / 1 1/8	16 / 5/8	1/2 NPTF	7/16 UNF	7/16 UNF	7/16 UNF
SHG34e/315-4 S PB	35 / 1 3/8	16 / 5/8	1/2 NPTF	7/16 UNF	7/16 UNF	7/16 UNF
SHG34e/380-4 PB	35 / 1 3/8	16 / 5/8	1/2 NPTF	7/16 UNF	7/16 UNF	7/16 UNF
SHG34e/380-4 S PB	35 / 1 3/8	16 / 5/8	1/2 NPTF	7/16 UNF	7/16 UNF	7/16 UNF

SV = Suction line shut off valve
 FLA = Liquid outlet
 SI = Connection safety valve

Y1 = Connection liquid side, lockable
 Y2 = Connection liquid side, not lockable
 Y3 = Schrader-connection speed controller fan

① Further compressor connections can be found in the brochure "semi-hermetic GE A Bock compressors"

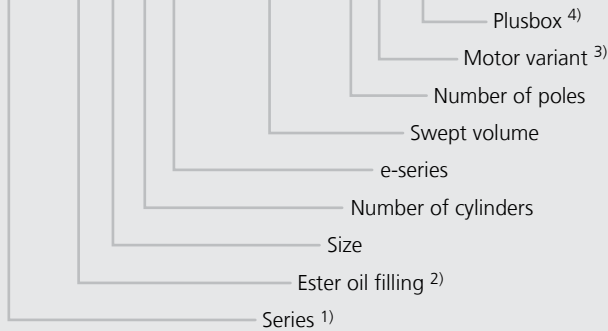
SHG	Compressor ①			Fan / Condenser ④			Receiver Capacity	Tube diameter ⑤		Noise level 10m	Weight ⑤
	Displacement 50 Hz (1450 rpm)	Vol-tage ②	Max. working current	Max. working current 50 Hz	Max. power consumption 50 Hz	Air flow 50 Hz		Liquid line	Suction line		
	m³/h		A Δ / Y	A	W	m³/h		Zoll	Zoll		
SHG34e/215-4 PB	18,80	③	14,0 / 8,1	2,60	600	7895	8,0	1/2"	1 1/8"	47	196
SHG34e/215-4 S PB	18,80	③	18,3 / 10,5	2,60	600	7895	8,0	1/2"	1 1/8"	47	201
SHG34e/255-4 PB	22,10	③	17,0 / 9,8	2,60	600	7895	8,0	1/2"	1 1/8"	47	195
SHG34e/255-4 S PB	22,10	③	21,1 / 12,2	2,60	600	7895	8,0	1/2"	1 1/8"	47	200
SHG34e/315-4 PB	27,30	③	21,1 / 12,2	2,60	600	7020	8,0	1/2"	1 1/8"	47	198
SHG34e/315-4 S PB	27,30	③	25,5 / 14,7	2,60	600	7020	10,0	5/8"	1 3/8"	47	207
SHG34e/380-4 PB	33,10	③	26,1 / 15,1	2,60	600	7020	10,0	5/8"	1 3/8"	47	203
SHG34e/380-4 S PB	33,10	③	31,2 / 18,0	2,60	600	7020	10,0	5/8"	1 3/8"	47	206

Erläuterungen:

- ① Further explanations and technical data see brochure "Semi-hermetic Bock Compressors".
- ② Tolerance (± 10%) relates to the mean value of the voltage range. Other voltages and current types on request.
- ③ 220-240 V Δ / 380-420 V Y - 3 - 50 Hz
- ④ 230 V - 1 - 50 Hz
- ⑤ Values for Plug & Play version

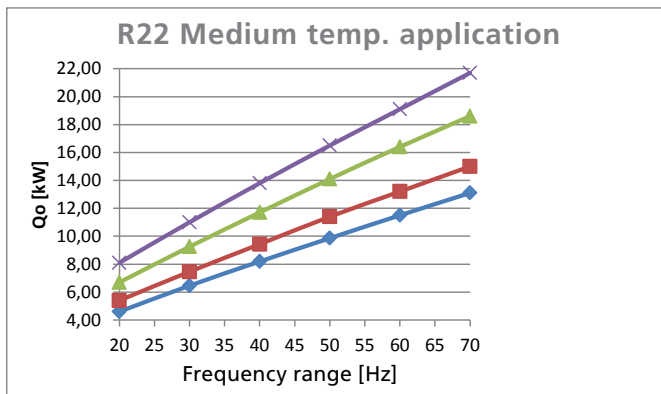
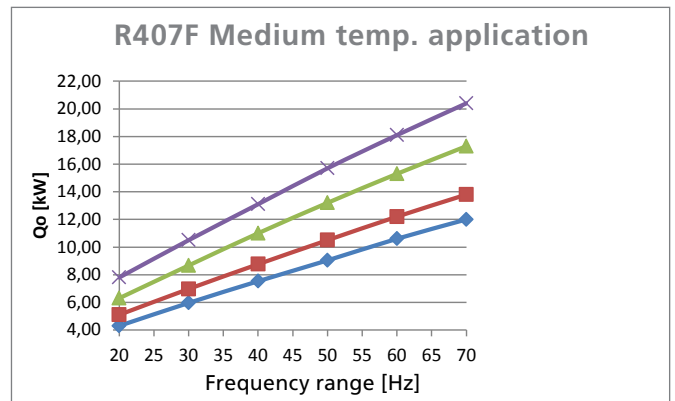
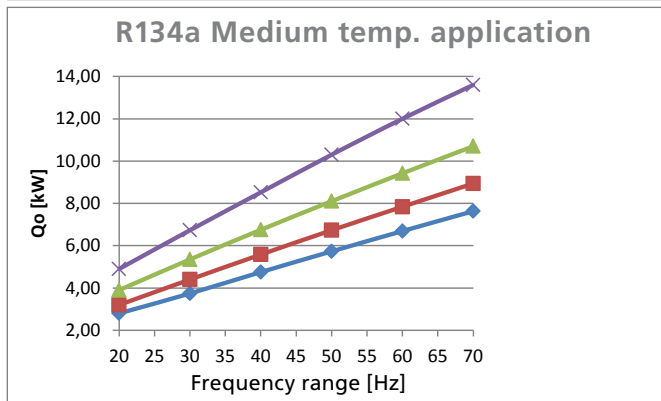
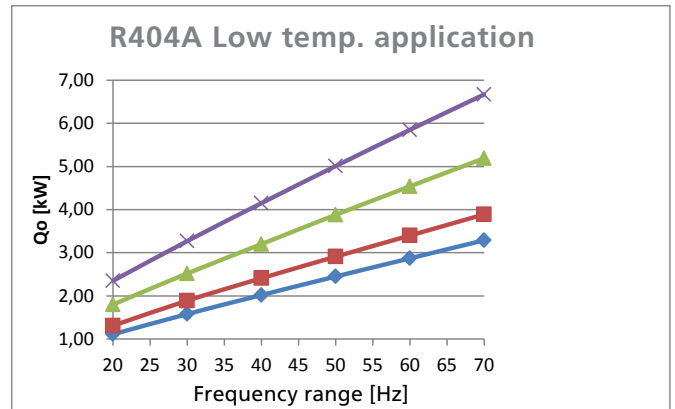
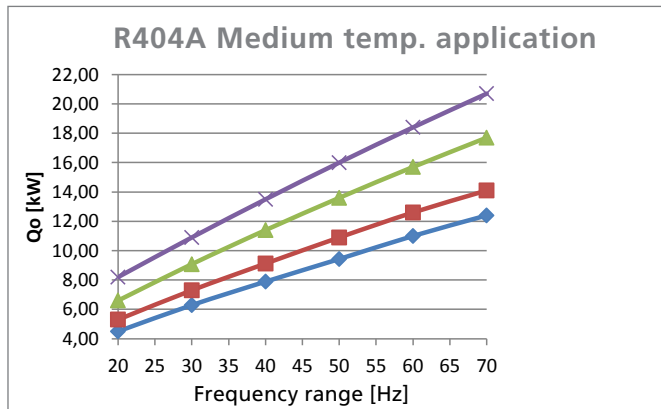
Type key - Condenser units

SHGX34e / 215-4SPB



- 1) SHG = Hermetic Gas-cooled (suction gas-cooled)
- 2) X = Ester oil filling (HFC refrigerants R134a, R404A, R507, R407C)
- 3) S = More powerful motor, e.g. air-conditioning applications
- 4) PB = Plusbox
P&P = Plug & Play

Help for quick selection



Legend

	Medium temp. application	Low temp. application
Evaporating temperature	-10° C	-35° C
Ambient temperature	32° C	
Superheat	10 K	
Subcooling	2 K	

- SHGX34e/215-4 (S)PB
- SHGX34e/255-4 (S)PB
- SHGX34e/315-4 (S)PB
- SHGX34e/380-4 (S)PB



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 index.

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