

HGX12e/75-4 S CO2

Engine: 220-240V Δ / 380-420V Y -3- 50Hz

Refrigerant: R744

GEA Commercial Compressors



Subject:

Performance data

Application: Refrigeration & AC

Refrigerant	R744	Compressor refrigeration capacity	11.10 kW
Reference temperature	Dew point	Evaporator refrigeration capacity	11.10 kW
Power supply	50 Hz, 400 V	Power consumption	2.86 kW
Supply frequency	50 Hz	Current draw (400 V)	5.95 A
Evaporating temperature	-35.0 °C	Coefficient of performance (COP/EER)	3.86
<i>Evaporating pressure (abs.)</i>	<i>12.02 bar</i>	Condensing capacity	13.90 kW
Condensing temperature	-5.0 °C	Mass flow	0.043 kg/s
<i>Condensing pressure (abs.)</i>	<i>30.46 bar</i>	Discharge end temperature	59.5 °C ¹⁾
Suction gas superheat	10 K		
Subcooling (outside cond.)	0 K		
Usable superheat	100%		

-
- 1) The stated value of the discharge end temperature is a mere calculated value. Additional cooling and heat dissipation are not considered. Deviations (particularly in deep freezing applications) from the real measured discharge temperature during operation are possible.

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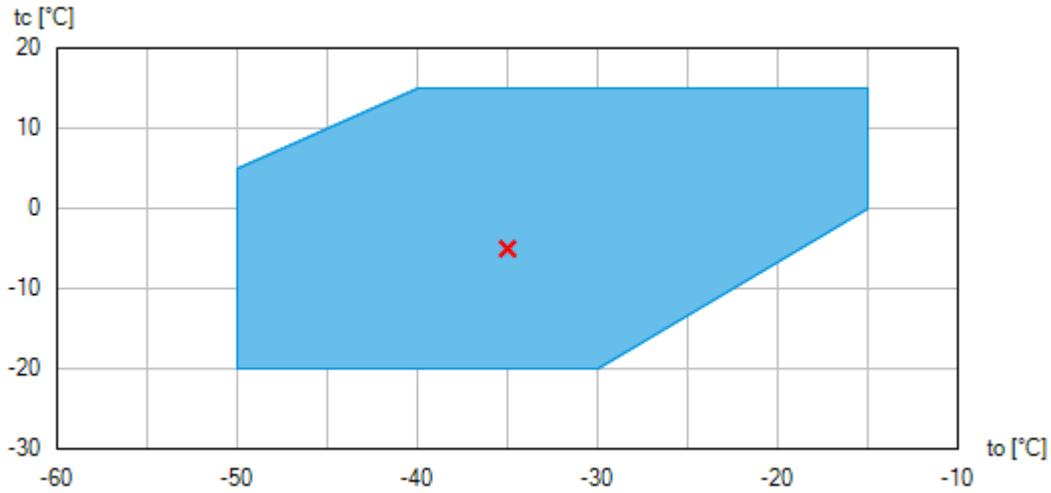
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Subject:

Operating limits



 Unlimited application range

Compressor operation is possible within the limits shown on the diagrams of application. Please note the coloured areas. Compressor application limits should not be chosen for design purposes or continuous operation. Axis values refer to dew point (saturated vapour line).

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Subject:

Technical data

Number of cylinders / Bore / Stroke	2 / 45 mm / 23 mm
Displacement 50/60 Hz (1450/1740 1/min)	6,40 / 7,70 m ³ /h
Voltage ¹⁾	220-240V Δ / 380-420V Y -3- 50Hz
	265-290V Δ / 440-480V Y -3- 60Hz
Max. working current ²⁾	14.3 / 8.2 A
Max. power consumption ²⁾	4.7 kW
Starting current (rotor blocked) ²⁾	71.0 / 41.0 A
Motor protection	INT69 G
Protection terminal box	IP 66
Weight	54 kg
Max. permissible pressure (LP/HP) ³⁾	40 / 55 bar
Connection suction line SV	16 mm - 5/8 "
Connection discharge line DV	12 mm - 1/2 "
Lubrication	Oil pump
Oil type R744	GEA Bock C 85 E
Oil charge	0,8 Ltr.
Dimensions Length / Width / Height	445 / 234 / 288 mm

1) Tolerance ($\pm 10\%$) relates to the mean value of the voltage range. Other voltages and current types on request

All data are based on voltage rms values

2) - The stated value for the max. power consumption is valid for the adjusted power supply.

- Starting current (rotor blocked):

- Part winding (PW) motors: Winding 1 / Winding 1+2
- Delta/Star (Δ/Y) motors: Δ / Y

- Take account of the max. operating current / max. power consumption for designing fuses, supply lines and safety devices. Fuse: Consumption category AC3.

3) LP = Low pressure
HP = High pressure

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Subject:

Performance data table

Application: Refrigeration & AC
Reference temperature: Dew point
Supply frequency: 50 Hz
Voltage: 400 V
Suction gas superheat: 10 K
Subcooling (outside cond.): 0 K

tc [°C]		to [°C]									
		-10.0	-15.0	-20.0	-25.0	-30.0	-35.0	-40.0	-45.0	-50.0	
-25.0	Q [W]										
	P [kW]										
	I [A]										
-20.0	Q [W]					17300	14200	11400	9020	6990	
	P [kW]					1.48	1.72	1.87	1.92	1.91	
	I [A]					4.70	4.88	4.99	5.04	5.03	
-15.0	Q [W]					16100	13100	10500	8230	6300	
	P [kW]					1.92	2.11	2.19	2.19	2.13	
	I [A]					5.03	5.20	5.28	5.28	5.22	
-10.0	Q [W]				18100	14900	12100	9600	7470	5630	
	P [kW]				2.11	2.36	2.49	2.51	2.45	2.32	
	I [A]				5.20	5.43	5.56	5.59	5.52	5.40	
-5.0	Q [W]			20200	16800	13700	11100	8730	6720	4990	
	P [kW]			2.30	2.62	2.80	2.86	2.81	2.69	2.49	
	I [A]			5.38	5.70	5.89	5.95	5.91	5.77	5.57	
0.0	Q [W]		22300	18600	15400	12600	10100	7880	6000	4370	
	P [kW]		2.49	2.88	3.13	3.23	3.22	3.10	2.91	2.64	
	I [A]		5.56	5.98	6.26	6.38	6.37	6.23	6.01	5.72	
5.0	Q [W]		20500	17100	14100	11500	9090	7060	5300	3780	
	P [kW]		3.16	3.47	3.64	3.67	3.57	3.38	3.10	2.76	
	I [A]		6.29	6.68	6.88	6.91	6.80	6.56	6.23	5.85	
10.0	Q [W]		18800	15600	12800	10300	8140	6270	4640		
	P [kW]		3.84	4.07	4.15	4.09	3.92	3.64	3.28		
	I [A]		7.13	7.44	7.54	7.46	7.23	6.88	6.44		
15.0	Q [W]		17000	14100	11500	9200	7220	5500			
	P [kW]		4.53	4.68	4.66	4.52	4.25	3.89			
	I [A]		8.05	8.24	8.22	8.02	7.67	7.19			

to Evaporating temperature
tc Condensing temperature
Q Compressor refrigeration capacity
P Power consumption
I Current draw

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Subject:

Scope of supply

Semi-hermetic reciprocating compressor
Single-section compressor housing with hermetically integrated electric motor

Oil pump

Winding protection with PTC resistor sensors and electronic trigger unit INT69 G

Possibility of connection of oil level controllers ESK, Traxoil, AC+R or CARLY ¹⁾

Oil charge:
Bock C 85 E

Sight glass

Pressure relief valve suction and discharge line

Suction and discharge line valve

Inert gas charge

4 anti-vibration pads enclosed

Accessories

Compressor oil GEA Bock C 85 E as 1 liter refill unit ²⁾

Oil sump heater
110-240 V - 1 - 50/60 Hz, 50-120 W, IP66
PTC heater self-regulating ³⁾

Thermal protection thermostat

Additional fan 220-240 V - 1 - 50/60 Hz, 72/68 W, IP44 ²⁾

Adapter for pressure relief valve ²⁾

Special voltage and/or frequency (on request)

-
- 1) Only with additional adapter possible
 - 2) Enclosure
 - 3) Mounted

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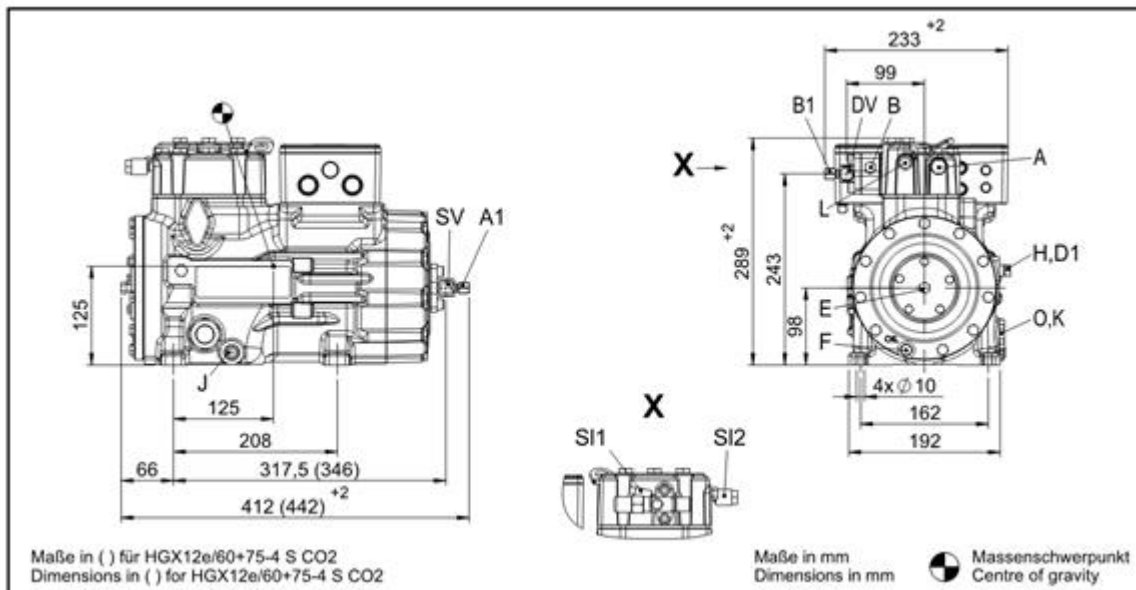
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Subject:

Dimensions and connections



SV	Suction line valve, tube \varnothing ¹⁾	16 - 5/8
DV	Discharge line valve, tube \varnothing ¹⁾	12 - 1/2
A	Connection suction side, not lockable ²⁾	1/8 " NPTF
A1	Connection suction side, lockable	7/16 " UNF
B	Connection discharge side, not lockable	1/8 " NPTF
B1	Connection discharge side, lockable	7/16 " UNF
D1	Connection oil return from oil separator	1/4 " NPTF
E	Connection oil pressure gauge	1/8 " NPTF
F	Oil drain	M 8
H	Oil charge plug	1/4 " NPTF
J	Connection oil sump heater	\varnothing 15mm
K	Sight glass	1 1/8 " - 18 UNEF
L	Connection thermal protection thermostat ³⁾	1/8 " NPTF
O	Connection oil level regulator	1 1/8 " - 18 UNEF
SI1	Decompression valve HP	1/8" NPTF
SI2	Decompression valve LP	1/8" NPTF

1) Brazing connection

2) Only with additional adapter possible

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3) No connection discharge side

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Product photo

Picture similar and/or with accessories.



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