

HGX34P/315-4 R410A

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

Refrigerant: R410A

GEA Commercial Compressors



Subject:

Performance data

Application: Refrigeration & AC

Refrigerant	R410A	Compressor refrigeration capacity	20.20 kW
Reference temperature	Dew point	Evaporator refrigeration capacity	20.20 kW
Power supply	50 Hz, 400 V	Power consumption	8.01 kW
Supply frequency	50 Hz	Current draw (400 V)	13.50 A
Evaporating temperature	-10.0 °C	Coefficient of performance (COP/EER)	2.52
<i>Evaporating pressure (abs.)</i>	<i>5.72 bar</i>	Condensing capacity	28.30 kW
Condensing temperature	40.0 °C	Mass flow	0.112 kg/s
<i>Condensing pressure (abs.)</i>	<i>24.11 bar</i>	Discharge end temperature	113.9 °C ¹⁾
Suction gas temperature	20 °C		
Subcooling (outside cond.)	0 K		
Usable superheat	100%		

The performance data are preliminary, computed values. Variations, however, cannot be excluded.

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

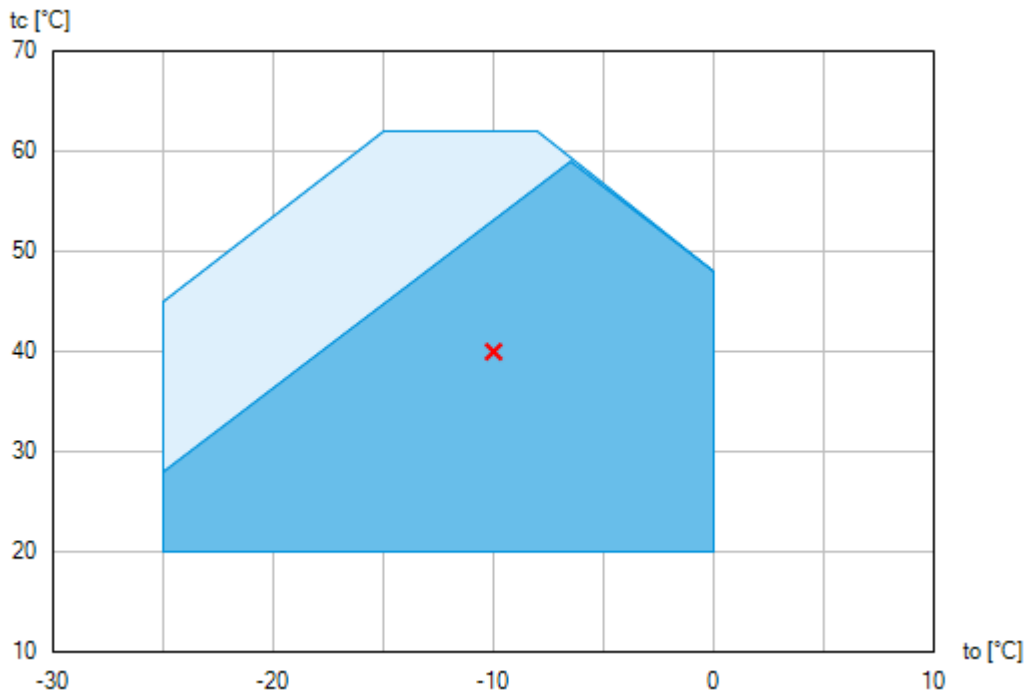
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Subject:

Operating limits



-  Unlimited application range
-  Supplementary cooling or reduced suction gas temperature ($\Delta t_{oh} < 20K$)

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	4 / 50 mm / 40 mm
Displacement 50/60 Hz (1450/1740 1/min)	27,30 / 32,80 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⁾	30.5 / 17.6 A
Max. power consumption ²⁾	10.1 kW
Starting current (rotor blocked) ²⁾	132.0 / 76.0 A
Motor protection	MP10
Protection terminal box	IP 66
Weight	97 kg
Max. permissible pressure (LP/HP) ³⁾	27 / 43 bar
Connection suction line SV	28 mm - 1 1/8 "
Connection discharge line DV	22 mm - 7/8 "
Lubrication	Oil pump
Oil type R410A	FUCHS Reniso Triton SE 55
Oil charge	1,3 Ltr.
Dimensions Length / Width / Height	515 / 285 / 315 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 temperature: 20 °C
Subcooling (outside cond.): 0 K

tc [°C]		to [°C]									
		0.0	-5.0	-10.0	-15.0	-20.0	-25.0				
30.0	Q [W]	34900	28900	23600	19200	15300	12100				
	P [kW]	7.91	7.69	7.29	6.79	6.23	5.69				
	I [A]	13.30	13.00	12.40	11.70	10.90	10.20				
35.0	Q [W]	32500	26800	21900	17700	14100	11100				
	P [kW]	8.63	8.22	7.67	7.05	6.43	5.84				
	I [A]	14.40	13.80	13.00	12.10	11.20	10.40				
40.0	Q [W]	30000	24800	20200	16300	12900	10000				
	P [kW]	9.27	8.69	8.01	7.30	6.61	6.01				
	I [A]	15.40	14.50	13.50	12.40	11.40	10.60				
45.0	Q [W]	27600	22700	18500	14900	11800	8990				
	P [kW]	9.87	9.13	8.34	7.55	6.83	6.22				
	I [A]	16.30	15.20	14.00	12.80	11.70	10.90				
50.0	Q [W]		20700	16800	13500	10600					
	P [kW]		9.57	8.68	7.84	7.08					
	I [A]		15.80	14.50	13.20	12.10					

The performance data are preliminary, computed values. Variations, however, cannot be excluded.

Supplementary cooling or reduced suction gas temperature ($\Delta t_{oh} < 20K$)

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 four cylinder reciprocating compressor with drive motor
Single-section compressor housing with hermetically integrated electric motor

Winding protection with PTC resistor sensors and electronic trigger unit MP 10

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

Oil sump heater

110-240 V - 1 - 50/60 Hz, 50-120 W

PTC heater self-regulating

Oil charge:

FUCHS Reniso Triton SE 55

Sight glass

Suction and discharge line valve

Thermal protective thermostat (posistor tracer)

Inert gas charge

4 anti-vibration pads enclosed

Accessories

Start unloader by means of a ESS (Electronic Soft Start), 400 V - 3 - 50/60 Hz, IP20 (Connection clamps IP00) for installation in switch cabinet

Progressively adjustable speed control by means of an EFC (Electronic Frequency Control), compactly built onto compressor and connected ready-to-operate

HA/HG12P: IP65

HA22P/HG22e, HA34P/HG34e: IP54

Compressor oil GEA Bock C 55 E as 1 or 5 liter refill unit

Additional fan

230 V AC - 1 - 50 Hz, 97 W, IP44

230 V AC - 1 - 60 Hz, 128 W

Special voltage and/or frequency (on request)

¹⁾ Only with additional adapter possible

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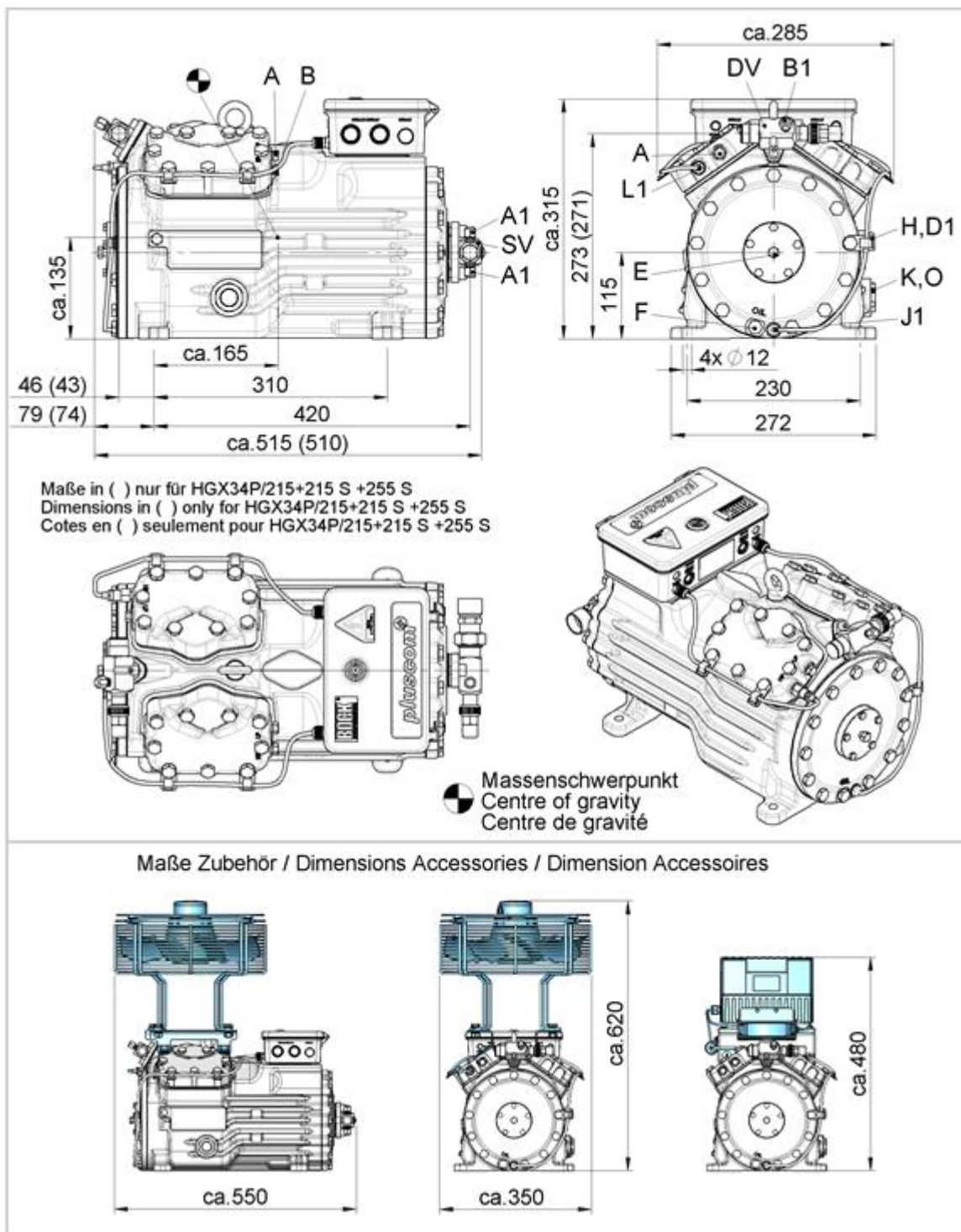
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Subject:

Dimensions and connections



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Subject:

SV	Suction line valve, tube \varnothing ¹⁾	28 - 1 1/8
DV	Discharge line valve, tube \varnothing ¹⁾	22 - 7/8
A	Connection suction side, not lockable	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 10
H	Oil charge plug	1/4 " NPTF
J1	Oil sump heater	Ø 15 mm
K	Sight glass	1 1/8 " - 18 UNEF
L1	Thermal protection thermostat	1/8 " NPTF
O	Connection oil level regulator	1 1/8 " - 18 UNEF

1) Brazing connection

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Product photo



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