Performance data

Application: Refrigeration & AC

Refrigerant	R404A, R507		Compressor refrigeration capacity	127.00 kW
Reference temperature	Dew point		Evaporator refrigeration capacity	127.00 kW
Power supply	50 Hz, 400 V		Power consumption	55.80 kW
Supply frequency	50 Hz		Current draw (400 V)	98.80 A
Evaporating temperature	-10.0 °C		Coefficient of performance (COP/EER)	2.27
Evaporating pressure (abs.)	*4.34 bar*		Condensing capacity	183.00 kW
Condensing temperature	40.0 °C		Mass flow	0.995 kg/s
Condensing pressure (abs.)	*18.17 bar*		Discharge end temperature	90.9 °C [1]
Suction gas temperature	18 °C			
Subcooling (outside cond.)	0 K			
Usable superheat	100%			

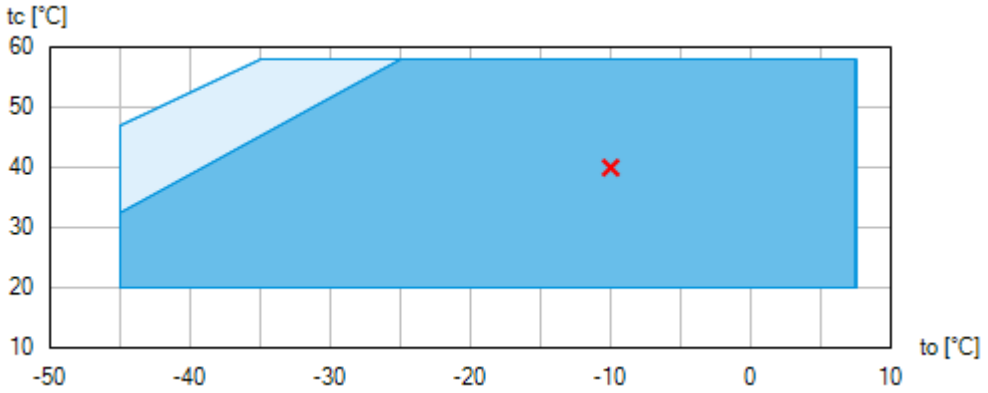
Certifications

ASERCOM certified performance data

The performance data of compressors bearing this label has been certified 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 GEA compressors can be found at www.asercom.org.
This certification is based on EN 12900. This signifies: 20 °C suction gas temperature without liquid subcooling at 50 Hz power supply frequency.

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.

Operating limits



Unlimited application range

Supplementary cooling or reduced suction gas temperature (Δtoh<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).

Subject:

Technical data

Number of cylinders / Bore / Stroke	8 / 75 mm / 80 mm
Displacement 50/60 Hz (1450/1740 ¹/min)	245,90 / 295,10 m³/h
Voltage [1)]	380-420V Y/YY -3- 50Hz PW
	440-480V Y/YY -3- 60Hz PW
Winding divided into	50% / 50%
Max. working current [2)]	151.6 A
Max. power consumption [2)]	88.1 kW
Starting current (rotor blocked) [2)]	447.0 / 657.0 A
Motor protection	MP10
Protection terminal box	IP 65
Weight	449 kg
Max. permissible pressure (LP/HP) [3)]	19 / 28 bar
Connection suction line SV	76 mm - 3 1/8 "
Connection discharge line DV	54 mm - 2 1/8 "
Lubrication	Oil pump
Oil type R134a, R404A, R407C/F, R507, R448A, R449A	FUCHS Reniso Triton SE 55
Oil type R22	FUCHS Reniso SP 46
Oil charge	9,0 Ltr.
Oil sump heater	230 V - 1 - 50/60 Hz, 200 W
Thermal protection thermostat	PTC resistor
Oil service valve	7/16" UNF
Dimensions Length / Width / Height	940 / 580 / 655 mm

1) Tolerance (± 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

PW = part winding, motors for part winding starting
(no start unloaders required)
Designs for Y/D on request

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

Subject to change without notice

Subject:

Performance data table

Application: Refrigeration & AC
Reference temperature: Dew point
Supply frequency: 50 Hz
Voltage: 400 V
Suction gas temperature: 18 °C
Subcooling (outside cond.): 0 K

tc [°C]	to [°C]										
		5.0	**0.0**	**-5.0**	**-10.0**	**-15.0**	**-20.0**	**-25.0**	**-30.0**	**-35.0**	**-40.0**
30.0	Q [W] P [kW] I [A]	258000 57.80 102.00	218000 56.00 99.20	182000 53.50 95.60	150000 50.30 91.20	122000 46.50 86.30	97500 42.40 81.10	76700 37.90 75.80	59000 33.20 70.80	44200 28.40 66.10	32000 23.70 61.90
35.0	Q [W] P [kW] I [A]	239000 63.80 111.00	202000 60.90 107.00	168000 57.30 102.00	138000 53.20 95.30	112000 48.70 89.10	89500 43.80 82.90	70200 38.80 76.90	53800 33.60 71.20	40000 28.40 66.10	28700 23.30 61.60
40.0	Q [W] P [kW] I [A]	221000 69.10 119.00	186000 65.20 113.00	154000 60.70 106.00	127000 55.80 98.80	103000 50.50 91.50	81600 45.00 84.40	63800 39.40 77.60	48700 33.80 71.40	36100 28.30 65.90	25600 23.00 61.30
45.0	Q [W] P [kW] I [A]	202000 73.90 127.00	170000 69.00 119.00	141000 63.70 111.00	115000 58.00 102.00	92900 52.00 93.60	73900 46.00 85.60	57600 39.90 78.20	43800 33.90 71.50	32300 28.10 65.80	22700 22.60 61.10
50.0	Q [W] P [kW] I [A]	184000 78.30 134.00	154000 72.50 125.00	127000 66.30 115.00	104000 59.90 105.00	83500 53.40 95.50	66200 46.80 86.70	51500 40.30 78.70	39100 34.10 71.70	28700 28.10 65.70	20000 22.50 60.90

☐ Supplementary cooling or reduced suction gas temperature (Δtoh<20K)

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

Subject to change without notice

Scope of supply

Semi-hermetic eight-cylinder reciprocating compressor with drive motor
Single-section Compressor housing with hermetically integrated electric motor

Oil pump

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

Oil pump cover with screw-in option for oil differential pressure sensor DELTA-P II

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

Possibility of connection of oil level controllers Traxoil [1)]

Oil service valve

Oil charge:
HG: FUCHS Reniso SP 46
HGX: FUCHS Reniso Triton SE 55

Three sight glasses

Prepared for capacity regulator (3 cylinder covers)

Pressure relief valve

Suction and discharge line valve

Inert gas charge

4 anti-vibration pads enclosed

Accessories

Start unloader 230 V - 1 - 50/60 Hz, IP65, less check valve,
including thermal protection thermostat (posistor tracer)

Capacity regulator 230 V - 1 - 50/60 Hz, IP65
1-3 capacity regulator = 75/50/25% residual capacity

Oil sump heater 230 V - 1 - 50/60 Hz, 200 W

Oil differential pressure sensor DELTA-P II 220-240 V - 1 - 50/60 Hz [2)]

Thermal protection thermostat per cylinder cover [3)]

GEA Bock Compressor Management BCM2000 including oil pressure control,
oil temperature control (NTC), thermal protection thermostat per cylinder couvers

Water-cooled cylinder covers

Subject:

Additional fan
230 V AC - 1 - 50 Hz, 97 W, IP44
230 V AC - 1 - 60 Hz, 128 W [2)]

Connection piece suction and discharge valve in welding design

Intermediate adapter for discharge line valve

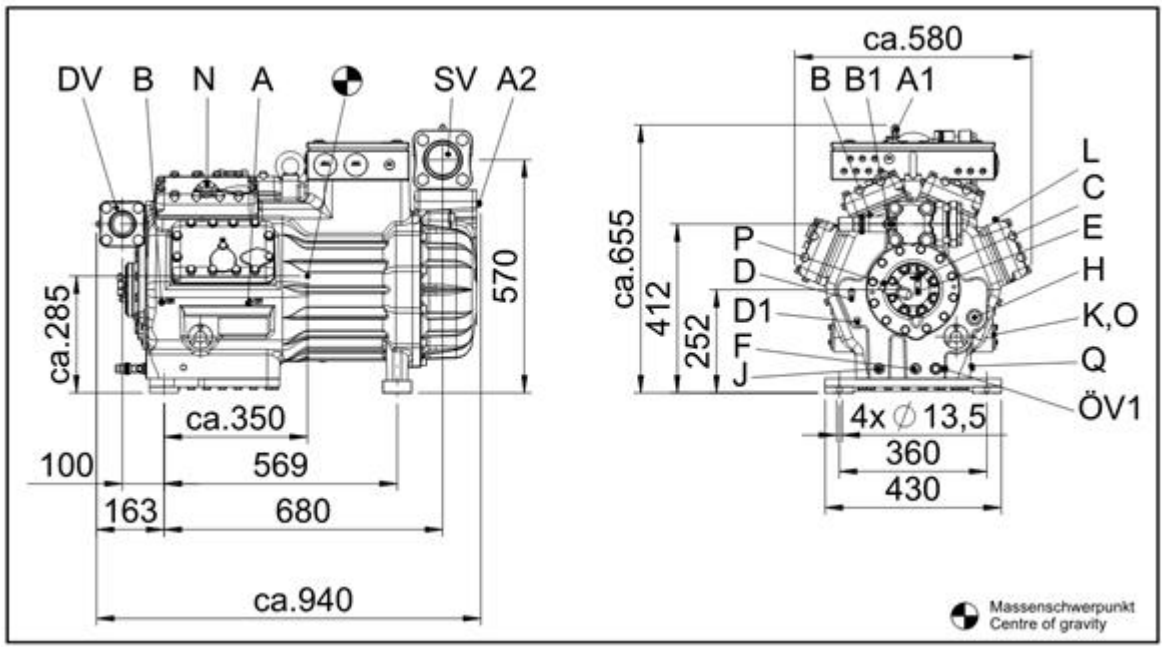
Special voltage and/or frequency (on request)

1) Only with additional adapter possible

2) Enclosure

3) Mounted

Dimensions and connections



Subject to change without notice

Subject:

SV	Suction line valve, tube ø [1)]	76 - 3 1/8
DV	Discharge line valve, tube ø [1)]	54 - 2 1/8
A	Connection suction side, not lockable	1/8 " NPTF
A1	Connection suction side, lockable	7/16 " UNF
A2	Connection suction side, not lockable	1/4 " NPTF
B	Connection discharge side, not lockable	1/8 " NPTF
B1	Connection discharge side, lockable	7/16 " UNF
C	Connection oil pressure safety switch OIL	7/16 " UNF
D	Connection oil pressure safety switch LP	7/16 " UNF
D1	Connection oil return from oil separator	1/4 " NPTF
E	Connection oil pressure gauge	7/16 " UNF
F	Oil drain	M 22 x 1.5
H	Oil charge plug	M 33 x 2
J1	Oil sump heater	M 22 x 1.5
K	Sight glass	-
L	Connection thermal protection thermostat	1/8 " NPTF
N	Connection capacity regulator	M 45 x 1.5
O	Connection oil level regulator	3 x M 6
ÖV1	Oil service valve	7/16 " UNF
P	Connection oil differential pressure sensor	M 20 x 1.5
Q	Connection oil temperature sensor	1/8 " NPTF

1) Brazing connection

Subject:

Product photo