Engine: 380-420V Y/YY -3- 50Hz PW

Refrigerant: R134a

Subject:



Performance data

Application: Refrigeration & AC

Refrigerant	R134a	Compressor refrigeration capacity	58.00 kW
Reference temperature	Dew point	Evaporator refrigeration capacity	58.00 kW
Power supply	50 Hz, 400 V	Power consumption	18.80 kW
Supply frequency	50 Hz	Current draw (400 V)	34.70 A
Evaporating temperature	5.0 °C	Coefficient of performance (COP/EER)	3.08
Evaporating pressure (abs.)	3.50 bar	Condensing capacity	76.90 kW
Condensing temperature	50.0 °C	Mass flow	0.406 kg/s
Condensing pressure (abs.)	13.17 bar	Discharge end temperature	82.2 °C 1)
Suction gas temperature	20 °C		
Subcooling (outside cond.)	0 K		
Usable superheat	100%		
		*	

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.

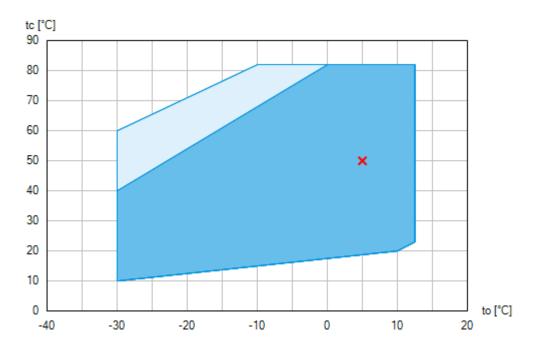
Engine: 380-420V Y/YY -3- 50Hz PW

Refrigerant: R134a

Subject:



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.

Restrictions to the operating limits may occur when using the Bock EFC (Electronic-Frequency-Control).

Engine: 380-420V Y/YY -3- 50Hz PW

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Technical data

Number of cylinders / Bore / Stroke	4 / 75 mm / 70 mm
Displacement 50/60 Hz (1450/1740 ¹/min)	107,60 / 129,10 m³/h
Voltage 1)	380-420V Y/YY -3- 50Hz PW
	440-480V Y/YY -3- 60Hz PW
Winding divided into	66% / 33%
Max. working current 2)	48.0 A
Max. power consumption ²⁾	28.2 kW
Starting current (rotor blocked) 2)	156.0 / 193.0 A
Motor protection	MP10
Protection terminal box	IP 65
Weight	222 kg
Max. permissible overpressure (g) (LP/HP) 3)	19 / 28 bar
Connection suction line SV	54 mm - 2 1/8 "
Connection discharge line DV	35 mm - 1 3/8 "
Lubrication	Oil pump
Oil type R134a	BOCKlub E55
Oil charge	3,6 Ltr.
Oil sump heater	230 V - 1 - 50/60 Hz, 140 W
Dimensions Length / Width / Height	850 / 455 / 405 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

- 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 motor contractors, feed lines, fuses and motor protection switches. Motor contractors: Consumption category AC3.
- 3) LP = Low pressure HP = High pressure

To:

Subject to change without notice

Engine: 380-420V Y/YY -3- 50Hz PW

Refrigerant: R134a

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]									
		10.0	5.0	0.0	-5.0	-10.0	-15.0	-20.0	-25.0	-30.0	
30.0	Q [W] P [kW] I [A]	93400 15.70 30.20	77000 14.80 28.80	62800 13.80 27.40	50500 12.70 26.00	40000 11.60 24.50	31300 10.50 23.10	24000 9.35 21.70	18100 8.18 20.30	13500 6.99 19.00	
35.0	Q [W] P [kW] I [A]	87500 16.90 31.80	72200 15.80 30.20	58800 14.60 28.60	47300 13.50 27.00	37500 12.20 25.30	29300 11.00 23.70	22400 9.72 22.10	16900 8.42 20.60	12500 7.12 19.20	
40.0	Q [W] P [kW] I [A]	81700 18.00 33.50	67400 16.80 31.70	54900 15.50 29.80	44100 14.20 28.00	35000 12.80 26.10	27300 11.40 24.30	20900 10.00 22.50	15600 8.61 20.80	11400 7.18 19.20	
45.0	Q [W] P [kW] I [A]	76000 19.20 35.30	62700 17.80 33.20	51000 16.40 31.10	41000 14.90 28.90	32500 13.40 26.80	25300 11.80 24.80	19300 10.20 22.80	14400 8.72 21.00	10300 7.15 19.20	
50.0	Q [W] P [kW] I [A]	70500 20.30 37.00	58000 18.80 34.70	47300 17.20 32.30	38000 15.50 29.90	30100 13.80 27.50	23400 12.10 25.20	17700 10.40 23.10	13100 8.75 21.00	9120 7.02 19.10	
55.0	Q [W] P [kW] I [A]	65000 21.50 38.80	53500 19.70 36.10	43500 17.90 33.40	34900 16.10 30.70	27600 14.30 28.10	21400 12.40 25.60	16100 10.50 23.20	11700 8.68 20.90	7920 6.79 18.80	
60.0	Q [W] P [kW] I [A]	59500 22.60 40.50	49000 20.60 37.50	39800 18.70 34.50	31900 16.70 31.50	25200 14.60 28.60	19400 12.60 25.80	14500 10.50 23.20	10300 8.50 20.70	6660 6.44 18.50	
65.0	Q [W] P [kW] I [A]	54200 23.60 42.20	44500 21.50 38.80	36200 19.30 35.50	29000 17.10 32.20	22800 14.90 29.00	17500 12.70 25.90	12900 10.40 23.00	8860 8.20 20.40		
70.0	Q [W] P [kW] I [A]	48900 24.60 43.80	40100 22.30 40.10	32500 19.90 36.40	26000 17.50 32.70	20300 15.10 29.20	15400 12.60 25.90	11200 10.20 22.70			

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

to Evaporating temperature

tc Condensing temperature

Q Compressor refrigeration capacity

P Power consumption

Current draw

Engine: 380-420V Y/YY -3- 50Hz PW

Refrigerant: R134a

Subject:



Scope of supply

Semi-hermetic four-cylinder reciprocating compressor with drive motor Motor unit flanged onto the compressor housing

Oil pump

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

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

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

Possibility of connection of oil level controllers Traxoil 1)

Oil charge:

BOCKlub E55

Sight glass

Pressure relief valve

Suction and discharge line valve

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 ²⁾

Oil sump heater 230 V - 1 - 50/60 Hz, 140 W

Oil service valve

Oil pressure safety switch MP54 230 V - 1 - 50/60 Hz, IP20 2)

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

Connection piece suction and discharge valve in welding design

Thermal protection thermostat per cylinder cover 3)

Intermediate adapter for discharge line valve

Special voltage and/or frequency (on request)

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

Subject to change without notice

Engine: 380-420V Y/YY -3- 50Hz PW

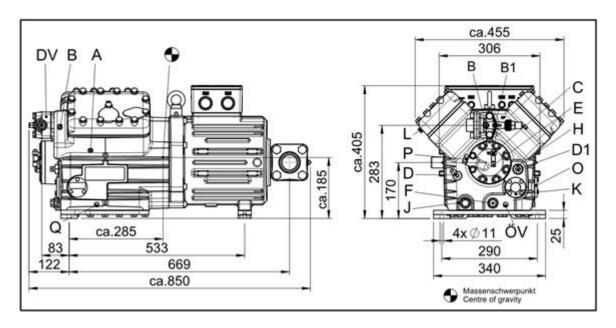
Refrigerant: R134a

Subject:

To:



Dimensions and connections



SV	Suction line valve, tube ø ¹)	54 mm - 2 1/8 "		
DV	Discharge line valve, tube ø 1)	35 mm - 1 3/8 "		
Α	Connection suction side, not lockable	1/8 " NPTF		
A1	Connection suction side, lockable	7/16 " UNF		
В	Connection discharge side, not lockable	1/8 " NPTF		
B1	Connection discharge side, lockable	7/16 " UNF		
С	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		
Н	Oil charge plug	M 22 x 1.5		
J	Connection oil sump heater	M 22 x 1.5		
K	Sight glass	-		
L	Connection thermal protection thermostat	1/8 " NPTF		
0	Connection oil level regulator	3 x M 6		
ÖV	Connection oil service valve	1/4" NPTF		
Р	Connection oil differential pressure sensor	M 20 x 1.5		
Q	Connection oil temperature sensor	1/8" NPTF		

From:

Engine: 380-420V Y/YY -3- 50Hz PW

Refrigerant: R134a



Subject:

1) Brazing connection

BOCK® **HGX6/1240-4 R134a** Engine: 380-420V Y/YY -3- 50Hz PW

Refrigerant: R134a

Subject:

Product photo



