



FRIGOPOL Selection Programme

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24.08.2016

**Capacity data : Separating Hood Compressor: 24-DLYB-5.4**

**Refrigerant :** R404A      **Electrical supply :** Y: 400/690V 50 Hz  
**Suction gas temperature :** 20°C      **Evaporator superheat :** 7K  
**Liquid subcooling :** 0K      **Operating frequency :** 50Hz

	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>50</b>
Condensing temperature [°C]	30	35	40	45	50
Evaporating temperature [°C]	-25	-25	-25	-25	-25
Refrigerating capacity [kW]	8,317	7,554	6,799	6,051	5,308
Evaporator capacity [kW]	6,437	5,75	5,074	4,409	3,755
Power input [kW]	4,046	4,129	4,182	4,209	4,216
Current input [A]	7,32	7,43	7,5	7,53	7,54
Mass flow [kg/s]	0,05649	0,05423	0,05186	0,04934	0,04665
COP [-]	2,06	1,83	1,63	1,44	1,26

	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>50</b>
Condensing temperature [°C]	30	35	40	45	50
Evaporating temperature [°C]	-20	-20	-20	-20	-20
Refrigerating capacity [kW]	10,49	9,591	8,7	7,812	6,927
Evaporator capacity [kW]	8,379	7,553	6,735	5,925	5,123
Power input [kW]	4,431	4,585	4,725	4,856	4,98
Current input [A]	7,82	8,02	8,21	8,38	8,54
Mass flow [kg/s]	0,07166	0,06929	0,0668	0,06416	0,06136
COP [-]	2,37	2,09	1,84	1,61	1,39

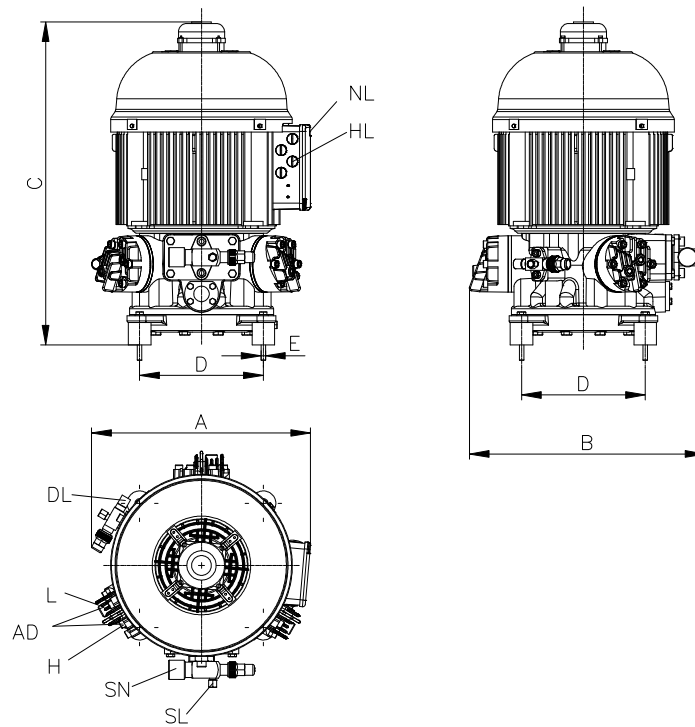
	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>50</b>
Condensing temperature [°C]	30	35	40	45	50
Evaporating temperature [°C]	-15	-15	-15	-15	-15
Refrigerating capacity [kW]	13,03	11,97	10,91	9,85	8,792
Evaporator capacity [kW]	10,75	9,751	8,76	7,774	6,792
Power input [kW]	4,775	4,993	5,212	5,437	5,671
Current input [A]	8,27	8,56	8,85	9,15	9,47
Mass flow [kg/s]	0,08966	0,08711	0,08442	0,08159	0,0786
COP [-]	2,73	2,4	2,09	1,81	1,55

	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>50</b>
Condensing temperature [°C]	30	35	40	45	50
Evaporating temperature [°C]	-10	-10	-10	-10	-10
Refrigerating capacity [kW]	15,98	14,72	13,47	12,21	10,94
Evaporator capacity [kW]	13,61	12,41	11,22	10,02	8,83
Power input [kW]	5,09	5,364	5,653	5,963	6,299
Current input [A]	8,69	9,06	9,45	9,88	10,4
Mass flow [kg/s]	0,1109	0,1081	0,1052	0,1021	0,09889
COP [-]	3,14	2,75	2,38	2,05	1,74

	<b>30</b>	<b>35</b>	<b>40</b>	<b>45</b>	<b>50</b>
Condensing temperature [°C]	30	35	40	45	50
Evaporating temperature [°C]	-5	-5	-5	-5	-5
Refrigerating capacity [kW]	19,39	17,9	16,41	14,92	13,42
Evaporator capacity [kW]	17,06	15,63	14,19	12,76	11,31
Power input [kW]	5,387	5,707	6,059	6,446	6,875
Current input [A]	9,09	9,52	10	10,6	11,2
Mass flow [kg/s]	0,1359	0,1329	0,1297	0,1263	0,1228
COP [-]	3,6	3,14	2,71	2,31	1,95



**Dimensions : Separating Hood Compressor 24-DLYB-5.4**



**Legend**

B...	Length	390 mm
A...	Width	410 mm
C...	Hight	575 mm
E...	Bolt	M 8 mm
D...	Bore-hole distance	220 mm
SL..	Suction line	1 1/8"
DL..	Discharge line	5/8"
AD..	Pressure control valve maintenance link	NPT 1/8"
SN..	Suction valve maintenance link	UNF 7/16"
NL..	Cable entry	PG 16
HL..	Cable entry	PG 9



## Technical data

## Separating Hood Compressor 24-DLYB-5.4

### Operating point:

Refrigerant:	R404A
Evaporating temperature [°C]	-10
Suction gas temperature [°C]	20
Evaporator superheat [K]	7
Condensing temperature [°C]	40
Liquid subcooling [K]	0
Refrigerating capacity [kW]	13,47
Refrigerating capacity* [kW]	13,47
Evaporator capacity [kW]	11,22
Power input [kW]	5,653
Condenser capacity [kW]	19,12
Operating frequency [Hz]	50
Current input [A]	9,45
Mass flow [kg/s]	0,1052
COP [-]	2,38

### Compound compressor:

Number (24-DLYB-5.4):	4
Refrigerating capacity [kW]	53,88
Evaporator capacity [kW]	44,88
Power input [kW]	22,61
Condenser capacity [kW]	76,48

\*) related to 20°C suction gas temperature, without liquid subcooling  
-> The evaporating and condensing temperatures correspond to the dew point temperatures  
-> Compound compressors require additional cooling!

### Mechanical data:

Length	390 mm
Width	410 mm
Height	575 mm
Weight	79 kg
Number of cylinders	3
Stroke	46 mm
Bore	50 mm
Swept volume	271 cm <sup>3</sup>
Displacement (50Hz)	23,57 m <sup>3</sup> /h
Displacement (50Hz)	28,28 m <sup>3</sup> /h
Maximum operating overpressure (HP)	23 bar
Maximum operating overpressure (LP)	18 bar
Suction line (SL)	1 1/8"
Discharge line (DL)	5/8"
Oil charge	1,5 l

### Electrical data:

Electrical supply:	Y: 400/690V 50 Hz
Nominal power consumption	4 kW
Nominal power consumption	5,4 PS



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Cooling



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Power consumption	air cooled
Max. working current (rotor blocked)	30 W
Max. working current	54 A
Stacklength of the stator	12 A
	80 mm
Lubricant:	
Oil type	TRITON SEZ 32



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## Accessories

## Separating Hood Compressor 24-DLYB-5.4

Refrigerant:

R404A

Accessories:

Unloader

Option

Motor protection device

Standard (Thermoprotector)

Monitoring of discharge temperature

Option

Compensatory elements

Standard (Rubber mounting)

Head fan

Standard

Number

1

Electrical supply

230V /1/ 50Hz

Power consumption

30 W

Max. working current

0,33 A

Oil charge heater

Option (Heating element)

Number

1

Electrical supply

230/1/50

Power consumption

54 W



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**Notes**

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