



## Selection: Semi-hermetic Reciprocating Compressors

### Input Values

Compressor model	4CES-6Y	Suction gas temperature	20,00 °C
Mode	Refrigeration and Air conditioning	Operating mode	Auto
Refrigerant	R404A	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Capacity control	100%
Liq. subc. (in condenser)	0 K	Useful superheat	100%

### Result

Q [W]	Cooling capacity	COP [ - ]	COP/EER
Qu* [W]	Evaporator capacity	m [kg/h]	Mass flow
P [kW]	Power input	Op.	Operating mode
I [A]	Current	th [°C]	Discharge gas temp. w/o cooling
Qc [W]	Condenser capacity		

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	26315	21634	17606	14155	11217	8734	6654	4929
	Qu* [W]	26315	21634	17606	14155	11217	8734	6654	4929
	P [kW]	6,61	6,29	5,88	5,40	4,87	4,31	3,74	3,17
	I [A]	11,67	11,22	10,67	10,03	9,36	8,70	8,06	7,50
	Qc [W]	32925	27924	23486	19556	16088	13044	10392	8103
	COP [ - ]	3,98	3,44	2,99	2,62	2,30	2,03	1,78	1,55
	m [kg/h]	661	538	434	347	273	212	160,5	118,5
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	68,6	75,5	82,7	90,4	98,7	107,7	117,9	129,9
40°C	Q [W]	22428	18352	14848	11855	9315	7178	5399	3935
	Qu* [W]	22428	18352	14848	11855	9315	7178	5399	3935
	P [kW]	7,66	7,14	6,54	5,90	5,22	4,54	3,86	3,21
	I [A]	13,17	12,42	11,57	10,69	9,81	8,96	8,19	7,53
	Qc [W]	30091	25491	21393	17755	14539	11715	9257	7141
	COP [ - ]	2,93	2,57	2,27	2,01	1,78	1,58	1,40	1,23
	m [kg/h]	635	514	412	326	255	195,1	146,0	106,0
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	79,9	86,9	94,3	102,2	110,8	120,3	130,9	0
50°C	Q [W]	18519	15079	12125	9606	7476	5693	4218	3013
	Qu* [W]	18519	15079	12125	9606	7476	5693	4218	3013
	P [kW]	8,55	7,83	7,07	6,27	5,47	4,67	3,90	3,17
	I [A]	14,48	13,42	12,31	11,20	10,12	9,12	8,23	7,49
	Qc [W]	27065	22911	19193	15879	12942	10360	8113	6183
	COP [ - ]	2,17	1,93	1,72	1,53	1,37	1,22	1,08	0,95
	m [kg/h]	607	488	388	305	235	178,1	131,3	93,4
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	91,1	98,3	105,9	114,1	123,0	133,0	0	0

-- No calculation possible (see message in single point selection)

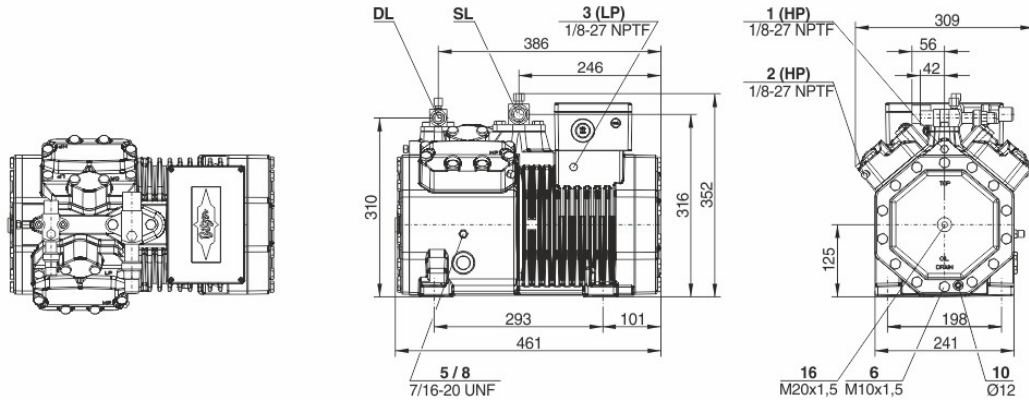
\*According to EN12900 (20°C suction gas temp., 0K liquid subcooling)

## Application Limits 100% 4CES-6



## Technical Data: 4CES-6Y

### Dimensions and Connections



### Technical Data

#### Technical Data

Displacement (1450 RPM 50Hz)	32,48 m <sup>3</sup> /h
Displacement (1750 RPM 60Hz)	39,20 m <sup>3</sup> /h
No. of cylinder x bore x stroke	4 x 55 mm x 39,3 mm
Weight	99 kg
Max. pressure (LP/HP)	19 / 32bar
Connection suction line	28 mm - 1 1/8"
Connection discharge line	22 mm - 7/8"
Oil type R134a/R407C/R404A/R507A/R407A/R407F	BSE32(Standard)   R134a tc>70°C: BSE55 (Option)
Oil type R22 (R12/R502)	B5.2 (Option)
Oil type R1234yf	BSE32 (Standard)   R1234yf tc>70°C : BSE55 (Option)
Oil type R1234ze	BSE55 (Standard)   to>15°C: BSE85K (Option)   tc>70°C: BSE85K (Option)
Ölfüllung R454C/R455A	BSE32 (Standard)
Oil type R515B	BSE55 (Standard)   to>15°C: BSE85K (Option)   tc>70°C: BSE85K (Option)

#### Motor data

Motor version	2
Motor voltage (more on request)	380-420V Y-3-50Hz
Max operating current	17.7 A
Starting current (Rotor locked)	82.4 A
Max. Power input	9,7 kW

#### Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP66
Vibration dampers	Standard
Oil charge	2,00 dm <sup>3</sup>
Discharge shut-off valve	Standard
Suction shut-off valve	Standard

#### Available Options

Discharge gas temperature sensor	Option
Capacity control	100-50% (Option)
Capacity Control - infinite	100-10% (Option)
Additional fan	Option
Crankcase heater	0..120 W PTC (Option)
Oil level monitoring	OLC-K1 (Option)

#### Sound measurement

Sound power level (-10°C / 45°C)	74,1dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	76,5 dB(A) @ 50Hz



## Selection: Semi-hermetic Reciprocating Compressors

### Input Values

Compressor model	(4CC-6.2Y)	Suction gas temperature	20,00 °C
Mode	Refrigeration and Air conditioning	Operating mode	Auto
Refrigerant	R404A	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Capacity control	100%
Liq. subc. (in condenser)	0 K	Useful superheat	100%

### Result

Q [W]	Cooling capacity	COP [ - ]	COP/EER
Qu* [W]	Evaporator capacity	m [kg/h]	Mass flow
P [kW]	Power input	Op.	Operating mode
I [A]	Current	th [°C]	Discharge gas temp. w/o cooling
Qc [W]	Condenser capacity		

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
<b>30°C</b>	Q [W]	24971	20648	16905	13677	10904	8537	6528	4836
	Qu* [W]	24971	20648	16905	13677	10904	8537	6528	4836
	P [kW]	6,65	6,36	5,98	5,52	5,01	4,45	3,86	3,25
	I [A]	11,73	11,31	10,79	10,19	9,54	8,86	8,20	7,57
	Qc [W]	31625	27005	22881	19199	15915	12990	10391	8088
	COP [ - ]	3,75	3,25	2,83	2,48	2,18	1,92	1,69	1,49
	m [kg/h]	627	514	417	335	266	207	157,5	116,3
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	70,6	77,7	85,3	93,4	102,1	111,6	122,0	133,7
<b>40°C</b>	Q [W]	21143	17432	14211	11426	9030	6981	5240	3770
	Qu* [W]	21143	17432	14211	11426	9030	6981	5240	3770
	P [kW]	7,64	7,17	6,63	6,03	5,37	4,67	3,94	3,21
	I [A]	13,14	12,47	11,70	10,86	9,99	9,12	8,29	7,53
	Qc [W]	28780	24606	20844	17453	14398	11651	9184	6976
	COP [ - ]	2,77	2,43	2,14	1,90	1,68	1,50	1,33	1,18
	m [kg/h]	599	488	394	314	247	189,7	141,7	101,6
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	82,0	89,4	97,3	105,7	114,8	124,6	135,4	0
<b>50°C</b>	Q [W]	17323	14221	11523	9186	7175	5456	3996	2768
	Qu* [W]	17323	14221	11523	9186	7175	5456	3996	2768
	P [kW]	8,61	7,98	7,28	6,51	5,71	4,87	4,01	3,14
	I [A]	14,57	13,64	12,61	11,53	10,43	9,36	8,35	7,46
	Qc [W]	25933	22200	18799	15700	12882	10322	8001	5905
	COP [ - ]	2,01	1,78	1,58	1,41	1,26	1,12	1,00	0,88
	m [kg/h]	568	460	369	292	226	170,7	124,4	85,8
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	94,4	102,2	110,5	119,6	129,4	0	0	0

-- No calculation possible (see message in single point selection)

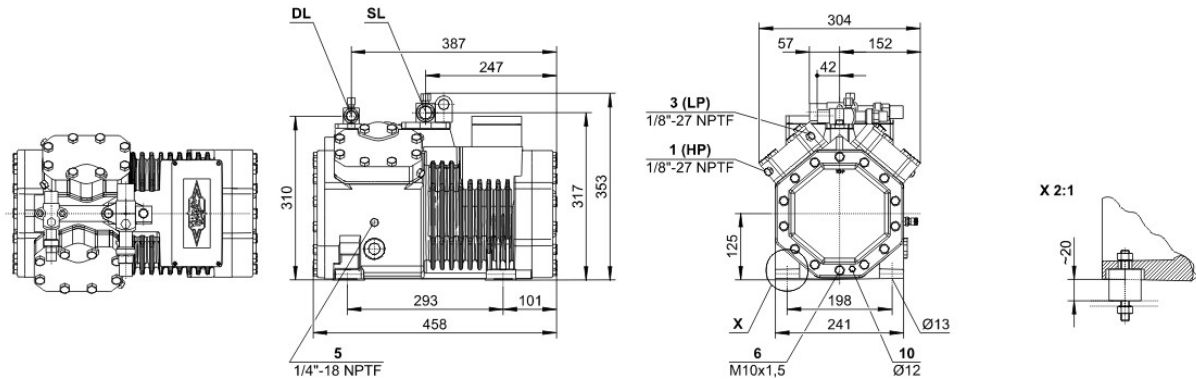
\*According to EN12900 (20°C suction gas temp., 0K liquid subcooling)

## Application Limits 100% Octagon 4CC-6.2



## Technical Data: (4CC-6.2Y)

### Dimensions and Connections



### Technical Data

#### Technical Data

Displacement (1450 RPM 50Hz)	32,48 m <sup>3</sup> /h
Displacement (1750 RPM 60Hz)	39,20 m <sup>3</sup> /h
No. of cylinder x bore x stroke	4 x 55 mm x 39,3 mm
Weight	90,5 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	28 mm - 1 1/8"
Connection discharge line	22 mm - 7/8"
Oil type R134a/R407C/R404A/R507A/R407A/R407F	tc<55°C: BSE32   tc>55°C: BSE55 (Option)
Oil type R22 (R12/R502)	B5.2 (Standard)
Oil type R290/R1270	SHC226E (Standard)

#### Motor data

Motor voltage (more on request)	380-420V Y-3-50Hz
Max operating current	15.9 A
Starting current (Rotor locked)	82.4 A
Max. Power input	9,0 kW

#### Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP65
Vibration dampers	Standard
Oil charge	2,00 dm <sup>3</sup>

#### Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Additional fan	Option
Crankcase heater	0..120 W PTC (Option)
Oil level monitoring	OLC-K1 (Option, not for R290/R1270)

#### Sound measurement

Sound power level (-10°C / 45°C)	72,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	76,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	64,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	68,0 dB(A) @ 50Hz