

# Reciprocating compressor S7-33Y



Producer: **Frascold**

Line: **S**

Model: **S7-33Y**

Cooling capacity [kW]: **15.45**

Displacement [m<sup>3</sup>/h]: **32.8**

Refrigerant: **R22, R134a, R404A, R407A, R407C, R407F, R448A, R449A, R450A, R452A, R507, R513A**

Capacity control: **None, Step (option), Inverter (option)**

Power supply: **400V/3Ph/50Hz**

## Data

### Technical data

Displacement	[m <sup>3</sup> /h]	32.8
Cylinders quantity		4
Oil charge	[l]	2.90
Oil type		POE32
Type of lubrication		Splash lubrication
Net weight	[kg]	117

### Electrical data

Power supply		400V/3Ph/50Hz
Maximum operating current	[A]	20.4
Locked rotor amperage	[A]	47.0
Locked rotor amperage, DOL	[A]	75.0
Maximum motor frequency	[Hz]	87
Minimum motor frequency	[Hz]	25
Nominal motor power for 50 Hz	[kW]	5.22
Nominal motor power for 50 Hz	[HP]	7.00
Motor connection		PWS

### Dimensions

Suction valve diameter (SV)	[inch]	1 3/8
Suction valve diameter (SV)	[mm]	35.0
Discharge valve diameter (DV)	[inch]	1 1/8
Discharge valve diameter (DV)	[mm]	28.6
Length	[mm]	550
Height	[mm]	405
Width	[mm]	405

### Other

Approved refrigerants

R22, R134a, R404A, R407A, R407C, R407F, R448A, R449A, R450A, R452A, R507, R513A

Capacity control

None, Step (option), Inverter (option)

## Performance

Nominal conditions: refrigerant: R404A , evaporation (dew point): -10 °C, condensation (dew point): 45 °C, superheating: 10 K, subcooling: 0 °C

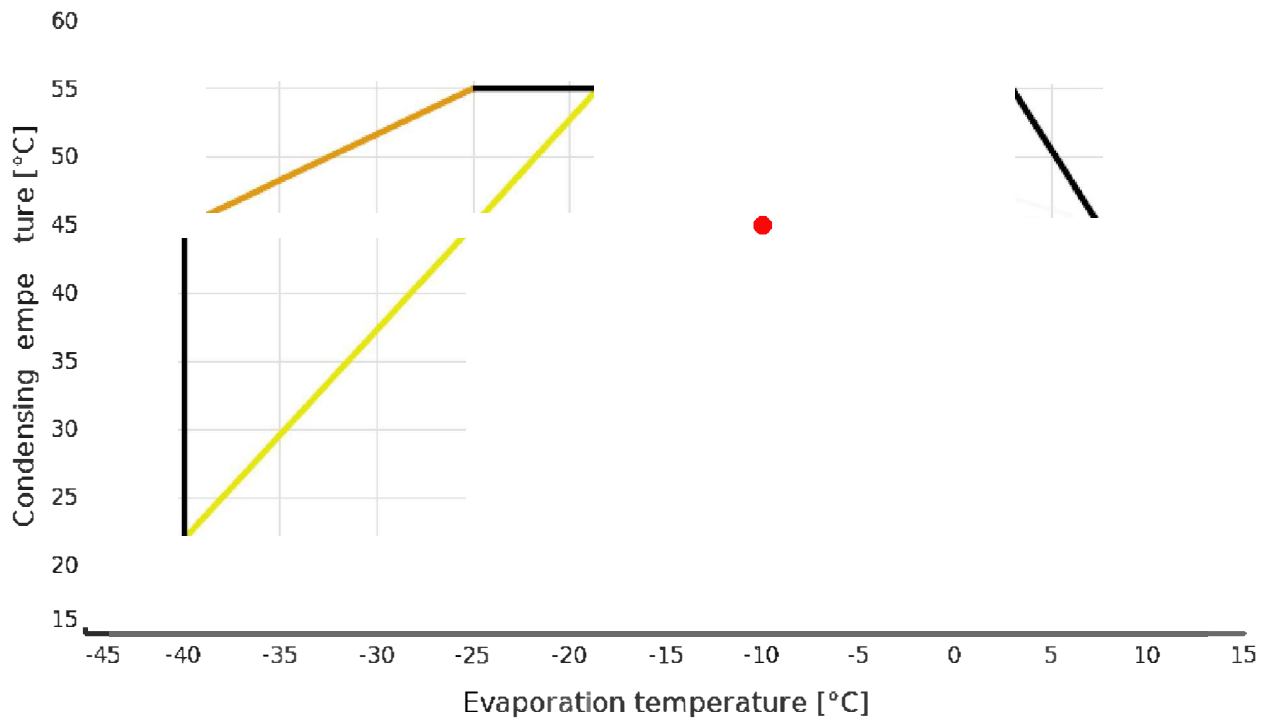
### Cooling capacity [kW]

		Evaporation temperature [°C]										
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7.5
Condensation temperature °C	55				5.48	7.37	9.54	12.09	15.10	18.69		
	50			4.65	6.48	8.56	10.96	13.78	17.11	21.06	25.72	
	45	2.11	3.74	5.50	7.47	9.73	12.36	15.45	19.10	23.41	28.46	31.30
	40	2.80	4.49	6.35	8.46	10.89	13.75	17.11	21.08	25.74	31.19	34.23
	35	3.51	5.24	7.19	9.43	12.04	15.12	18.75	23.04	28.05	33.89	37.14
	30	4.21	5.98	8.01	10.38	13.17	16.48	20.38	24.98	30.35	36.58	40.04
	25	4.90	6.72	8.83	11.32	14.29	17.81	21.99	26.90	32.63	39.25	42.91
	20	5.59	7.43	9.62	12.24	15.38	19.13	23.58	28.80	34.88	41.89	45.76

### Power consumption [kW]

		Evaporation temperature [°C]										
		-40	-35	-30	-25	-20	-15	-10	-5	0	5	7.5
Condensation temperature [°C]	55				5.85	6.76	7.67	8.57	9.42	10.20		
	50			4.94	5.76	6.60	7.43	8.23	8.97	9.64	10.20	
	45	3.45	4.13	4.86	5.62	6.38	7.13	7.83	8.46	9.00	9.43	9.59
	40	3.42	4.05	4.73	5.43	6.11	6.77	7.37	7.89	8.31	8.60	8.69
	35	3.35	3.95	4.57	5.20	5.81	6.37	6.87	7.28	7.57	7.72	7.74
	30	3.27	3.82	4.39	4.95	5.48	5.95	6.35	6.64	6.80	6.82	6.76
	25	3.19	3.70	4.21	4.70	5.14	5.52	5.81	5.99	6.02	5.90	5.77
	20	3.13	3.58	4.03	4.45	4.81	5.10	5.28	5.34	5.24	4.98	4.77

**Application range**

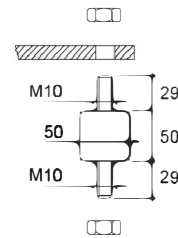
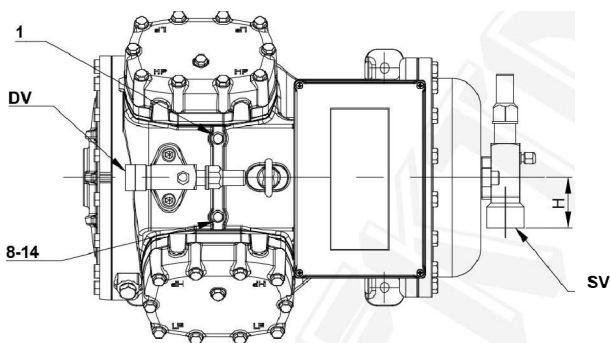
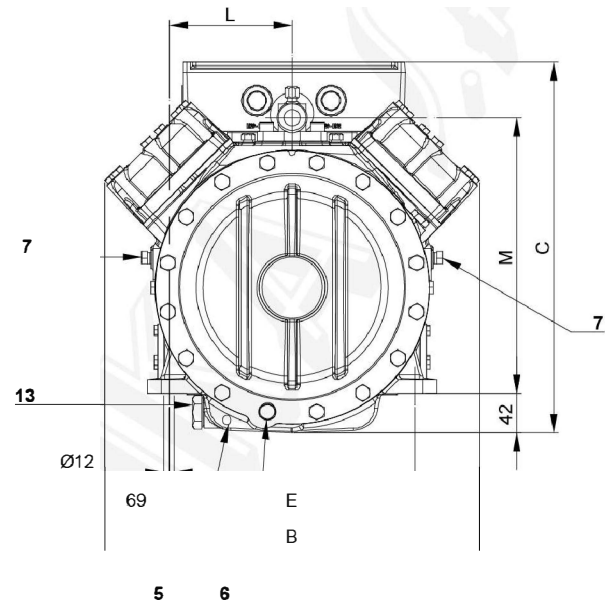
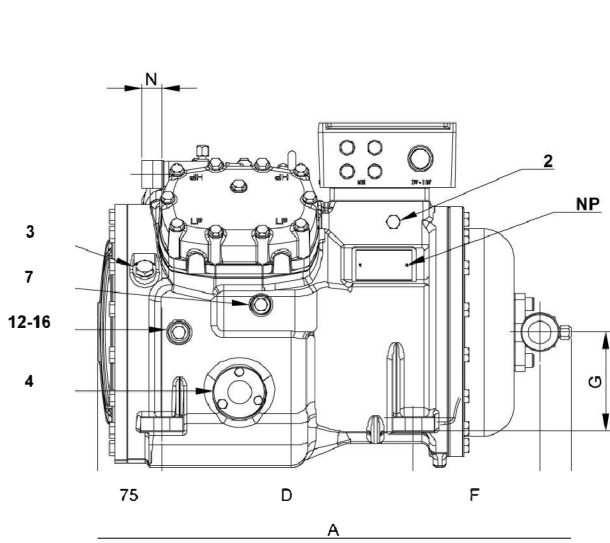


**Legend**

- With additional header cooling
- Without cooling
- Current operating conditions

**Reference conditions** - suction gas temperature: 20°C, subcooling: 0 K.

**Dimensions**



## Symbols

1	High pressure connection	1/8" NPT
2	Low pressure connection	1/4" NPT
3	Oil charge plug	1/4" GAS
4	Oil level sight glass	
5	Crankcase heater seat	
6	Oil drain plug	M10 x 30
7	Liquid injection plug	1/4" NPT
8	Liquid injection sensor plug	1/8" NPT
12	Oil return plug	1/4" NPT
13	Magnetic plug	1/2" GAS
14	Max. discharge temperature sensor connection	1/8" NPT
16	Crankcase pressure plug	1/4" NPT

DV	Discharge valve
SV	Suction valve
NP	Nameplate

## Compressor dimensions

Dimension A	[mm]	550
Dimension B	[mm]	405
Dimension C	[mm]	405
Dimension D	[mm]	292
Dimension E	[mm]	266

## Valves position

Dimension F	[mm]	147
Dimension G	[mm]	115
Dimension H	[mm]	58
Dimension L	[mm]	133
Dimension M	[mm]	298
Dimension N	[mm]	23