

Refrigeration compressor SZ185W4 - SZ185W4XD



Producer: **Danfoss**

Line: **SZ**

Model: **SZ185W4**

Connection type: **Brazed**

Motor protection: **Electronic protection module, 110 / 240 V**

Cooling capacity [kW]: **23.77**

Displacement [m³/h]: **43.5**

Refrigerant: **R134a, R404A, R407C, R513A**

Capacity control: **None**

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

Data

Technical data

Displacement	[m ³ /h]	43.5
Swept volume	[cm ³]	249.90
Oil type		POE 160SZ
Oil charge	[l]	6.20
Internal free volume (suction)	[dm ³]	31.2
Internal free volume (discharge)	[dm ³]	2.5
Net weight	[kg]	100
Gross weight	[kg]	111

Electrical data

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	34.0
Maximum operating current	[A]	35.0
Locked rotor amperage	[A]	155.0
Rated load amps	[A]	24.0
Revolutions per minute	[RPM]	2,900
Motor resistance main	[Ω]	0.94

Limits

Maximum suction pressure	[bar]	25.0
Maximum discharge pressure	[bar]	34.3
Maximum suction temperature	[°C]	54.0
Minimum suction temperature	[°C]	-35.0
Maximum discharge temperature	[°C]	150.0
Minimal discharge temperature	[°C]	-35.0

Dimensions

Suction tube diameter	[inch]	1 5/8
Discharge tube diameter	[inch]	1 1/8
Diameter	[mm]	317
Height	[mm]	678
Oil equalization		3/8" Flare SAE
Oil drain		1/4" Flare

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Other

Approved refrigerants	R134a, R404A, R407C, R513A
Capacity control	None
Protection rating (with cable gland)	IP54
Glass mounting	Threaded
Approvals	UL, CE, UKCA

Shipped equipment

Motor protection	Electronic protection module, 110 / 240 V
Shipped mounting	Mounting kit with grommets, bolts, nuts, sleeves and washers
Shipped modules	Electronic protection module mounted in terminal box

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Performance

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

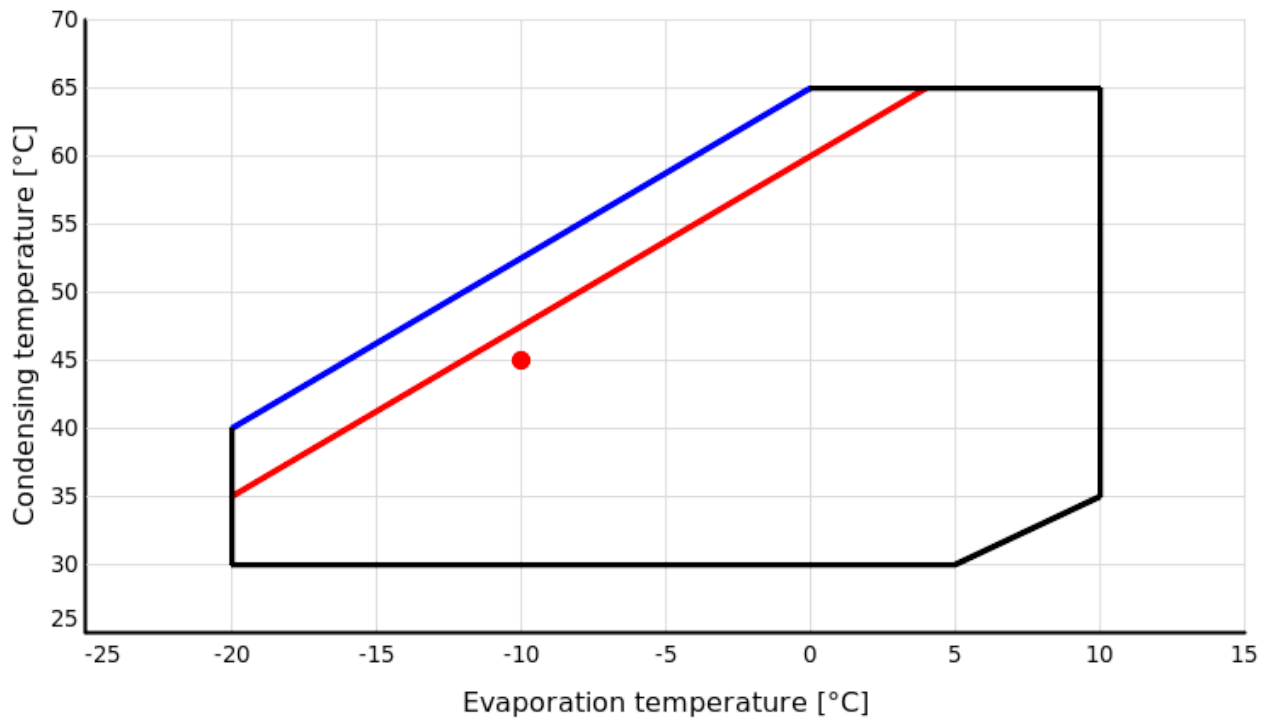
Cooling capacity [kW]

		Evaporation temperature [°C]						
		-20	-15	-10	-5	0	5	10
Condensation temperature [°C]	30	19.77	24.70	30.63	37.69	45.99	55.67	
	35	18.22	22.88	28.48	35.13	42.96	52.08	62.63
	40	16.60	20.96	26.19	32.40	39.72	48.26	58.16
	45		18.94	23.77	29.51	36.28	44.21	53.42
	50			21.21	26.44	32.64	39.92	48.41
	55				23.20	28.79	35.40	43.14
	60					24.74	30.63	37.58
	65					20.47	25.61	31.75

Power consumption [kW]

		Evaporation temperature [°C]						
		-20	-15	-10	-5	0	5	10
Condensation temperature [°C]	30	9.14	9.23	9.27	9.29	9.27	9.24	
	35	10.10	10.19	10.25	10.28	10.28	10.25	10.21
	40	11.15	11.26	11.33	11.36	11.37	11.35	11.32
	45		12.44	12.52	12.56	12.57	12.56	12.52
	50			13.84	13.88	13.90	13.88	13.85
	55				15.36	15.38	15.36	15.32
	60					17.02	17.00	16.95
	65					18.86	18.83	18.77

Application range



Legend

- Suction gas superheating: 11 K
- Suction gas superheating: 30 K
- Current operating conditions



Producer: **Danfoss**

Line: **SZ**

Model: **SZ120-4**

Cooling capacity [kW]: **15.62**

Displacement [m³/h]: **29.0**

Refrigerant: **R134a, R404A, R407C**

Capacity control: **None**

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

Data

Technical data

Displacement	[m ³ /h]	29.0
Swept volume	[cm ³]	166.60
Oil charge	[l]	3.25
Oil type		POE 160SZ
Internal free volume (suction)	[dm ³]	13.6
Internal free volume (discharge)	[dm ³]	1.1
Net weight	[kg]	73.00
Gross weight	[kg]	79.34

Electrical data

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	29.0
Maximum operating current	[A]	24.0
Locked rotor amperage	[A]	130.0
Revolutions per minute	[RPM]	2900
Motor resistance main	[Ω]	1.05

Limits

Maximum suction pressure	[bar]	25.0
Maximum discharge pressure	[bar]	34.3
Maximum suction temperature	[°C]	54.0
Minimum suction temperature	[°C]	-35.0
Maximum discharge temperature	[°C]	150.0
Minimal discharge temperature	[°C]	-35.0

Dimensions

Suction tube diameter ¹	[inch]	1 3/8
Discharge tube diameter ¹	[inch]	7/8
Diameter	[mm]	254
Height	[mm]	558
Oil equalization		3/8" Flare SAE

¹ For version with brazed connection type.

² For version with Rotolock connection type.

Other

Product codes	SZ120-4VI, SZ120-4VM
Approved refrigerants	R134a, R404A, R407C
Capacity control	None
Protection rating ³	IP54
Glass mounting	Threaded

Shipped equipment

Motor protection	Internal overload protector
Shipped mounting	Mounting kit with grommets, bolts, nuts, sleeves and washers

³ With cable gland.

Performance

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

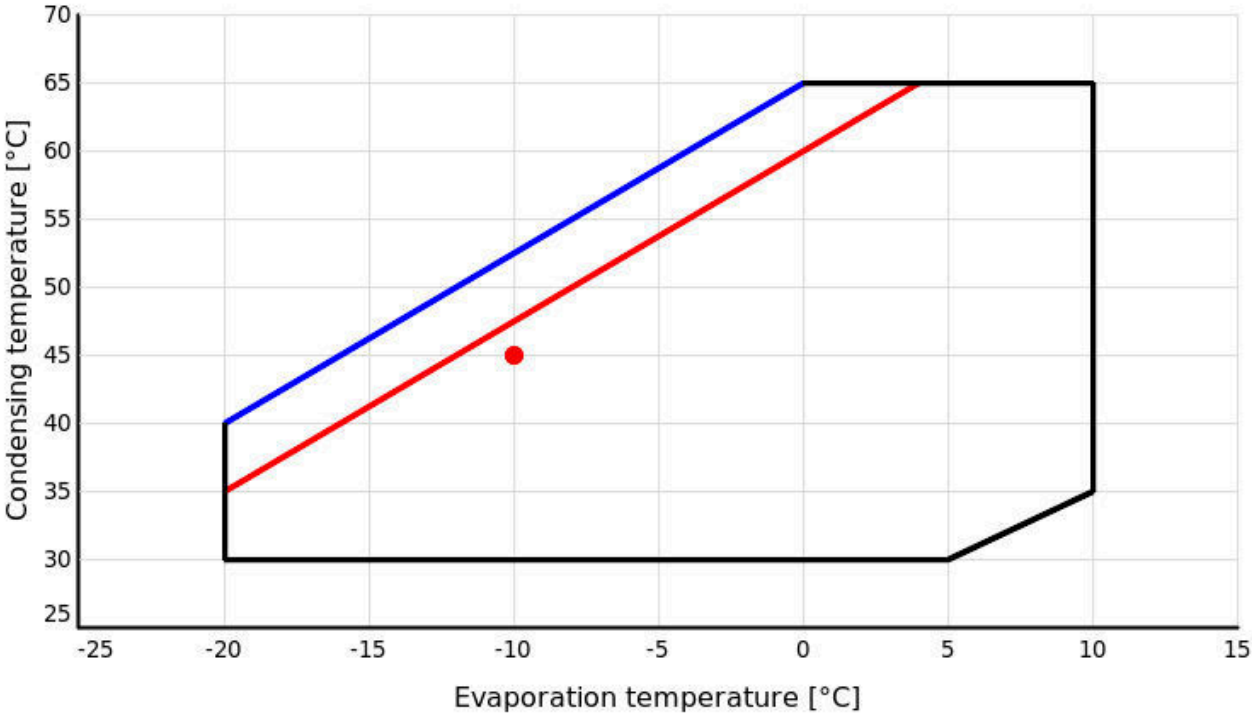
Cooling capacity

		Evaporation temperature [°C]						
		-20	-15	-10	-5	0	5	10
Condensation temperature [°C]	30	12.97	16.28	20.21	24.84	30.23	36.46	
	35	11.90	15.06	18.79	23.18	28.30	34.22	41.01
	40	10.78	13.75	17.26	21.38	26.19	31.75	38.15
	45		12.37	15.62	19.44	23.90	29.08	35.05
	50			13.89	17.37	21.45	26.21	31.72
	55				15.17	18.84	23.15	28.16
	60					16.09	19.91	24.39
	65					13.20	16.49	20.41

Power consumption

		Evaporation temperature [°C]						
		-20	-15	-10	-5	0	5	10
Condensation temperature [°C]	30	6.23	6.22	6.17	6.10	6.01	5.92	
	35	6.94	6.94	6.90	6.83	6.75	6.65	6.55
	40	7.72	7.74	7.71	7.64	7.56	7.46	7.35
	45		8.62	8.60	8.54	8.46	8.36	8.24
	50			9.59	9.54	9.46	9.36	9.24
	55				10.66	10.58	10.47	10.35
	60					11.82	11.71	11.58
	65					13.21	13.09	12.96

Application range



Legend

- Suction gas superheating: 11 K
- Suction gas superheating: 30 K



Producer: **Danfoss**

Line: **SZ**

Model: **SZ110-4**

Cooling capacity [kW]: **13.94**

Displacement [m³/h]: **25.1**

Refrigerant: **R134a, R404A, R407C**

Capacity control: **None**

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

Data

Technical data

Displacement	[m ³ /h]	25.1
Swept volume	[cm ³]	144.20
Oil type		POE 160SZ
Oil charge	[l]	3.25
Internal free volume (suction)	[dm ³]	13.6
Internal free volume (discharge)	[dm ³]	1.1
Net weight	[kg]	73.00
Gross weight	[kg]	86.81

Electrical data

Power supply		400V/3Ph/50Hz
Maximum continuous current	[A]	22.0
Maximum operating current	[A]	20.0
Locked rotor amperage	[A]	130.0
Rated load amps	[A]	15.7
Revolutions per minute	[RPM]	2900
Motor resistance main	[Ω]	1.05

Limits

Maximum suction pressure	[bar]	25.0
Maximum discharge pressure	[bar]	34.3
Maximum suction temperature	[°C]	54.0
Minimum suction temperature	[°C]	-35.0
Maximum discharge temperature	[°C]	150.0
Minimal discharge temperature	[°C]	-35.0

Dimensions

Suction tube diameter ¹	[inch]	1 3/8
Discharge tube diameter ¹	[inch]	7/8
Diameter	[mm]	254
Height	[mm]	558
Oil equalization		3/8" Flare SAE

¹ For version with brazed connection type.

² For version with Rotolock connection type.

Other

Product codes	SZ110-4VI, SZ110-4VM
Alternative name	SZ110S4VC
Approved refrigerants	R134a, R404A, R407C
Capacity control	None
Protection rating ³	IP54
Glass mounting	Threaded
Approvals	UL, CE, UKCA

Shipped equipment

Motor protection	Internal overload protector
Shipped mounting	Mounting kit with grommets, bolts, nuts, sleeves and washers

³ With cable gland.

Performance

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

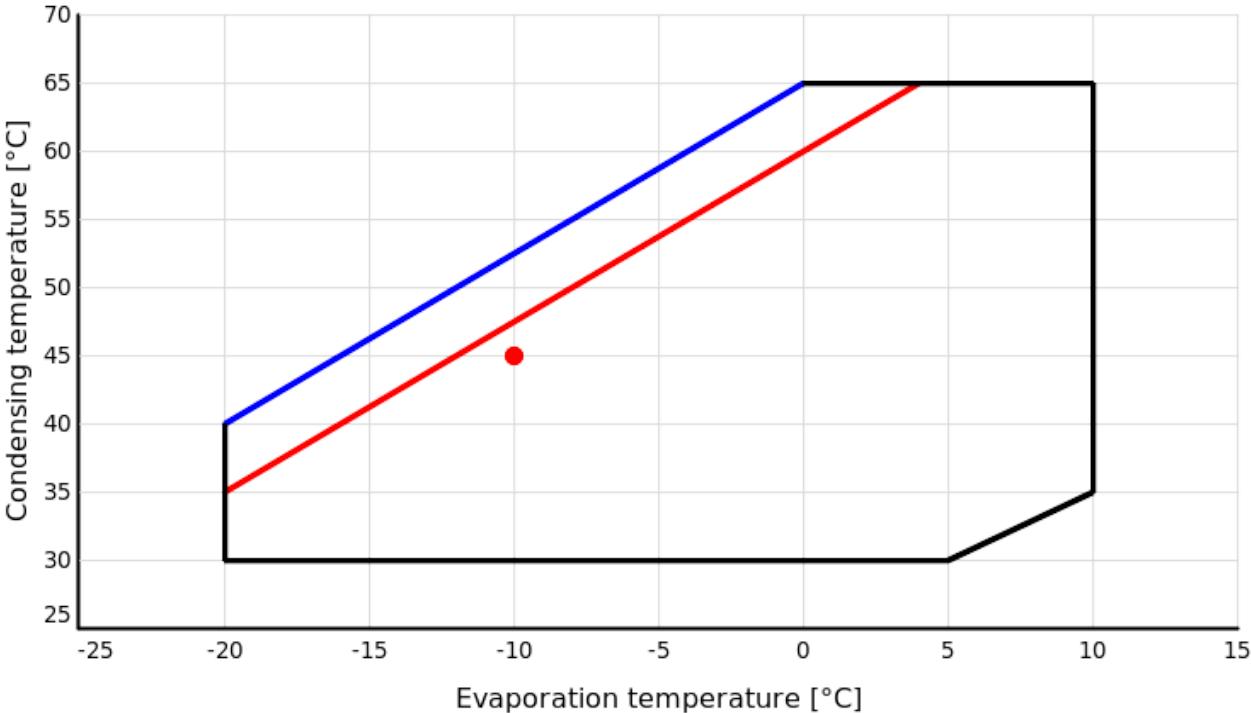
Cooling capacity [kW]

		Evaporation temperature [°C]						
		-20	-15	-10	-5	0	5	10
Condensation temperature [°C]	30	11.35	14.25	17.68	21.72	26.42	31.85	
	35	10.49	13.25	16.53	20.38	24.85	30.02	35.93
	40	9.57	12.19	15.28	18.91	23.14	28.03	33.62
	45		11.05	13.94	17.33	21.29	25.86	31.12
	50			12.50	15.63	19.29	23.53	28.43
	55				13.80	17.14	21.03	25.54
	60					14.84	18.36	22.46
	65					12.40	15.51	19.18

Power consumption [kW]

		Evaporation temperature [°C]						
		-20	-15	-10	-5	0	5	10
Condensation temperature [°C]	30	5.52	5.49	5.46	5.43	5.39	5.37	
	35	6.13	6.11	6.08	6.04	6.00	5.97	5.95
	40	6.80	6.78	6.76	6.72	6.68	6.64	6.61
	45		7.53	7.51	7.47	7.43	7.39	7.35
	50			8.34	8.31	8.27	8.22	8.18
	55				9.24	9.20	9.16	9.11
	60					10.24	10.19	10.15
	65					11.40	11.35	11.30

Application range



Legend

- Suction gas superheating: 11 K
- Suction gas superheating: 30 K
- Current operating conditions

