

Mbsm.pro, Compressor, SM185, DANFOSS
REFRIGERATION, Scroll compressor,
SM185S4RC, Danfoss Scroll, 188000
btu/h, R22, 15 hp, 3 ph / 400 v

Category: compressor

written by Lilianne | 17 May 2022

Danfoss
MADE IN CHINA

Model no: **SM185S4RC**



Serial no: **GC2503075828**



M 380-400 V 3 ~ 50 Hz
460 V 3 ~ 60 Hz
LR 175 A MAX OPER. 35 A
Thermally protected system
P.E.D. LP side HP side
Marking 25 bar 27.8 bar
PS 63 °C 150 °C
TS max -35 °C -35 °C
TS min 31.0 L 2.0 L
Volume 31.0 L
Lubricant: MINERAL OIL 160P

CE **UL** ENEC
0062



2016 Refrigerant: R22 (UL rating) - R417A with 160SZ
PROTECTED BY DOMESTIC AND FOREIGN PATENTS

CAUTION



Use only manufacturer's approved refrigerants, lubricants and electrical components. Unauthorized refrigerant / lubricant / electrical components could cause fires, explosions, electrical shorting.
For details refer to multi language instructions and technical documentation available on Danfoss website at <http://rec.danfoss.com>

Installation and servicing shall be performed by trained personnel only. Failure to observe these safety warnings could result in serious injury or death.
ELECTRIC SHOCK HAZARD: Turn off power before servicing. (Discharge all capacitors.)
Keep terminal cover in place and securely fastened whenever power is applied to the compressor. Use this equipment on a grounded system only.
HIGH PRESSURE: System contains refrigerant and oil under pressure. Remove pressure from both the high and low side before servicing and safety goggles.
FIRE HAZARD: Use tubing cutter to remove compressor. Do not use torch as oil may catch fire.

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Model	Nominal Cooling 50Hz HP	Nominal cooling capacity W Btu/h	input power kW	efficiency COP W/W	sound E.E.R Btu/h/WdBA	power level	Displacement cm3rev	Displacement m3/h	lubricant charge dm3	weight Kg
SM0847		20400	6.12	3.33	11.4	70	114.5	19.92	3.25	72
SM0907.5		21800	6.54	3.33	11.4	70	120.5	20.97	3.25	72
SM1008		23100	6.96	3.33	11.3	70	127.2	22.13	3.25	72

SM1109	2590088600	7.82	3.32	11.3	75	144.2	25.09	3.25	80
SM1159.5	2800095600	8.31	3.37	11.5	76	155	26.97	3.8	80
SM12010	301001028008	9.96	3.36	11.5	75	166.6	28.99	3.25	80
SM12510	301001028008	9.93	3.37	11.5	76	166.6	28.99	3.8	80
SM14812	3610012320010	8.8	3.34	11.4	79	199	35.82	3.3	86
SM16013	3910013350011	6.6	3.37	11.5	79.5	216.6	37.69	4	94
SM16113	3900013320011	5.93	3.37	11.5	79.5	216.6	37.69	3.3	86
SM17514	4200014340012	4.63	3.37	11.5	80	233	40.54	6.6	103
SM18515	4550015530013	6.23	3.34	11.4	80	249.9	43.48	6.6	103
SY24020	6183421176018	7.83	2.91	11.2	81.6	347.8	60.52	8	160
SY30025	7808626740023	6	3.31	11.3	81.6	437.5	76.1	8	185

MORE INFO

Refrigerant: R22, Segment usage: Air conditioning, Compressor power supply [V/Ph/Hz]: 400/3/50 460/3/60

Gross weight	104.2 Kg
Net weight	101 Kg
EAN	5702428046657
Approval standard	CE UL
Brand technique	Scroll compressor
Capacity control	Fixed speed
Colour	Blue
Compressor power supply [V/Ph/Hz]	400/3/50 460/3/60
Configuration code	Single
Connection type	Rotolock
Description	SM185-4
Diameter [mm]	317 mm
Discharge connection height [mm]	643 mm
Discharge connection mounting torque [Nm]	110 N-m
Discharge connection pipe size [in]	0.875 in
Discharge connection rotolock size [in]	1.75 in
Discharge connection size [in]	1.75 in
Discharge connection sleeve pipe size [in]	0.875 in
Drawing number	8551119b
Economizer	No
Factory HP [bar]	33 bar
Factory LP [bar]	25 bar
Fitting remark	(shipped with rotolock version only)
Fitting sleeve	ODF
Fitting standard	Rotolock
Frequency [Hz]	50/60
Gauge port HP	None
Gauge port LP	Schrader
Generation code	C
Glass mounting	Threaded
Glass torque [Nm]	50 N-m

GP LP torque [Nm]	15 N-m
High value of nominal voltage at 50Hz [V]	400 V
High value of nominal voltage at 60Hz [V]	460 V
High value of voltage range at 50Hz [V]	440 V
High value of voltage range at 60Hz [V]	506 V
IP protection class	IP54 (with cable gland)
Low value of nominal voltage at 50Hz [V]	380 V
Low value of nominal voltage at 60Hz [V]	460 V
Low value of voltage range at 50Hz [V]	342 V
Low value of voltage range at 60Hz [V]	414 V
LRA	175 A
Maximum Operating Current [MOC]	35 A
MMT	35 A
Model number	SM185S4RC
Motor protection	Internal thermostat, ext. overload protector needed
Mounting torque [Nm]	21 N-m
Nominal cooling capacity 60 kBTU/h	185.32 KBtu/h
Nominal cooling capacity at 50Hz	41.1 kW
Nominal cooling capacity at 60Hz	54.3 kW
Number of starts per hour [Max]	12
Oil charge [L]	6.2 L
Oil drain	1/4" flare
Oil drain torque [Nm]	35 N-m
Oil equalization	3/8" flare SAE
Oil equalization torque [Nm]	48 N-m
Oil reference	160P
Oil type	Mineral
Packaging height [mm]	877 mm
Packaging length [mm]	1140 mm
Packaging weight [Kg]	648 kg
Packaging width [mm]	950 mm
Packing format	Industrial pack
Packing quantity	6
Phase	3
Power connections	Screw 4.8 mm
Product type	SM
Refrigerant	R22
Refrigerant charge [kg] [Max]	13.5 kg
Relief valve	None
Rotational speed at 50Hz [rpm]	2900 rpm
Rotational speed at 60Hz [rpm]	3500 rpm
Segment usage	Air conditioning
Shipped fittings	Suction and discharge solder sleeves, rotolock nuts and gaskets

Shipped instructions

Shipped mounting

Shipped oil

Suction connection height [mm]
Suction connection mounting torque [Nm]
Suction connection pipe size [in]
Suction connection rotolock size [in]
Suction connection size [in]
Suction connection sleeve pipe size [in]
Swept volume [cm³]
Technology
Test dif [bar] [Max]
Test HP [bar] [Max]
Test LP [bar] [Max]
Torque earth [Nm]
Torque Ebox cover [Nm]
Torque power [Nm]
Total height [mm]
Type designation
Viscosity [cP]
Winding resistance for three-phase compressors
with identical windings [Ohm]

Installation instructions

Mounting kit with grommets,
bolts, nuts, sleeves and
washers

Initial oil charge

180 mm
130 N-m
1.375 in
2.25 in
2.25 in
1.375 in
249.9 cm³
Scroll
24 bar
32 bar
25 bar
2 N-m
2 N-m
3 N-m
678 mm
Compressor
32 cP
0.77 Ohm

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60 Hz data

Model	Nominal Cap. 60 Hz	Nominal cooling capacity		Power input	COP	E.E.R.	Swept volume	Displace- ment ①	Oil charge	Net weight ②	
	TR	W	Btu/h	kW	W/W	Btu/h/W	cu.in/rev	cu.ft/h	oz	lbs	
R22 SINGLE	SM084	7	24600	84 000	7.4	3.34	11.4	6.99	849	110	141
	SM090	7.5	26400	90 100	7.8	3.37	11.5	7.35	894	110	143
	SM100	8	27500	93 900	8.1	3.38	11.5	7.76	943	110	143
	SM110	9	31600	107 800	9.3	3.38	11.5	8.80	1069	110	161
	SM112	9.5	34000	116 000	9.6	3.53	12.1	9.25	1124	112	141
	SM120	10	36 700	125 300	10.8	3.4	11.6	10.17	1236	110	161
	SM124	10.5	37 700	128 700	10.6	3.56	12.2	10.34	1257	112	142
	SM147	12	43 600	148 800	12.2	3.58	12.2	11.81	1435	112	148
	SM148	12	43 800	149 500	13	3.37	11.5	12.14	1476	122	194
	SM161	13	47 600	162 500	14.1	3.39	11.6	13.22	1606	122	194
	SM175	14	51 100	174 400	15.3	3.34	11.4	14.22	1728	210	220
	SM/SY185	15	55 300	188 700	16.3	3.39	11.6	15.25	1853	210	220
	SY240	20	74 100	252 900	22.1	3.35	11.4	21.22	2579	272	331
	SY300	25	94 500	322 500	27.5	3.43	11.7	26.70	3245	272	346
	SY380	30	115 300	393 500	33.4	3.46	11.8	32.42	3939	285	348

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