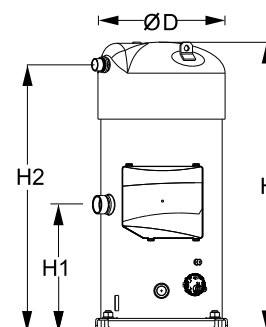


General Characteristics

Model number (on compressor nameplate)		DSH485A9AAA
Code number for Singlepack*		120H1147
Code number for Industrial pack**		120H1148
Drawing number		8556133d
Suction and discharge connections		Brazed
Suction connection		1-5/8" ODF
Discharge connection		1-3/8" ODF
Suction connection with supplied sleeve		" ODF
Oil sight glass		Threaded
Oil equalisation connection		2-1/4" Rotolock
Oil drain connection		1/4" flare
LP gauge port		Schrader
IPR valve		Yes
Reverse rotation protection		Electronic module
Swept volume		442.6 cm ³ /rev
Displacement @ Nominal speed		93.0 m ³ /h @ 3500 rpm
Net weight		175 kg
Oil charge		6.7 litre, POE - 160SZ
Maximum system test pressure Low Side / High side		30.2 bar(g) / 45 bar(g)
Maximum differential test pressure		37 bar
Maximum number of starts per hour		12
Refrigerant charge limit		17 kg
Approved refrigerants		R410A

Dimensions

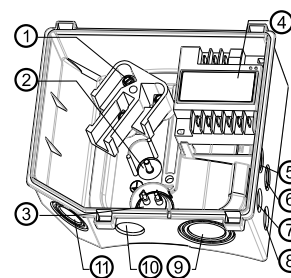


D=333.2 mm
H=755.3 mm
H1=331 mm
H2=696.5 mm
H3=- mm

Electrical Characteristics

Nominal voltage	380V/3/60Hz
Voltage range	342-418 V
Winding resistance (between phases) +/- 7% at 25°C	0.16 Ω
Rated Load Amps (RLA)	79.3 A
Maximum Continuous Current (MCC)	111 A
Locked Rotor Amps (LRA)	491 A
Motor protection	Electronic protection module, 24 V AC

Terminal box



IP54 (with cable gland)

- 1: Power connection, 3 x 4.8 mm (3/16")
- 2: Earth M5
- 3: Thermistor connector
- 4: Electronic protection module
- 5: Double knock-out Ø 22.5 mm (7/8") & Ø 16.5 mm (0.65")
- 6: Double knock-out Ø 22.5 mm (7/8") & Ø 16.5 mm (0.65")
- 7: Knock-out Ø 20.7 mm (0.81")
- 8: Knock-out Ø 20.7 mm (0.81")
- 9: Triple knock-out Ø 50.8 mm (2") & Ø 43.7 mm (1.72") & Ø 34.5 mm (1.35")
- 10: Knock-out Ø 25.5 mm (1.00")
- 11: Triple knock-out Ø 40.5 mm (1.59") & Ø 32.2 mm (1.27") & Ø 25.5 mm (1")

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 Nm
Mounting bolts	21 Nm

Parts shipped with compressor

Electronic protection module mounted in terminal box
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA6873), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 4 Unboxed compressors on pallet (order per multiples of 4)

Rotolock accessories, suction side	Code no.
Solder sleeve, P03 (2-1/4" Rotolock, 1-5/8" ODF)	8153006
Rotolock valve, V03 (2-1/4" Rotolock, 1-5/8" ODF)	8168026
Rotolock adapter (2"1/4 Rotolock, 1"5/8 ODF)	120Z0432
Gasket, 2-1/4"	8156133

Rotolock accessories, discharge side	Code no.
Solder sleeve, P10 (1-3/4" Rotolock, 1-3/8" ODF)	8153003
Rotolock valve, V10 (1-3/4" Rotolock, 1-3/8" ODF)	8168022
Rotolock adapter (1"3/4 Rotolock, 1"3/8 ODF)	120Z0431
Gasket, 1-3/4"	8156132

Rotolock accessories, sets	Code no.
Solder sleeve adapter set, (2-1/4" Rotolock, 1-5/8" ODF), (1-3/4" Rotolock, 1"3/8 ODF)	120Z0504
Valve set, V03 (2-1/4"~1-5/8"), V10 (1-3/4"~1-3/8")	120Z0547
Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white	8156013

Oil / lubricants	Code no.
POE lubricant, 160SZ, 1 litre can	7754023
POE lubricant, 160SZ, 2.5 litre can	120Z0571

Crankcase heaters	Code no.
Surface sump heater + bottom insulation, 56 W, 24 V, CE mark, UL	120Z0360
Surface sump heater + bottom insulation, 56 W, 400 V, CE mark, UL	120Z0377
Belt type crankcase heater, 75 W, 400 V, CE mark, UL	7773118

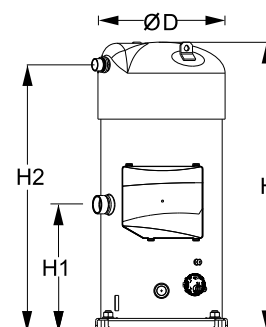
Miscellaneous accessories	Code no.
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	8156138
Acoustic hood for scroll compressor	120Z0022
Acoustic bottom insulation for scroll compressor	120Z0353
Mounting kit for 1 scroll compressor including 4 hexagon rigid grommets, 4 sleeves, 4 bolts, 4 washers	7777045
Mounting for 1 scroll compressor including 4 triangle rigid spacer, 4 sleeves, 4 bolts, 4 washers	120Z0495

Spare parts	Code no.
Electronic motor protection module, 24 V AC	120Z0584
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (white teflon)	8156129
Terminal box 210 x 190 incl. cover	120Z0458
T block connector 60 x 75 mm	8173021

General Characteristics

Model number (on compressor nameplate)		DSH485A9ABA
Code number for Singlepack*		120H1149
Code number for Industrial pack**		120H1150
Drawing number		8556133d
Suction and discharge connections		Brazed
Suction connection		1-5/8" ODF
Discharge connection		1-3/8" ODF
Suction connection with supplied sleeve		" ODF
Oil sight glass		Threaded
Oil equalisation connection		2-1/4" Rotolock
Oil drain connection		1/4" flare
LP gauge port		Schrader
IPR valve		Yes
Reverse rotation protection		Electronic module
Swept volume		442.6 cm ³ /rev
Displacement @ Nominal speed		93.0 m ³ /h @ 3500 rpm
Net weight		175 kg
Oil charge		6.7 litre, POE - 160SZ
Maximum system test pressure Low Side / High side		30.2 bar(g) / 45 bar(g)
Maximum differential test pressure		37 bar
Maximum number of starts per hour		12
Refrigerant charge limit		17 kg
Approved refrigerants		R410A

Dimensions

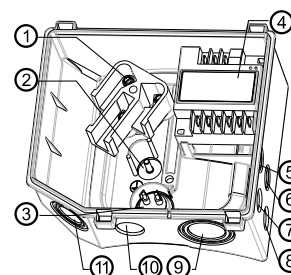


D=333.2 mm
H=755.3 mm
H1=331 mm
H2=696.5 mm
H3=- mm

Electrical Characteristics

Nominal voltage	380V/3/60Hz
Voltage range	342-418 V
Winding resistance (between phases) +/- 7% at 25°C	0.16 Ω
Rated Load Amps (RLA)	79.3 A
Maximum Continuous Current (MCC)	111 A
Locked Rotor Amps (LRA)	491 A
Motor protection	Electronic protection module, 110-240 V

Terminal box



IP54 (with cable gland)

- 1: Power connection, 3 x 4.8 mm (3/16")
- 2: Earth M5
- 3: Thermistor connector
- 4: Electronic protection module
- 5: Double knock-out Ø 22.5 mm (7/8") & Ø 16.5 mm (0.65")
- 6: Double knock-out Ø 22.5 mm (7/8") & Ø 16.5 mm (0.65")
- 7: Knock-out Ø 20.7 mm (0.81")
- 8: Knock-out Ø 20.7 mm (0.81")
- 9: Triple knock-out Ø 50.8 mm (2") & Ø 43.7 mm (1.72") & Ø 34.5 mm (1.35")
- 10: Knock-out Ø 25.5 mm (1.00")
- 11: Triple knock-out Ø 40.5 mm (1.59") & Ø 32.2 mm (1.27") & Ø 25.5 mm (1")

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 Nm
Mounting bolts	21 Nm

Parts shipped with compressor

Electronic protection module mounted in terminal box
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA6873), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 4 Unboxed compressors on pallet (order per multiples of 4)

Rotolock accessories, suction side
Code no.

Solder sleeve, P03 (2-1/4" Rotolock, 1-5/8" ODF)	8153006
Rotolock valve, V03 (2-1/4" Rotolock, 1-5/8" ODF)	8168026
Rotolock adapter (2"1/4 Rotolock, 1"5/8 ODF)	120Z0432
Gasket, 2-1/4"	8156133

Rotolock accessories, discharge side
Code no.

Solder sleeve, P10 (1-3/4" Rotolock, 1-3/8" ODF)	8153003
Rotolock valve, V10 (1-3/4" Rotolock, 1-3/8" ODF)	8168022
Rotolock adapter (1"3/4 Rotolock, 1"3/8 ODF)	120Z0431
Gasket, 1-3/4"	8156132

Rotolock accessories, sets
Code no.

Solder sleeve adapter set, (2-1/4" Rotolock, 1-5/8" ODF), (1-3/4" Rotolock, 1"3/8 ODF)	120Z0504
Valve set, V03 (2-1/4"~1-5/8"), V10 (1-3/4"~1-3/8")	120Z0547
Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white	8156013

Oil / lubricants
Code no.

POE lubricant, 160SZ, 1 litre can	7754023
POE lubricant, 160SZ, 2.5 litre can	120Z0571

Crankcase heaters
Code no.

Surface sump heater + bottom insulation, 56 W, 24 V, CE mark, UL	120Z0360
Surface sump heater + bottom insulation, 56 W, 400 V, CE mark, UL	120Z0377
Belt type crankcase heater, 75 W, 400 V, CE mark, UL	7773118

Miscellaneous accessories
Code no.

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	8156138
Acoustic hood for scroll compressor	120Z0022
Acoustic bottom insulation for scroll compressor	120Z0353
Mounting kit for 1 scroll compressor including 4 hexagon rigid grommets, 4 sleeves, 4 bolts, 4 washers	7777045
Mounting for 1 scroll compressor including 4 triangle rigid spacer, 4 sleeves, 4 bolts, 4 washers	120Z0495

Spare parts
Code no.

Electronic motor protection module, 110-240 V	120Z0585
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (white teflon)	8156129
Terminal box 210 x 190 incl. cover	120Z0458
T block connector 80 x 80 mm	8173331

Performance data at 60 Hz, EN 12900 rating conditions

R410A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-30	-20	-15	-10	-5	0	10	20

Cooling capacity in W

30	39 780	62 164	76 482	93 280	112 856	135 508	191 232	-	-
35	-	58 605	72 236	88 214	106 835	128 396	181 524	249 975	-
40	-	54 933	67 827	82 935	100 550	120 968	171 389	236 557	275 408
45	-	51 126	63 232	77 417	93 973	113 192	160 786	222 539	259 455
50	-	-	58 420	71 627	87 063	105 020	149 652	207 835	242 730
55	-	-	-	65 501	79 749	96 369	137 870	192 285	225 045
60	-	-	-	-	71 887	87 070	125 203	175 557	206 012
65	-	-	-	-	-	-	111 087	156 864	184 703

Power input in W

30	25 101	25 602	26 011	26 364	26 539	26 416	24 789	-	-
35	-	28 096	28 515	28 959	29 307	29 438	28 565	25 367	-
40	-	30 909	31 283	31 765	32 232	32 564	32 336	30 111	27 946
45	-	34 114	34 390	34 855	35 387	35 866	36 177	34 817	33 207
50	-	-	37 910	38 304	38 848	39 420	40 161	39 558	38 450
55	-	-	-	42 186	42 687	43 298	44 363	44 410	43 748
60	-	-	-	-	46 979	47 575	48 855	49 444	49 176
65	-	-	-	-	-	-	53 713	54 737	54 808

Current consumption in A

30	46.52	48.17	49.01	49.64	49.88	49.56	46.56	-	-
35	-	51.49	52.28	53.04	53.60	53.78	52.34	47.35	-
40	-	55.49	56.07	56.82	57.54	58.08	57.90	54.91	51.93
45	-	60.38	60.62	61.20	61.94	62.68	63.47	62.18	60.33
50	-	-	66.16	66.42	67.03	67.83	69.28	69.40	68.53
55	-	-	-	72.73	73.06	73.76	75.58	76.81	76.77
60	-	-	-	-	80.25	80.71	82.60	84.63	85.28
65	-	-	-	-	-	-	90.57	93.12	94.30

Mass flow in kg/h

30	838	1 280	1 554	1 871	2 236	2 656	3 681	-	-
35	-	1 269	1 542	1 859	2 223	2 642	3 665	4 973	-
40	-	1 257	1 529	1 844	2 208	2 625	3 645	4 950	5 723
45	-	1 244	1 515	1 828	2 189	2 605	3 621	4 922	5 693
50	-	-	1 498	1 809	2 169	2 582	3 593	4 889	5 658
55	-	-	-	1 788	2 145	2 556	3 562	4 851	5 617
60	-	-	-	-	2 119	2 527	3 526	4 809	5 572
65	-	-	-	-	-	-	3 488	4 763	5 522

Coefficient of performance (C.O.P.)

30	1.58	2.43	2.94	3.54	4.25	5.13	7.71	-	-
35	-	2.09	2.53	3.05	3.65	4.36	6.35	9.85	-
40	-	1.78	2.17	2.61	3.12	3.71	5.30	7.86	9.85
45	-	1.50	1.84	2.22	2.66	3.16	4.44	6.39	7.81
50	-	-	1.54	1.87	2.24	2.66	3.73	5.25	6.31
55	-	-	-	1.55	1.87	2.23	3.11	4.33	5.14
60	-	-	-	-	1.53	1.83	2.56	3.55	4.19
65	-	-	-	-	-	-	2.07	2.87	3.37

Nominal performance at to = 5 °C, tc = 50 °C

Cooling capacity	125 786	W
Power input	39 898	W
Current consumption	68.64	A
Mass flow	3 055	kg/h
C.O.P.	3.15	

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	91	dB(A)
With acoustic hood	87	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

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Performance data at 60 Hz, ARI rating conditions
R410A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-20	-15	-10	-5	0	10	20	25

Cooling capacity in W

30	43 008	67 062	82 425	100 433	121 400	145 641	205 206	-	-
35	-	63 625	78 335	95 560	115 615	138 816	195 912	269 368	-
40	-	60 094	74 104	90 501	109 599	131 712	186 248	256 628	298 546
45	-	56 457	69 722	85 244	103 339	124 320	176 204	243 415	283 556
50	-	-	65 177	79 779	96 824	116 627	165 767	229 719	268 037
55	-	-	-	74 094	90 044	108 623	154 928	215 529	251 977
60	-	-	-	-	82 988	100 297	143 675	200 833	235 366
65	-	-	-	-	-	-	131 997	185 620	218 192

Power input in W

30	25 101	25 602	26 011	26 364	26 539	26 416	24 789	-	-
35	-	28 096	28 515	28 959	29 307	29 438	28 565	25 367	-
40	-	30 909	31 283	31 765	32 232	32 564	32 336	30 111	27 946
45	-	34 114	34 390	34 855	35 387	35 866	36 177	34 817	33 207
50	-	-	37 910	38 304	38 848	39 420	40 161	39 558	38 450
55	-	-	-	42 186	42 687	43 298	44 363	44 410	43 748
60	-	-	-	-	46 979	47 575	48 855	49 444	49 176
65	-	-	-	-	-	-	53 713	54 737	54 808

Current consumption in A

30	46.52	48.17	49.01	49.64	49.88	49.56	46.56	-	-
35	-	51.49	52.28	53.04	53.60	53.78	52.34	47.35	-
40	-	55.49	56.07	56.82	57.54	58.08	57.90	54.91	51.93
45	-	60.38	60.62	61.20	61.94	62.68	63.47	62.18	60.33
50	-	-	66.16	66.42	67.03	67.83	69.28	69.40	68.53
55	-	-	-	72.73	73.06	73.76	75.58	76.81	76.77
60	-	-	-	-	80.25	80.71	82.60	84.63	85.28
65	-	-	-	-	-	-	90.57	93.12	94.30

Mass flow in kg/h

30	833	1 272	1 544	1 859	2 222	2 639	3 655	-	-
35	-	1 262	1 533	1 847	2 209	2 625	3 639	4 934	-
40	-	1 250	1 520	1 833	2 194	2 608	3 619	4 910	5 675
45	-	1 237	1 505	1 816	2 175	2 588	3 595	4 882	5 645
50	-	-	1 489	1 798	2 155	2 565	3 567	4 850	5 610
55	-	-	-	1 777	2 131	2 539	3 536	4 813	5 570
60	-	-	-	-	2 106	2 510	3 501	4 771	5 525
65	-	-	-	-	-	-	3 462	4 725	5 475

Coefficient of performance (C.O.P.)

30	1.71	2.62	3.17	3.81	4.57	5.51	8.28	-	-
35	-	2.26	2.75	3.30	3.94	4.72	6.86	10.62	-
40	-	1.94	2.37	2.85	3.40	4.04	5.76	8.52	10.68
45	-	1.65	2.03	2.45	2.92	3.47	4.87	6.99	8.54
50	-	-	1.72	2.08	2.49	2.96	4.13	5.81	6.97
55	-	-	-	1.76	2.11	2.51	3.49	4.85	5.76
60	-	-	-	-	1.77	2.11	2.94	4.06	4.79
65	-	-	-	-	-	-	2.46	3.39	3.98

Nominal performance at to = 7.2 °C, tc = 54.4 °C

Cooling capacity	141 850	W
Power input	43 620	W
Current consumption	74.30	A
Mass flow	3 234	kg/h
C.O.P.	3.25	

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	91	dB(A)
With acoustic hood	87	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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