

ENGINEERING
TOMORROW



Datasheets

Danfoss scroll compressors **H series**

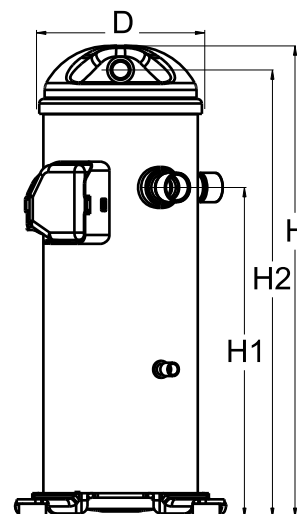


FRCC.UD.150204.205354

www.danfoss.com/odsg

General Characteristics

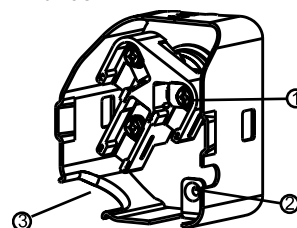
Model number (on compressor nameplate)		HLJ083T2LC6
Code number for Singlepack*		120U1491
Code number for Industrial pack**		120U1488
Drawing number		0XR6089B-1
Suction and discharge connections		Brazed
Suction connection		7/8 " ODF
Discharge connection		1/2 " ODF
Oil sight glass		None
Oil equalization connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		Yes
Swept volume	4.76 in3/rev	
Displacement @ Nominal speed	480 cfh @ 2900 rpm - 579 cfh @ 3500 rpm	
Net weight	82 lbs	
Oil charge	53 oz, PVE - -	
Maximum system test pressure Low Side / High side	- psi / - psi	
Maximum differential test pressure	- psi	
Maximum number of starts per hour	-	
Refrigerant charge limit	12 lbs	
Approved refrigerants	R410A	

Dimensions


D=7.2 inch, H=17.9 inch,
H1=11 inch, H2=16.6 inch, H3=- inch

Electrical Characteristics

Nominal voltage	208-230V/3/60Hz
Voltage range	188-253 V
Winding resistance between phases 1-2 +/- 7% at 77°F	0.422 Ω
Winding resistance between phases 1-3 +/- 7% at 77°F	0.414 Ω
Winding resistance between phases 2-3 +/- 7% at 77°F	0.419 Ω
Rated Load Amps (RLA)	26 A
Maximum Continuous Current (MCC)	39 A
Locked Rotor Amps (LRA)	190 A
Motor protection	Internal overload protector

Terminal box


IP22

- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth connection
- 3: Power cable passage

Recommended Installation torques

Oil sight glass	39 ft.lbs
Power connections / Earth connection	2 ft.lbs / 1 ft.lbs

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA11565), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 12 or 16 Unboxed compressors on pallet

Rotolock accessories, suction side
Code no.

Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side
Code no.

Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets
Code no.

Solder sleeve adapter set (1-1/4"~7/8"), (1"~1/2")	120Z0127
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants
Code no.

PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034
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Crankcase heaters
Code no.

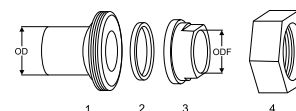
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059
Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040

Miscellaneous accessories
Code no.

Acoustic hood	120Z5044
Discharge thermostat kit	7750009

Spare parts
Code no.

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5031

Solder sleeve adapter set


- 1: Rotolock adapter (Suc & Dis)
- 2: Gasket (Suc & Dis)
- 3: Solder sleeve (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)

Performance data at 60 Hz, ARI rating conditions
R410A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-10	0	10	20	30	40	45	50	55

Cooling capacity in Btu/h

90	33 058	42 627	53 434	66 161	81 491	100 105	110 856	122 685	135 676
100	29 102	39 300	50 148	62 330	76 528	93 423	103 095	113 698	125 316
110	23 437	34 731	46 090	58 196	71 731	87 376	96 204	105 815	116 296
120	-	28 436	40 775	53 274	66 615	81 480	89 698	98 552	108 129
130	-	-	33 718	47 079	60 696	75 250	83 092	91 424	100 332
140	-	-	-	39 128	53 489	68 201	75 902	83 946	92 420
150	-	-	-	-	44 509	59 848	67 643	75 634	83 907

Power input in W

90	4 868	4 941	4 981	4 982	4 939	4 849	4 785	4 706	4 614
100	5 369	5 461	5 522	5 547	5 533	5 473	5 425	5 364	5 289
110	5 936	6 038	6 113	6 156	6 161	6 125	6 089	6 042	5 981
120	-	6 691	6 772	6 824	6 841	6 820	6 793	6 755	6 704
130	-	-	7 513	7 566	7 588	7 574	7 552	7 520	7 475
140	-	-	-	8 400	8 419	8 404	8 383	8 352	8 310
150	-	-	-	-	9 348	9 326	9 301	9 268	9 225

Current consumption in A

90	16.98	17.13	17.27	17.42	17.61	17.85	18.00	18.16	18.36
100	18.00	18.20	18.37	18.53	18.69	18.89	19.00	19.13	19.28
110	19.12	19.41	19.63	19.83	20.00	20.18	20.28	20.38	20.50
120	-	20.78	21.09	21.34	21.55	21.74	21.84	21.93	22.03
130	-	-	22.76	23.10	23.38	23.61	23.71	23.81	23.91
140	-	-	-	25.12	25.49	25.79	25.92	26.03	26.14
150	-	-	-	-	27.92	28.32	28.48	28.63	28.77

Mass flow in lbs/h

90	417	529	654	799	973	1 185	1 307	1 442	1 591
100	387	513	646	792	960	1 158	1 271	1 395	1 531
110	330	479	626	780	949	1 141	1 249	1 366	1 492
120	-	417	587	756	933	1 127	1 233	1 346	1 467
130	-	-	521	713	905	1 108	1 215	1 328	1 447
140	-	-	-	642	857	1 076	1 188	1 304	1 425
150	-	-	-	-	782	1 023	1 145	1 268	1 394

Energy Efficiency Ratio (E.E.R.)

90	6.79	8.63	10.73	13.28	16.50	20.64	23.17	26.07	29.41
100	5.42	7.20	9.08	11.24	13.83	17.07	19.00	21.20	23.69
110	3.95	5.75	7.54	9.45	11.64	14.27	15.80	17.51	19.44
120	-	4.25	6.02	7.81	9.74	11.95	13.20	14.59	16.13
130	-	-	4.49	6.22	8.00	9.94	11.00	12.16	13.42
140	-	-	-	4.66	6.35	8.12	9.05	10.05	11.12
150	-	-	-	-	4.76	6.42	7.27	8.16	9.10

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	83 092	Btu/h	Current consumption	23.71	A
Power input	7 552	W	Mass flow	1 215	lbs/h
E.E.R.	11.00				

Pressure switch settings

Maximum HP switch setting	653	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	33	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

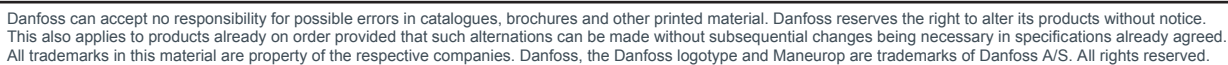
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

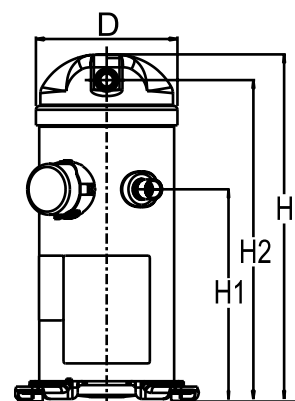
Sound power level	74	dB(A)
With acoustic hood	69	dB(A)

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General Characteristics

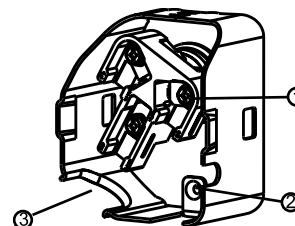
Model number (on compressor nameplate)		HLJ083T2LC8
Code number for Singlepack*		120U2182
Code number for Industrial pack**		120U2179
Drawing number		0XR6049B-2
Suction and discharge connections		Brazed
Suction connection		7/8 " ODF
Discharge connection		1/2 " ODF
Oil sight glass		None
Oil equalization connection		1/2"
Oil drain connection		None
LP gauge port		None
IPR valve		Yes
Swept volume	4.76 in3/rev	
Displacement @ Nominal speed	480 cfh @ 2900 rpm - 579 cfh @ 3500 rpm	
Net weight	82 lbs	
Oil charge	53 oz, PVE - -	
Maximum system test pressure Low Side / High side	- psi / - psi	
Maximum differential test pressure	- psi	
Maximum number of starts per hour	-	
Refrigerant charge limit	12 lbs	
Approved refrigerants	R410A	

Dimensions


D=7.2 inch, H=17.9 inch,
H1=11 inch, H2=16.6 inch, H3=- inch

Electrical Characteristics

Nominal voltage	208-230V/3/60Hz
Voltage range	188-253 V
Winding resistance between phases 1-2 +/- 7% at 77°F	0.422 Ω
Winding resistance between phases 1-3 +/- 7% at 77°F	0.414 Ω
Winding resistance between phases 2-3 +/- 7% at 77°F	0.419 Ω
Rated Load Amps (RLA)	26 A
Maximum Continuous Current (MCC)	39 A
Locked Rotor Amps (LRA)	190 A
Motor protection	Internal overload protector

Terminal box


IP22

- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth connection
- 3: Power cable passage

Recommended Installation torques

Oil sight glass	39 ft.lbs
Power connections / Earth connection	2 ft.lbs / 1 ft.lbs

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA11565), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 12 or 16 Unboxed compressors on pallet

Rotolock accessories, suction side
Code no.

Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

Rotolock accessories, discharge side
Code no.

Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets
Code no.

Solder sleeve adapter set (1-1/4"~7/8"), (1"~1/2")	120Z0127
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants
Code no.

PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034
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Crankcase heaters
Code no.

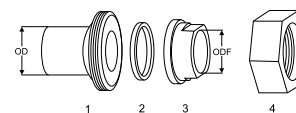
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059
Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040

Miscellaneous accessories
Code no.

Acoustic hood	120Z5044
Discharge thermostat kit	7750009

Spare parts
Code no.

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5031

Solder sleeve adapter set


- 1: Rotolock adapter (Suc & Dis)
- 2: Gasket (Suc & Dis)
- 3: Solder sleeve (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)

Performance data at 60 Hz, ARI rating conditions
R410A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-10	0	10	20	30	40	45	50	55

Cooling capacity in Btu/h

90	33 058	42 627	53 434	66 161	81 491	100 105	110 856	122 685	135 676
100	29 102	39 300	50 148	62 330	76 528	93 423	103 095	113 698	125 316
110	23 437	34 731	46 090	58 196	71 731	87 376	96 204	105 815	116 296
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140	-	-	-	39 128	53 489	68 201	75 902	83 946	92 420
150	-	-	-	-	44 509	59 848	67 643	75 634	83 907

Power input in W

90	4 868	4 941	4 981	4 982	4 939	4 849	4 785	4 706	4 614
100	5 369	5 461	5 522	5 547	5 533	5 473	5 425	5 364	5 289
110	5 936	6 038	6 113	6 156	6 161	6 125	6 089	6 042	5 981
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130	-	-	7 513	7 566	7 588	7 574	7 552	7 520	7 475
140	-	-	-	8 400	8 419	8 404	8 383	8 352	8 310
150	-	-	-	-	9 348	9 326	9 301	9 268	9 225

Current consumption in A

90	16.98	17.13	17.27	17.42	17.61	17.85	18.00	18.16	18.36
100	18.00	18.20	18.37	18.53	18.69	18.89	19.00	19.13	19.28
110	19.12	19.41	19.63	19.83	20.00	20.18	20.28	20.38	20.50
120	-	20.78	21.09	21.34	21.55	21.74	21.84	21.93	22.03
130	-	-	22.76	23.10	23.38	23.61	23.71	23.81	23.91
140	-	-	-	25.12	25.49	25.79	25.92	26.03	26.14
150	-	-	-	-	27.92	28.32	28.48	28.63	28.77

Mass flow in lbs/h

90	417	529	654	799	973	1 185	1 307	1 442	1 591
100	387	513	646	792	960	1 158	1 271	1 395	1 531
110	330	479	626	780	949	1 141	1 249	1 366	1 492
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Energy Efficiency Ratio (E.E.R.)

90	6.79	8.63	10.73	13.28	16.50	20.64	23.17	26.07	29.41
100	5.42	7.20	9.08	11.24	13.83	17.07	19.00	21.20	23.69
110	3.95	5.75	7.54	9.45	11.64	14.27	15.80	17.51	19.44
120	-	4.25	6.02	7.81	9.74	11.95	13.20	14.59	16.13
130	-	-	4.49	6.22	8.00	9.94	11.00	12.16	13.42
140	-	-	-	4.66	6.35	8.12	9.05	10.05	11.12
150	-	-	-	-	4.76	6.42	7.27	8.16	9.10

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	83 092	Btu/h	Current consumption	23.71	A
Power input	7 552	W	Mass flow	1 215	lbs/h
E.E.R.	11.00				

Pressure switch settings

Maximum HP switch setting	653	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	33	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

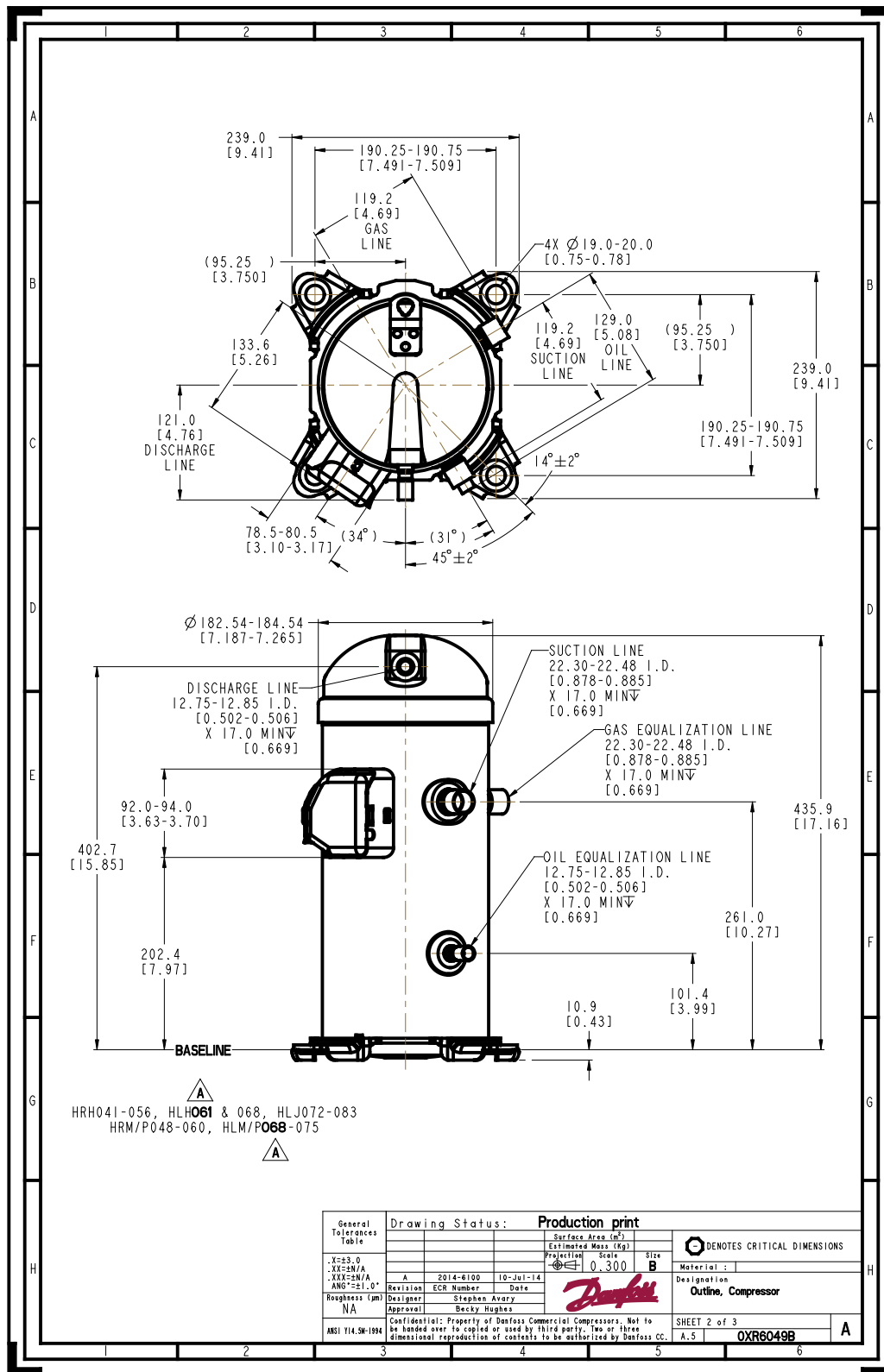
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

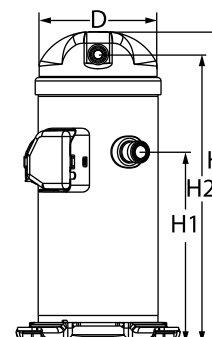
Sound power level	74	dB(A)
With acoustic hood	69	dB(A)

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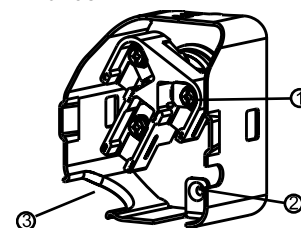


General Characteristics

Model number (on compressor nameplate)		HLJ083T2LQ6
Code number for Singlepack*		121U3163
Code number for Industrial pack**		121U3162
Drawing number		0XR6089B-3
Suction and discharge connections		Rotolock
Suction connection		3/4 " Rotolock
Discharge connection		1/2 " Rotolock
Oil sight glass		None
Oil equalization connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		Yes
Swept volume		4.76 in3/rev
Displacement @ Nominal speed		480 cfh @ 2900 rpm - 579 cfh @ 3500 rpm
Net weight		82 lbs
Oil charge		53 oz, PVE - -
Maximum system test pressure Low Side / High side		- psi / - psi
Maximum differential test pressure		- psi
Maximum number of starts per hour		-
Refrigerant charge limit		12 lbs
Approved refrigerants		R410A

Dimensions


D=7.2 inch, H=17.9 inch,
H1=11 inch, H2=16.6 inch, H3=- inch

Terminal box


IP22

- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth connection
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Voltage range	188-253 V
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Recommended Installation torques

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Power connections / Earth connection	2 ft.lbs / 1 ft.lbs

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

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Rotolock accessories, discharge side	Code no.
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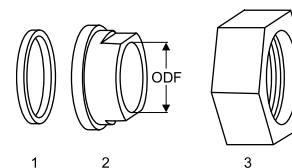
Rotolock accessories, sets	Code no.
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Oil / lubricants	Code no.
PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034

Crankcase heaters	Code no.
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	120Z0059
Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040

Miscellaneous accessories	Code no.
Acoustic hood	120Z5044
Discharge thermostat kit	7750009

Spare parts	Code no.
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5031

Gaskets, sleeves and nuts


- 1: Gasket
- 2: Solder sleeve
- 3: Rotolock nut

Performance data at 60 Hz, ARI rating conditions
R410A

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-10	0	10	20	30	40	45	50	55

Cooling capacity in Btu/h

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Power input in W

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110	5 936	6 038	6 113	6 156	6 161	6 125	6 089	6 042	5 981
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130	-	-	7 513	7 566	7 588	7 574	7 552	7 520	7 475
140	-	-	-	8 400	8 419	8 404	8 383	8 352	8 310
150	-	-	-	-	9 348	9 326	9 301	9 268	9 225

Current consumption in A

90	16.98	17.13	17.27	17.42	17.61	17.85	18.00	18.16	18.36
100	18.00	18.20	18.37	18.53	18.69	18.89	19.00	19.13	19.28
110	19.12	19.41	19.63	19.83	20.00	20.18	20.28	20.38	20.50
120	-	20.78	21.09	21.34	21.55	21.74	21.84	21.93	22.03
130	-	-	22.76	23.10	23.38	23.61	23.71	23.81	23.91
140	-	-	-	25.12	25.49	25.79	25.92	26.03	26.14
150	-	-	-	-	27.92	28.32	28.48	28.63	28.77

Mass flow in lbs/h

90	417	529	654	799	973	1 185	1 307	1 442	1 591
100	387	513	646	792	960	1 158	1 271	1 395	1 531
110	330	479	626	780	949	1 141	1 249	1 366	1 492
120	-	417	587	756	933	1 127	1 233	1 346	1 467
130	-	-	521	713	905	1 108	1 215	1 328	1 447
140	-	-	-	642	857	1 076	1 188	1 304	1 425
150	-	-	-	-	782	1 023	1 145	1 268	1 394

Energy Efficiency Ratio (E.E.R.)

90	6.79	8.63	10.73	13.28	16.50	20.64	23.17	26.07	29.41
100	5.42	7.20	9.08	11.24	13.83	17.07	19.00	21.20	23.69
110	3.95	5.75	7.54	9.45	11.64	14.27	15.80	17.51	19.44
120	-	4.25	6.02	7.81	9.74	11.95	13.20	14.59	16.13
130	-	-	4.49	6.22	8.00	9.94	11.00	12.16	13.42
140	-	-	-	4.66	6.35	8.12	9.05	10.05	11.12
150	-	-	-	-	4.76	6.42	7.27	8.16	9.10

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	83 092	Btu/h	Current consumption	23.71	A
Power input	7 552	W	Mass flow	1 215	lbs/h
E.E.R.	11.00				

Pressure switch settings

Maximum HP switch setting	653	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	33	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

Sound power level	74	dB(A)
With acoustic hood	69	dB(A)

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