

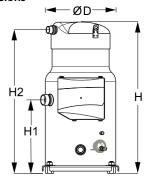
Datasheet, technical data

Danfoss scroll compressor, CH290-4

General Characteristics

Model number (on compressor nameplate)		CH290A4ABE
Code number for Singlepack*		120H1242
Code number for Industrial pack**		120H1243
Drawing number		8556089c
Suction and discharge connections		Brazed
Suction connection		1-5/8 " ODF
Discharge connection		1-1/8 " ODF
Oil sight glass		Threaded
Oil equalisation connection		2-1/4" Rotolock
Oil drain connection		1/4" flare
LP gauge port		Schrader
IPR valve		None
Reverse rotation protection		Electronic module
Swept volume	276.2 c	m3/rev
Displacement @ Nominal speed	48.1 m3/h @ 2900 rpm - 58.0 m3/h @ 3500 rpm	
Net weight	111	kg
Oil charge	6.7 litre, POE - 160SZ	
Maximum system test pressure Low Side / High side	31.1 bar(g) / 45 bar(g)	
Maximum differential test pressure	37 bar	
Maximum number of starts per hour	12	
Refrigerant charge limit	13.5 kg	
Approved refrigerants	R41	0A

Dimensions



D=317.5 mm H=682.5 mm H1=331 mm H2=647.5 mm H3=- mm

Electrical Characteristics

Nominal voltage	380-415V/3/50Hz - 460V/3/60Hz
Voltage range	340-457 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25℃	0,52 Ω
Rated Load Amps (RLA)	44.3 A
Maximum Continuous Current (MCC)	62 A
Locked Rotor Amps (LRA)	260 A
Motor protection	Electronic protection module, 110-240 V

Recommended Installation torques

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

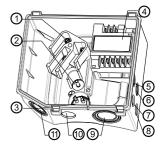
Parts shipped with compressor

Mounting kit with rigid grommets, bolts, nuts, sleeves and washers
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: 6 Unboxed compressors on pallet (order per multiples of 6)

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")



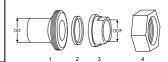
Datasheet, accessories and spare parts

Danfoss scroll compressor, CH290-4

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, P02 (1-3/4" Rotolock, 1-1/8" ODF) 8153004 Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF) 8168005 Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF) 8168028 Rotolock adapter (1-3/4" Rotolock, 1-1/8" ODF) 120Z0364

Solder sleeve adapter set



Rotolock accessories, sets	Code no.
Gasket, 1-3/4"	8156132
Rotolock adapter (1-3/4" Rotolock, 1-1/8" ODF)	120Z0364
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Angle adapter, Co2 (1-3/4 Rotolock, 1-1/8 ODF)	8108005

1: Rotolock adapter (Suc & Dis)

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

Solder sleeve adapter set, (2-1/4" Rotolock, 1-5/8" ODF), (1-3/4" Rotolock, 1"1/8 ODF)	7765028
Valve set, V03 (2-1/4"~1-5/8"), V02 (1-3/4"~1-1/8")	7703383
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, 230 V, CE mark, UL	120Z0376
Surface sump heater + bottom insulation, 56 W, 400 V, CE mark, UL	120Z0377
Surface sump heater + bottom insulation, 56 W, 460 V, CE mark, UL	120Z0378
Belt type crankcase heater, 75 W, 230 V, CE mark, UL	7773108
Belt type crankcase heater, 75 W, 400 V, CE mark, UL	7773118
Belt type crankcase heater, 75 W, 460 V, CE mark, UL	120Z0464

Miscellaneous accessories Code no.

Electronic soft start kit, MCI 50 CM	037N0401
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
Discharge thermostat kit	7750009

Spare parts	Code no.
Electronic motor protection module, 110-240 V	120Z0585
Mounting bit for 1 scroll compressor including 4 hovegon rigid grommets, 4 sleaves, 4	7777045

Electronic motor protection module, 110-240 V	12020585
Mounting kit for 1 scroll compressor including 4 hexagon rigid grommets, 4 sleeves, 4	7777045
bolts, 4 washers	
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)		CH290A4BBA
Code number for Singlepack*		120H1070
Code number for Industrial pack**		120H1071
Drawing number		8556140a
Suction and discharge connections		Brazed
Suction connection		1-5/8 " ODF
Discharge connection		1-1/8 " ODF
Oil sight glass		Threaded
IPR valve		None
Reverse rotation protection		Electronic module
Swept volume	276.2 c	m3/rev
Displacement @ Nominal speed	48.1 m3/h @	a 2900 rpm
Net weight	111	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	13.5 kg	
Approved refrigerants	R410A	

Electrical Characteristics

Electrical characteristics	
Nominal voltage	380-415V/3/50Hz
Voltage range	340-457 V @ 50Hz
Winding resistance (between phases) +/- 7% at 25°C	0,52 Ω
Rated Load Amps (RLA)	44.3 A
Maximum Continuous Current (MCC)	62 A
Locked Rotor Amps (LRA)	260 A
Motor protection	Electronic protection module, 115/230 V

Recommended Installation torques

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

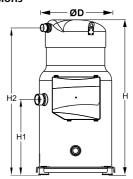
Parts shipped with compressor

Mounting kit with grommets, bolts, nuts, sleeves and washers
Electronic protection module mounted in terminal box
Initial oil charge
Installation instructions

Approvals:,,

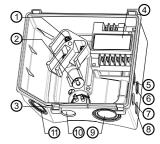
*Singlepack: Compressor in cardboard box

Dimensions



D=317.5 mm H=682.5 mm H1=331 mm H2=647.5 mm H3=- mm

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")

^{**}Industrial pack: 6 Unboxed compressors on pallet (order per multiples of 6)



Datasheet, accessories and spare parts

Danfoss scroll compressor, CH290-4

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 adapter set
Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004	
Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)	8168005	
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028	
Rotolock adapter (1-3/4" Rotolock, 1-1/8" ODF)	120Z0364	
Gasket, 1-3/4"	8156132	1 2 3 4
Rotolock accessories, sets	Code no.	
Solder sleeve adapter set, (2-1/4" Rotolock, 1-5/8" ODF), (1-3/4" Rotolock, 1"1/8 ODF)	7765028	1: Rotolock adapter (Suc & Dis)
Valve set, V03 (2-1/4"~1-5/8"), V02 (1-3/4"~1-1/8")	7703383	2: Gasket (Suc & Dis)
Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white	8156013	3: Solder sleeve (Suc & Dis)
		4: Rotolock nut (Suc & Dis)
Oil / lubricants	Code no.	
POE lubricant, 160SZ, 1 litre can	7754023	
POE lubricant, 160SZ, 2.5 litre can	120Z0571	Mounting kit
Crankcase heaters	Code no.	1
Surface sump heater + bottom insulation, 56 W, 24 V, CE mark, UL	120Z0360	2
Surface sump heater + bottom insulation, 56 W, 230 V, CE mark, UL	120Z0376	3
Surface sump heater + bottom insulation, 56 W, 400 V, CE mark, UL	120Z0377	
Belt type crankcase heater, 75 W, 230 V, CE mark, UL	7773108	4
Belt type crankcase heater, 75 W, 400 V, CE mark, UL	7773118	5
Miscellaneous accessories	Code no.	6

S	par	e p	arts

Discharge thermostat kit

Electronic soft start kit, MCI 50 CM

Acoustic hood for scroll compressor

Acoustic bottom insulation for scroll compressor

Spare parts	Code no.
Electronic motor protection module, 110-240 V	120Z0585
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	8156138
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

1: Bolt (4x) 2: Lock washer (4x)

3: Flat washer (4x) 4: Sleeve (4x)

5: Grommet (4x)

6: Nut (4x)

037N0401

120Z0022

120Z0353

7750009



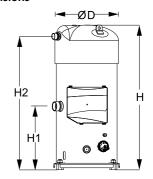
Datasheet, technical data

Danfoss scroll compressor, CH480-4

General Characteristics

Model number (on compressor nameplate)		CH480A4ABA
Code number for Singlepack*		120H1240
Code number for Industrial pack**	120H1241	
Drawing number		8556133a
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 cm3/rev	
Displacement @ Nominal speed	77.0 m3/h @ 2900 rpm - 93.0 m3/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		380-415V/3/50Hz - 460V/3/60Hz	
	Voltage range	340-457 V @ 50Hz - 414-506 V @ 60Hz	
	Winding resistance (between phases) +/- 7% at 25℃	0.231 Ω	
	Rated Load Amps (RLA)	72.9 A	
	Maximum Continuous Current (MCC)	90 A	
	Locked Rotor Amps (LRA)	413 A	
	Motor protection	Electronic protection module, 110-240 V	

Recommended Installation torques

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

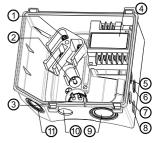
Parts shipped with compressor

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

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")



Datasheet, accessories and spare parts

Danfoss scroll compressor, CH480-4

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, 230 V, CE mark, UL	120Z0376
Surface sump heater + bottom insulation, 56 W, 400 V, CE mark, UL	120Z0377
Surface sump heater + bottom insulation, 56 W, 460 V, CE mark, UL	120Z0378
Miscellaneous accessories	Code no.
Electronic soft start kit MCD201-055-T6-CV1	175G5205
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 for 1scroll compressor including 4 triangle rigid spacer, 4 sleeves, 4 bolts, 4	120Z0495
washers	
Spare parts	Code no.
Electronic motor protection module, 110-240 V	120Z0585
Mounting kit for 1 scroll compressor including 4 hexagon rigid grommets, 4 sleeves, 4	7777045
bolts, 4 washers	
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

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