ENGINEERING



Datasheets

Danfoss scroll compressors **H series**





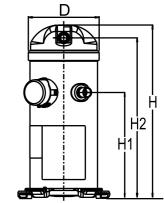
Datasheet, technical data

Danfoss scroll compressor, HRP045T5

General Characteristics

Model number (on compressor nameplate)	HRP045T5LP6		
Code number for Singlepack*	120U0976		
Drawing number	0XC6301B-3		
Suction and discharge connections	Brazed		
Suction connection	7/8 " ODF		
Discharge connection	1/2 " ODF		
Oil sight glass	None		
Oil equalisation connection	None		
Oil drain connection	None		
LP gauge port	None		
IPR valve	Yes		
Swept volume	61.45 cm3/rev		
Displacement @ Nominal speed	10.7 m3/h @ 2900 rpm		
Net weight	30.84 kg		
Oil charge	1.33 litre, PVE		
Maximum system test pressure Low Side / High side	- bar(g) / - bar(g)		
Maximum differential test pressure	- bar		
Maximum number of starts per hour	-		
Refrigerant charge limit	3.63 kg		
Approved refrigerants	R407C		

Dimensions



D=164.5 mm H=439 mm H1=275 mm H2=405 mm H3=- mm

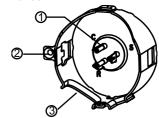
Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.66 Ω / 1.61 Ω
Run capacitors A + C	60 μF + - μF
Start capacitor B	145-175 μF
Start relay	3ARR3*3AL*
Rated Load Amps (RLA)	19.2 A
Maximum Continuous Current (MCC)	30 A
Locked Rotor Amps (LRA)	102.5 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	52.5 Nm
Power connections / Earth connection	0 Nm / 0 Nm

Terminal box



IP22

Spade connectors 1/4"
 Earth connection
 Power cable passage

Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA11565), - *Singlepack: Compressor in cardboard box

Parts shipped with compressor

Mounting kit with grommets and sleeves

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

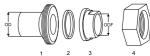


Datasheet, accessories and spare parts

Danfoss scroll compressor, HRP045T5

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" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)	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	
Crankcase heaters	Code no.	
Belt type crankcase heater, 40 W, 230 V, CE mark, UL	120Z0055	
Miscellaneous accessories	Code no.	
Acoustic hood	120Z5043	
Discharge thermostat kit	7750009	
IP54 upgrade kit	118U0056	
Spare parts	Code no.	
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005	
Mounting kit, including 1 bolt, 1 sleeve, 1 washer	120Z5031	
No translation for 120Z5015	120Z5015	

Solder sleeve adapter set



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



Danfoss scroll compressor. HRP045T5

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W								
30		-	_	_	_	_	_	_	_
35	-	-	-	-	-	-	-	-	-
1									
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in W									
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Current consump	ition in A	_				_	_		
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-		-
50	-	-	-	-	-	-	-		-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-		-
65	-	-	-	-	-	-	-	-	-
Mass flow in kg/h	l	_					_		
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Coefficient of per	formance (C.C								
30	- Tormance (C.C	J.P.) -	_	_	-	_	_	_	_
35							+		
40	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60		-	-	-	-	-	-	-	-
60 65	-	_	-	-	-	_	-	-	-

Cooling capacity	-	W
Power input	-	W
Current consumption	-	Α
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

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

Maximum HP switch setting	30	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

Sound power data

Sound power level	67	dB(A)	
With accoustic hood	62	dB(A)	

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRP045T5

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity		T		T			1		1
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in W									
							1		
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-		-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
.	41 1 4								
Current consump							1		
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Maga flow in ka/b									
Mass flow in kg/h							1		
30 35	<u>-</u>	-	-	-	-	-	-	-	-
40 4F	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Coefficient of per	formance (C.C).P.)							
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
50		+	1	+		_	_	-	-
50 55		-	-	-	-	-			
50 55 60	-	-	-	-	-	-	-	-	-

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

pooaoo at to	,	-	
Cooling capacity	-	W	
Power input	-	W	
Current consumption	-	Α	
Mass flow	-	kg/h	
C.O.P.	-		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	30	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point $% \left(1\right) =\left(1\right) \left(1\right)$



Danfoss scroll compressor. HRP045T5

Performance data at 50 Hz, EN 12900 rating conditions

R407C

ond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W								<u></u>
30	-	-	_	_	_	_	_	_	_
35		-	-	-	-	-	-	-	-
1									
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in W									
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Current consump	tion in A	_				_	_		
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Mass flow in kg/h		_					_		
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	_	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	_	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-		-
Coefficient of per	formance (C.C) B)							<u></u>
30	- rormance (C.C	J.P.) -	_	_	-	_	_	_	_
35							+		
40	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
00		-	-	-	-	-	-	-	-
60 65	-	_	-	-	-	_	_	_	-

Cooling capacity	-	W
Power input	-	W
Current consumption	-	Α
Mass flow	-	kg/h
C.O.P.	-	

to: Evaporating temperature at dew point

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

Maximum HP switch setting	30	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

Sound power data

Sound power level	67	dB(A)	
With accoustic hood	62	dB(A)	

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRP045T5

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
'									
Cooling capacity	in W		T	1			1		
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Power input in W									
			1						
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-		-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-		-	-
.	41 1 A								
Current consump			1	1			1		
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Maga flow in ka/h									
Mass flow in kg/h			1						
30 35	-	-	-	-	<u>-</u>	-	-	<u>-</u>	-
			<u> </u>						
40 4F	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-
Coefficient of perf	formance (C.O).P.)							
30	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-
50	-	-	_	_	-	_	-	-	-
55	_	_	_	-		-	_	-	-
60	<u>-</u>	-	-	-	-	-	-	-	-
							+		
65	-	-	-	-	-	-	-	-	-

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

pooaoo at to	,	-	
Cooling capacity	-	W	
Power input	-	W	
Current consumption	-	Α	
Mass flow	-	kg/h	
C.O.P.	-		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	30	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

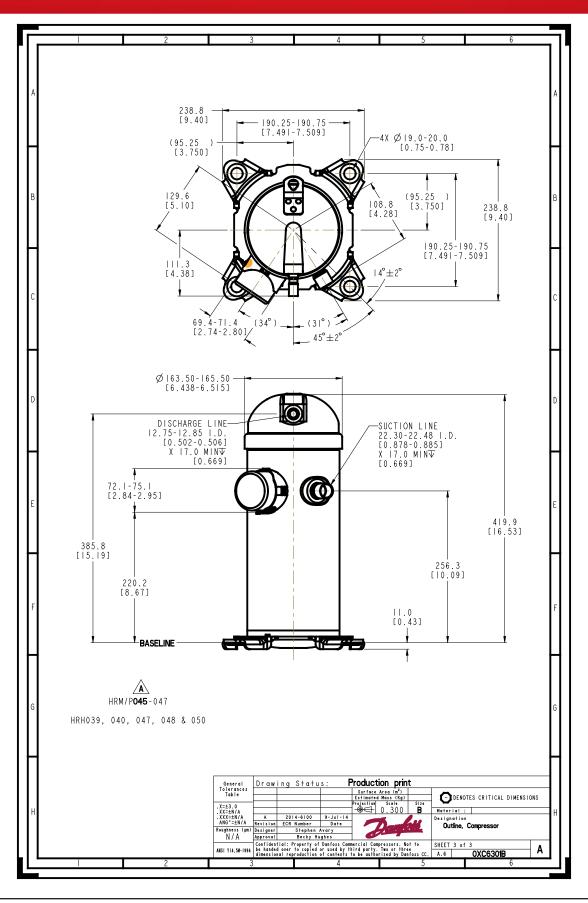
Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point $% \left(1\right) =\left(1\right) \left(1\right)$





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