



The Danfoss Scroll alternative

Small and medium R407C applications



The complete solution

Designed for excellence in performance, silence and endurance, Danfoss Scroll Compressors are the quietest, most reliable and longest-lasting compressors you can get. Available in a range of capacities from 2,5 to 10 hp, they provide the perfect fit for any application, and help you handle even the toughest challenges in the HVAC&R industry.

The universal dimension, footprint and connections of the new range are optimized for easy integration and service in existing systems.

For easy handling and easy replacement we have developed a selection of models to ensure that all the needed capacities are covered without need to keep several code numbers in your inventories.



Product advantages

- Optimised for easy integration and servicing in existing systems
- Simple, lightweight and compact construction for easy assembly
- Lowest sound level in HVAC&R industry
- Minimised friction and wear
- Optimised upper shell design
- 100% suction gas cooled and shielded motor

Customer benefits

- Easy to install and service
- Silent operation
- Low energy consumption
- Long lifetime
- Low running costs
- High thermal working conditions
- Constant performance
- Quick drop- in solution

Applications

Danfoss Scroll compressors perfectly suit applications like:

- Water chillers
- Self-contained air conditioning units
- Split systems
- Central air handling units
- Heat pumps
- Residential air conditioning
- Pool heater
- Air dryer
- Condensing units

R407C

Model	To	-25		-20		-15		-10		-5		0		5		10	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
HRP034T5 120U2019*	35	2 341	1,85	3 119	1.82	4 019	1,79	5 066	1.78	6 289	1.77	7 717	1.75	9 375	1.71	11 292	1.66
	45	-	-	2 714	2.29	3 536	2.26	4 494	2.24	5 614	2.22	6 925	2.20	8 455	2.18	10 230	2.13
	55	-	-	-	-	-	-	3 850	2.88	4 848	2.85	6 025	2.82	7 407	2.78	9 022	2.73
HRP040T5 120U1929*	35	2 524	2,138	3 369	2,097	4 346	2,072	5 484	2,06	6 815	2,04	8 370	2,02	10 181	1,98	12 278	1,92
	45	-	-	2 879	2,654	3 761	2,617	4 787	2,59	5 989	2,57	7 398	2,55	9 043	2,56	10 956	2,46
	55	-	-	-	-	-	-	4 014	3,34	5 066	3,30	6 306	3,26	7 765	3,22	9 473	3,16
HRP047T5 120U0986*	35	3 029	2,468	4 051	2,419	5 227	2,390	6 595	2,37	8 196	2,36	10 066	2,33	12 245	2,28	14 771	2,214
	45	-	-	3 424	3,082	4 485	3,038	5 714	3,01	7 149	2,99	8 829	2,96	10 792	2,92	13 077	2,86
	55	-	-	-	-	-	-	4 746	3,90	5 994	3,86	7 462	3,82	9 187	3,77	11 208	3,70
HRP060T5 120U1606*	35	3 754	2,999	5 006	2,940	6 455	2,905	8 147	2,88	10 125	2,86	12 435	2,83	15 123	2,78	18 234	2,69
	45	-	-	4 310	3,740	5 620	3,686	7 150	3,65	8 944	3,62	11 047	3,59	13 504	3,54	16 361	3,47
	55	-	-	-	-	-	-	6 034	4,73	7 611	4,67	9 473	4,62	11 666	4,56	14 232	4,47
HRP034T4 120U2024	35	2 480	1,73	3 190	1,71	4 050	1,70	5 080	1,69	6 290	1,68	7 710	1,67	9 340	1,64	11 220	1,59
	45	-	-	2 770	2,19	3 550	2,17	4 470	2,16	5 560	2,15	6 830	2,14	8 310	2,11	10 010	2,08
	55	-	-	-	-	-	-	3 790	2,77	4 760	2,76	5 900	2,75	7 220	2,73	8 740	2,71
HRP040T4 120U1016	35	2 850	2,02	3 670	2,01	4 660	2,00	5 840	1,99	7 230	1,97	8 860	1,95	10 740	1,92	12 890	1,87
	45	-	-	3 180	2,57	4 070	2,55	5 130	2,54	6 380	2,52	7 850	2,51	9 540	2,48	11 500	2,44
	55	-	-	-	-	-	-	4 350	3,24	5 460	3,23	6 770	3,22	8 290	3,20	10 040	3,17
HRP047T4 120U1046	35	3 440	2,30	4 410	2,28	5 600	2,26	7 020	2,25	8 690	2,24	10 650	2,22	12 910	2,18	15 500	2,12
	45	-	-	3 870	2,97	4 940	2,94	6 220	2,93	7 740	2,91	9 510	2,89	11 570	2,86	13 930	2,81
	55	-	-	-	-	-	-	5 320	3,81	6 680	3,80	8 280	3,78	10 130	3,76	12 270	3,73
HRP054T4 120U1691	35	3 920	2,44	5 020	2,46	6 350	2,50	7 950	2,53	9 850	2,57	12 070	2,61	14 640	2,66	17 580	2,71
	45	-	-	4 380	3,32	5 590	3,29	7 030	3,26	8 750	3,25	10 760	3,24	13 090	3,24	15 770	3,25
	55	-	-	-	-	-	-	6 060	4,15	7 570	4,10	9 360	4,06	11 440	4,03	13 840	4,01
HRP060T4 120U1726	35	4 350	2,71	5 560	2,74	7 040	2,78	8 820	2,81	10 920	2,85	13 380	2,90	16 230	2,95	19 490	3,02
	45	-	-	4 850	3,65	6 180	3,61	7 780	3,58	9 670	3,55	11 890	3,54	14 470	3,54	17 440	3,56
	55	-	-	-	-	-	-	6 690	4,50	8 360	4,42	10 320	4,36	12 610	4,32	15 260	4,30
HLP072T4 120U1756	35	5 160	3,16	6 590	3,19	8 350	3,23	10 470	3,28	12 970	3,33	15 890	3,38	19 270	3,45	23 130	3,52
	45	-	-	5 780	4,30	7 390	4,27	9 320	4,24	11 600	4,22	14 270	4,21	17 360	4,21	20 900	4,23
	55	-	-	-	-	-	-	8 060	5,40	10 110	5,33	12 520	5,28	15 310	5,24	18 520	5,22
HLP081T4 120U1781	35	5 690	3,93	7 300	3,91	9 260	3,89	11 610	3,87	14 380	3,85	17 620	3,81	21 350	3,75	25 630	3,65
	45	-	-	6 440	4,80	8 210	4,78	10 340	4,76	12 860	4,74	15 810	4,71	19 230	4,66	23 150	4,58
	55	-	-	-	-	-	-	8 900	5,83	11 170	5,81	13 830	5,79	16 940	5,76	20 510	5,70
HCP094T4 120U0601	35	6 600	4,61	8 480	4,59	10 760	4,57	13 480	4,55	16 700	4,52	20 450	4,47	24 790	4,40	29 760	4,29
	45	-	-	7 470	5,63	9 530	5,60	12 000	5,58	14 920	5,56	18 350	5,52	22 320	5,46	26 880	5,37
	55	-	-	-	-	-	-	10 330	6,82	12 960	6,81	16 050	6,78	19 650	6,74	23 810	6,68
HCP109T4 120U0376	35	7 710	5,83	9 900	5,81	12 570	5,80	15 750	5,77	19 510	5,73	23 890	5,67	28 960	5,58	34 770	5,45
	45	-	-	8 700	6,86	11 100	6,85	13 980	6,83	17 390	6,80	21 380	6,75	26 000	6,68	31 310	6,57
	55	-	-	-	-	-	-	11 990	7,97	15 050	7,96	18 640	7,93	22 820	7,88	27 650	7,79
HCP120T4 120U0401	35	8 420	6,36	10 810	6,35	13 720	6,33	17 190	6,30	21 300	6,26	26 090	6,19	31 620	6,09	37 960	5,95
	45	-	-	9 500	7,48	12 120	7,47	15 260	7,45	18 980	7,42	23 340	7,37	28 380	7,29	34 180	7,17
	55	-	-	-	-	-	-	13 090	8,69	16 430	8,68	20 350	8,65	24 920	8,59	30 180	8,50

To: Evaporating temperature in °C
Tc: Condensing temperature in °C

Qo: Cooling capacity in W
Pe: Power input in kW

Superheat = 11.1 K
Subcooling = 8.3 K

Voltage: 400 V / 3 / 50 Hz
*: Voltage: 220-240 V / 1 / 50 Hz

These code numbers are normally on stock at our Partner, Wholesaler or have a short lead-time.

No risk to loose efficiency

Axial compliance with adaptive control system

Compliant orbiting scroll

- Axial compliance: it uses the intermediate gas pockets for vapor injection below the orbiting scroll, in order to lift it up and seal the scrolls together, and a dynamic seal via two gaskets on the upper crankcase (no metal-to-metal contact). It's an adaptive control system: the force generated by the pressure is function of the operating conditions, it's always enough to keep the scrolls together and never too high, there's no risk to loose efficiency and reliability.



Type	Size	Motor	Features
HRP	060	TSL	P6

Application

H – High temperature, A/C version
Family:
R – Residential scroll, updated platform
L – Light commercial scroll, updated platform
C – Light commercial scroll
Refrigerant:
M R22 mineral or alkylbenzene oil
P R407C POE lubricant
H R410A POE lubricant

Size

Nominal capacity in thousand Btu/h at 60HZ. ARI conditions

Motor- Model variation:

T – design optimized for 7,2°/54,5°C
 Motor- voltage code:
 4:380-400/3/50-60 and 460/3/60
 5:220-240/1/50
 other voltage codes on request
 Motor- Motor protection:
L - internal motor protection

■ Tubing and electrical connections:

P: brazed connections, spade terminals
C: brazed connections, screw terminals

