

# Danfoss Universal Scroll Compressor

Danfoss Universal Scroll Compressors are designed to serve as quick, easy replacements for most 7½ to 15 ton commercial air conditioning scroll compressors. These compressors come with a bolt pattern, suction and discharge lines, and performance characteristics that match up directly with some competitors' products.



## R-22, R-407C

### Product Selection

Nominal Tonnage	V/ph/Hz	Competitor Part Nos. <sup>1</sup>		R-22		R-407C		Net Weight (lbs.)	Connection Size/ Type (Suction x Discharge)	Solder Sleeve Adapter Set for Rotolock Connectors
				Danfoss Model No.	Danfoss Code No. <sup>2</sup>	Danfoss Model No.	Danfoss Code No. <sup>2</sup>			
7 ½	200-230/3/60		ZR94KC-TF5	SM090S3V*	<b>SM090-3VI</b>	SZ090S3VC	<b>SZ090-3VI</b>	143	1 ¾" x ¾" Brazed	7765005
	460/3/60		ZR94KC-TFD	SM090S4V*	<b>SM090-4VI</b>	SZ090S4VC	<b>SZ090-4VI</b>			
9.3	200-230/3/60	CSHA-093R-0*00 or 0A CSHS-093R-0*00 or 0A	ZR108KC-TF5 ZR11M3-TWC	SM115S3Q*	<b>SM115-3QAI</b>	SZ115S3QC	<b>SZ115-3QAI</b>	172	1 ¾" x 7/8" Brazed	120Z0405
	460/3/60	CSHA-093K-0*00 or 0A CSHS-093K-0*00 or 0A	ZR108KC-TFD ZR11M3-TWD	SM115S4Q*	<b>SM115-4QAI</b>	SZ115S4QC	<b>SZ115-4QAI</b>			
10	200-230/3/60	CSHA-100R-0*00 or 0A CSHS-100R-0*00 or 0A	ZR125KC-TF5 ZR12M3-TWC	SM125S3Q*	<b>SM125-3QAI</b>	SZ125S3QC	<b>SZ125-3QAI</b>	198	1 5/8" x 1 1/8" Brazed	7765028
	460/3/60	CSHA-100K-0*00 or 0A CSHS-100K-0*00 or 0A	ZR125KC-TFD ZR12M3-TWD	SM125S4Q*	<b>SM125-4QAI</b>	SZ125S4QC	<b>SZ125-4QAI</b>			
12 ½	200-230/3/60	CSHA-125R-0*00 or 0A	ZR16M3-TWC	SM160T3C*	<b>SM160-3CBI</b>	SZ160T3CC	<b>SZ160-3CBI</b>	198	1 5/8" x 1 1/8" Brazed	7765028
	460/3/60	CSHA-125K-0*00 or 0A	ZR16M3-TWD	SM160T4C*	<b>SM160-4CBI</b>	SZ160T4CC	<b>SZ160-4CBI</b>			
14	200-230/3/60	CSHA-140R-0*00 or 0A CSHS-140R-0*00 or 0A		SM175S3Q*	<b>SM175-3QAI</b>	SZ175S3QC	<b>SZ175-3QAI</b>	220	1 5/8" x 1 1/8" Brazed	7765028
	460/3/60	CSHA-140K-0*00 or 0A CSHS-140K-0*00 or 0A		SM175S4Q*	<b>SM175-4QAI</b>	SZ175S4QC	<b>SZ175-4QAI</b>			
15	200-230/3/60	CSHA-150R-0*00 or 0A CSHS-150R-0*00 or 0A	ZR190KC-TW5 ZR19M3-TWC	SM185S3Q*	<b>SM185-3QAI</b>	SZ185S3QC	<b>SZ185-3QAI</b>	220	1 5/8" x 1 1/8" Brazed	7765028
	460/3/60	CSHA-150K-0*00 or 0A CSHS-150K-0*00 or 0A	ZR190KC-TWD, ZR19M3-TWD	SM185S4Q*	<b>SM185-4QAI</b>	SZ185S4QC	<b>SZ185-4QAI</b>			

<sup>1</sup> Competitor Model Nos. beginning "ZR" may have different footprint, suction, discharge or height compared to Danfoss Model No.

<sup>2</sup> Code Nos. ending "QAI" include threaded sight glass, 3/8" ODF oil equalization connection, brazed suction and discharge connections and mounting bracket.

Code Nos. ending "VI" and "CBI" have threaded sight glass, 3/8" flare SAE oil equalization connection and brazed suction and discharge connections.

Use compressor beginning with SM when system will use R-22; Use compressor beginning with SZ when retrofitting system to R-407C. For additional information, see Danfoss Literature No. DKRCC.PE.000.H1.02 (<http://bit.ly/RefrigerantRetrofits>)

Full range of models (refrigerant, tons and voltage codes) available. Check Coolselector or visit our Online Datasheet Generator at [www.danfoss.com/odsg](http://www.danfoss.com/odsg).

# Danfoss Universal Scroll Compressor

## R-410A

### Product Selection

Nominal Tonnage	V/ph/Hz	Competitor Part Nos. <sup>1</sup>		R-410A		Motor module voltage	Electronic Motor Protection Module	Net Weight (lbs.)	Connection Size/ Type (Suction x Discharge)	Solder Sleeve Adaptor set for Rotolock Connectors																				
				Danfoss Model No.	Danfoss Part No.																									
7 1/2	200-230/3/60	CSHD089J0A0M CSHD092J0A0M	ZP90KCE-TF5	SH090A3AL*	<b>120H0001</b>	N/A	N/A	128	1 1/8" x 7/8" Braze	120Z0125																				
	460/3/60	CSHD089K0A0M CSHD092K0A0M	ZP90KCE-TFD	SH090A4AL*	<b>120H0003</b>																									
9	200-230/3/60	CSHD105J0A0M CSHD110J0A0M	ZP103KCE-TF5	SH105A3AL*	<b>120H0209</b>			N/A	N/A	141	1 3/8" x 7/8" Braze	120Z0405																		
	460/3/60	CSHD105K0A0M CSHD110K0A0M	ZP103KCE-TFD	SH105A4AL*	<b>120H0211</b>																									
10	200-230/3/60	CSHD120J0A0M CSHD125J0A0M	ZP120KCE-TF5	SH120A3AL*	<b>120H0011</b>					N/A			N/A	141	1 3/8" x 7/8" Braze	120Z0405														
	460/3/60	CSHD120K0A0M CSHD125K0A0M	ZP120KCE-TFD	SH120A4AL*	<b>120H0013</b>																									
12	200-230/3/60	CSHD136J0A0M CSHD142J0A0M	ZP137KCE-TF5	SH140A3AL*	<b>120H0199</b>									N/A			N/A	148	1 3/8" x 7/8" Braze	120Z0405										
	460/3/60	CSHD136K0A0M CSHD142K0A0M	ZP137KCE-TFD	SH140A4AL*	<b>120H0201</b>																									
13	200-230/3/60	CSHD155J0A0M CSHD161J0A0M	ZP154KCE-TF5	SH161A3AL*	<b>120H0021</b>													N/A			N/A	152	1 3/8" x 7/8" Braze	120Z0405						
	460/3/60	CSHD155K0A0M CSHD161K0A0M	ZP154KCE-TFD	SH161A4AL*	<b>120H0023</b>																									
15	200-230/3/60	CSHD175J0A0M CSHD183J0A0M	ZP182KCE-TW5	SH184A3AL*	<b>120H0359</b>																	N/A			N/A	158	1 3/8" x 7/8" Braze	120Z0405		
	460/3/60	CSHD175K0A0M CSHD183K0A0M	ZP182KCE-TWD	SH184A4AL*	<b>120H0361</b>																									
20	200-230/3/60	CSHN240J0AHM CSHN250J0AHM	ZP235KCE-TW5 <sup>2</sup>	SH240A3AA*	<b>120H0289</b>	24VAC	<b>8169015</b>																			238			1 5/8" x 1 1/8" Braze	7765028
				SH240A3AB*	<b>120H0297</b>	115/230VAC	<b>8169016</b>																							
	460/3/60	CSHN240K0AHM CSHN250K0AHM	ZP235KCE-TWD <sup>2</sup>	SH240A4AA*	<b>120H0291</b>	24VAC	<b>8169015</b>																							
				SH240A4AB*	<b>120H0299</b>	115/230VAC	<b>8169016</b>																							
26	200-230/3/60	CSHN315J0AHM CSHN315J0AKM	ZP295KCE-TW5 <sup>2</sup>	SH295A3AA*	<b>120H0851</b>	24VAC	<b>8169015</b>	337	1 5/8" x 1 1/8" Braze	7765028																				
				SH295A3AB*	<b>120H0853</b>	115/230VAC	<b>8169016</b>																							
	460/3/60	CSHN315K0AHM CSHN315K0AKM	ZP295KCE-TWD <sup>2</sup>	SH295A4AA*	<b>120H0825</b>	24VAC	<b>8169015</b>																							
				SH295A4AB*	<b>120H0827</b>	115/230VAC	<b>8169016</b>																							
31	200-230/3/60	CSHN374J0AHM CSHN374J0AKM	ZP385KCE-TW5 <sup>2</sup>	SH380A3AA*	<b>120H0151</b>	24VAC	<b>8169015</b>	362			1 5/8" x 1 1/8" Braze	7765028																		
				SH380A3AB*	<b>120H0152</b>	115/230VAC	<b>8169016</b>																							
	460/3/60	CSHN374K0AHM CSHN374K0AKM	ZP385KCE-TWD <sup>2</sup>	SH380A4AA*	<b>120H0253</b>	24VAC	<b>8169015</b>																							
				SH380A4AB*	<b>120H0255</b>	115/230VAC	<b>8169016</b>																							

<sup>1</sup> Competitor Model Nos. beginning "ZP" may have different footprint, suction, discharge or height compared to Danfoss Model No.

<sup>2</sup> Control voltage of external motor protection module must be checked before crossing to Danfoss Model No with 24V ac or 115/230V motor protection module.

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