

# 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	Voltage/Phase/Frequency	Competitor Part Nos. <sup>1</sup>		Net weight (lbs.)	Connection size/type (suction x discharge)	Solder sleeve adapter set for Rotolock connectors	R-22		R-407C	
							Danfoss Model No.	Danfoss Code No. <sup>2</sup>	Danfoss Model No.	Danfoss Code No. <sup>2</sup>
7½	200-230/3/60		ZR94KC-TF5	143	1 ¾ x ¾ Brazed	7765005	SM090S3VC	<b>SM090-3VI</b>	SZ090S3VC	<b>SZ090-3VI</b>
	460/3/60 400/3/50		ZR94KC-TFD				SM090S4VC	<b>SM090-4VI</b>	SZ090S4VC	<b>SZ090-4VI</b>
9½	200-230/3/60	CSHA-093R-0*00 or 0A	ZR108KC-TF5 ZR11M3-TWC	172	1 ¾ x 7/8 Brazed	120Z0405	SM115S3QC	<b>SM115-3QAI</b>	SZ115S3QC	<b>SZ115-3QAI</b>
	460/3/60 400/3/50	CSHA-093K-0*00 or 0A	ZR108KC-TFD ZR11M3-TWD				SM115S4QC	<b>SM115-4QAI</b>	SZ115S4QC	<b>SZ115-4QAI</b>
10	200-230/3/60	CSHA-100R-0*00 or 0A	ZR125KC-TF5 ZR12M3-TWC	198	1 ¾ x 1 ½ Brazed	7765028	SM125S3QC	<b>SM125-3QAI</b>	SZ125S3QC	<b>SZ125-3QAI</b>
	460/3/60 400/3/50	CSHA-100K-0*00 or 0A	ZR125KC-TFD ZR12M3-TWD				SM125S4QC	<b>SM125-4QAI</b>	SZ125S4QC	<b>SZ125-4QAI</b>
12½	200-230/3/60	CSHA-125R-0*00 or 0A	ZR16M3-TWC	220	1 ¾ x 1 ½ Brazed	7765028	SM160T3CC	<b>SM160-3CBI</b>	SZ160T3CC	<b>SZ160-3CBI</b>
	460/3/60 400/3/50	CSHA-125K-0*00 or 0A	ZR16M3-TWD				SM160T4CC	<b>SM160-4CBI</b>	SZ160T4CC	<b>SZ160-4CBI</b>
14	200-230/3/60	CSHA-140R-0*00 or 0A		220	1 ¾ x 1 ½ Brazed	7765028	SM175S3QC	<b>SM175-3QAI</b>	SZ175S3QC	<b>SZ175-3QAI</b>
	460/3/60 400/3/50	CSHA-140K-0*00 or 0A					SM175S4QC	<b>SM175-4QAI</b>	SZ175S4QC	<b>SZ175-4QAI</b>
15	200-230/3/60	CSHA-150R-0*00 or 0A	ZR190KC-TW5 ZR19M3-TWC	220	1 ¾ x 1 ½ Brazed	7765028	SM185S3QC	<b>SM185-3QAI</b>	SZ185S3QC	<b>SZ185-3QAI</b>
	460/3/60 400/3/50	CSHA-150K-0*00 or 0A	ZR190KC-TWD ZR19M3-TWD				SM185S4QC	<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 in. flare SAE oil equalization connection, brazed suction and discharge connections and mounting bracket. Code Nos. ending "VI" and "CBI" have threaded sight glass, 3/8 in. 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 (refrigerants, 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

Refrigerant	Nominal tonnage	Voltage/phase/frequency	Competitor model no. <sup>1</sup>		Motor protection	Net weight (lbs.)	Solder ODF connection (in.)	Solder sleeve adaptor set to Rotolock connections	OLD Danfoss Model No.	OLD Danfoss Code No. <sup>2</sup>	NEW Danfoss Model No.	NEW Danfoss Code No. <sup>2</sup>	
R410A	7½	200-230/3/60	CSHD-089J CSHD-092J	ZP90KCE-TF5 ZP91KCE-TF5	Internal Overload Protector	128	1½ × ¾	120Z0125	SH090A3AL*	120H0001	DSH090A3ALA	120H1180	
		460/3/60	CSHD-089K CSHD-092K	ZP90KCE-TFD					SH090A4AL*	120H0003	DSH090A4ALB	120H1182	
	8¾	200-230/3/60	CSHD-105J	ZP103KCE-TF5		141	1½ × ¾	120Z0405	SH105A3AL*	120H0209	DSH105A3ALA	120H1188	
		460/3/60	CSHD-105K	ZP103KCE-TFD					SH105A4AL*	120H0211	DSH105A4ALB	120H1190	
	10	200-230/3/60	CSHD-125J	ZP120KCE-TF5		148	1½ × ¾	120Z0405	SH120A3AL*	120H0011	DSH120A3ALA	120H1196	
		460/3/60	CSHD-125K	ZP120KCE-TFD					SH120A4AL*	120H0013	DSH120A4ALB	120H1198	
	11½	200-230/3/60	CSHD-142J	ZP137KCE-TF5		152	1½ × ¾	120Z0405	SH140A3AL*	120H0199	DSH140A3ALA	120H1204	
		460/3/60	CSHD-142K	ZP137KCE-TFD					SH140A4AL*	120H0201	DSH140A4ALB	120H1206	
	13½	200-230/3/60	CSHD-161J	ZP154KCE-TF5		158	1½ × ¾	120Z0405	SH161A3AL*	120H0021	DSH161A3ALA	120H1212	
		460/3/60	CSHD-161K	ZP154KCE-TFD					SH161A4AL*	120H0023	DSH161A4ALB	120H1214	
	15	200-230/3/60	CSHD-183J	ZP182KCE-TF5		238	1½ × 1½	7765028	SH184A3AL*	120H0359	DSH184A3ALA	120H1220	
		460/3/60	CSHD-183K	ZP182KCE-TFD					SH184A4AL*	120H0361	DSH184A4ALB	120H1222	
	20	200-230/3/60	CSHN-176J	ZP236KCE-TW5 <sup>2</sup>		24V AC 115/230V	245	1½ × 1½	7765028	SH240A3AA*	120H0289	DSH240A3AAB	120H1159
		460/3/60	CSHN-176K	ZP236KCE-TWD <sup>2</sup>		24V AC 115/230V				SH240A3AB*	120H0297	DSH240A3ABB	120H1161
	25	200-230/3/60	CSHN-250J	ZP295KCE-TW5 <sup>2</sup>		24V AC 115/230V	351	1½ × 1½	7765028	SH240A4AA*	120H0291	DSH240A4AAB	120H1119
		460/3/60	CSHN-250K	ZP295KCE-TWD <sup>2</sup>		24V AC 115/230V				SH240A4AB*	120H0299	DSH240A4ABB	120H1121
	30	200-230/3/60	CSHN-315J	ZP385KCE-TW5 <sup>2</sup>		24V AC 115/230V	386	1½ × 1¾	120Z0504	SH295A3AA*	120H0851	DSH295A3AAB	120H1163
		460/3/60	CSHN-315K	ZP385KCE-TWD <sup>2</sup>		24V AC 115/230V				SH295A3AB*	120H0853	DSH295A3ABB	120H1165
40	200-230/3/60			24V AC 115/230V	386	1½ × 1¾	120Z0504	SH295A4AA*	120H0825	DSH295A4AAB	120H1123		
	460/3/60			24V AC 115/230V				SH295A4AB*	120H0827	DSH295A4ABB	120H1125		
				24V AC 115/230V				SH380A3AA*	120H0151	DSH381A3AAA	120H1167		
				24V AC 115/230V				SH380A3AB*	120H0152	DSH381A3ABA	120H1169		
				24V AC 115/230V				SH380A4AA*	120H0253	DSH381A4AAA	120H1127		
				24V AC 115/230V				SH380A4AB*	120H0255	DSH381A4ABA	120H1129		
				24V AC 115/230V						DSH485A3AAA	120H1105		
				24V AC 115/230V						DSH485A4AAB	120H1131		
				24V AC 115/230V						DSH485A4ABB	120H1133		

<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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