

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. ¹		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. ²	Danfoss Model No.	Danfoss Code No. ²
7½	200-230/3/60		ZR94KC-TF5	143	1 ¾ x ¾ Braze	7765005	SM090S3VC	SM090-3VI	SZ090S3VC	SZ090-3VI
	460/3/60 400/3/50		ZR94KC-TFD				SM090S4VC	SM090-4VI	SZ090S4VC	SZ090-4VI
9½	200-230/3/60	CSHA-093R-0*00 or 0A	ZR108KC-TF5 ZR11M3-TWC	172	1 ¾ x ¾ Braze	120Z0405	SM115S3QC	SM115-3QAI	SZ115S3QC	SZ115-3QAI
	460/3/60 400/3/50	CSHA-093K-0*00 or 0A	ZR108KC-TFD ZR11M3-TWD				SM115S4QC	SM115-4QAI	SZ115S4QC	SZ115-4QAI
10	200-230/3/60	CSHA-100R-0*00 or 0A	ZR125KC-TF5 ZR12M3-TWC	172	1 ¾ x ¾ Braze	120Z0405	SM125S3QC	SM125-3QAI	SZ125S3QC	SZ125-3QAI
	460/3/60 400/3/50	CSHA-100K-0*00 or 0A	ZR125KC-TFD ZR12M3-TWD				SM125S4QC	SM125-4QAI	SZ125S4QC	SZ125-4QAI
12½	200-230/3/60	CSHA-125R-0*00 or 0A	ZR16M3-TWC	198	1 ¾ x ¾ Braze	7765028	SM160T3CC	SM160-3CBI	SZ160T3CC	SZ160-3CBI
	460/3/60 400/3/50	CSHA-125K-0*00 or 0A	ZR16M3-TWD				SM160T4CC	SM160-4CBI	SZ160T4CC	SZ160-4CBI
14	200-230/3/60	CSHA-140R-0*00 or 0A		220	1 ¾ x 1 ½ Braze	7765028	SM175S3QC	SM175-3QAI	SZ175S3QC	SZ175-3QAI
	460/3/60 400/3/50	CSHA-140K-0*00 or 0A					SM175S4QC	SM175-4QAI	SZ175S4QC	SZ175-4QAI
15	200-230/3/60	CSHA-150R-0*00 or 0A	ZR190KC-TW5 ZR19M3-TWC	220	1 ¾ x 1 ½ Braze	7765028	SM185S3QC	SM185-3QAI	SZ185S3QC	SZ185-3QAI
	460/3/60 400/3/50	CSHA-150K-0*00 or 0A	ZR190KC-TWD ZR19M3-TWD				SM185S4QC	SM185-4QAI	SZ185S4QC	SZ185-4QAI

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

² Code Nos. ending "QAI" include threaded sight glass, ¾ in. flare SAE oil equalization connection, brazed suction and discharge connections and mounting bracket. Code Nos. ending "VI" and "CBI" have threaded sight glass, ¾ 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.

Danfoss Universal Scroll Compressor

R-410A

Product Selection

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

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

² 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.

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

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