

Copeland Scroll™ multiples

for commercial air conditioning and chiller applications



Setting the standard

Today's commercial air conditioning applications are as varied as the customers you serve. Each one has its own set of challenges and demands, but several requirements remain constant. Your customers deserve innovative technologies that leverage proven reliability methods and offer consistently high performance. Downtime is not an option for their business – and your reputation. When it comes to offering innovative, reliable, high performing compressors, Copeland Scroll™ continues to set the industry standard.

Step modulation

One form of stepped modulation technology applied in some air conditioning applications is an approach that utilizes multiple compressors connected with a manifold, commonly referred to as tandems. Similar to other modulation approaches, tandems offer improved part-load efficiencies, including Integrated Energy Efficiency Ratio (IEER) and Integrated Part Load Value (IPLV), while maximizing full-load efficiency. A user also has the option to 'tandemize' a Copeland Scroll Digital™ compressor with a fixed capacity scroll compressor. This combination offers a very simple solution to deliver continuous capacity modulation while providing exceptional part-load efficiencies, such as Integrated Part Load Value (IPLV).

When Emerson first pioneered the use of scroll technology in compressors, it changed the industry forever. Since then, Copeland Scroll technology remains at the forefront for HVACR

applications. With the broadest product line in the industry, Copeland Scroll compressors range from 1-40 HP for single compressor configurations and 3-120 HP in tandem and trio configurations. This includes 51 uneven and 69 even tandem compressor combinations.

Example

System capacity can be modulated by using multiple refrigeration circuits or by using multiple compressors in single-circuit systems. In a four circuit system, commonly used in packaged rooftops, individual compressors can be turned on and off to achieve a specific output. Six to eight compressors per unit can be used, which means, depending on the even or uneven combination, up to 12 capacity steps available to match the load by cycling the compressors on and off.



Copeland Scroll Compressors

- ◆ More than 100 million installations worldwide
- ◆ Over 3 million Copeland Scroll UltraTech™ and Copeland Scroll Digital™ compressors installed
- ◆ 25 years experience as the leader in scroll compression technology



Advantages of stepped modulation

- Efficiency: High system efficiency at both full-load and part-load
- Installation costs: Least expensive form of modulation
- Reliability: Comparable to fixed compressor systems
- Flexibility: Wide and smooth system lineup with a limited number of compressor models
- Oil management: No extra oil management hardware needed
- Electromagnetic interference issues: None
- Stepped capacity modulation for precision load matching which enables OEMs to boost system part load efficiency levels to meet new energy standards and aggressive DOE challenges



Industrial standards

Industry standards introduce part-load efficiency requirements for light commercial split, package and rooftop systems by adding IEER to the ASHRAE 90.1 standard. In addition, voluntary industry standards ASHRAE 189.1, Energy Star and CEE standards also specify improved part-load efficiency. One way to meet these standards is by applying multiple compressors in the system design to deliver step capacity modulation for precision load matching and high part load efficiency levels.



Ref.	Model with Voltage Variations	Compressor Combination	45°/130° 60Hz		Mechanical				Connection Size		Cap. Steps	Cap. (HP)
			Capacity (Btu/h)	EER (Btu/h)	L (in)	W (in)	H (in)	Net Wt. (lbs)	Suct. Dia. (In)	Disch. Dia. (In)		
Digital Tandems												
R-410A	ZPDU58K5E-TF5/TFD/TFE	ZPD34K5E + ZP24K5E	59,300	10.4	24.4	11.6	20.0	116	1.125	0.75	Infinite	5
	ZPDU76K5E-TF5/TFD/TFE	ZPD34K5E + ZP42K5E	78,500	10.8	24.3	11.6	20.0	136	1.125	0.75	Infinite	7
	ZPDU85K5E-TF5/TFD/TFE	ZPD34K5E + ZP51K5E	86,100	10.5	24.3	11.6	20.0	136	1.125	0.75	Infinite	7
	ZPDU10M5E-TF5/TFD/TFE	ZPD42K5E + ZP61K5E	103,000	10.1	24.3	11.6	20.0	155	1.125	0.75	Infinite	9
	ZPDU12MCE-TF5/TFD/TFE	ZPD72KCE + ZP50K3E	121,000	10.2	24.7	11.6	20.6	218	1.125	0.75	Infinite	10
	ZPDT12MCE-TF5/TFD/TFE	ZPD61KCE + ZP61KCE	123,500	10.4	24.6	11.6	20.5	204	1.125	0.75	Infinite	10
	ZPDU13MCE-TFD	ZPD72KCE + ZP61KCE	130,000	10.3	24.6	11.6	20.5	205	0.75	1.125	Infinite	11
	ZPDT14MCE-TF5/TF7/TFD/TFE	ZPD72KCE + ZP72KCE	143,000	10.1	24.6	11.6	20.5	205	1.125	0.75	Infinite	12
	ZPDU15MCE-TF5/TFD/TF7/TFE	ZPD61KCE + ZP91KCE	149,500	10.6	24.7	12.1	19.7	190	1.125	0.75	Infinite	12
	ZPDT16MCE-TFD/TFE	ZPD83KCE + ZP83KCE	162,000	10.6	24.6	11.6	20.5	205	1.125	0.75	Infinite	14
	ZPDU17MCE-TF5/TFD/TF7/TFE	ZPD83KCE + ZP91KCE	171,000	10.4	24.7	21.1	19.7	190	1.125	0.75	Infinite	14
	ZPDT18MCE-TF5/TF7/TFD/TFE	ZPD91KCE + ZP91KCE	179,000	10.9	24.7	12.1	20.6	190	1.125	1.125	Infinite	15
	ZPDU21MCE-TF5/TF7/TFD/TFE	ZPD120KCE + ZP90KCE	208,000	10.8	29.4	17.1	22.7	271	1.625	1.375	Infinite	17
	ZPDT21MCE-TF5/TF7/TFD/TFE	ZPD103KCE + ZP103KCE	209,000	11.0	29.4	15.9	22.7	289	1.625	1.375	Infinite	17
	ZPDT24MCE-TF5/TF7/TFD/TFE	ZPD120KCE + ZP120KCE	246,000	11.0	29.4	15.9	22.7	289	1.625	1.375	Infinite	21
	ZPDU26MCE-TXD/TX7/TXE	ZPD103KCE + ZP154KCE	258,000	10.9	29.4	17.1	23.5	278	1.625	1.375	Infinite	22
	ZPDT27MCE-TF5/TF7/TFD/TFE	ZPD137KCE + ZP137KCE	270,000	11.0	29.4	15.9	22.7	289	1.625	1.375	Infinite	23
ZPDT31MCE-TW5/TW7/TWD/TWE	ZPD154KCE + ZP154KCE	309,000	11.0	29.4	17.3	23.5	286	1.625	1.375	Infinite	26	
ZPDT36MCE-TW5/TW7/TWD/TWE	ZPD182KCE + ZP182KCE	364,000	11.0	29.4	17.3	23.5	292	1.625	1.375	Infinite	30	
R-407C	ZRDT96KCE-TF7/TFD	ZRD48KCE + ZR48KCE	89,500	10.2	24.3	11.2	19.9	138	1.125	0.75	Infinite	7
	ZRDU13MCE-TF5/TF7/TFD	ZRD72KCE + ZR61KCE	125,000	10.6	24.7	11.7	20.5	185	1.125	0.75	Infinite	10
	ZRDT14MCE-TF5/TF7/TFD	ZRD72KCE + ZR72KCE	136,000	10.7	24.7	11.7	20.5	183	1.125	0.75	Infinite	11
	ZRDT16MCE-TF7/TFD	ZRD81KCE + ZR81KCE	162,000	10.4	24.7	12.5	20.5	192	1.125	0.75	Infinite	14
Tandems												
R-410A	ZPT32K5E-PFV	ZP16K5E + ZP16K5E	30,800	9.3	24.0	11.1	17.3	110	0.875	0.75	2	3
	ZPT40K5E-PFV	ZP20KCE + ZP20KCE	39,800	9.8	24.0	11.1	17.3	110	0.875	0.75	2	3
	ZPU47K5E-PFV	ZP16K5E + ZP31K5E	46,900	9.6	24.2	11.1	17.3	114	0.875	0.75	3	4
	ZPT50K5E-PFV	ZP25KCE + ZP25KCE	50,200	9.9	24.0	11.1	17.3	112	0.875	0.75	2	4
	ZPU56K5E-TFD	ZP25K5E + ZP31K5E	55,600	9.9	24.0	11.1	17.3	110	0.875	0.75	3	5
	ZPU58K5E-TF5/TFD/TFE	ZP24K5E + ZP34K5E	59,000	10.3	24.4	11.6	18.4	116	1.125	0.75	3	5
	ZPU62K5E-TF5/TFD/TFE	ZP24K5E + ZP38K5E	61,800	10.4	24.4	11.6	18.4	120	1.125	0.75	3	5
	ZPU76K5E-TF5/TFD/TFE	ZP34K5E + ZP42K5E	77,300	10.4	24.3	11.4	18.4	136	1.125	0.75	3	6
	ZPU78K5E-TF5/TFD/TFE	ZP34K5E + ZP44K5E	80,400	10.6	24.3	11.4	18.4	136	1.125	0.75	3	7
	ZPU85K5E-TF5/TFD/TFE	ZP34K5E + ZP51K5E	86,900	10.6	24.3	11.4	18.4	136	1.125	0.75	3	7
	ZPT88K5E-PFV	ZP44KCE + ZP44KCE	88,300	10.4	24.3	11.4	18.4	148	1.125	0.75	2	7
	ZPU87K5E-TF5/TFD/TFE	ZP36K5E + ZP51K5E	88,600	10.6	24.3	11.4	18.4	136	1.125	0.75	3	7
	ZPT88K5E-TF5/TFD/TFE	ZP44KCE + ZP44KCE	88,600	10.6	24.3	11.4	18.4	136	1.125	0.75	2	7
	ZPU88K5E-TF5/TFD/TFE	ZP34K5E + ZP54K5E	89,900	10.6	24.3	11.4	18.4	136	1.125	0.75	3	7
	ZPU95K5E-TF5/TFD/TFE	ZP34K5E + ZP61K5E	97,200	10.6	24.3	11.6	18.5	142	1.125	0.75	3	8
	ZPT98K5E-PFV	ZP49K5E + ZP49K5E	98,400	10.5	24.3	11.4	18.4	136	1.125	0.75	2	8
	ZPT98K5E-TF5/TFD/TFE	ZP49K5E + ZP49K5E	98,800	10.6	24.3	11.4	18.4	136	1.125	0.75	2	8
	ZPU100K5E-TF5/TFD/TFE	ZP39K5E + ZP61K5E	100,500	10.6	24.3	11.6	18.5	145	1.125	0.75	3	8
	ZPT100K3E-TF5/TFD/TFE	ZP50K3E + ZP50K3E	101,000	10.3	24.7	11.7	18.8	217	1.125	0.75	2	8
	ZPT108K3E-TF5/TF7/TFD/TFE	ZP54K3E + ZP54K3E	107,000	10.2	24.7	11.7	18.8	217	1.125	0.75	2	9
	ZPT108K5E-PFV	ZP54K5E + ZP54K5E	108,000	10.5	24.3	11.4	18.4	136	1.125	0.75	2	9
	ZPT108K5E-TF5/TFD/TFE/PFV	ZP54K5E + ZP54K5E	108,000	10.6	24.3	11.4	18.4	136	1.125	0.75	2	9
	ZPT114K3E-PFV	ZP57K3E + ZP57K3E	113,000	10.0	24.7	11.7	18.8	217	1.125	0.75	2	9
	ZPT114K5E-PFV	ZP57K5E + ZP57K5E	113,500	10.2	24.3	11.4	18.4	150	1.125	0.75	2	9
	ZPT114K3E-TF5/TF7/TFD/TFE	ZP57K3E + ZP57K3E	114,000	10.4	24.3	11.4	18.4	217	1.125	0.75	2	10
	ZPT114K5E-TF5/TFD/TFE	ZP57K5E + ZP57K5E	114,000	10.8	24.3	11.4	18.4	150	1.125	0.75	2	10
	ZPT122KCE-TF5/TF7/TFD/TFE	ZP61KCE + ZP61KCE	121,000	10.6	24.3	11.4	18.4	217	1.125	0.75	2	10
	ZPU122KCE-TF5/TFD/TFE	ZP50KCE + ZP72KCE	122,000	10.4	24.7	11.7	18.8	217	1.125	0.75	3	10
	ZPT122K5E-PFV	ZP61K5E + ZP61K5E	122,000	10.4	24.3	11.4	18.4	160	1.125	0.75	2	10
	ZPT122K5E-TF5/TFD/TFE	ZP61K5E + ZP61K5E	122,000	10.8	24.7	11.7	18.8	160	1.125	0.75	2	10
	ZPT134KCE-TF5/TF7/TFD/TFE	ZP67KCE + ZP67KCE	133,000	10.6	24.6	11.6	17.9	205	1.125	0.75	2	11
	ZPT144KCE-TF5/TF7/TFD/TFE	ZP72KCE + ZP72KCE	141,000	10.4	24.6	11.6	17.9	205	1.125	0.75	2	12
	ZPU152KCE-TF5/TF7/TFD/TFE	ZP61KCE + ZP91KCE	149,000	10.6	24.7	11.7	18.8	190	1.125	0.75	3	12
ZPT152KCE-TF5/TF7/TFD/TFE	ZP76KCE + ZP76KCE	152,500	10.8	24.7	11.7	18.8	186	1.125	0.75	2	13	
ZPT166KCE-TF5/TF7/TFD/TFE	ZP83KCE + ZP83KCE	164,000	10.7	24.7	11.7	18.8	187	1.125	0.75	2	14	
ZPU174KCE-TF5/TF7/TFD/TFE	ZP83KCE + ZP91KCE	168,500	10.4	24.7	11.7	18.8	190	1.125	0.75	3	14	
ZPT182KCE-TF5/TF7/TFD/TFE	ZP91KCE + ZP91KCE	179,500	10.9	24.7	12.1	19.0	190	1.125	1.125	2	15	

Ref.	Model with Voltage Variations	Compressor Combination	45°/130° 60Hz		Mechanical				Connection Size		Cap. Steps	Cap. (HP)
			Capacity (Btu/h)	EER (Btu/h)	L (in)	W (in)	H (in)	Net Wt. (lbs)	Suct. Dia. (In)	Disch. Dia. (In)		
Tandems (cont.)												
R-410A	ZPT180KCE-TF5/TF7/TFD/TFE	ZP90KCE + ZP90KCE	181,000	10.8	25.0	12.3	19.5	270	1.625	1.375	2	15
	ZPT206KCE-TF5/TF7/TFD/TFE	ZP103KCE + ZP103KCE	210,000	10.9	25.0	12.3	22.7	282	1.625	1.375	2	18
	ZPU210KCE-TF5/TF7/TFD/TFE	ZP90KCE + ZP120KCE	213,000	10.9	29.4	17.1	22.7	271	1.625	1.375	3	18
	ZPU223KCE-TF5/TF7/TFD/TFE	ZP103KCE + ZP120KCE	225,000	10.9	29.4	17.1	22.7	286	1.625	1.375	3	19
	ZPU240KCE-TF5/TF7/TFD/TFE	ZP103KCE + ZP137KCE	237,000	10.8	29.4	17.1	22.7	286	1.625	1.375	3	20
	ZPT240KCE-TF5/TF7/TFD/TFE	ZP120KCE + ZP120KCE	246,000	11.0	25.0	12.3	22.7	289	1.625	1.375	2	21
	ZPU257KCE-TF5/TF7/TFD/TFE	ZP120KCE + ZP137KCE	255,000	10.9	29.4	17.1	22.7	289	1.625	1.375	3	21
	ZPU258KCE-TX5/TX7/TXD/TXE	ZP103KCE + ZP154KCE	258,000	10.9	25.0	12.3	23.5	278	1.625	1.375	3	22
	ZPT274KCE-TF5/TF7/TFD/TFE	ZP137KCE + ZP137KCE	270,000	10.9	25.0	12.3	22.7	289	1.625	1.375	2	23
	ZPU272KCE-TFD	ZP90KCE + ZP182KCE	273,000	11.0	25.0	12.3	23.5	271	1.625	1.375	3	23
	ZPU272KCE-TX5/TX7/TXD/TXE	ZP90KCE + ZP182KCE	273,000	11.0	23.5	12.3	23.5	271	1.625	1.375	3	23
	ZPU274KCE-TFD	ZP120KCE + ZP154KCE	273,000	10.9	25.0	12.3	23.5	278	1.625	1.375	3	23
	ZPU274KCE-TX5/TX7/TXD/TXE	ZP120KCE + ZP154KCE	273,000	10.9	25.0	12.3	23.5	278	1.625	1.375	3	23
	ZPU285KCE-TFD	ZP103KCE + ZP182KCE	286,000	11.0	25.0	12.3	23.5	278	1.625	1.375	3	24
	ZPU285KCE-TX5/TX7/TXD/TXE	ZP103KCE + ZP182KCE	286,000	11.0	25.0	12.3	23.5	278	1.625	1.375	3	24
	ZPU302KCE-TFD	ZP120KCE + ZP182KCE	301,000	11.0	25.0	12.3	23.5	281	1.625	1.375	3	25
	ZPU302KCE-TX5/TX7/TXD/TXE	ZP120KCE + ZP182KCE	301,000	11.0	25.0	12.3	23.5	287	1.625	1.375	3	25
	ZPT308KCE-TF7/TFD	ZP154KCE + ZP154KCE	307,000	10.9	25.0	12.3	23.5	286	1.625	1.375	2	26
	ZPT308KCE-TW5/TW7/TWD/TWE	ZP154KCE + ZP154KCE	307,000	10.9	25.0	12.3	23.5	286	1.625	1.375	2	26
	ZPU319KCE-TFD	ZP137KCE + ZP182KCE	314,000	11.0	25.0	12.3	23.5	281	1.625	1.375	3	26
	ZPU319KCE-TX5/TX7/TXD/TXE	ZP137KCE + ZP182KCE	314,000	11.0	25.0	12.3	23.5	287	1.625	1.375	3	26
	ZPU336KCE-TFD	ZP154KCE + ZP182KCE	335,000	11.0	25.0	12.3	23.5	289	1.625	1.375	3	28
	ZPU336KCE-TW5/TW7/TWD/TWE	ZP154KCE + ZP182KCE	335,000	11.0	25.0	12.3	23.5	289	1.625	1.375	3	28
	ZPT360KCE-TW7/TWC/TWD/TWE	ZP180KCE + ZP180KCE	360,000	11.2	37.2	20.3	24.6	473	2.125	1.375	2	30
	ZPT364KCE-TW5/TW7/TWD/TWE	ZP182KCE + ZP182KCE	361,000	11.1	25.0	12.3	23.5	292	1.625	1.375	2	30
	ZPU418KCE-TY5/TY7/TYD/TYE	ZP182KCE + ZP236KCE	417,000	11.1	36.6	22.5	28.4	488	2.125	1.375	3	35
	ZPT472KCE-TE5/TE7/TED/TEE	ZP236KCE + ZP236KCE	471,000	10.9	39.5	20.9	28.4	606	2.625	1.375	2	39
	ZPU532KCE-TE5/TE7/TED/TEE	ZP236KCE + ZP296KCE	528,000	10.6	39.5	20.7	28.4	618	2.625	1.375	3	44
	ZPT570KCE-TW5/TW7/TWC/TWD/TWE	ZP285KCE + ZP285KCE	555,000	11.2	42.2	22.5	29.4	884	2.625	1.625	2	46
	ZPU567KCE-TW7/TWC/TWD/TWE	ZP182KCE + ZP385KCE	565,000	11.0	34.3	21.2	29.3	536	2.125	1.375	3	47
	ZPT592KCE-TE5/TE7/TED/TEE	ZP296KCE + ZP296KCE	582,000	10.6	39.5	20.9	28.4	631	2.625	1.375	2	49
	ZPU681KCE-TE5/TE7/TED/TEE	ZP296KCE + ZP385KCE	680,000	10.9	41.6	14.0	29.4	727	2.625	1.625	3	57
	ZPT770KCE-TE5/TE7/TED/TEE	ZP385KCE + ZP385KCE	759,000	10.9	40.9	21.9	29.4	826	2.625	1.625	2	63
	ZPU870KCE-TED	ZP385KCE + ZP485KCE	856,000	10.7	40.6	22.3	30.6	878	2.625	1.625	3	71
ZPT970KCE-TED/TE7/TEE	ZP485KCE + ZP485KCE	947,000	10.9	40.9	21.9	30.6	932	2.625	1.625	2	79	
R-407C	ZRT96KCE-TF5/TFD	ZR48KCE + ZR48KCE	92,800	10.8	24.3	11.4	18.0	136	1.125	0.75	2	8
	ZRT96K3E-PFV	ZR48K3E + ZR48K3E	93,000	10.6	24.3	11.4	18.0	136	1.125	0.75	2	8
	ZRT96K3E-TF5/TFD/TFE	ZR48K3E + ZR48K3E	94,000	10.5	24.3	11.4	18.0	136	1.125	0.75	2	8
	ZRT108K3E-TF5/TFD/TFE	ZR54K3E + ZR54K3E	101,000	10.4	24.7	11.7	18.8	200	1.125	0.75	2	8
	ZRT122K3E-TF5/TFD/TFE/PFV	ZR61K3E + ZR61K3E	116,000	10.7	24.7	11.7	18.8	223	1.125	0.75	2	10
	ZRT122KCE-TFD	ZR61KCE + ZR61KCE	116,000	10.9	24.7	11.7	18.8	223	1.125	0.75	2	10
	ZRT136KCE-TF5/TFD/TFE	ZR68KCE + ZR68KCE	132,000	11.1	24.7	11.7	18.8	205	1.125	0.75	2	11
	ZRT144KCE-TF5/TF7/TFD/TFE	ZR72KCE + ZR72KCE	137,000	10.7	24.7	11.7	18.8	205	1.125	0.75	2	11
	ZRT162KCE-TF5/TF7/TFD	ZR81KCE + ZR81KCE	154,000	10.8	24.7	12.5	19.0	205	1.125	1.125	2	13
	ZRT168KCE-TF5/TF7/TFD/TFE	ZR84KCE + ZR84KCE	161,500	11.0	25.0	12.3	19.5	270	1.625	1.375	2	13
	ZRT188KCE-TF5/TF7/TFD/TFE	ZR94KCE + ZR94KCE	186,500	11.2	25.0	12.3	19.5	270	1.625	1.375	2	16
	ZRT216KCE-TF5/TF7/TFD/TFE	ZR108KCE + ZR108KCE	209,000	11.3	25.0	12.3	22.7	283	1.625	1.375	2	17
	ZRT250KCE-TF5/TF7/TFD/TFE	ZR125KCE + ZR125KCE	237,000	10.8	25.0	12.3	22.7	289	1.625	1.375	2	20
	ZRT288KCE-TF5/TF7/TFD/TFE	ZR144KCE + ZR144KCE	272,000	11.0	25.0	12.3	22.7	289	1.625	1.375	2	23
	ZRU285KCE-TX5/TX7/TXD/TXE	ZR125KCE + ZR160KCE	274,000	10.9	25.0	12.3	23.5	278	1.625	1.375	3	23
	ZRU315KCE-TX5/TX7/TXD/TXE	ZR125KCE + ZR190KCE	300,000	10.8	25.0	12.3	23.5	281	1.625	1.375	3	25
	ZRT320KCE-TF7/TFD	ZR160KCE + ZR160KCE	307,000	11.0	29.4	12.3	23.5	289	1.625	1.375	2	26
	ZRT320KCE-TW5/TW7/TWD/TWE	ZR160KCE + ZR160KCE	307,000	11.0	29.4	12.3	23.5	289	1.625	1.375	2	26
	ZRU334KCE-TX5/TX7/TXD/TXE	ZR144KCE + ZR190KCE	316,000	10.8	25.0	12.3	23.5	281	1.625	1.375	3	26
	ZRU350KCE-TW5/TW7/TWD/TWE	ZR160KCE + ZR190KCE	327,000	10.5	25.0	12.3	23.5	292	1.625	1.375	3	27
	ZRT380KCE-TFD	ZR190KCE + ZR190KCE	361,000	10.8	29.4	12.3	23.5	289	1.625	1.375	2	30
	ZRT380KCE-TW5/TW7/TWD/TWE	ZR190KCE + ZR190KCE	361,000	10.8	29.4	12.3	23.5	289	1.625	1.375	2	30
	ZRT500KCE-TW5/TW7/TWC/TWD/TWE	ZR250KCE + ZR250KCE	471,000	10.9	41.4	21.6	29.5	659	2.625	1.625	2	39
	ZRT600KCE-TW5/TW7/TWC/TWD/TWE	ZR300KCE + ZR300KCE	580,000	11.3	42.2	23.1	29.4	864	3.125	1.625	2	48
ZRT760KCE-TW5/TW7/TWC/TWD/TWE	ZR380KCE + ZR380KCE	740,000	11.3	42.2	22.7	29.4	826	3.125	1.625	2	62	

Ref.	Model with Voltage Variations	Compressor Combination	45°/130° 60Hz		Mechanical				Connection Size		Cap. Steps	Cap. (HP)
			Capacity (Btu/h)	EER (Btu/h)	L (in)	W (in)	H (in)	Net Wt. (lbs)	Suct. Dia. (In)	Disch. Dia. (In)		
Trios (reference drawings available)												
R-410A	ZPY309KCE-TF5/TF7/TFD/TFE	ZP103KCE + ZP103KCE + ZP103KCE	313,000	10.9	47.1	20.2	22.8	396	3.125	2.125	3	26
	ZPY360KCE-TF5/TF7/TFD/TFE	ZP120KCE + ZP120KCE + ZP120KCE	362,000	10.9	47.1	20.2	22.8	405	3.125	2.125	3	30
	ZPY411KCE-TF5/TF7/TFD/TFE	ZP137KCE + ZP137KCE + ZP137KCE	404,000	10.9	47.2	20.2	22.8	405	3.125	2.125	3	34
	ZPY462KCE-TFD	ZP154KCE + ZP154KCE + ZP154KCE	463,000	11.0	47.1	20.2	23.5	429	3.125	2.125	3	39
	ZPY462KCE-TW5/TW7/TWD/TWE	ZP154KCE + ZP154KCE + ZP154KCE	463,000	11.0	47.2	20.2	23.5	429	3.125	2.125	3	39
	ZPY546KCE-TFD	ZP182KCE + ZP182KCE + ZP182KCE	543,000	11.0	47.1	20.2	23.5	438	3.125	2.125	3	45
	ZPY546KCE-TW5/TW7/TWD/TWE	ZP182KCE + ZP182KCE + ZP182KCE	543,000	11.0	47.1	20.2	23.5	438	3.125	2.125	3	45
	ZPY708KCE-TE5/TE7/TED/TEE	ZP236KCE + ZP236KCE + ZP236KCE	707,000	11.0	59.9	22.0	28.4	990	2.625	1.625	3	59
	ZPY855KCE-TW5/TW7/TWC/TWD/TWE	ZP285KCE + ZP285KCE + ZP285KCE	827,000	11.1	61.3	25.6	29.4	1,215	3.625	2.125	3	69
	ZPY888KCE-TE5/TE7/TED/TEE	ZP296KCE + ZP296KCE + ZP296KCE	893,000	11.0	59.9	22.4	28.4	1,027	2.625	1.625	3	74
ZPY115MCE-TW5/TW7/TWC/TWD/TWE	ZP385KCE + ZP385KCE + ZP385KCE	1,146,000	10.9	61.2	25.7	29.4	1,326	3.625	2.125	3	96	
ZPY145MCE-TED	ZP485KCE + ZP485KCE + ZP485KCE	1,425,000	10.7	62.1	25.0	30.6	1,479	3.625	2.125	3	119	
R-407C	ZRY324KCE-TF5/TF7/TFD/TFE	ZR108KCE + ZR108KCE + ZR108KCE	317,000	11.4	47.1	20.2	22.8	396	3.125	2.125	3	26
	ZRY375KCE-TF5/TF7/TFD/TFE	ZR125KCE + ZR125KCE + ZR125KCE	373,000	11.4	47.1	20.2	22.8	405	3.125	2.125	3	31
	ZRY432KCE-TF5/TF7/TFD/TFE	ZR144KCE + ZR144KCE + ZR144KCE	425,000	11.4	47.1	20.2	22.8	405	3.125	2.125	3	35
	ZRY480KCE-TFD	ZR160KCE + ZR160KCE + ZR160KCE	460,000	11.0	47.1	20.2	23.5	429	3.125	2.125	3	38
	ZRY480KCE-TW5/TW7/TWD/TWE	ZR160KCE + ZR160KCE + ZR160KCE	460,000	11.0	47.1	20.2	23.5	429	3.125	2.125	3	38
	ZRY570KCE-TFD	ZR190KCE + ZR190KCE + ZR190KCE	541,000	10.8	47.1	20.2	23.5	438	3.125	2.125	3	45
	ZRY570KCE-TW5/TW7/TWD/TWE	ZR190KCE + ZR190KCE + ZR190KCE	541,000	10.8	47.1	20.2	23.5	438	3.125	2.125	3	45
	ZRY750KCE-TW5/TW7/TWC/TWD/TWE	ZR250KCE + ZR250KCE + ZR250KCE	715,000	11.0	61.5	24.7	29.5	999	3.125	2.125	3	60
	ZRY900KCE-TW5/TW7/TWC/TWD/TWE	ZR300KCE + ZR300KCE + ZR300KCE	872,000	11.2	61.2	25.8	29.4	1,293	3.625	2.125	3	73
	ZRY930KCE-TWC/TWD	ZR310KCE + ZR310KCE + ZR310KCE	884,000	10.6	61.2	25.7	29.4	1,137	3.625	2.125	3	74
ZRY114MCE-TW5/TW7/TWC/TWD/TWE	ZR380KCE + ZR380KCE + ZR380KCE	1,119,000	11.4	61.2	25.7	29.4	1,293	3.125	2.125	3	93	

Copeland Scroll compressor nomenclature

Z	P	D	4	2	K	5	E	-	T	F	D	-	1	3	0
Z scroll family series	AC, R-410A	D = Digital S = UltraTech® T = Tandem (even) U = Uneven Tandem	Nominal Capacity at Rating Condition	Capacity Multiplier K = 1,000 M = 10,000	Model Variation 4, 5, C	Oil type E = POE Oil = AK/ DA or 3MA	P = Single Phase Motor T = Three Phase Motor	F = Internal Inherent Protection W = External Protection Module E = CoreSense Module X = Internal and External Protection Combination TW* + TF* (Tandems Only) Y = Tandems/Trio TE* + TW*	Code D 460-3 380-420-3 5 200-230-3 200-220-3 E 575-3 — 7 380-3 — V 208-230-1 200-1* J 265-1 220-240-1 Z — 220-240-1	60 Hz. 50 Hz.	Bill of Material Product Variation				

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