



Air-Conditioning Scroll Compressors
Compresseurs Scroll pour climatisation
Scroll Klimaverdichter



Product Selection Catalogue / Catalogue de Sélection / Produktauswahl



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Copeland Scroll™

The Copeland Scroll™ is the result of large scale Research and Development efforts underway since 1979. These efforts have lead to the production of the most advanced Scroll design compressor currently available for air-conditioning, heat pump and medium temperature applications in the 1.5 to 30 HP range.

Today, Copeland Scrolls are produced in state-of-the-art manufacturing facilities located in Belgium, Northern Ireland, the U.S.A., Thailand and China, which produce over 4 million Scrolls per year.

Why Scroll Compressors?

System manufacturers choose Scroll compressors over other compressor technologies for 4 main reasons: superior sound, efficiency, reliability and durability.

Why Copeland Scroll™?

Customers prefer to use Copeland Scroll™ for many reasons, including:

- Copeland's unique patented design produces the lowest sound, highest efficiency, most durable scroll compressor available on the market.
- Proven track record: Over 25 million scrolls installed.
- Global supply: Copeland has nine scroll plants on three continents, all manufactured to the identical demanding standards. Compressors supplied world-wide for initial installations or for field service will be of the same exacting high quality design.
- Customer support: Copeland has offices and wholesaler networks across Europe and across the world to support any customer, no matter where they are.

F

Copeland Scroll™

Le compresseur Copeland Scroll™ est le résultat de vastes efforts de recherche et développement menés depuis 1979. Ces efforts ont abouti à la fabrication du compresseur à spirale le plus avancé, aujourd'hui disponible pour les applications d'air conditionné, de moyenne température et de pompes à chaleur de 1,5 à 30 CV.

Les compresseurs Scroll sont actuellement fabriqués dans nos centres de production situés en Belgique, Irlande du Nord, Etats Unis, Thaïlande et Chine, à raison de plus de 4 millions de pièces par an.

Pourquoi les compresseurs Scroll?

Les fabricants de systèmes complets privilégient les compresseurs Scroll par rapport aux autres technologies pour quatre raisons principales: le niveau sonore, le rendement, la fiabilité et la durée de vie.

Pourquoi le compresseur Copeland Scroll™?

Les clients préfèrent utiliser le Copeland Scroll™ pour diverses raisons, dont les suivantes :

- La conception unique brevetée par Copeland permet d'atteindre les niveaux sonores les plus bas, les rendements les plus élevés et fournit le compresseur Scroll le plus fiable du marché.
- Un succès à toute épreuve: plus de 25 millions Scroll installés
- Un approvisionnement mondial: Copeland dispose de neuf usines Scroll implantées sur trois continents et conçues avec les mêmes standards. Les compresseurs fournis à l'échelle mondiale pour de nouvelles installations ou pour le service après vente possèdent les mêmes exigences de conception haute qualité.
- Un support clientèle : Copeland peut renseigner les clients, où qu'ils soient, en Europe ou dans le monde entier, grâce à son réseau d'agences et de distributeurs.

D

Copeland Scroll™

Der Copeland Scroll™ Verdichter ist das Ergebnis umfangreicher Forschungs- und Entwicklungsarbeiten, seit 1979. Diese Arbeiten haben zur Fertigung der fortschrittlichsten Verdichter hermetischer Bauart geführt, die gegenwärtig für Klima- und Mitteltemperatur-Anwendungen sowie Wärmepumpen im Bereich 1,5 bis 30 HP erhältlich sind.

Die Copeland Scroll™ Verdichter werden heute in hochmodernen Werken in Belgien, Nordirland, den USA, Thailand und China gefertigt, in denen jährlich über 4 Millionen Scroll-Verdichter hergestellt werden.

Warum Scroll-Verdichter?

Systemhersteller bevorzugen Scroll Verdichter gegenüber anderen Verdichtertechnologien aus vier Hauptgründen: Geräuschlevel, Wirtschaftlichkeit, Zuverlässigkeit und Langlebigkeit.

Warum Copeland Scroll™?

Kunden bevorzugen aus vielen Gründen Copeland Scroll™, damit:

- Copeland's einzigartiges und patentiertes Design ergibt den leisesten, effizientesten und haltbarsten Scroll Verdichter, den es zur Zeit auf dem Markt gibt.
- Nachgewiesener Erfolg: bisher sind über 25 Millionen Scroll-Verdichter installiert worden.
- Weltweite Lieferung: Copeland hat neun Scroll-Betriebsstätten auf drei Kontinenten, die alle nach den gleichen anspruchsvollen Produktions-Standards aufgebaut wurden. Die gelieferten Verdichter für Erstinstallationen oder Service erfüllen daher weltweit die gleichen hohen Qualitätsstandards.
- Kundendienst: Copeland hat Niederlassungen und ein Großhändler-Netzwerk in Europa und der ganzen Welt, um jeden Kunden zu unterstützen, unabhängig davon, wo er sich befindet.

General Information Informations générales Allgemeine Informationen

Product Range

Gamme de produits

Produktpalette

HP, CV	1,5	2	4,5	8	10	15	20	25	30	35	40	50	60	75	90
Single	<div style="text-align: center;"> R410A R134a R407C / R22 </div>														
Tandem	<div style="text-align: center;"> R410A R407C / R22 / R134a </div>														
Trio	<div style="text-align: center;"> R410A R407C / R22 </div>														
kW- EN, R407C dew	3,8	5	13	19	26	40	52	65	79	91	103	130	160	190	240
kW- EN, R410A		5	12	19	26	39	51	62	78	88	99	127	162	188	242
kW- EN, R134a	2,5	3	9	13	18	27	36	44	54	62	70	88	107	132	160

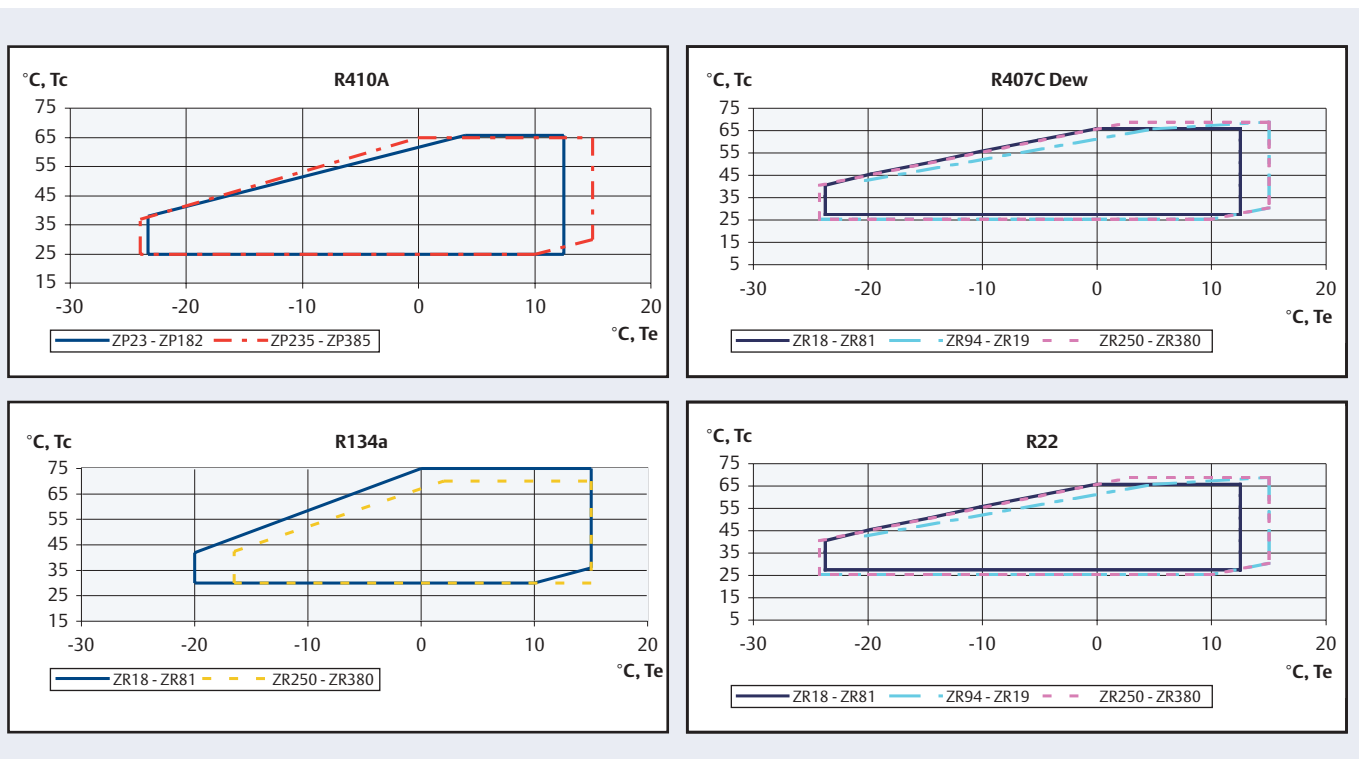
Assembled by customer / Assemblés par le client / Von Kunden gefertigt

Note: Low temperature refrigeration scroll products and condensing units also available from Copeland
 Note: Les produits scroll pour la réfrigération basse température et des groupes de condensation sont aussi disponibles chez Copeland
 Anmerkung: Kältescrolls für Tieftemperaturanwendungen sowie Verflüssigungssätze sind ebenfalls von Copeland erhältlich

Application envelopes

Enveloppes d'application

Anwendungsbereiche



Notes: Envelopes are close approximations @ 10K Superheat. Please see Copeland Selection Software for detailed envelopes.
 Single compressor envelopes valid for tandem and trio assemblies.

Notes: Les enveloppes d'application sont des approximations avec 10K surchauffe. Veuillez vous référer au logiciel de Sélection Copeland pour les enveloppes détaillées.
 Les enveloppes de compresseur individuel sont aussi valables pour les ensembles Tandem et Trio.

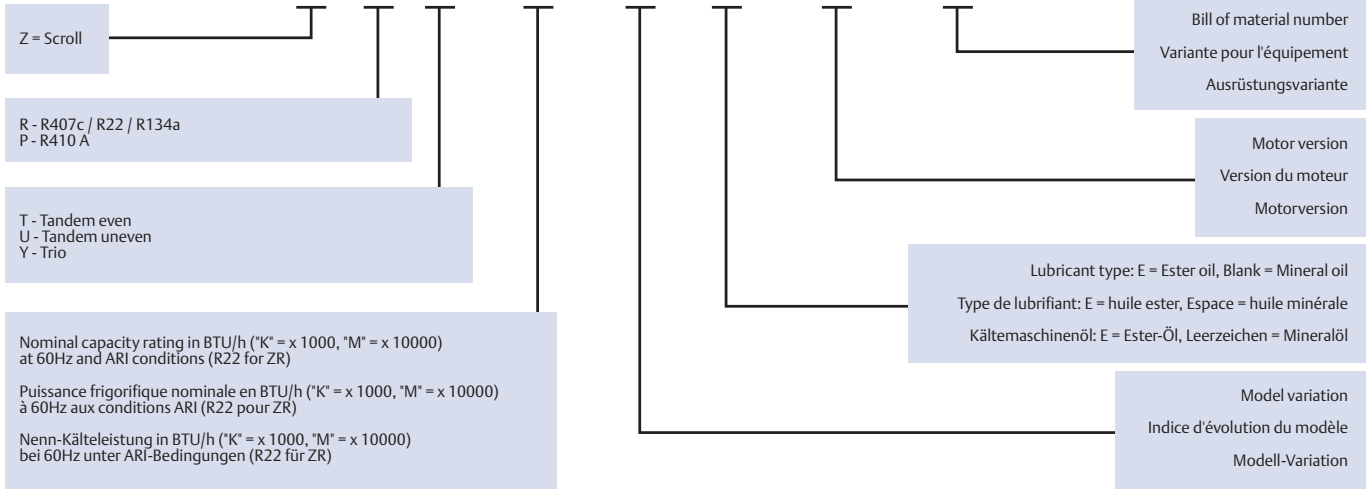
Anmerkung: Die Anwendungsbereiche sind Näherungswerte @ 10K Sauggasüberhitzung. Weitere Informationen entnehmen Sie bitte dem Auswahlprogramm "Copeland Selection Software".
 Anwendungsbereiche von Einzelverdichtern sind auch für Tandem und Trio gültig.

Model designation

Désignation des modèles

Modell-Erklärung

Z	R	T	19	M	3	E	-TWD	-551
Z	P	Y	23	K	3	E	-PFJ	-522
Z	R	U	380	K	3	E	-TWD	-871



Compressor Configurations

Configuration de compresseur

Verdichter-Konfiguration

	ZR					ZP (R410A)			
	ZR18K*... ZR40K*	ZR48K*	ZR61K*... ZR81K*	ZR94K*... ZR190K*	ZR90K*... ZR380K*	ZP23K*... ZP32K*	ZP41K*... ZP83K*	ZP90K*... ZP182K*	ZP180K*... ZP385K*
Braze version Version brasé Version mit Lötanschluss	X	X	X	X	X	X	X	X	X
Rotalock version Version Rotalock Rotalock Version		X ⁽¹⁾	X		X				
Sight Glass Voyant d'huile Schauglas				X	X			X	X
Rotalock version with Schraeder valve on discharge and suction fitting Version Rotalock avec vanne Schraeder sur raccord de refoulement et d'aspiration Rotalock Version mit Schraeder-Ventil am Druckleitungs- und Saugleitungsanschluss					X				
Schraeder connection for oil fill Raccord Schraeder pour la charge d'huile Schraeder-Verbindung zum Einfüllen des Öls				X	X			X	X

Tandem capable / Version pour Tandem / Tandemfähige Version

Uses sight glass fitting for gas and oil equalization Utiliser le raccord voyant pour l'égalisation de gaz et d'huile Benutz den Schauglas-Anschluss für de, Gas- und öl-Ausgleich				X	X			X	X
Gas equalization fitting Raccord d'égalisation de gaz Gaz-Ausgleichsanschluss		X	X				X		
Oil equalization fitting Raccord d'égalisation d'huile Öl-Ausgleichsanschluss		X	X				X		

⁽¹⁾ TFD motor only / Uniquement TFD / Nur für TFD

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Produktübersicht

Model Modèle Modell	Compressor Data Données compresseurs Verdichter-Daten						Motor Versions ⁽⁶⁾ Version de moteur Motor-Versionen		Configuration Configuration Konfiguration		
	Nominal Horse Power Puissance nominale Motormennleistung	Cooling Capacity Puissance frigorifique Kälteleistungsdaten	Displacement Volume balayé Volumenstrom	Oil Quantity Quantité d'huile Ölmenge	Gross Weight (with Packaging) Poids brut (avec emballage) Gewicht brutto (mit Verpackung)	Net Weight Poids Net Gewicht netto	220/240 - 1 - 50	380/420 - 3 - 50 460 - 3 - 60	Brazing Connections Raccords à braser Lötlanschlüsse	Brazing Connections - Tandem Capable Raccords à braser - version pour Tandem Lötlanschlüsse - tandemfähige Version	Tandem Assembly with Brazing Connections Ensemble Tandem avec raccords à braser Tandem-Verdichter mit Lötlanschlüssen
HP / CV	kW ⁽¹⁾ R410A	m ³ /h	Liters	kg	kg						
Single ZP											
ZP 23 K/E	1,8	5,0	4,1	1,1	30	28	PFJ	TFD	522	422 ⁽²⁾	
ZP 26 K/E	2,2	5,4	4,4	1,1	30	28					
ZP 32 K/E	2,6	6,7	5,4	1,3	30	28					
ZP 41 K/E	3,4	8,8	6,9	1,3	31	29					
ZP 54 K/E	4,6	11,8	9,4	2,0	36	33					
ZP 61 K/E	5	13,3	9,9	2,0	43	40					
ZP 72 K/E	6	15,4	11,7	2,0	43	40					
ZP 83 K/E	7	17,7	13,4	1,7	43	40					
ZP 90 K/E	8,0	19,2	14,6	2,5	66	57					
ZP 103 K/E	9,0	22,4	16,8	3,3	69	60					
ZP 120 K/E	10	26,0	19,8	3,3	71	62					
ZP 137 K/E	12	29,3	22,1	3,3	70	61					
ZP 154 K/E	13	33,0	28,6	3,3	74	65					
ZP 182 K/E	15	39,0	28,7	3,3	75	66					
ZP 235 K/E	20	50,6	36,3	4,7	168	140					
ZP 295 K/E	25	63,7	46,7	6,8	188	160					
ZP 385 K/E	30	82,0	66,7	5,6	201	176					
Tandem ZPT - Tandem Uneven ZPU - Trio ZPY											
ZPT 82 K/E	2 x 3,5	17,6	13,7	2,5	62,0	58,0	TFD	TWD			522
ZPT 108 K/E	2 x 4	22,6	18,9	3,9	72	66					
ZPT 122 K/E	2 x 5	29,6	19,7	3,9	86	80					
ZPT 144 K/E	2 x 6	31	23,4	3,9	86	80					
ZPT 166 K/E	2 x 6,5	35	26,9	3,3	86	80					
ZPT 180 K/E ⁽³⁾	2 x 8	38	29,3	5,1	146	126					
ZPT 206 K/E ⁽³⁾	2 x 9	45	33,5	6,5	152	132					
ZPT 240 K/E ⁽³⁾	2 x 10	52	39,5	6,5	155	135					
ZPT 274 K/E ⁽³⁾	2 x 12	59	44,2	6,5	154	134					
ZPU 302 K/E ⁽³⁾	10 + 15	65	48,4	6,6	160	140					
ZPT 308 K/E ⁽³⁾	2 x 13	66	57,2	6,6	162	142					
ZPU 336 K/E ⁽³⁾	13 + 15	72	57,3	6,6	163	143					
ZPT 364 K/E ⁽³⁾	2 x 15	78	57,4	6,6	164	144					
ZPU 417 K/E ⁽³⁾	15 + 20	90	65,0	8,0	--	224					
ZPY 462 K/E ⁽³⁾	3 x 13	99	85,8	9,9	--	194					
ZPT 470 K/E ⁽³⁾	2 x 20	100	73	9,4	--	302					
ZPU 477 K/E ⁽³⁾	15 + 25	102	75	10,1	--	248					
ZPU 530 K/E ⁽³⁾	20 + 25	113	83	11,5	--	322					
ZPY 546 K/E ⁽³⁾	3 x 15	116	86	9,9	--	217					
ZPT 590 K/E ⁽³⁾	2 x 25	126	93	14	--	342					
ZPU 680 K/E ⁽³⁾	25 + 30	144	113	12	--	358					
ZPY 705 K/E ⁽³⁾	3 x 20	150	109	14	--	453					
ZPT 770 K/E ⁽³⁾	2 x 30	162	133	11	--	374					
ZPY 885 K/E ⁽³⁾	3 x 25	188	140	20	--	513					
ZPY 115 M/E ⁽³⁾	3 x 30	242	200	17	--	561					
Footnotes:											
⁽¹⁾ EN 12900: Evaporating 5°C, Condensing 50°C, Superheat 10K, Subcooling 0K Evaporation 5°C, Condensation 50°C, Surchauffe aspiration 10K, Sous refroidissement 0K Verdampfung 5°C, Kondensation 50°C, Sauggasüberhitzung 10K, Unterkühlung 0K											
⁽²⁾ TFD motor only Uniquement moteur TFD Nur TFD Motor											
⁽³⁾ Tandem / Trio assemblies by system manufacturers. Copeland can provide full technical support. Tandem / Trio assemblés par les fabricants de systèmes. Copeland fourni le support technique complet. Tandem / Trio System von System-Herstellern. Copeland bietet technische Unterstützung.											
⁽⁴⁾ 115/230 V AC Motor protection module Module de protection moteur Motorschutzmodul											
⁽⁵⁾ 24 V AC Motor protection module Module de protection moteur Motorschutzmodul											
⁽⁶⁾ For other voltage contact Copeland representative Contacter votre représentant Copeland pour les autres tensions Für Informationen über andere Spannungen kontaktieren Sie bitte Ihr Copeland Verkaufsbüro											

Product Overview

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Produktübersicht

Model Modèle Modell	Compressor Data Données compresseurs Verdichter-Daten								Motor Versions ⁽⁹⁾ Version de moteur Motor-Versionen		Configuration Configuration Konfiguration				
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		HP / CV	kW ⁽²⁾ R407C	kW ⁽²⁾ R134a											
Single ZR															
ZR 18 K/E	1,5	3,8	2,5	4,4	4,4	0,7	21	19	PFJ	TFD	522				
ZR 22 K/E	1,8	4,6	3,2	5,4	5,3	1,0	26	24			522				
ZR 28 K/E	2,5	5,9	4,2	7,0	6,8	1,0	27	25			512 ⁽⁴⁾⁽⁸⁾				
ZR 34 K/E	3	7,0	4,9	8,3	8,0	1,1	30	28			522	422 ⁽⁵⁾	523 ⁽⁵⁾		
ZR 40 K/E	3,5	8,2	5,7	9,8	9,4	1,1	31	28							
ZR 48 K/E	4	10,2	6,9	11,9	11,5	1,4	33	31	PFZ	TFD	522	422 ⁽⁵⁾	523 ⁽⁵⁾		
ZR 61 K/E	5	12,5	8,9	14,5	14,4	1,9	41	38							
ZR 72 K/E	6	14,8	10,5	17,6	17,0	1,7	44	40							
ZR 81 K/E	6,5	16,7	11,8	19,9	19,2	1,7	45	41							
ZR 94 K/E	8,0	19,8	-	23,4	22,1	2,5	66	57							
ZR 108 K/E	9	22,0	-	26,7	24,9	3,3	69	60							
ZR 125 K/E	10	26,0	-	30,7	29,1	3,3	71	62			425				
ZR 144 K/E	12	30,0	-	34,8	33,1	3,3	70	61							
ZR 160 K/E	13	32,2	-	37,4	36,4	3,3	74	65							
ZR 190 K/E	15	40,0	-	45,0	43,4	3,3	75	66							
ZR 250 K/E	20	52,2	35,4	60,0	56,6	4,7	168	140							
ZR 310 K/E	25	65,0	43,8	74,2	71,4	6,8	188	160	TWD	522 ⁽⁶⁾ 524 ⁽⁷⁾	523 ⁽⁶⁾ 525 ⁽⁷⁾				
ZR 380 K/E	30	81,7	55,4	92,0	87,5	6,3	201	176							
Tandem ZRT - Tandem Uneven ZRU - Trio ZRY															
ZRT 96 K3/E	2 x 4	20,4	13,6	23,5	23,4	3,2	89	72	TFD					522	
ZRT 122 K3/E	2 x 5	24,9	17,7	29,0	28,8	3,2	91	86							
ZRT 144 KC/E	2 x 6	29,5	20,9	35,2	34,0	3,2	93	90							
ZRT 162 KC/E	2 x 6.5	33,4	23,5	39,8	38,5	3,4	96	92							
ZRT 188 K/E ⁽³⁾	2 x 8	39,6	-	46,3	44,2	5,1	146	126							
ZRT 216 K/E ⁽³⁾	2 x 9	44	-	53	50	6,5	152	132							
ZRT 250 K/E ⁽³⁾	2 x 10	52,0	-	60,7	58,2	6,5	155	135							
ZRT 288 K/E ⁽³⁾	2 x 12	60	-	69	66	6,5	154	134							
ZRU 315 K/E ⁽³⁾	10 + 15	66,0	-	74,9	72,4	6,6	160	140							
ZRT 320 K/E ⁽³⁾	2 x 13	64	-	74	73	6,6	162	142							
ZRU 350 K/E ⁽³⁾	13 + 15	72,2	-	81,6	79,7	6,6	163	143							
ZRT 380 K/E ⁽³⁾	2 x 15	80	-	89	87	6,6	164	144							
ZRU 440 K/E ⁽³⁾	15 + 20	91	-	104	100	8	--	221		TWD					Yes
ZRY 480 K/E ⁽³⁾	3 x 13	96	-	111	108	9,8	--	229		TFD					
ZRT 500 K/E ⁽³⁾	2 x 20	103	70	118	113	9,4	--	302							
ZRU 500 K/E ⁽³⁾	15 + 25	104	-	118	115	10	--	248	TWD						
ZRU 560 K/E ⁽³⁾	20 + 25	116	78	133	128	12	--	322							
ZRY 570 K/E ⁽³⁾	3 x 15	119	-	134	130	9,9	--	217	TFD						
ZRT 620 K/E ⁽³⁾	2 x 25	129	87	148	143	14	--	342							
ZRU 690 K/E ⁽³⁾	25 + 30	145	98	165	159	13	--	358	TWD						
ZRY 750 K/E ⁽³⁾	3 x 20	154	105	177	170	14,1	--	455							
ZRT 760 K/E ⁽³⁾	2 x 30	162	110	184	175	12,6	--	374							
ZRY 930 K/E ⁽³⁾	3 x 25	192	129	219	214	20,4	--	515							
ZRY 114 M/E ⁽³⁾	3 x 30	241	164	272	262	18,9	--	563							

⁽¹⁾ ARI: Evaporating 7.2°C, Condensing 54.4°C, Superheat 11K, Subcooling 8.3K
Evaporation 7.2°C, Condensation 54.4°C, Surchauffe aspiration 11K, Sous refroidissement 8.3K
Verdampfung 7.2°C, Kondensation 54.4°C, Sauggasüberhitzung 11K, Unterkühlung 8.3K

⁽²⁾ EN 12900: Evaporating 5°C, Condensing 50°C, Superheat 10K, Subcooling 0K - (R407C Dew)
Evaporation 5°C, Condensation 50°C, Surchauffe aspiration 10K, Sous refroidissement 0K - (R407C Point de rosée)
Verdampfung 5°C, Kondensation 50°C, Sauggasüberhitzung 10K, Unterkühlung 0K - (R407C Taupunkt)

⁽³⁾ Tandem / Trio assemblies by system manufacturers, Copeland can provide full technical support.
Tandem / Trio assemblés par les fabricants de systèmes, Copeland fournit le support technique complet.
Tandem / Trio System von System-Herstellern, Copeland bietet technische Unterstützung.

⁽⁴⁾ TFD & PFJ motors only
Uniquement les moteurs TFD & PFJ
Nur TFD & PFJ Motoren

⁽⁵⁾ TFD motor only
Uniquement moteur TFD
Nur TFD Motor

⁽⁶⁾ 115/230 V AC

Motor protection module
Module de protection de moteur
Motorschutzmodul

⁽⁷⁾ 24 V AC

Motor protection module
Module de protection de moteur
Motorschutzmodul

⁽⁸⁾ 512

Three foots mounting model
Modèle à trois pieds de fixation
Drei-Punkt Befestigung Modelle

⁽⁹⁾ For other voltage contact Copeland representative
Contacter votre représentant Copeland pour d'autres tensions
Für Informationen über andere Spannungen kontaktieren Sie bitte Ihr Copeland Verkaufsbüro

Compressor Compresseur Verdichter	Cond Temp °C	Evaporating Temperature Température d'évaporation °C Verdampfungstemperatur									
		-20	-15	-10	-5	0	5	7	10	12.5	
		ZP23K3E-TFD	Q	30	2.34	2.95	3.65	4.50	5.50	6.60	7.10
		40	2.01	2.55	3.20	3.95	4.85	5.80	6.25	6.95	7.50
		50			2.69	3.35	4.10	5.00	5.35	5.95	6.50
	P	30	1.09	1.13	1.14	1.13	1.11	1.10	1.10	1.11	1.12
		40	1.39	1.42	1.43	1.43	1.42	1.43	1.44	1.46	1.48
		50			1.84	1.83	1.83	1.84	1.86	1.88	1.92
ZP26K3E-TFD	Q	30	2.60	3.25	4.00	4.90	5.95	7.10	7.65	8.45	9.20
		40	2.24	2.83	3.50	4.30	5.25	6.30	6.80	7.50	8.20
		50			2.95	3.65	4.50	5.45	5.85	6.50	7.10
	P	30	1.40	1.33	1.28	1.24	1.20	1.16	1.15	1.12	1.10
		40	1.90	1.80	1.72	1.65	1.59	1.54	1.52	1.50	1.47
		50			2.30	2.20	2.11	2.04	2.01	1.97	1.94
ZP32K3E-TFD	Q	30	3.20	4.25	5.40	6.60	7.90	9.20	9.70	10.50	11.10
		40	2.49	3.45	4.50	5.65	6.80	8.00	8.50	9.20	9.75
		50			3.50	4.55	5.65	6.75	7.15	7.80	8.35
	P	30	1.61	1.58	1.53	1.49	1.44	1.40	1.39	1.37	1.36
		40	2.11	2.06	2.00	1.94	1.89	1.84	1.82	1.80	1.79
		50			2.65	2.56	2.48	2.40	2.38	2.35	2.32
ZP41K3E-TFD	Q	30	4.30	5.35	6.60	8.05	9.70	11.60	12.45	13.75	14.95
		40	3.65	4.60	5.75	7.05	8.50	10.25	11.00	12.20	13.30
		50			4.80	5.95	7.25	8.80	9.45	10.55	11.50
	P	30	1.90	1.90	1.89	1.87	1.84	1.81	1.79	1.77	1.75
		40	2.40	2.40	2.39	2.38	2.36	2.34	2.32	2.31	2.29
		50			3.05	3.03	3.00	2.98	2.96	2.95	2.93
ZP54K3E-TFD	Q	30	5.95	7.30	8.90	10.70	12.80	15.20	16.20	17.90	19.40
		40	5.10	6.40	7.85	9.50	11.40	13.55	14.45	15.90	17.30
		50			6.55	8.10	9.85	11.75	12.60	13.90	15.10
	P	30	2.51	2.50	2.47	2.44	2.41	2.38	2.37	2.36	2.36
		40	3.31	3.26	3.21	3.16	3.12	3.10	3.10	3.10	3.12
		50			4.26	4.14	4.05	3.98	3.97	3.95	3.96
ZP61KCE-TFD	Q	30	6.10	7.80	9.65	11.75	14.15	16.90	18.10	20.00	21.70
		40	4.80	6.50	8.35	10.35	12.60	15.20	16.30	18.10	19.70
		50			6.70	8.60	10.70	13.05	14.10	15.70	17.20
	P	30	3.25	3.22	3.18	3.13	3.09	3.04	3.02	2.99	2.96
		40	3.96	3.91	3.86	3.80	3.74	3.67	3.64	3.59	3.55
		50			4.68	4.62	4.54	4.45	4.42	4.36	4.30
ZP72KCE-TFD	Q	30	7.65	9.50	11.60	14.05	16.80	20.00	21.40	23.60	25.60
		40	6.60	8.30	10.20	12.40	14.90	17.80	19.10	21.10	22.90
		50			8.65	10.55	12.80	15.40	16.50	18.30	19.90
	P	30	3.13	3.14	3.15	3.16	3.18	3.21	3.22	3.25	3.27
		40	3.93	3.95	3.96	3.97	3.98	3.99	4.00	4.01	4.02
		50			4.99	5.00	5.00	5.00	5.00	5.00	5.00
ZP83KCE-TFD	Q	30	8.75	10.90	13.35	16.10	19.20	22.80	24.40	26.90	29.20
		40	7.45	9.40	11.60	14.15	17.10	20.40	21.90	24.20	26.30
		50			9.75	12.05	14.65	17.70	19.00	21.10	23.10
	P	30	3.45	3.48	3.52	3.55	3.60	3.67	3.71	3.77	3.83
		40	4.44	4.47	4.49	4.51	4.55	4.59	4.62	4.66	4.71
		50			5.75	5.75	5.75	5.80	5.80	5.80	5.85

Q(kw)= Capacity / Puissance frigorifique / Kälteleistung
P(kw)= Power Input / Puissance absorbée / Leistungsaufnahme

Operating Conditions / Conditions de fonctionnement / Einsatzbedingungen
10K Suction Superheat / Surchauffe / Sauggasüberhitzung
0K Liquid subcooling / Sous-refroidissement du liquide / Flüssigkeitsunterkühlung

Tandem Assembly Compresseur Tandem Tandem-Verdichter		Cond Temp °C	Evaporating Temperature Température d'évaporation °C Verdampfungstemperatur								
			-20	-15	-10	-5	0	5	7	10	12.5
ZP90KCE-TFD	Q	30	9.30	11.75	14.50	17.60	21.00	24.90	26.50	29.20	31.50
		40	7.65	9.95	12.50	15.40	18.70	22.30	23.90	26.40	28.60
		50			10.30	12.90	15.90	19.20	20.70	23.00	25.00
	P	30	3.96	3.96	3.95	3.94	3.96	4.01	4.04	4.09	4.16
		40	5.05	5.05	5.05	5.00	4.99	4.99	5.00	5.05	5.05
		50			6.45	6.40	6.35	6.30	6.30	6.30	6.30
ZP103KCE-TFD	Q	30	10.80	13.50	16.60	20.20	24.30	28.90	31.00	34.00	37.00
		40	9.05	11.70	14.60	17.90	21.60	25.80	27.60	30.50	33.00
		50			12.10	15.20	18.60	22.40	24.00	26.60	28.80
	P	30	4.52	4.53	4.52	4.51	4.51	4.56	4.59	4.66	4.73
		40	5.75	5.70	5.65	5.65	5.65	5.65	5.70	5.75	5.85
		50			7.25	7.15	7.05	7.05	7.05	7.10	7.15
ZP120KCE-TFD	Q	30	12.85	16.10	19.70	23.80	28.40	33.50	36.00	39.50	42.50
		40	10.65	13.65	17.10	21.00	25.30	30.00	32.50	35.50	38.50
		50			14.15	17.60	21.60	26.00	27.90	31.00	33.50
	P	30	5.20	5.20	5.20	5.15	5.20	5.25	5.30	5.35	5.45
		40	6.65	6.65	6.60	6.55	6.55	6.55	6.55	6.60	6.65
		50			8.45	8.40	8.30	8.25	8.25	8.25	8.25
ZP137KCE-TFD	Q	30	14.65	18.30	22.30	26.90	32.00	38.00	40.00	44.00	47.50
		40	12.20	15.50	19.40	23.70	28.50	34.00	36.50	40.00	43.50
		50			16.10	19.90	24.30	29.30	31.50	35.00	38.00
	P	30	6.15	6.15	6.15	6.15	6.15	6.20	6.25	6.35	6.45
		40	7.70	7.70	7.65	7.65	7.60	7.60	7.60	7.65	7.70
		50			9.65	9.55	9.50	9.45	9.45	9.40	9.40
ZP154KCE-TFD <i>Preliminary</i>	Q	30	16.60	20.40	24.70	29.70	35.50	42.00	44.50	49.00	53.00
		40	14.35	17.90	21.90	26.60	32.00	38.00	40.50	44.50	48.00
		50			18.80	22.90	27.70	33.00	35.50	39.00	42.50
	P	30	6.55	6.65	6.65	6.70	6.75	6.90	7.00	7.20	7.40
		40	7.95	8.15	8.25	8.25	8.30	8.35	8.35	8.45	8.55
		50			10.10	10.20	10.30	10.30	10.30	10.30	10.40
ZP182KCE-TFD <i>Preliminary</i>	Q	30	19.60	24.00	29.20	35.00	41.50	49.50	52.50	58.00	62.50
		40	17.00	21.10	25.90	31.50	37.50	44.50	47.50	52.50	57.00
		50			22.20	27.10	32.50	39.00	42.00	46.50	50.50
	P	30	7.75	7.85	7.85	7.90	8.00	8.15	8.30	8.50	8.75
		40	9.40	9.60	9.70	9.75	9.75	9.80	9.85	9.95	10.10
		50			12.00	12.10	12.20	12.20	12.20	12.20	12.20
ZP235KCE-TWD	Q	30	24.40	30.50	37.50	46.00	55.50	66.00	71.00	78.50	85.00
		40	21.00	26.50	33.00	40.50	49.00	58.50	63.00	69.50	76.00
		50			28.10	34.50	42.00	50.50	54.50	60.50	66.00
	P	30	10.10	10.30	10.40	10.50	10.70	10.90	10.90	11.10	11.20
		40	12.40	12.40	12.50	12.70	12.80	13.00	13.10	13.20	13.30
		50			15.50	15.60	15.70	15.90	15.90	16.10	16.20
ZP295KCE-TWD	Q	30	31.50	39.00	47.50	57.50	69.00	82.00	88.00	97.00	105.50
		40	27.50	34.00	42.00	51.00	61.50	73.50	78.50	87.00	94.50
		50			36.00	44.00	53.00	63.50	68.50	75.50	82.50
	P	30	12.50	12.70	12.90	13.00	13.20	13.40	13.50	13.70	13.80
		40	15.40	15.50	15.60	15.80	15.90	16.10	16.20	16.40	16.50
		50			19.30	19.40	19.50	19.60	19.70	19.80	19.90
ZP385KCE-TWD	Q	30	40.00	49.50	61.00	74.00	89.50	107.0	114.5	126.5	137.5
		40	35.00	43.50	54.00	66.00	79.50	95.00	102.0	113.0	123.0
		50			46.50	56.50	68.50	82.50	88.50	98.00	107.0
	P	30	16.20	16.40	16.50	16.80	17.10	17.40	17.60	17.80	18.00
		40	20.40	20.30	20.40	20.50	20.70	20.90	21.10	21.30	21.50
		50			25.40	25.30	25.40	25.60	25.70	25.90	26.10

Q(kW)= Capacity / Puissance frigorifique / Kälteleistung
P(kW)= Power Input / Puissance absorbée / Leistungsaufnahme

Operating Conditions / Conditions de fonctionnement / Einsatzbedingungen
10K Suction Superheat / Surchauffe / Sauggasüberhitzung
0K Liquid subcooling / Sous-refroidissement du liquide / Flüssigkeitsunterkühlung

50Hz

Compressor Compresseur Verdichter	Cond Temp °C	Evaporating Temperature Température d'évaporation °C Verdampfungstemperatur									
		-20	-15	-10	-5	0	5	7	10	12.5	
		ZR18K4E-PFJ	Q	30	1.63	2.06	2.57	3.15	3.85	4.70	5.05
		40	1.38	1.78	2.26	2.82	3.45	4.20	4.55	5.10	5.60
		50			1.91	2.42	3.00	3.70	4.00	4.50	4.95
Single phase only Seulement monophasé Nur einphasig	P	30	0.79	0.78	0.79	0.80	0.80	0.81	0.81	0.81	0.81
		40	1.00	0.99	0.99	0.99	1.00	1.00	1.00	1.01	1.01
		50			1.26	1.25	1.25	1.25	1.25	1.25	1.25
ZR22K3E-TFD	Q	30	1.89	2.39	3.00	3.75	4.65	5.65	6.10	6.80	7.45
		40	1.61	2.08	2.67	3.40	4.20	5.15	5.60	6.25	6.85
		50			2.28	2.90	3.65	4.55	4.90	5.55	6.05
	P	30	0.95	0.94	0.94	0.94	0.93	0.92	0.92	0.91	0.90
		40	1.21	1.21	1.21	1.21	1.20	1.19	1.18	1.17	1.15
		50			1.56	1.56	1.55	1.53	1.52	1.50	1.48
ZR28K3E-TFD	Q	30	2.34	3.05	3.85	4.90	6.05	7.35	7.90	8.85	9.60
		40	2.09	2.70	3.45	4.40	5.45	6.70	7.25	8.10	8.85
		50			2.95	3.80	4.75	5.90	6.35	7.15	7.85
	P	30	1.22	1.21	1.21	1.20	1.20	1.18	1.18	1.16	1.15
		40	1.55	1.56	1.56	1.56	1.55	1.53	1.52	1.50	1.48
		50			2.00	2.00	1.99	1.97	1.95	1.93	1.90
ZR34K3E-TFD	Q	30	2.90	3.75	4.70	5.85	7.20	8.75	9.40	10.50	11.50
		40	2.47	3.25	4.15	5.20	6.45	7.90	8.55	9.55	10.50
		50			3.50	4.50	5.65	6.95	7.55	8.50	9.35
	P	30	1.43	1.42	1.41	1.41	1.40	1.38	1.38	1.36	1.34
		40	1.83	1.83	1.83	1.83	1.82	1.80	1.78	1.76	1.74
		50			2.36	2.36	2.35	2.32	2.30	2.27	2.24
ZR40K3E-TFD	Q	30	3.30	4.25	5.45	6.80	8.40	10.25	11.05	12.30	13.45
		40	2.89	3.75	4.85	6.15	7.65	9.35	10.10	11.30	12.35
		50			4.15	5.30	6.65	8.20	8.90	10.00	11.00
	P	30	1.68	1.67	1.67	1.66	1.65	1.64	1.63	1.61	1.59
		40	2.15	2.15	2.15	2.15	2.14	2.11	2.10	2.07	2.04
		50			2.76	2.76	2.75	2.71	2.69	2.66	2.62
ZR48K3E-TFD	Q	30	4.35	5.50	6.90	8.55	10.45	12.70	13.65	15.30	16.70
		40	3.75	4.85	6.10	7.65	9.40	11.45	12.35	13.80	15.10
		50			5.30	6.65	8.25	10.10	10.95	12.30	13.50
	P	30	2.14	2.13	2.11	2.09	2.05	2.00	1.97	1.92	1.87
		40	2.66	2.64	2.63	2.61	2.59	2.56	2.55	2.52	2.49
		50			3.30	3.29	3.27	3.25	3.25	3.23	3.21
ZR61KCE-TFD	Q	30	4.85	6.40	8.20	10.30	12.80	15.70	16.90	19.00	20.80
		40	4.15	5.60	7.25	9.20	11.50	14.15	15.30	17.20	18.90
		50			6.20	7.95	10.05	12.45	13.50	15.20	16.80
	P	30	2.44	2.46	2.48	2.49	2.52	2.58	2.61	2.68	2.76
		40	3.03	3.10	3.14	3.16	3.18	3.21	3.22	3.26	3.30
		50			3.92	3.97	4.00	4.02	4.03	4.05	4.07
ZR72KCE-TFD	Q	30	6.40	8.20	10.35	12.80	15.60	18.90	20.30	22.60	24.70
		40	5.30	7.00	9.00	11.25	13.85	16.80	18.20	20.30	22.20
		50			7.60	9.65	12.05	14.75	16.00	17.90	19.60
	P	30	2.82	2.86	2.89	2.90	2.92	2.95	2.97	3.01	3.05
		40	3.55	3.62	3.66	3.67	3.68	3.69	3.70	3.71	3.73
		50			4.59	4.63	4.65	4.66	4.66	4.66	4.66
ZR81KCE-TFD	Q	30	6.85	8.95	11.35	14.10	17.30	20.90	22.60	25.20	27.60
		40	5.75	7.80	10.05	12.65	15.60	19.00	20.60	23.00	25.30
		50			8.55	10.90	13.60	16.70	18.10	20.40	22.40
	P	30	3.12	3.16	3.19	3.22	3.26	3.31	3.34	3.39	3.44
		40	4.01	4.05	4.07	4.09	4.12	4.17	4.19	4.24	4.28
		50			5.25	5.25	5.25	5.25	5.30	5.30	5.35

Q(kW)= Capacity / Puissance frigorifique / Kälteleistung
P(kW)= Power Input / Puissance absorbée / Leistungsaufnahme

Operating Conditions / Conditions de fonctionnement / Einsatzbedingungen
10K Suction Superheat / Surchauffe / Sauggasüberhitzung
0K Liquid subcooling / Sous-refroidissement du liquide / Flüssigkeitsunterkühlung

50Hz

Compressor Compresseur Verdichter	Cond Temp °C	Evaporating Temperature Température d'évaporation °C Verdampfungstemperatur									
		-20	-15	-10	-5	0	5	7	10	12.5	
		ZR94KCE-TFD	Q	30	8.55	10.95	13.70	16.90	20.50	24.70	26.50
		40	7.10	9.45	12.05	15.10	18.50	22.40	24.10	26.90	29.30
		50			10.15	12.95	16.10	19.80	21.30	23.90	26.20
	P	30	3.95	3.98	3.99	4.01	4.04	4.10	4.13	4.20	4.27
		40	4.91	4.95	4.97	4.98	4.99	5.00	5.05	5.10	5.10
		50			6.20	6.20	6.20	6.20	6.20	6.25	6.25
ZR108KCE-TFD	Q	30	9.80	12.35	15.30	18.80	23.00	27.90	30.00	33.50	37.00
		40	8.60	11.00	13.75	16.90	20.60	25.00	26.90	30.00	33.00
		50			11.95	14.85	18.20	22.00	23.80	26.60	29.10
	P	30	4.35	4.39	4.42	4.45	4.50	4.60	4.66	4.76	4.88
		40	5.30	5.40	5.45	5.45	5.50	5.55	5.60	5.70	5.75
		50			6.80	6.80	6.85	6.85	6.90	6.90	6.95
ZR125KCE-TFD	Q	30	11.40	14.45	18.00	22.10	27.10	33.00	35.50	40.00	44.00
		40	9.85	12.80	16.10	19.90	24.30	29.50	32.00	35.50	39.00
		50			14.00	17.50	21.40	26.10	28.10	31.50	34.50
	P	30	5.10	5.15	5.20	5.25	5.35	5.45	5.55	5.60	5.70
		40	6.35	6.40	6.45	6.55	6.60	6.65	6.70	6.75	6.80
		50			8.05	8.10	8.15	8.20	8.25	8.25	8.30
ZR144KCE-TFD	Q	30	13.45	17.00	21.50	27.20	33.50	41.00	44.50	49.50	53.50
		40	12.30	14.90	18.50	23.00	28.30	34.50	37.00	41.00	45.00
		50			16.40	20.20	24.70	29.90	32.00	35.50	39.00
	P	30	5.75	5.85	6.00	6.20	6.45	6.70	6.80	6.90	7.00
		40	7.20	7.15	7.25	7.35	7.45	7.60	7.65	7.70	7.70
		50			9.05	9.10	9.15	9.25	9.25	9.25	9.25
ZR160KCE-TFD <i>Preliminary</i>	Q	30	10.40	15.00	20.50	26.70	33.50	41.00	44.00	49.00	53.50
		40	8.35	12.50	17.50	23.30	29.80	37.00	40.00	45.00	49.00
		50			14.20	19.40	25.50	32.00	35.00	39.50	43.50
	P	30	6.35	6.50	6.55	6.65	6.80	7.00	7.15	7.35	7.60
		40	7.90	8.10	8.20	8.25	8.35	8.50	8.55	8.75	8.90
		50			10.20	10.30	10.30	10.40	10.50	10.60	10.70
ZR190KCE-TFD <i>Preliminary</i>	Q	30	12.50	18.10	24.70	32.00	40.50	49.50	53.50	59.50	64.50
		40	10.00	15.10	21.10	28.10	36.00	44.50	48.50	54.00	59.00
		50			17.10	23.40	30.50	39.00	42.50	48.00	52.50
	P	30	7.65	7.85	7.95	8.05	8.20	8.45	8.60	8.90	9.20
		40	9.55	9.75	9.90	9.95	10.10	10.20	10.30	10.50	10.70
		50			12.30	12.40	12.50	12.60	12.60	12.70	12.80
ZR250KCE-TWD	Q	30	23.30	29.30	36.50	45.00	54.50	66.00	70.50	78.50	85.50
		40	20.10	25.70	32.00	40.00	49.00	59.50	64.00	71.50	78.00
		50			27.50	34.50	42.50	52.00	56.50	63.00	69.50
	P	30	9.95	10.00	10.20	10.30	10.30	10.30	10.20	10.10	9.90
		40	12.50	12.50	12.60	12.70	12.90	13.00	13.00	13.00	13.00
		50			15.90	15.90	16.10	16.30	16.30	16.40	16.50
ZR310KCE-TWD	Q	30	28.50	36.50	46.00	57.00	69.50	84.50	91.00	101.5	111.0
		40	24.00	31.00	39.50	49.50	61.50	75.00	81.00	90.50	99.50
		50			33.50	42.50	53.00	65.00	70.50	79.00	87.00
	P	30	12.30	12.50	12.70	12.90	13.20	13.50	13.70	13.90	14.10
		40	15.60	15.60	15.70	15.80	16.00	16.30	16.40	16.60	16.80
		50			19.90	19.90	20.00	20.20	20.20	20.40	20.50
ZR380KCE-TWD	Q	30	34.00	44.00	56.00	69.00	85.00	104.0	112.5	126.0	139.0
		40	28.00	38.00	49.00	61.50	76.00	93.00	100.5	113.0	124.5
		50			41.00	53.00	66.00	81.50	88.50	99.50	109.5
	P	30	14.60	14.80	14.90	15.20	15.50	16.00	16.20	16.60	17.10
		40	18.30	18.60	18.80	18.90	19.10	19.40	19.50	19.80	20.00
		50			23.50	23.70	23.90	24.10	24.10	24.30	24.40

Q(kW)= Capacity / Puissance frigorifique / Kälteleistung
P(kW)= Power Input / Puissance absorbée / Leistungsaufnahme

Operating Conditions / Conditions de fonctionnement / Einsatzbedingungen
10K Suction Superheat / Surchauffe / Sauggasüberhitzung
0K Liquid subcooling / Sous-refroidissement du liquide / Flüssigkeitsunterkühlung

50Hz

Tandem Assembly Compresseur Tandem Tandem-Verdichter	Cond Temp °C	Evaporating Temperature Température d'évaporation °C Verdampfungstemperatur									
		-20	-15	-10	-5	0	5	7	10	12.5	
		ZRT96K3E-TFD	Q	30	9.30	11.85	14.80	18.20	22.20	26.70	28.70
40	8.00			10.35	13.10	16.20	19.90	24.10	26.00	29.00	31.50
50					11.15	13.95	17.20	21.00	22.70	25.40	27.90
P	30		4.76	4.77	4.75	4.70	4.61	4.48	4.41	4.30	4.18
	40		5.80	5.80	5.80	5.80	5.70	5.60	5.55	5.45	5.35
	50				7.10	7.05	7.00	6.95	6.90	6.80	6.75
ZRT122KCE-TFD	Q	30	10.75	13.95	17.80	22.30	27.50	33.50	36.00	40.00	
		40	9.25	12.05	15.50	19.60	24.40	29.90	32.50	36.00	39.50
		50			13.25	16.80	21.00	26.00	28.10	31.50	35.00
	P	30	5.20	5.25	5.30	5.40	5.45	5.55	5.60	5.70	
		40	6.45	6.60	6.65	6.75	6.80	6.80	6.85	6.85	6.90
		50			8.20	8.35	8.45	8.50	8.50	8.50	8.50
ZRT144KCE-TFD	Q	30	13.80	17.50	22.00	27.10	33.00	40.50	43.50	48.50	53.00
		40	11.30	15.00	19.20	24.00	29.40	35.50	38.50	43.00	46.50
		50			16.00	20.40	25.30	31.00	33.50	37.00	40.50
	P	30	6.05	6.15	6.15	6.20	6.25	6.30	6.35	6.40	6.50
		40	7.55	7.70	7.75	7.80	7.80	7.85	7.85	7.85	7.90
		50			9.70	9.75	9.80	9.80	9.80	9.80	9.85
ZRT162KCE-TFD	Q	30	15.00	19.50	24.50	30.50	37.00	45.00	48.50	54.00	59.00
		40	12.50	16.80	21.50	26.90	33.00	40.50	43.50	49.00	53.50
		50			18.10	22.90	28.50	35.00	38.00	42.50	47.00
	P	30	6.70	6.80	6.85	6.90	7.00	7.10	7.15	7.30	7.40
		40	8.60	8.65	8.70	8.70	8.80	8.90	8.95	9.05	9.15
		50			11.10	11.10	11.10	11.20	11.20	11.30	11.30
ZRT188KCE-TFD <i>Preliminary</i>	Q	30	18.60	24.30	30.50	37.00	45.00	53.50	57.50		
		40	15.50	20.90	26.60	33.00	40.00	48.00	51.50	57.00	
		50			21.80	27.70	34.00	41.50	45.00	50.00	
	P	30	8.55	8.50	8.55	8.60	8.70	8.80	8.80		
		40	10.40	10.50	10.50	10.60	10.70	10.70	10.60	10.50	
		50			12.90	13.20	13.30	13.30	13.20	13.10	
ZRT216KCE-TFD <i>Preliminary</i>	Q	30	20.70	26.90	33.50	41.00	49.50	58.50	63.00		
		40	17.40	23.20	29.40	36.00	44.00	52.50	56.50	62.50	
		50			24.30	30.50	37.50	45.50	49.00	55.00	
	P	30	9.70	9.65	9.65	9.75	9.85	9.95	9.95		
		40	11.50	11.60	11.70	11.70	11.80	11.80	11.70	11.60	
		50			14.00	14.20	14.40	14.40	14.30	14.20	
ZRT250KCE-TFD <i>Preliminary</i>	Q	30	25.30	32.50	40.50	49.00	59.00	70.00	74.50		
		40	21.40	28.20	35.50	43.50	52.50	62.50	67.00	74.00	
		50			29.50	37.00	45.50	54.50	58.50	65.00	
	P	30	11.10	11.00	11.00	11.10	11.30	11.40	11.40		
		40	13.50	13.60	13.70	13.80	13.90	13.90	13.80	13.70	
		50			16.90	17.20	17.30	17.30	17.30	17.10	
ZRT288KCE-TFD <i>Preliminary</i>	Q	30	28.90	36.50	46.00	57.50	71.00	85.50	92.00		
		40	26.00	32.00	39.50	49.00	60.00	72.00	77.50	86.00	
		50			34.50	42.50	52.00	62.50	67.00	74.00	
	P	30	12.20	12.40	12.70	13.10	13.50	13.90	14.10		
		40	15.20	15.20	15.30	15.50	15.80	16.00	16.00	16.10	
		50			19.10	19.20	19.40	19.40	19.50	19.50	
ZRU315KCE-TFD <i>Preliminary</i>	Q	30	26.70	36.00	46.50	59.00	72.50	88.50	95.00		
		40	22.00	30.50	40.00	51.50	64.50	79.00	85.00	95.00	
		50			33.00	43.50	55.00	68.50	74.00	83.00	
	P	30	13.70	13.90	14.00	14.20	14.50	14.90	15.10		
		40	16.90	17.20	17.30	17.50	17.60	17.90	18.00	18.30	
		50			21.50	21.60	21.70	21.80	21.90	22.10	
ZRT320K3E-TWD <i>Preliminary</i>	Q	30	30.00	38.50	48.00	59.50	72.50	88.00	94.50	106.0	116.5
		40	25.80	33.50	42.50	52.50	64.00	78.00	84.00	94.00	103.5
		50			35.50	44.50	55.00	67.50	73.00	82.00	90.00
	P	30	13.50	13.80	14.00	14.20	14.40	14.80	14.90	15.30	15.60
		40	16.70	17.10	17.40	17.60	17.70	17.80	17.90	18.10	18.20
		50			21.30	21.60	21.90	22.10	22.10	22.20	22.30
ZRU350KCE-TFD <i>Preliminary</i>	Q	30	26.20	37.00	50.00	64.00	80.00	97.00	104.5		
		40	20.80	30.50	42.00	55.50	70.50	87.00	94.00	105.0	
		50			33.50	46.00	59.50	75.00	81.50	92.00	
	P	30	15.10	15.30	15.50	15.70	16.00	16.60	16.90		
		40	18.60	19.00	19.20	19.30	19.50	19.90	20.10	20.40	
		50			23.80	23.90	24.00	24.20	24.30	24.50	
ZRT380KCE-TFD <i>Preliminary</i>	Q	30	25.00	36.00	49.50	64.50	81.00	99.00	106.5	118.5	129.0
		40	20.00	30.00	42.00	56.00	72.00	89.50	97.00	108.5	118.5
		50			34.00	47.00	61.50	77.50	84.50	95.50	105.5
	P	30	15.30	15.70	15.90	16.10	16.40	16.90	17.20	17.80	18.40
		40	19.10	19.50	19.80	19.90	20.10	20.50	20.70	21.00	21.40
		50			24.60	24.80	24.90	25.10	25.20	25.40	25.70

Q(kW)= Capacity / Puissance frigorifique / Kälteleistung
P(kW)= Power Input / Puissance absorbée / Leistungsaufnahme

Operating Conditions / Conditions de fonctionnement / Einsatzbedingungen
10K Suction Superheat / Surchauffe / Sauggasüberhitzung
0K Liquid subcooling / Sous-refroidissement du liquide / Flüssigkeitsunterkühlung

Compressor Compresseur Verdichter	Cond Temp °C	Evaporating Temperature Température d'évaporation °C Verdampfungstemperatur								
		-20	-15	-10	-5	0	5	7	10	12.5
		ZR18K4E-PFJ	Q	30	0.93	1.25	1.63	2.07	2.59	3.20
		40	0.78	1.08	1.43	1.84	2.31	2.86	3.10	3.45
		50		0.90	1.23	1.60	2.03	2.52	2.74	3.10
Single phase only Seulement monophasé Nur einsphasig	P	30	0.66	0.66	0.67	0.67	0.68	0.68	0.68	0.67
		40	0.79	0.78	0.78	0.79	0.80	0.81	0.81	0.82
		50		0.95	0.94	0.94	0.95	0.96	0.97	0.98
ZR22K3E-TFD	Q	30	1.23	1.60	2.05	2.60	3.25	4.00	4.35	4.90
		40	1.06	1.40	1.82	2.32	2.90	3.60	3.90	4.40
		50		1.17	1.56	2.02	2.56	3.20	3.45	3.90
	P	30	0.72	0.72	0.71	0.70	0.69	0.67	0.66	0.64
		40	0.92	0.91	0.90	0.89	0.88	0.87	0.86	0.85
		50		1.18	1.16	1.14	1.12	1.11	1.10	1.09
ZR28K3E-TFD	Q	30	1.54	2.03	2.65	3.40	4.25	5.30	5.70	6.40
		40	1.36	1.79	2.34	3.00	3.80	4.70	5.10	5.75
		50		1.55	2.04	2.65	3.35	4.20	4.55	5.10
	P	30	0.89	0.90	0.90	0.89	0.87	0.85	0.85	0.84
		40	1.12	1.14	1.15	1.15	1.13	1.12	1.12	1.11
		50		1.44	1.45	1.45	1.44	1.42	1.42	1.41
ZR34K3E-TFD	Q	30	1.95	2.53	3.20	4.05	5.00	6.10	6.60	7.40
		40	1.70	2.23	2.86	3.60	4.50	5.55	6.00	6.70
		50		1.92	2.49	3.15	3.95	4.90	5.30	6.00
	P	30	1.10	1.09	1.07	1.05	1.03	1.01	1.00	0.99
		40	1.40	1.39	1.37	1.35	1.33	1.30	1.30	1.28
		50		1.76	1.74	1.72	1.69	1.66	1.65	1.64
ZR40K3E-TFD	Q	30	2.22	2.90	3.75	4.75	5.85	7.10	7.65	8.50
		40	1.83	2.48	3.25	4.15	5.20	6.40	6.95	7.75
		50		2.09	2.78	3.60	4.60	5.70	6.20	6.95
	P	30	1.20	1.17	1.15	1.15	1.14	1.14	1.13	1.12
		40	1.61	1.56	1.53	1.51	1.50	1.50	1.50	1.49
		50		2.01	1.95	1.92	1.90	1.89	1.89	1.88
ZR48K3E-TFD	Q	30	2.73	3.55	4.55	5.70	7.05	8.65	9.35	10.50
		40	2.29	3.10	4.05	5.10	6.35	7.80	8.45	9.45
		50		2.55	3.40	4.40	5.55	6.85	7.45	8.40
	P	30	1.39	1.39	1.40	1.41	1.41	1.40	1.39	1.37
		40	1.84	1.81	1.80	1.80	1.81	1.83	1.83	1.83
		50		2.35	2.30	2.28	2.27	2.28	2.29	2.30
ZR61KCE-TFD	Q	30	3.45	4.55	5.80	7.25	9.00	11.00	11.90	13.35
		40	3.05	4.05	5.20	6.55	8.10	9.95	10.75	12.10
		50		3.50	4.55	5.75	7.20	8.85	9.60	10.80
	P	30	1.67	1.71	1.73	1.75	1.76	1.78	1.79	1.80
		40	2.07	2.11	2.14	2.16	2.18	2.20	2.22	2.24
		50		2.62	2.65	2.67	2.69	2.71	2.73	2.75
ZR72KCE-TFD	Q	30	4.30	5.55	7.05	8.80	10.85	13.25	14.30	16.00
		40	3.75	4.80	6.15	7.80	9.70	11.90	12.90	14.45
		50		4.15	5.30	6.75	8.45	10.45	11.35	12.80
	P	30	2.02	2.01	2.01	2.02	2.04	2.06	2.07	2.09
		40	2.59	2.57	2.56	2.57	2.58	2.60	2.61	2.62
		50		3.27	3.24	3.23	3.23	3.24	3.25	3.26
ZR81KCE-TFD	Q	30	4.90	6.20	7.85	9.75	12.00	14.60	15.80	17.60
		40	4.30	5.55	7.00	8.75	10.80	13.20	14.25	16.00
		50		4.80	6.15	7.70	9.55	11.75	12.70	14.25
	P	30	2.25	2.28	2.29	2.30	2.31	2.33	2.35	2.37
		40	2.81	2.84	2.86	2.87	2.89	2.92	2.93	2.96
		50		3.55	3.57	3.58	3.60	3.62	3.64	3.67

Q(kW)= Capacity / Puissance frigorifique / Kälteleistung
P(kW)= Power Input / Puissance absorbée / Leistungsaufnahme

Operating Conditions / Conditions de fonctionnement / Einsatzbedingungen
10K Suction Superheat / Surchauffe / Sauggasüberhitzung
0K Liquid subcooling / Sous-refroidissement du liquide / Flüssigkeitsunterkühlung

Compressor Compresseur Verdichter	Cond Temp °C	Evaporating Temperature Température d'évaporation °C Verdampfungstemperatur									
		-20	-15	-10	-5	0	5	7	10	12.5	
		ZR18K4-PFJ	Q	30	1.75	2.21	2.73	3.35	4.00	4.80	5.15
		40	1.53	1.96	2.46	3.00	3.65	4.40	4.70	5.20	5.60
		50			2.13	2.67	3.25	3.95	4.20	4.65	5.05
Single phase only Seulement monophasé Nur einsphasig	P	30	0.81	0.82	0.83	0.84	0.84	0.84	0.84	0.84	0.83
		40	1.04	1.03	1.02	1.02	1.02	1.02	1.02	1.02	1.02
		50			1.29	1.26	1.24	1.24	1.23	1.23	1.24
ZR22K3E-TFD	Q	30	2.11	2.67	3.35	4.10	4.95	5.95	6.35	7.05	7.65
		40	1.85	2.38	3.00	3.70	4.45	5.35	5.75	6.40	6.95
		50			2.61	3.25	4.00	4.85	5.20	5.75	6.25
	P	30	0.99	0.99	0.99	0.98	0.97	0.95	0.95	0.94	0.94
		40	1.28	1.27	1.26	1.25	1.25	1.24	1.24	1.24	1.25
		50			1.65	1.62	1.59	1.58	1.57	1.57	1.57
ZR28K3E-TFD	Q	30	2.83	3.55	4.40	5.35	6.45	7.70	8.25	9.10	9.85
		40	2.51	3.20	3.95	4.85	5.85	7.00	7.50	8.30	9.00
		50			3.50	4.30	5.25	6.30	6.75	7.50	8.15
	P	30	1.28	1.27	1.26	1.25	1.23	1.21	1.20	1.19	1.19
		40	1.61	1.61	1.60	1.59	1.57	1.55	1.54	1.53	1.52
		50			2.02	2.00	1.98	1.96	1.95	1.94	1.93
ZR34K3E-TFD	Q	30	3.35	4.25	5.25	6.40	7.70	9.20	9.80	10.85	11.75
		40	3.00	3.80	4.70	5.75	7.00	8.35	8.95	9.90	10.75
		50			4.15	5.15	6.25	7.50	8.05	8.95	9.75
	P	30	1.52	1.51	1.50	1.48	1.46	1.44	1.43	1.42	1.41
		40	1.91	1.91	1.90	1.88	1.86	1.83	1.82	1.81	1.80
		50			2.39	2.37	2.34	2.31	2.30	2.29	2.28
ZR40K3-TFD	Q	30	4.00	5.00	6.15	7.50	9.05	10.80	11.55	12.80	13.85
		40	3.55	4.45	5.55	6.80	8.20	9.85	10.55	11.70	12.70
		50			4.90	6.05	7.35	8.85	9.50	10.55	11.50
	P	30	1.79	1.78	1.77	1.75	1.72	1.70	1.69	1.67	1.66
		40	2.24	2.24	2.23	2.21	2.19	2.16	2.15	2.13	2.12
		50			2.80	2.78	2.76	2.73	2.71	2.69	2.67
ZR48K3E-TFD	Q	30	4.75	6.00	7.40	9.05	10.90	13.00	13.90	15.40	16.70
		40	4.15	5.35	6.70	8.25	10.00	11.95	12.80	14.20	15.50
		50			5.90	7.30	8.90	10.75	11.55	12.80	13.95
	P	30	2.29	2.30	2.30	2.27	2.23	2.16	2.12	2.06	2.01
		40	2.85	2.85	2.84	2.83	2.80	2.75	2.72	2.68	2.63
		50			3.52	3.49	3.46	3.42	3.39	3.36	3.32
ZR61KCE-TFD	Q	30	5.55	7.10	8.95	11.05	13.45	16.0	17.1	18.80	20.20
		40	4.85	6.25	7.95	9.95	12.20	14.70	15.70	17.30	18.70
		50			6.90	8.70	10.80	13.10	14.05	15.60	16.90
	P	30	2.42	2.47	2.51	2.54	2.59	2.68	2.73	2.82	2.91
		40	3.02	3.08	3.12	3.15	3.20	3.29	3.34	3.43	3.53
		50			3.89	3.90	3.94	4.01	4.05	4.13	4.22
ZR72KCE-TFD	Q	30	7.35	9.20	11.25	13.65	16.30	19.40	20.70	22.80	24.70
		40	6.50	8.25	10.20	12.45	14.95	17.80	19.00	21.00	22.70
		50			8.95	11.00	13.35	15.90	17.10	18.90	20.50
	P	30	3.16	3.16	3.16	3.17	3.19	3.22	3.24	3.27	3.31
		40	3.90	3.88	3.87	3.87	3.88	3.89	3.90	3.92	3.95
		50			4.80	4.78	4.78	4.78	4.78	4.79	4.81
ZR81KCE-TFD	Q	30	7.95	10.05	12.50	15.20	18.20	21.50	22.80	24.90	26.70
		40	7.10	8.95	11.20	13.85	16.80	20.00	21.30	23.50	25.30
		50			9.85	12.20	14.95	18.00	19.30	21.40	23.20
	P	30	3.31	3.35	3.39	3.43	3.48	3.54	3.57	3.62	3.67
		40	4.09	4.14	4.18	4.22	4.27	4.32	4.34	4.39	4.43
		50			5.15	5.20	5.25	5.30	5.30	5.35	5.40

Q(kw)= Capacity / Puissance frigorifique / Kälteleistung
P(kw)= Power Input / Puissance absorbée / Leistungsaufnahme

Operating Conditions / Conditions de fonctionnement / Einsatzbedingungen
10K Suction Superheat / Surchauffe / Sauggasüberhitzung
0K Liquid subcooling / Sous-refroidissement du liquide / Flüssigkeitsunterkühlung

Compressor Compresseur Verdichter	Cond Temp °C	Evaporating Temperature Température d'évaporation °C Verdampfungstemperatur									
		-20	-15	-10	-5	0	5	7	10	12.5	
		ZR94KC-TFD	Q	30	9.40	11.95	14.75	18.00	21.60	25.70	27.50
		40	7.95	10.45	13.20	16.30	19.70	23.60	25.20	27.90	30.50
		50			11.35	14.25	17.50	21.20	22.80	25.30	27.50
	P	30	3.99	4.01	4.03	4.05	4.10	4.18	4.23	4.31	4.41
		40	4.98	5.00	5.00	5.00	5.05	5.10	5.10	5.20	5.25
		50			6.25	6.25	6.25	6.25	6.25	6.30	6.35
ZR108KC-TFD	Q	30	10.75	13.50	16.70	20.30	24.50	29.20	31.50	34.50	37.50
		40	9.55	12.15	15.10	18.50	22.40	26.80	28.70	31.50	34.50
		50			13.35	16.50	20.10	24.10	25.90	28.70	31.00
	P	30	4.56	4.63	4.69	4.75	4.82	4.93	4.98	5.10	5.15
		40	5.60	5.65	5.70	5.75	5.85	5.90	5.95	6.05	6.10
		50			7.05	7.05	7.10	7.15	7.15	7.20	7.25
ZR125KC-TFD	Q	30	12.65	15.80	19.40	23.60	28.30	33.50	36.00	39.50	42.50
		40	11.40	14.20	17.50	21.40	25.80	30.50	33.00	36.00	39.00
		50			15.60	19.10	23.20	27.70	29.70	33.00	35.50
	P	30	5.30	5.40	5.45	5.55	5.60	5.70	5.75	5.85	5.95
		40	6.45	6.60	6.65	6.70	6.80	6.85	6.90	6.95	7.05
		50			8.15	8.25	8.25	8.30	8.35	8.40	8.45
ZR144KC-TFD	Q	30	14.65	18.30	22.50	27.30	32.50	38.50	41.00	45.00	48.00
		40	13.05	16.30	20.20	24.70	29.80	35.50	38.00	41.50	44.50
		50			17.60	21.70	26.40	31.50	34.00	37.50	40.50
	P	30	5.95	6.05	6.15	6.20	6.30	6.50	6.60	6.80	7.00
		40	7.25	7.40	7.50	7.55	7.60	7.70	7.80	7.90	8.05
		50			9.15	9.20	9.25	9.30	9.35	9.45	9.50
ZR160KC-TFD <i>Preliminary</i>	Q	30	16.20	20.10	24.80	30.00	36.00	42.50	45.00	49.50	53.00
		40	14.35	18.00	22.30	27.20	33.00	39.00	41.50	45.50	49.50
		50			19.40	23.90	29.10	35.00	37.50	41.50	44.50
	P	30	6.20	6.35	6.40	6.50	6.65	6.90	7.00	7.25	7.50
		40	7.80	7.95	8.05	8.15	8.25	8.35	8.45	8.60	8.80
		50			10.10	10.20	10.30	10.30	10.40	10.50	10.60
ZR190KC-TFD <i>Preliminary</i>	Q	30	19.50	24.30	29.90	36.50	43.50	51.00	54.50	59.50	64.00
		40	17.30	21.70	26.80	33.00	39.50	47.00	50.00	55.00	59.50
		50			23.40	28.80	35.00	42.00	45.00	50.00	54.00
	P	30	7.45	7.65	7.75	7.85	8.00	8.30	8.45	8.70	9.00
		40	9.35	9.60	9.70	9.80	9.90	10.10	10.20	10.40	10.60
		50			12.20	12.30	12.30	12.40	12.50	12.60	12.70
ZR250KCE-TWD	Q	30	24.80	31.00	38.00	45.50	54.50	65.50	70.00	77.50	84.50
		40	21.10	27.40	34.00	41.50	50.00	59.50	64.00	70.50	77.00
		50			29.60	37.00	45.00	54.00	58.00	64.00	69.50
	P	30	10.10	10.30	10.40	10.60	10.80	11.00	11.10	11.30	11.40
		40	12.50	12.70	12.80	12.90	13.10	13.30	13.30	13.50	13.60
		50			15.80	15.90	16.00	16.10	16.20	16.30	16.30
ZR310KC-TWD	Q	30	30.00	37.50	46.50	56.50	68.00	81.00	86.50	96.00	104.0
		40	26.30	33.50	41.50	51.00	62.00	74.50	80.00	88.50	96.50
		50			36.50	45.00	55.50	67.00	72.00	80.50	87.50
	P	30	12.70	12.60	12.60	12.70	13.00	13.50	13.80	14.20	14.70
		40	16.10	15.90	15.80	15.90	16.00	16.30	16.50	16.90	17.20
		50			19.90	19.80	19.90	20.10	20.20	20.40	20.70
ZR380KC-TWD	Q	30	39.00	48.00	58.50	70.00	83.50	98.50	105.0	116.0	125.5
		40	33.50	43.00	53.00	64.50	77.00	91.50	97.50	107.5	116.0
		50			46.00	57.50	69.50	83.00	89.00	98.00	106.0
	P	30	15.10	15.30	15.50	15.80	16.20	16.80	17.00	17.50	18.00
		40	18.60	18.90	19.10	19.40	19.70	20.10	20.30	20.70	21.00
		50			23.40	23.70	24.10	24.50	24.60	24.90	25.20

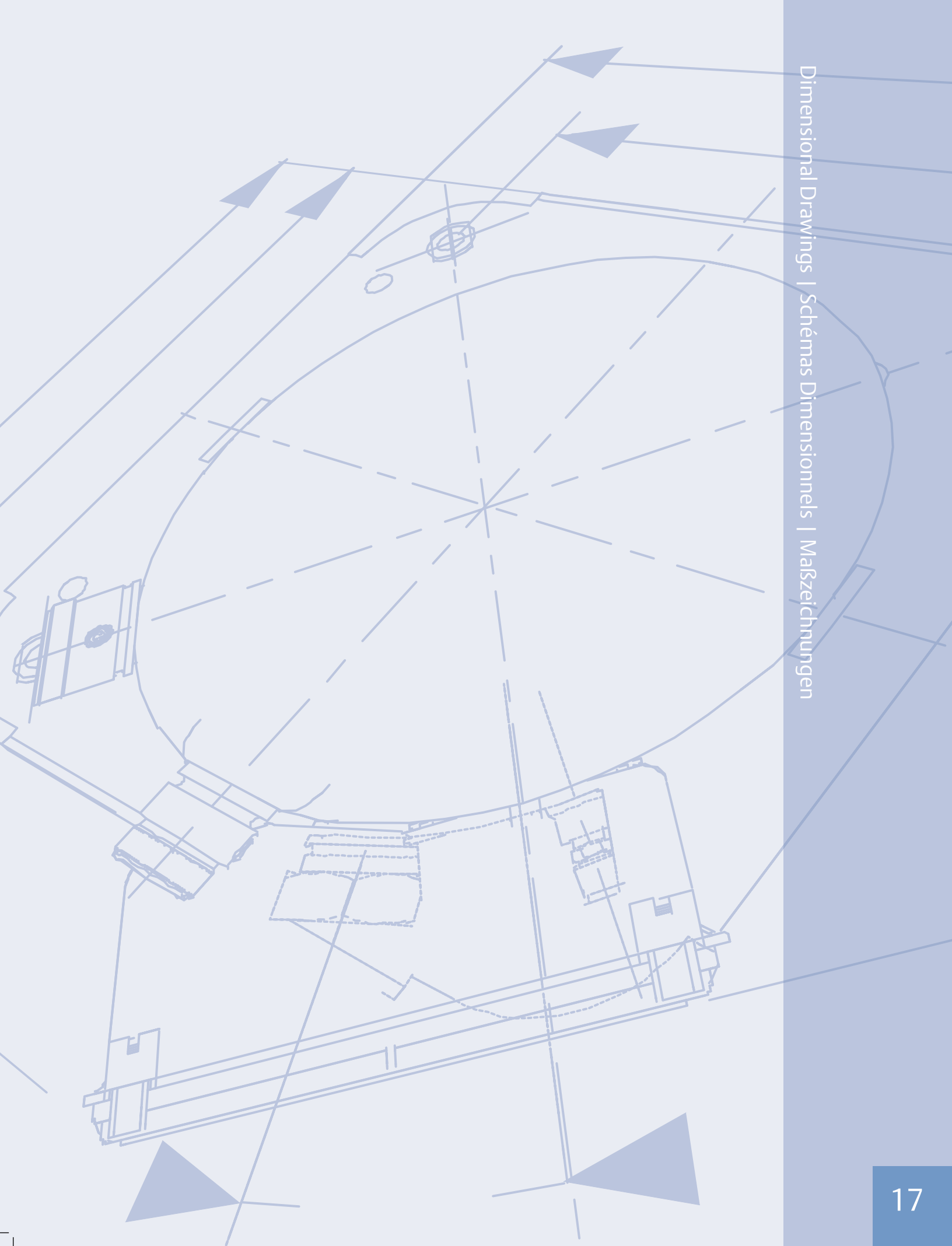
Q(kW)= Capacity / Puissance frigorifique / Kälteleistung
P(kW)= Power Input / Puissance absorbée / Leistungsaufnahme

Operating Conditions / Conditions de fonctionnement / Einsatzbedingungen
10K Suction Superheat / Surchauffe / Sauggasüberhitzung
0K Liquid subcooling / Sous-refroidissement du liquide / Flüssigkeitsunterkühlung

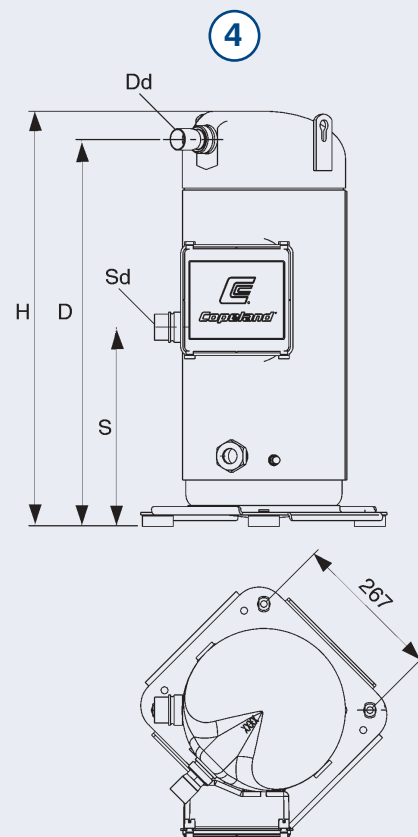
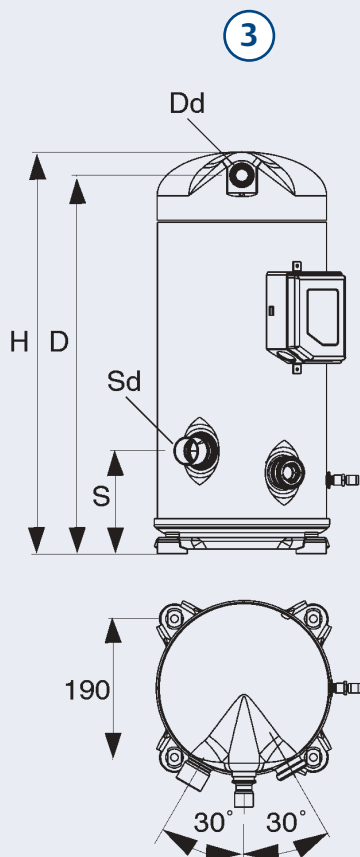
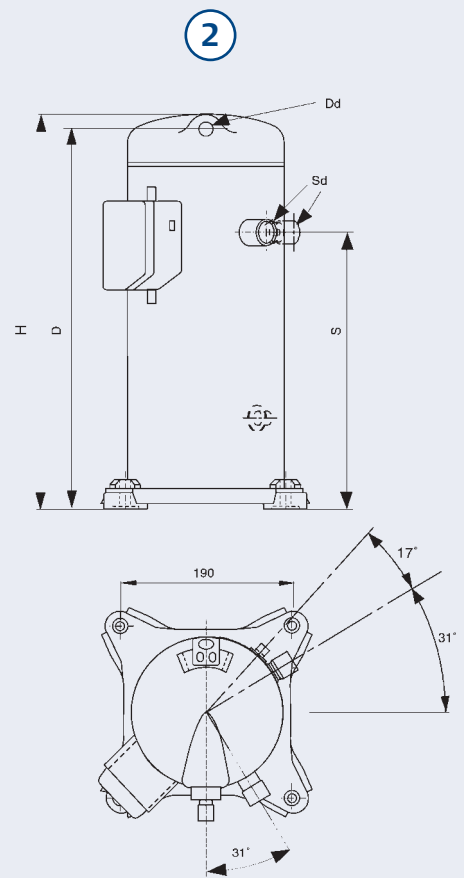
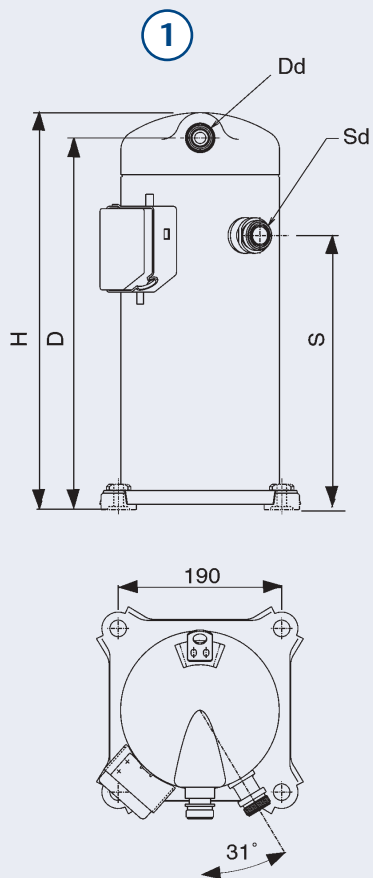
Tandem Assembly Compresseur Tandem Tandem-Verdichter	Cond Temp °C	Evaporating Temperature Température d'évaporation °C Verdampfungstemperatur									
		-20	-15	-10	-5	0	5	7	10	12.5	
		ZRT96K3-TFD	Q	30	9.05	11.55	14.45	17.80	21.60	25.90	27.80
		40	7.90	10.25	12.95	16.00	19.60	23.60	25.30	28.10	30.50
		50			11.35	14.20	17.40	21.10	22.70	25.30	27.60
	P	30	4.30	4.27	4.25	4.23	4.21	4.18	4.16	4.14	4.11
		40	5.45	5.40	5.35	5.30	5.25	5.25	5.25	5.20	5.20
		50			6.75	6.65	6.60	6.55	6.50	6.50	6.50
ZRT122KCE-TFD	Q	30	12.15	15.10	18.70	22.80	27.40	32.50	34.50	38.00	40.50
		40	10.85	13.55	16.80	20.70	25.00	29.80	32.00	35.00	38.00
		50			14.80	18.30	22.30	26.80	28.70	31.50	34.50
	P	30	4.71	4.82	4.90	4.97	5.05	5.25	5.35	5.55	5.70
		40	5.95	6.05	6.15	6.25	6.35	6.50	6.60	6.80	7.00
		50			7.75	7.75	7.85	8.00	8.05	8.25	8.40
ZRT144KCE-TFD	Q	30	14.70	18.40	22.50	27.30	32.50	39.00	41.50	45.50	49.50
		40	13.00	16.50	20.40	24.90	29.90	35.50	38.00	42.00	45.50
		50			17.90	22.00	26.70	32.00	34.00	38.00	41.00
	P	30	6.30	6.30	6.30	6.35	6.40	6.45	6.50	6.55	6.60
		40	7.80	7.75	7.75	7.75	7.80	7.80	7.80	7.85	7.90
		50			9.60	9.55	9.55	9.55	9.55	9.60	9.60
ZRT162KCE-TFD	Q	30	15.90	20.10	25.00	30.50	36.50	43.00	45.50	50.00	53.50
		40	14.20	17.90	22.40	27.70	33.50	40.00	42.50	47.00	50.50
		50			19.70	24.40	29.90	36.00	38.50	43.00	46.50
	P	30	6.60	6.70	6.80	6.85	6.95	7.10	7.15	7.25	7.35
		40	8.20	8.30	8.35	8.45	8.55	8.65	8.70	8.75	8.85
		50			10.30	10.40	10.50	10.60	10.60	10.70	10.80
ZRT188KC-TFD <i>Preliminary</i>	Q	30	15.50	21.00	27.00	33.50	41.50	50.50	54.00	60.50	66.00
		40	12.15	17.60	23.50	30.00	37.50	46.00	49.50	55.50	61.00
		50			19.30	25.70	33.00	41.00	44.50	50.00	55.00
	P	30	7.70	7.65	7.70	7.75	7.90	8.05	8.10	8.20	8.35
		40	9.75	9.75	9.75	9.80	9.85	9.95	10.00	10.10	10.20
		50			12.40	12.40	12.40	12.30	12.30	12.30	12.30
ZRT216KC-TFD <i>Preliminary</i>	Q	30	20.30	25.70	31.50	39.00	47.00	57.00	61.00	68.50	75.00
		40	17.80	23.10	28.80	35.50	43.00	51.50	55.50	62.00	68.00
		50			25.50	31.50	38.50	46.50	50.00	56.00	61.00
	P	30	8.00	8.15	8.30	8.45	8.70	9.10	9.25	9.60	9.95
		40	10.20	10.30	10.50	10.60	10.80	11.00	11.20	11.50	11.70
		50			13.30	13.30	13.40	13.60	13.70	13.90	14.10
ZRT250KC-TFD <i>Preliminary</i>	Q	30	20.50	27.20	35.00	43.50	53.50	64.50	69.50	76.50	83.00
		40	17.80	24.20	31.50	40.00	50.00	60.50	65.00	72.50	78.50
		50			27.80	36.00	45.00	55.00	59.00	66.00	72.00
	P	30	10.00	10.10	10.10	10.10	10.20	10.50	10.60	10.90	11.30
		40	12.60	12.80	12.80	12.80	12.90	13.00	13.10	13.40	13.60
		50			16.20	16.20	16.20	16.20	16.30	16.40	16.60
ZRT288KC-TFD <i>Preliminary</i>	Q	30	16.80	25.30	35.50	46.50	59.50	73.50	80.00	89.50	97.50
		40	13.35	21.60	31.00	42.50	54.50	68.50	74.50	84.00	92.00
		50			26.40	36.50	48.50	61.50	67.00	75.50	83.50
	P	30	11.70	11.70	11.70	11.80	11.90	12.20	12.30	12.70	13.00
		40	14.50	14.60	14.70	14.70	14.80	14.90	15.00	15.30	15.50
		50			18.30	18.30	18.30	18.40	18.40	18.50	18.70
ZRU315KC-TFD <i>Preliminary</i>	Q	30	32.50	40.50	49.50	60.50	72.00	85.50	91.00	99.50	107.0
		40	28.90	36.00	44.50	54.50	65.50	78.00	83.50	92.00	99.00
		50			39.00	48.00	58.50	70.50	75.50	83.00	90.00
	P	30	12.30	12.60	12.70	12.90	13.20	13.60	13.80	14.10	14.50
		40	15.50	15.80	16.00	16.20	16.40	16.60	16.70	17.00	17.30
		50			20.10	20.30	20.40	20.60	20.60	20.80	21.00
ZRT320K3E-TWD <i>Preliminary</i>	Q	30	29.70	37.50	46.50	56.50	68.00	82.00	88.00	97.50	106.5
		40	26.10	34.00	42.50	52.00	63.00	75.00	80.50	89.00	97.00
		50			37.00	46.50	56.50	67.50	72.50	80.50	87.50
	P	30	13.50	13.60	13.70	13.80	13.90	14.10	14.20	14.50	14.70
		40	16.20	16.50	16.70	16.70	16.80	16.80	16.90	16.90	17.00
		50			20.20	20.40	20.50	20.50	20.50	20.50	20.50
ZRU350K3E-TWD <i>Preliminary</i>	Q	30	34.50	42.50	52.50	63.50	76.00	91.00	97.50	108.0	117.5
		40	29.40	38.00	47.50	58.00	70.00	83.50	89.50	99.00	107.5
		50			41.50	51.50	63.00	75.50	81.00	89.50	97.00
	P	30	14.70	14.80	14.90	14.90	15.00	15.20	15.30	15.50	15.70
		40	17.90	18.10	18.30	18.30	18.40	18.40	18.40	18.50	18.60
		50			22.30	22.50	22.60	22.60	22.60	22.60	22.60
ZRT380K3E-TWD <i>Preliminary</i>	Q	30	39.00	47.50	58.00	70.00	84.00	100.0	107.0	118.5	128.5
		40	33.00	42.00	52.00	63.50	76.50	91.50	98.00	108.5	117.5
		50			46.00	57.00	69.00	83.00	89.00	98.00	106.5
	P	30	15.90	16.00	16.10	16.10	16.10	16.20	16.30	16.50	16.70
		40	19.50	19.80	19.90	20.00	20.00	20.00	20.00	20.10	20.10
		50			24.50	24.70	24.70	24.70	24.70	24.70	24.70

Q(kW)= Capacity / Puissance frigorifique / Kälteleistung
P(kW)= Power Input / Puissance absorbée / Leistungsaufnahme

Operating Conditions / Conditions de fonctionnement / Einsatzbedingungen
10K Suction Superheat / Surchauffe / Sauggasüberhitzung
0K Liquid subcooling / Sous-refroidissement du liquide / Flüssigkeitsunterkühlung



Single compressors / Compresseurs individuels / Einzelverdichter

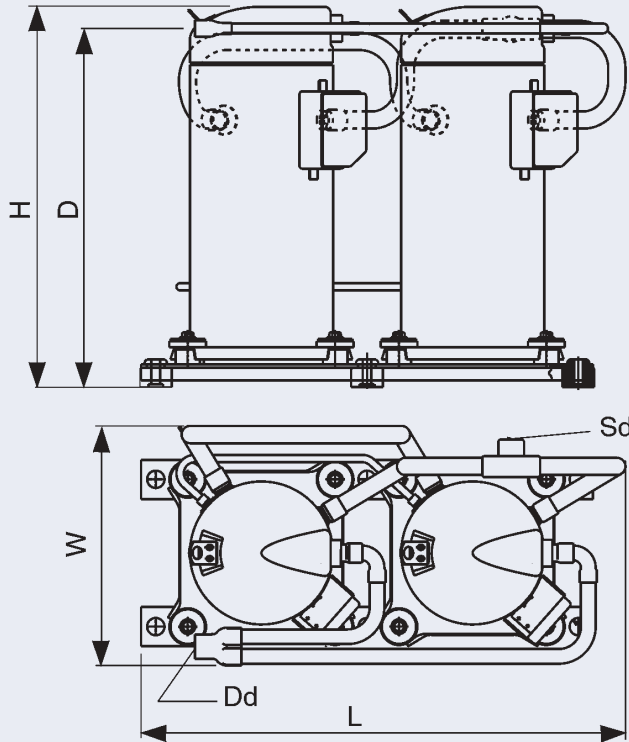


Drawing no. Illustration Abbildung	Nominal Horse Power Puissance nominale Motornennleistung	Model Modèle Modell R407C R22	Cooling Capacity Puissance frigorifique Kälteleistungsdaten	Model Modèle Modell R410A	Cooling Capacity Puissance frigorifique Kälteleistungsdaten	H [mm]	D [mm]	S [mm]	Connection Raccords Anschluss		
	HP / CV		kW ⁽¹⁾		kW ⁽¹⁾				Sd	Dd	
	" (inch)										
Single ZR			Single ZP								
1	1.5	ZR 18 K/E	3.8	ZP 23 K/E	5.0	383	357	264	3/4"	1/2"	
	1.8	ZR 22 K/E	4.6	ZP 26 K/E	5.4						
	2.5	ZR 28 K/E	5.9	ZP 32 K/E	6.7						
	3.0	ZR 34 K/E	7.0	ZP 41 K/E	8.8						
2	3.5	ZR 40 K/E	8.2	ZP 41 K/E	8.8	419	394	296	7/8"	7/8"	
	4.0	ZR 48 K/E	10.2	ZP 54 K/E	11.3	436	411	313			
	5.0	ZR 61 K/E	12.5	ZP 61 K/E	14.8	476	429	316			
	6.0	ZR 72 K/E	14.8	ZP 72 K/E	15.4						
3	6.5	ZR 81 K/E	16.7	ZP 83 K/E	17.7	462	433	1"1/8	1"3/8	7/8"	
	8.0	ZR 94 K/E	19.8	ZP 90 K/E	19.2	495	463				113
	9.0	ZR 108 K/E	22.0	ZP 103 K/E	22.4	552	520				141
	10	ZR 125 K/E	26.0	ZP 120 K/E	26.0						
	12	ZR 144 K/E	30.0	ZP 137 K/E	29.3						
4	13	ZR 160 K/E	32.2	ZP 154 K/E	33.0	570	538	159	1"5/8	1"3/8	
	15	ZR 190 K/E	40.0	ZP 182 K/E	39.0	713	685	352			
	20	ZR 250 K/E	52.2	ZP 235 K/E	50.6						
	25	ZR 310 K/E	65.0	ZP 295 K/E	63.7	716	678	394			
	30	ZR 380 K/E	81.7	ZP 385 K/E	82.0						

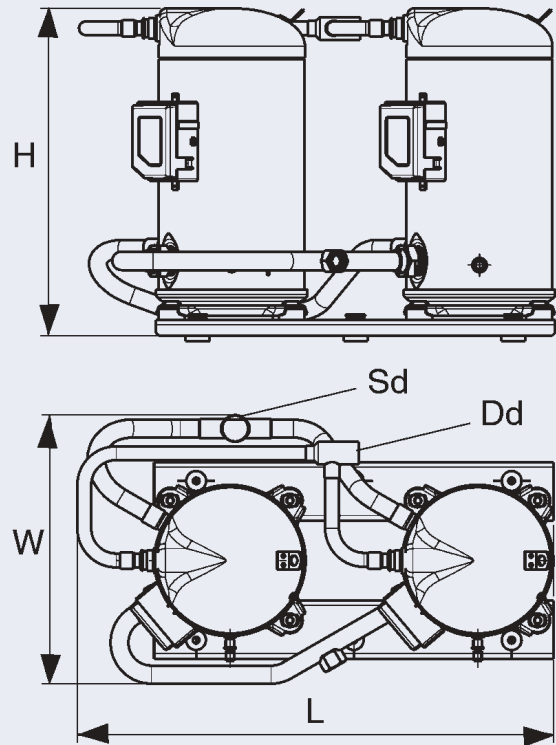
⁽¹⁾ EN 12900: Evaporating 5°C. Condensing 50°C. Superheat 10K. Subcooling 0K
 Evaporation 5°C. Condensation 50°C. Surchauffe aspiration 10K. Sous refroidissement 0K
 Verdampfung 5°C. Kondensation 50°C. Sauggasüberhitzung 10K. Unterkühlung 0K

Tandem assembly by system manufacturer / Tandem assemblés par les fabricants de systèmes / Tandem-System von Systemherstellern

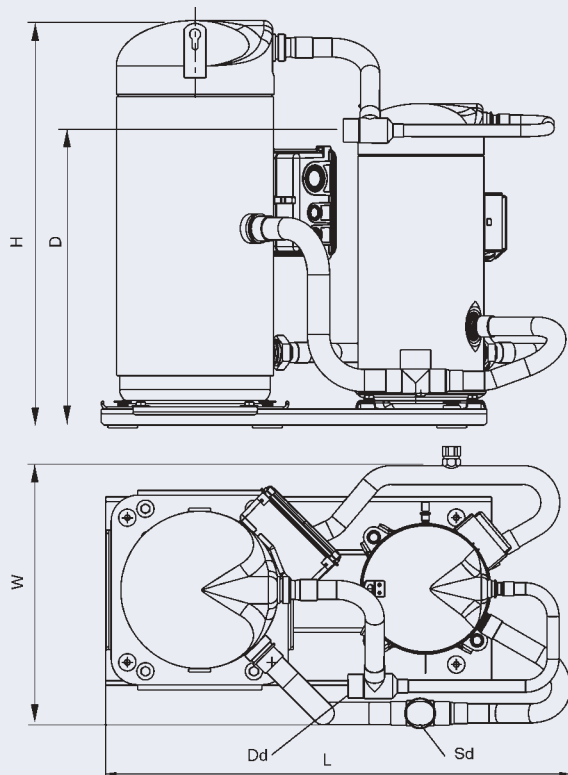
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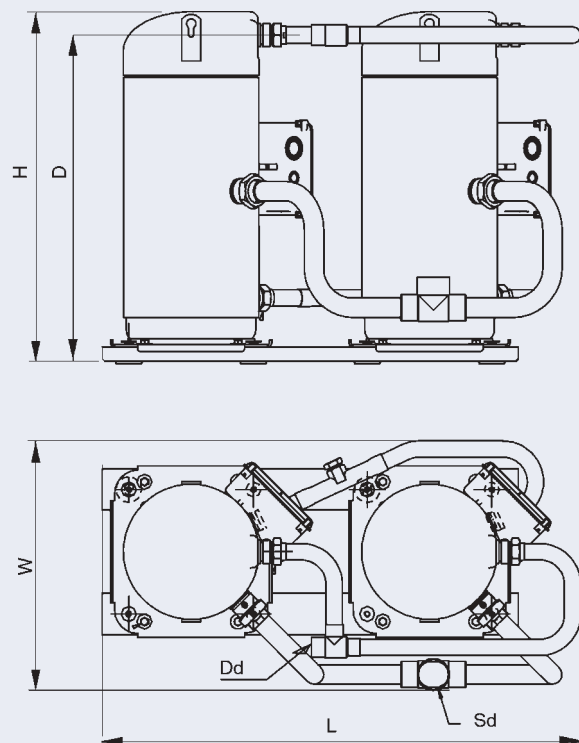
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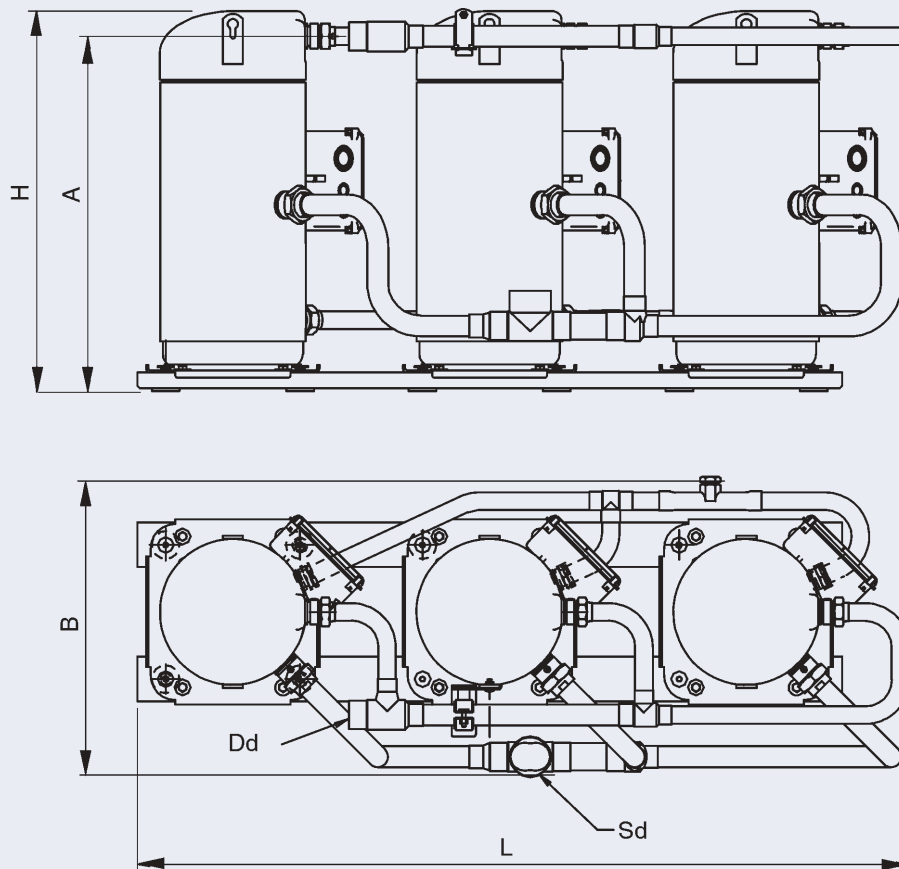
8



Drawing no. Illustration Abbildung	Nominal Horse Power Puissance nominale Motormennleistung	Model Modèle Modell R407C R22	Cooling Capacity Puissance frigorifique Kälteleistungsdaten	Model Modèle Modell R410A	Cooling Capacity Puissance frigorifique Kälteleistungsdaten	H [mm]	D [mm]	Connection Raccords Anschluss		L [mm]	W [mm]		
								Sd	Dd				
	HP / CV	kW ⁽¹⁾		" (inch)									
Tandem						Tandem Uneven							
5	2 x 4	ZRT 96 K3/E	20.4	ZPT 82 K/E	17.6	464	440	1"1/8	3/4"	626	297		
	2 x 5	ZRT 122 K3/E	24.9	ZPT 108 K/E	23.0								
	2 x 6	ZRT 144 KC/E	29.5	ZPT 122 K/E	26.3	490	458		1"1/8		310		
	2 x 6.5	ZRT 162 KC/E	33.4	ZPT 144 K/E	31.0								
6	2 x 8	ZRT 188 K/E	39.6	ZPT 166 K/E	35.4	528	500	1"5/8	1"3/8	757	430		
	2 x 9	ZRT 216 K/E	44.0	ZPT 180 K/E ⁽³⁾	38.4								
	2 x 10	ZRT 250 K/E	52.0	ZPT 206 K/E ⁽³⁾	44.8								
	2 x 12	ZRT 288 K/E	60.0	ZPT 240 K/E ⁽³⁾	52.0								
	10 + 15	ZRU 315 K/E	66.0	ZPT 274 K/E ⁽³⁾	58.6								
	2 x 13	ZRT 320 K/E	64.4	ZPT 240 K/E ⁽³⁾	52.0								
	13 + 15	ZRU 350 K/E	72.2	ZPT 308 K/E ⁽³⁾	66.0								
	2 x 15	ZRT 380 K/E	80.0	ZPU 302 K/E ⁽³⁾	65.0								
7	15 + 20	ZRU 440 K/E ⁽³⁾	91.3	ZPT 364 K/E ⁽³⁾	78.0	604	514	1"5/8	1"3/8	757	430		
8	2 x 20	ZRT 500 K/E ⁽³⁾	103	ZPU 350 K/E ⁽³⁾	72.0								
7	15 + 25	ZRU 500 K/E ⁽³⁾	104	ZPT 417 K/E ⁽³⁾	89.6								
8	20 + 25	ZRU 560 K/E ⁽³⁾	116	ZPU 477 K/E ⁽³⁾	102	750	548	1"5/8	1"3/8	855	516		
	2 x 25	ZRT 620 K/E ⁽³⁾	129	ZPU 530 K/E ⁽³⁾	113								
	25 + 30	ZRU 690 K/E ⁽³⁾	145	ZPT 470 K/E ⁽³⁾	100								
	2 x 30	ZRT 760 K/E ⁽³⁾	162	ZPU 590 K/E ⁽³⁾	126	700	548				2"5/8	1024	535
	2 x 30	ZRT 760 K/E ⁽³⁾	162	ZPT 590 K/E ⁽³⁾	126								
	2 x 30	ZRT 760 K/E ⁽³⁾	162	ZPU 680 K/E ⁽³⁾	144								
	2 x 30	ZRT 760 K/E ⁽³⁾	162	ZPT 760 K/E ⁽³⁾	162								

⁽¹⁾ EN 12900: Evaporating 5°C, Condensing 50°C, Superheat 10K, Subcooling 0K
 Evaporation 5°C, Condensation 50°C, Surchauffe aspiration 10K, Sous refroidissement 0K
 Verdampfung 5°C, Kondensation 50°C, Sauggasüberhitzung 10K, Unterkühlung 0K

⁽³⁾ Tandem / Trio assemblies by system manufacturers. Copeland can provide full technical support.
 Tandem / Trio assemblés par les fabricants de systèmes. Copeland fourni le support technique complet.
 Tandem / Trio System van System-Herstellern. Copeland bietet technische Unterstützung.



Dimensions / Dimensions / Abmessungen

Model Modèle Modell	Cooling Capacity Puissance frigorifique Kälteleistungsdaten	Model Modèle Modell	Cooling Capacity Puissance frigorifique Kälteleistungsdaten	H [mm]	D [mm]	Connection Raccords Anschluss		L [mm]	W [mm]
						Sd	Dd		
						" (inch)			
R407C R22	kW ⁽¹⁾	R410A	kW ⁽¹⁾						
Trio									
ZRY 480 K/E ⁽³⁾	96.0	ZPY 462 K/E ⁽³⁾	99.0	604	514	2"5/8	1"5/8	1140	476
ZRY 570 K/E ⁽³⁾	119	ZPY 546 K/E ⁽³⁾	116		597	3"1/8	2"1/8	1534	597
ZRY 750 K/E ⁽³⁾	154	ZPY 705 K/E ⁽³⁾	150	750	643	3"5/8		1555	643
ZRY 930 K/E ⁽³⁾	192	ZPY 885 K/E ⁽³⁾	188						
ZRY 114 M/E ⁽³⁾	241	ZPY 115 M/E ⁽³⁾	242						

⁽¹⁾ EN 12900: Evaporating 5°C, Condensing 50°C, Superheat 10K, Subcooling 0K
 Evaporation 5°C, Condensation 50°C, Surchauffe aspiration 10K, Sous refroidissement 0K
 Verdampfung 5°C, Kondensation 50°C, Sauggasüberhitzung 10K, Unterkühlung 0K

⁽³⁾ Tandem / Trio assemblies by system manufacturers. Copeland can provide full technical support.
 Tandem / Trio assemblés par les fabricants de systèmes. Copeland fourni le support technique complet.
 Tandem / Trio System van System-Herstellern. Copeland bietet technische Unterstützung.

Compressor Compresseur Verdichter	Maximum Operating Current ⁽³⁾ Intensité max. de fonctionnement ⁽³⁾ Max. Betriebsstrom ⁽³⁾					Locked Rotor Current ⁽⁴⁾ Courant rotor bloqué ⁽⁴⁾ Blockierter Rotorstrom ⁽⁴⁾					Winding Resistance Résistance bobinage Wicklungswiderstand				
	A					A					(Ohm. Ω)				
	PFJ	TF5	TFD	TWC	TWD	PFJ	TF5	TFD	TWC	TWD	PFJ ⁽⁵⁾	TF5	TFD	TWC	TWD
R410A															
ZP 23K*	16.0	-	5.5	-	-	58.0	-	26.0	-	-	3.34 / 1.26	-	7.10	-	-
ZP 26K*	16.0	-	5.5	-	-	61.0	-	32.0	-	-	2.23 / 1.20	-	5.94	-	-
ZP 32K*	19.0	-	6.0	-	-	82.0	-	35.0	-	-	1.80 / 0.90	-	5.35	-	-
ZP 41K*	23.0	-	8.0	-	-	97.0	-	48.0	-	-	1.65 / 0.69	-	3.90	-	-
ZP 54K*	-	-	10.0	-	-	-	-	64.0	-	-	-	-	2.75	-	-
ZP 61K*	-	-	11.8	-	-	-	-	64.0	-	-	-	-	2.80	-	-
ZP 72K*	-	-	15.0	-	-	-	-	75.0	-	-	-	-	2.26	-	-
ZP 83K*	-	-	15.0	-	-	-	-	101	-	-	-	-	1.79	-	-
ZP 90K*	-	-	16.0	-	-	-	-	95.0	-	-	-	-	1.61	-	-
ZP 103K*	-	-	21.0	-	-	-	-	111	-	-	-	-	1.37	-	-
ZP 120K*	-	-	22.0	-	-	-	-	118	-	-	-	-	1.24	-	-
ZP 137K*	-	-	25.0	-	-	-	-	118	-	-	-	-	1.24	-	-
ZP 154K*	-	-	31.0	-	-	-	-	140	-	-	-	-	1.10	-	-
ZP 182K*	-	-	34.0	-	-	-	-	174	-	-	-	-	0.83	-	-
ZP 235K*	-	-	-	90.0	40.0	-	-	-	480	225	-	-	-	0.14	0.63
ZP 295K*	-	-	-	-	48.0	-	-	-	-	272	-	-	-	-	0.51
ZP 385K*	-	-	-	131	65.0	-	-	-	599	320	-	-	-	0.10	0.37

Compressor Compresseur Verdichter	Maximum Operating Current ⁽³⁾ Intensité max. de fonctionnement ⁽³⁾ Max. Betriebsstrom ⁽³⁾					Locked Rotor Current ⁽⁴⁾ Courant rotor bloqué ⁽⁴⁾ Blockierter Rotorstrom ⁽⁴⁾					Winding Resistance Résistance bobinage Wicklungswiderstand				
	A					A					(Ohm. Ω)				
	PFJ	TF5	TFD	TWC	TWD	PFJ	TF5	TFD	TWC	TWD	PFJ ⁽⁵⁾	TF5	TFD	TWC	TWD
R407C															
ZR 18K*	10.0	-	-	-	-	35.0	-	-	-	-	3.24 / 2.25	-	-	-	-
ZR 22K*	11.4	8.4	4.2	-	-	47.0	48.0	24.0	-	-	2.85 / 1.62	2.15	8.64	-	-
ZR 28K*	14.8	10.2	5.1	-	-	61.0	70.0	32.0	-	-	2.23 / 1.20	1.46	5.94	-	-
ZR 34K*	17.3	11.1	5.6	-	-	76.0	83.0	40.0	-	-	2.07 / 0.94	1.23	4.83	-	-
ZR 40K*	23.1	13.6	7.0	-	-	100	95.0	46.0	-	-	1.81 / 0.75	1.00	4.03	-	-
ZR 48K*	23.5	18.5	10.0	-	-	114	98.0	50.0	-	-	1.70 / 0.60	0.99	3.88	-	-
ZR 61K*	-	25.0	12.4	-	-	-	139	65.5	-	-	-	0.61	2.75	-	-
ZR 72K*	-	27.0	12.1	-	-	-	172	74.0	-	-	-	0.56	2.27	-	-
ZR 81K*	-	25.2	15.0	-	-	-	179	101	-	-	-	0.50	1.79	-	-
ZR 94K*	-	-	-	-	-	-	-	95.0	-	-	-	-	1.61	-	-
ZR 108K*	-	-	-	-	-	-	-	111	-	-	-	-	1.37	-	-
ZR 125K*	-	-	-	-	-	-	-	118	-	-	-	-	1.24	-	-
ZR 144K*	-	-	-	-	-	-	-	118	-	-	-	-	1.24	-	-
ZR1 60K*	-	-	-	-	-	-	-	140	-	-	-	-	1.10	-	-
ZR 190K*	-	-	-	-	-	-	-	174	-	-	-	-	0.83	-	-
ZR 250K*	-	-	-	91.0	40.0	-	-	-	480	225	-	-	-	0.14	0.63
ZR 310K*	-	-	-	-	52.0	-	-	-	-	272	-	-	-	-	0.51
ZR 380K*	-	-	-	-	62.0	-	-	-	599	320	-	-	-	0.10	0.37

Tandem Assembly - Compresseur Tandem - Tandem-Verdichter

ZRT 98K*	-	-	16.0	-	-	-	-	51.5	-	-	-	-	2 x 3.64	-	-
ZRT 122K*	-	-	24.8	-	-	-	-	65.5	-	-	-	-	2 x 2.75	-	-
ZRT 144K*	-	-	24.2	-	-	-	-	74.0	-	-	-	-	2 x 2.27	-	-
ZRT 162K*	-	-	30.0	-	-	-	-	101	-	-	-	-	2 x 1.79	-	-

⁽³⁾ Values shown at lowest voltage (50Hz)

⁽³⁾ Valeur pour la plus basse tension (50Hz)

⁽³⁾ Werte bei niedrigster Nennspannung (50Hz)

⁽⁴⁾ Highest value with nominal voltage range

⁽⁴⁾ Valeur la plus élevée pour la plage de tension

⁽⁴⁾ Höchstwert im nominalen Spannungsbereich

⁽⁵⁾ Start winding resistance / Run winding resistance

⁽⁵⁾ Résistance enroulement auxiliaire / Résistance enroulement principal

⁽⁵⁾ Hilfswicklungswiderstand / Hauptwicklungswiderstand

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