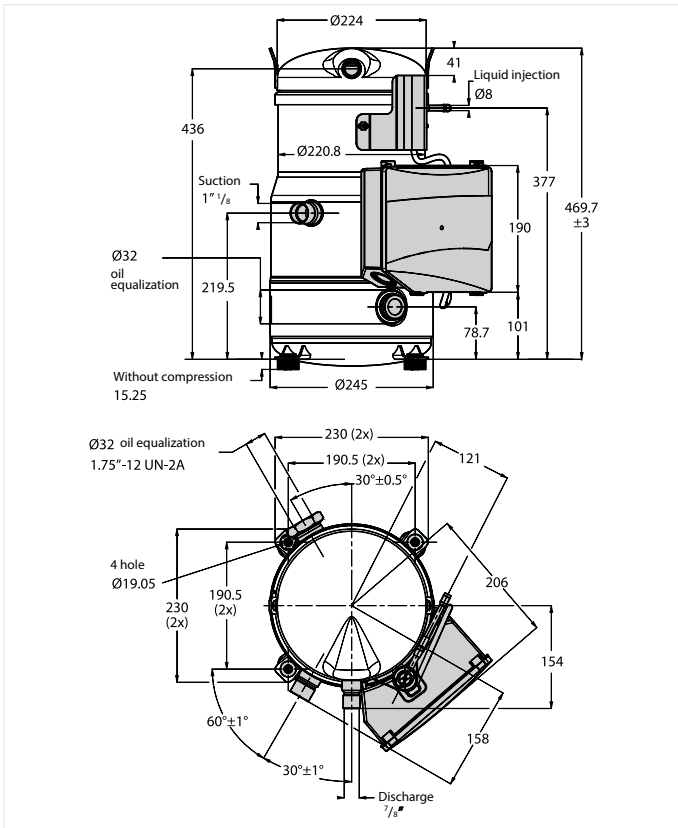
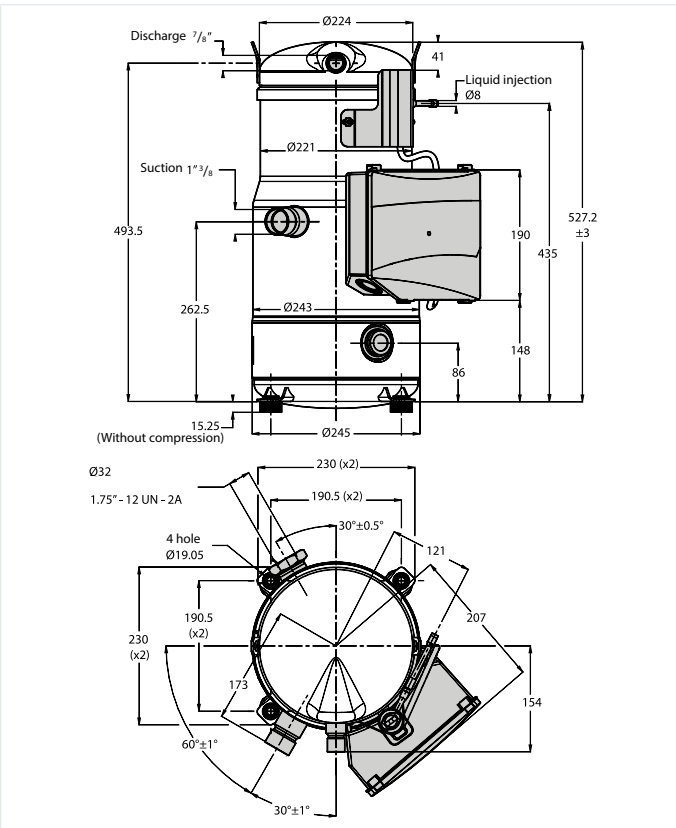


Dimensions

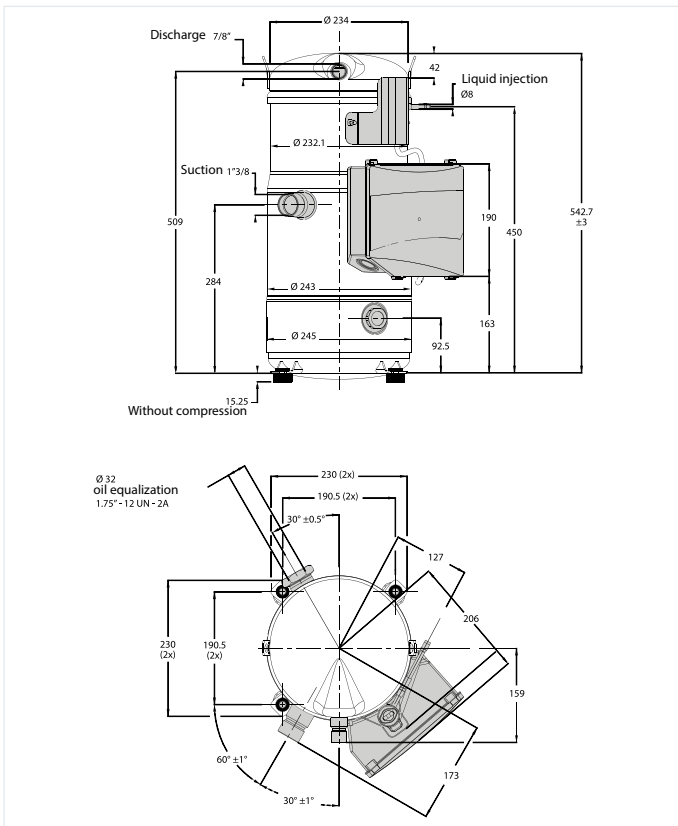
PSH019



PSH023-026-030-034

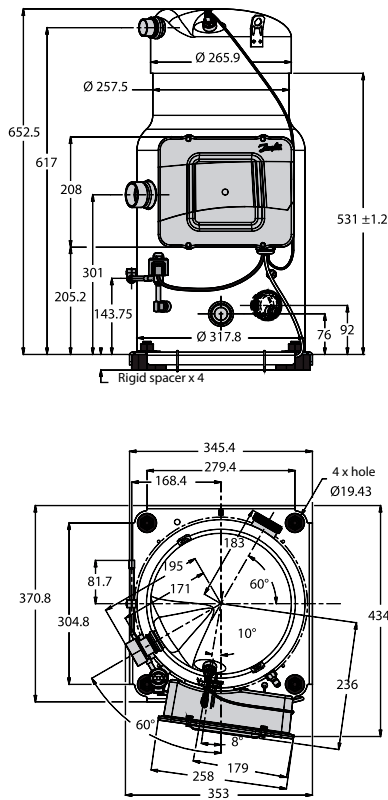


PSH039

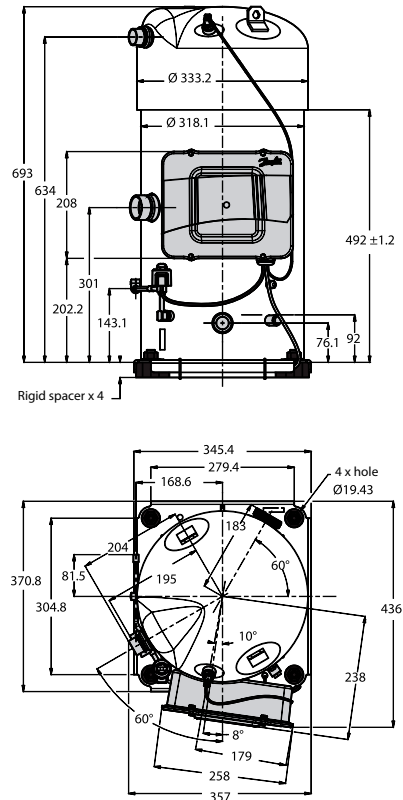


Dimensions

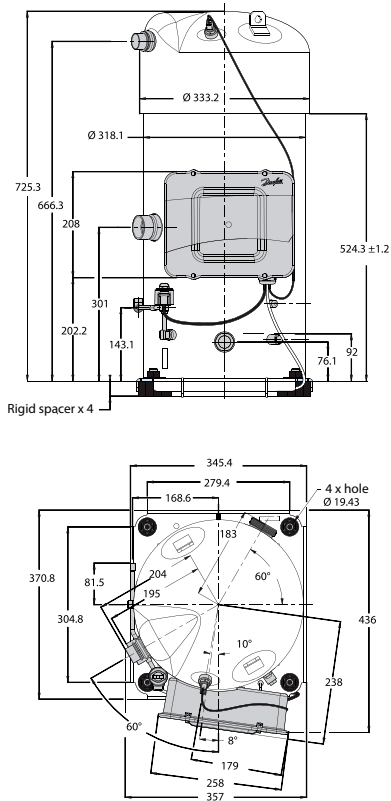
PSH051



PSH064



PSH077



Technical data and ordering

PSH019 – PSH039 - Scroll compressors heating optimized

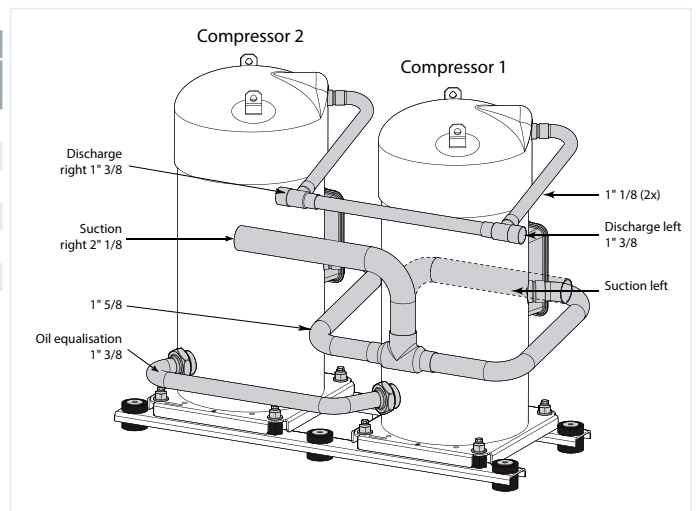
Tandem kit - Code numbers

Compressor 1	Compressor 2	Tandem type	Suction from	Kit code no. to order	Washer reference	Washer Ø [mm]	Washer in suction of
PSH019	PSH019	PSH038	Left Right	7777044		Not needed	
PSH023	PSH023	PSH046	Left Right	7777044		Not needed	
PSH026	PSH026	PSH052	Left Right	7777044		Not needed	
PSH030	PSH030	PSH060	Left Right	7777044		Not needed	
PSH034	PSH034	PSH068	Left Right	7777044		Not needed	
PSH039	PSH039	PSH078	Left Right	7777053		Not needed	

PSH051 – PSH077 - Scroll compressors heating optimized

Tandem kit - Code numbers

Compressor 1	Compressor 2	Suction washer (restrictor) kit		
		Code no for ordering	Reference	Diameter [mm]
PSH051	PSH051	7777041	Not needed	Not needed
PSH051	PSH064	7777037	5311570P01	31
PSH064	PSH064	7777041	Not needed	Not needed
PSH051	PSH077	7777048	5311579P05	29
PSH064	PSH077	7777037	5311579P01	31
PSH077	PSH077	7777041	Not needed	Not needed



01

02

03

04

05

06

07

08

09

10

11

12

13

14

15

16

17

18

19


20

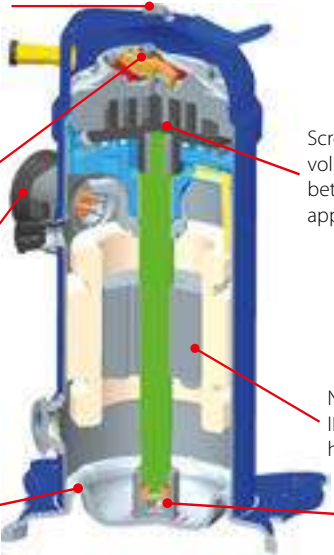
VZH - Inverter Scroll Compressors - R410A

Danfoss inverter scroll compressor VZH is the second generation of scroll compressors offering variable speed technology for commercial applications in air conditioning. It allows OEMs to stand out in the commercial HVAC and process cooling marketplaces from 4 – 52 TR (15 – 184 kW) and to exceed the upgraded energy level requirements.

It provides a stepless modulation from 15 / 25 – 100 rps depending on the model. The compressors comes with a pre-qualified drive for a shorter time to market and increased reliability.

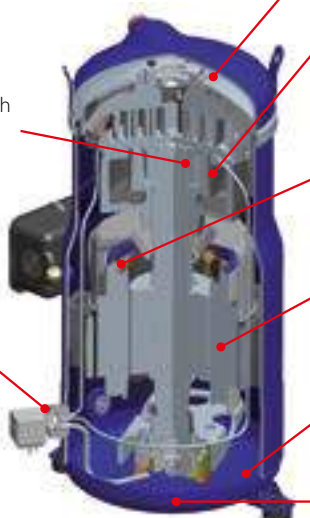
Features
VZH





VZH 028-044

- Discharge sensor (dome sensor) for high discharge temperature / reverse rotation / loss of charge monitoring, sensor is fitted into top bracket. Discharge sensor is optional
- Intermediate discharge valves for better efficiency at low pressure-ratio
- EMC (Electro-Magnetic Compatibility) bracket provided allows for grounding termination of shielded wire-harness, which reduces EMC emissions between drive and compressor
- PVE 32 lubricant
- Linear control oil pump
- Lead free polymer bearing with excellent performance under diverse loads and speeds
- Oil injection control optimizes the oil circulation
- Scrolls with optimized volume ratio lead to better heat pump application
- New distributed IPM motor lead to higher power factor



VZH 088-170

- Reinforced high grade cast iron scroll set. 2 ranges for high and low pressure ratios
- A patented oil injection system ensures optimal efficiency at low speed by improving scroll set sealing
- High speed oil circulation minimized by separating oil and gas flows with a sump oil return tube
- Permanent magnet motor with high efficiency at all speeds
- Oil strainer controls the risk of system debris in the oil injection circuit
- Gearotor oil pump ensures low speed bearing lubrication

Facts

Applications:

- Packaged air conditioning
- Rooftops
- Chillers
- Close controls
- Heat pumps
- Data centers

- Capacity modulation: adapts motor speed to varying load continuously, quickly and smoothly for great comfort and reliability
- VZH 028-044: 15 – 100 rps / VZH 088 – 170: 25 – 100 rps
- Tight temperature control $\pm 0.3\text{ }^{\circ}\text{C}$
- Pre-qualified compressor and drive package
- Motor's protection is managed by the driver
- Low in rush current
- Advanced energy efficiency cuts the electric bill and easily meets the energy standards
- Improves comfort and process reliability, greater humidity control
- Lowers noise level during part-load operations
- Faster time to market, saves time on development and enhances overall system reliability
- Reduces the size of power back up systems needed
- Reduces installation costs with elimination of components

Technical data and ordering

VZH028-044 - Inverter scrolls compressors

Compressors specifications

Type	Swept volume [cm ³ /rev]	Displacement				Oil charge [l]	Net weight [kg]
		15 rps [m ³ /h]	50 rps [m ³ /h]	60 rps [m ³ /h]	100 rps [m ³ /h]		
VZH028	27.8	1.5	5.0	6.0	10.0	1.1	26
VZH035	34.9	1.9	6.3	7.5	12.6	1.3	27
VZH044	44.5	2.4	8.0	9.6	16.0	1.3	27

Frequency converter specifications

Mains supply voltage	T2: 200 – 240 V ± 10% (3-phase), T4: 380 – 480 V ± 10% (3-phase), T6: 525 – 600 V ± 10% (3-phase)
Supply frequency	50 / 60 Hz
Output voltage	0 – 100% of supply voltage
Inputs	4 digital (0 – 24 V), 2 analog (0 / ± 10V or 4 – 20 mA, scalable)
Programmable outputs	2 digital (0 – 24 V), 2 analog (0 – 24 V), 2 relay
Protection functions	Over-current protection, low / high current handling
Compressor functions	Pressostat / thermostat function, short cycle protection, oil return management

VZH 028-044 - Voltage code G - 380 – 480 V / 3 ph / 50 / 60 Hz

Ordering

Type	Equipment version	G 380 – 480 V / 3 ph / 50 / 60 Hz	
		Compressor Name	Code no.
VZH028	Single	VZH028CGANA	120G0061
VZH035	Single	VZH035CGANA	120G0060
	Manifold	VZH035CGBNA	120G0073
VZH044	Single	VZH044CGANA	120G0059
	Manifold	VZH044CGBNA	120G0072

VZH 028-044 - Voltage code J - 200 – 240 V / 3 ph / 50 / 60 Hz

Ordering

Type	Equipment version	J 200 – 240 V / 3 ph / 50 / 60 Hz	
		Compressor Name	Code no.
VZH028	Single	VZH028CJANA	120G0064
VZH035	Single	VZH035CJANA	120G0063
	Manifold	VZH035CJBNA	120G0076
VZH044	Single	VZH044CJANA	120G0062
	Manifold	VZH044CJBNA	120G0075

VZH 028-044 - Frequency converter - Voltage code T4 - 380 – 480 V / 3 ph / 50 / 60 Hz

Ordering

Type	Frequency converter				
	Model & power	IP class	RFI class	Coating	Code no.
VZH028-T4	CDS803 - P6K0	E20	H4	–	134N4262
VZH035-T4	CDS803 - P7K5	E20	H4	–	134N4263
VZH044-T4	CDS803 - P10K	E20	H4	–	134L9473

LCP: user interface 120Z0581 (accessory)

VZH 028-044 - Frequency converter - Voltage code T2 - 200 – 240 V / 3ph / 50 / 60 Hz

Ordering

Type	Frequency converter				
	Model & power	IP class	RFI class	Coating	Code no.
VZH028-T2	CDS803 - P6K0	E20	H4	–	134N4260
VZH035-T2	CDS803 - P7K5	E20	H4	–	134N4261
VZH044-T2	CDS803 - P10K	E20	H4	–	134L9470

LCP: user interface 120Z0581 (accessory)

Technical data and ordering

VZH 088-170 - Inverter scrolls compressors

Compressor specifications

Type	Swept volume [cm ³ /rev]	Displacement				Oil charge [dm ³]	Net weight [kg]
		25 rps [m ³ /h]	50 rps [m ³ /h]	60 rps [m ³ /h]	100 rps [m ³ /h]		
VZH088	88.4	7.7	15.4	18.6	30.8	3.3	55
VZH117	116.9	10.1	20.3	24.6	40.6	3.6	61
VZH170	170.2	14.8	29.6	35.7	54.2	6.7	112

Frequency converter specifications

Mains supply voltage	T2: 200 – 240 V ± 10% (3-phase), T4: 380 – 480 V ± 10% (3-phase), T6: 525 – 600 V ± 10% (3-phase)
Supply frequency	50 / 60 Hz
Output voltage	0 – 100% of supply voltage
Inputs	6 digital (0 – 24 V), 2 analogue (0 ± 10 V or 4 – 20 mA, scalable)
Programmable outputs	2 digital (0 – 24 V), 1 analogue (0 – 24 V), 2 relay
Protection functions	Over-current protection, low / high current handling
Compressor functions	Discharge gas temperature protection, pressostat/thermostat function, short cycle protection, oil return management

VZH 088-170 - Inverter scrolls compressors - Voltage code G - 380 – 480 V

Ordering

Type	Frequency converter				
	Model & power [kW]	IP class	RFI class	Coating	Code no.
VZH088-G	CDS303 - 15.0	IP20	H3	No	134G3576
	CDS303 - 15.0	IP20	H3	Yes	134G3577
	CDS303 - 15.0	IP20	H2	No	134F9366
	CDS303 - 15.0	IP20	H2	Yes	134G3578
	CDS303 - 15.0	IP55	H3	No	134G4008
	CDS303 - 15.0	IP55	H3	Yes	134G4010
	CDS303 - 15.0	IP55	H2	No	134G4012
	CDS303 - 15.0	IP55	H2	Yes	134G4013
VZH117-G	CDS303 - 18.5	IP20	H3	No	134G3579
	CDS303 - 18.5	IP20	H3	Yes	134G3580
	CDS303 - 18.5	IP20	H2	No	134F9368
	CDS303 - 18.5	IP20	H2	Yes	134G3581
	CDS303 - 18.5	IP55	H3	No	134G4015
	CDS303 - 18.5	IP55	H3	Yes	134G4016
	CDS303 - 18.5	IP55	H2	No	134G4018
	CDS303 - 18.5	IP55	H2	Yes	134G4019
VZH170-G	CDS303 - 22.0	IP20	H3	No	134G3582
	CDS303 - 22.0	IP20	H3	Yes	134G3583
	CDS303 - 22.0	IP20	H2	No	134F9371
	CDS303 - 22.0	IP20	H2	Yes	134G3584
	CDS303 - 22.0	IP55	H3	No	134G4020
	CDS303 - 22.0	IP55	H3	Yes	134G4021
	CDS303 - 22.0	IP55	H2	No	134G4022
	CDS303 - 22.0	IP55	H2	Yes	134G4023

LCP: user interface 120Z0326 (accessory)

VZH 088-170 - Inverter scrolls compressors - Voltage code J - 200 – 240 V

Ordering

Type	Frequency converter			
	Model & power [kW]	IP class	RFI class	Code no.
VZH088-J	CDS303 - 15.0	IP20	H3	134G3474
	CDS303 - 15.0	IP20	H2	134F9361
	CDS303 - 15.0	IP55	H3	134G4001
	CDS303 - 15.0	IP55	H2	134G4002
VZH117-J	CDS303 - 18.5	IP20	H3	134G3585
	CDS303 - 18.5	IP20	H2	134F9363
	CDS303 - 18.5	IP55	H3	134G4003
	CDS303 - 18.5	IP55	H2	134G4004
VZH170-J	CDS303 - 22.0	IP20	H3	134G3586
	CDS303 - 22.0	IP20	H2	134F9365
	CDS303 - 22.0	IP55	H3	134G4005
	CDS303 - 22.0	IP55	H2	134G4006

LCP: user interface 120Z0326 (accessory)

Technical data and ordering

VZH - Inverter scrolls compressors - VZH028CJ-VZH035CJ-VZH044CJ

EN12900

Type	[rpm]	[rps]	Te		-30		-25		-20		-15		-10		-5		0		5		10		15		20		
			Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
VZH028CJ	1800	30	5	-	-	1791	0.54	2252	0.519	2798	0.499	3437	0.479	4177	0.46	5027	0.442	-	-	-	-	-	-	-	-	-	-
			25	-	-	1460	0.812	1873	0.804	2351	0.79	2905	0.771	3541	0.747	4269	0.717	5096	0.682	6031	0.643	7081	0.599	8257	0.55	-	-
			45	-	-	-	-	-	-	1805	1.198	2256	1.218	2772	1.227	3359	1.224	4027	1.21	4783	1.185	5636	1.149	6593	1.103	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	60	5	3009	1.04	3787	1.056	4725	1.042	5840	0.984	7151	0.869	8676	0.68	10435	0.403	-	-	-	-	-	-	-	-	-	-
			25	2371	1.492	3054	1.527	3863	1.572	4817	1.613	5934	1.634	7232	1.622	8730	1.56	10445	1.436	12396	1.234	14602	0.94	17081	0.539	-	-
			45	-	-	2284	2.296	2937	2.292	3702	2.323	4597	2.375	5638	2.431	6845	2.479	8235	2.502	9825	2.487	11634	2.419	13680	2.283	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	3761	3.567	4622	3.615	5626	3.68	6789	3.744	8128	3.795	9660	3.818
	6000	100	5	5025	1.96	6302	2.006	7834	1.996	9651	1.917	11784	1.756	14263	1.499	17119	1.131	-	-	-	-	-	-	-	-	-	-
			25	4004	2.64	5147	2.772	6495	2.887	8075	2.972	9920	3.012	12058	2.994	14520	2.905	17336	2.73	20536	2.456	24150	2.068	28209	1.555	-	-
			45	-	-	3860	3.845	4978	3.968	6278	4.1	7789	4.225	9540	4.331	11560	4.403	13879	4.429	16527	4.393	19532	4.283	22923	4.084	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	6426	6.069	7912	6.187	9633	6.296	11616	6.383	13888	6.433	16477	6.434
VZH035CJ	1800	30	5	-	-	2268	0.658	2851	0.633	3542	0.608	4350	0.584	5287	0.561	6363	0.539	-	-	-	-	-	-	-	-	-	
			25	-	-	1848	0.99	2370	0.98	2977	0.964	3677	0.94	4483	0.91	5403	0.874	6450	0.832	7634	0.784	8964	0.73	10452	0.67	-	-
			45	-	-	-	-	-	-	2284	1.461	2856	1.485	3508	1.496	4252	1.492	5098	1.475	6055	1.445	7134	1.401	8346	1.345	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	60	5	3808	1.268	4794	1.287	5981	1.27	7392	1.2	9052	1.059	10983	0.829	13209	0.491	-	-	-	-	-	-	-	-	-	-
			25	3002	1.82	3866	1.862	4890	1.917	6098	1.966	7512	1.992	9155	1.977	11050	1.903	13222	1.751	15692	1.505	18484	1.146	21622	0.657	-	-
			45	-	-	2891	2.799	3718	2.795	4687	2.833	5819	2.895	7137	2.965	8665	3.022	10424	3.051	12437	3.033	14727	2.95	17316	2.784	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	4760	4.349	5851	4.408	7121	4.487	8594	4.566	10289	4.628	12228	4.655
	6000	100	5	6361	2.344	7977	2.398	9916	2.387	12217	2.293	14917	2.1	18055	1.792	21670	1.353	-	-	-	-	-	-	-	-	-	-
			25	5069	3.157	6516	3.314	8221	3.452	10222	3.553	12557	3.601	15263	3.58	18379	3.473	21944	3.264	25994	2.936	30570	2.473	35708	1.859	-	-
			45	-	-	4885	4.597	6301	4.745	7947	4.902	9859	5.052	12076	5.178	14633	5.265	17569	5.295	20920	5.253	24723	5.121	29017	4.883	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	8134	7.256	10015	7.397	12193	7.528	14704	7.632	17580	7.692	20857	7.693
VZH044CJ	1800	30	5	-	-	2916	0.824	3666	0.792	4554	0.76	5594	0.731	6799	0.702	8183	0.675	-	-	-	-	-	-	-	-	-	
			25	-	-	2377	1.239	3048	1.227	3828	1.206	4729	1.176	5765	1.139	6949	1.094	8295	1.041	9817	0.98	11527	0.913	13441	0.839	-	-
			45	-	-	-	-	-	-	2938	1.828	3673	1.858	4512	1.871	5468	1.867	6556	1.846	7787	1.808	9175	1.753	10733	1.682	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	60	5	4897	1.558	6165	1.581	7691	1.561	9507	1.475	11641	1.301	14124	1.018	16986	0.604	-	-	-	-	-	-	-	-	-	-
			25	3860	2.235	4972	2.288	6289	2.355	7842	2.416	9660	2.448	11773	2.429	14211	2.337	17003	2.152	20180	1.849	23770	1.408	27806	0.807	-	-
			45	-	-	3718	3.439	4782	3.433	6027	3.48	7483	3.557	9179	3.642	11143	3.713	13405	3.748	15994	3.726	18939	3.624	22269	3.42	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	6122	5.343	7524	5.416	9158	5.512	11052	5.609	13232	5.685	15725	5.718
	6000	100	5	8180	2.932	10259	3	12752	2.986	15711	2.868	19183	2.627	23219	2.242	27868	1.692	-	-	-	-	-	-	-	-	-	-
			25	6518	3.949	8379	4.146	10572	4.318	13145	4.445	16148	4.505	19628	4.478	23636	4.345	28220	4.083	33429	3.673	39313	3.094	45920	2.326	-	-
			45	-	-	6283	5.751	8103	5.936	10220	6.132	12679	6.32	15529	6.478	18818	6.586	22593	6.624	26903	6.571	31794	6.406	37316	6.109	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	10460	9.077	12879	9.254	15681	9.418	18909	9.547	22608	9.623	26823	9.624

To: Evaporating temperature in [°C]
Tc: Condensing temperature in [°C]
Qo: Cooling capacity in [W]
Pe: Power input in [kW] (with drive loss)
Superheat: 10 K
Subcooling: 0 K

Technical data and ordering

VZH - Inverter scrolls compressors - VZH028CG-VZH035CG-VZH044CG

EN12900

Type	[rpm]	[rps]	Te		-30		-25		-20		-15		-10		-5		0		5		10		15		20					
			Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe			
VZH028CG	1800	30	5	-	-	1791	0.535	2252	0.514	2798	0.494	3437	0.474	4177	0.456	5027	0.438	-	-	-	-	-	-	-	-	-	-	-	-	
			25	-	-	1460	0.804	1873	0.796	2351	0.783	2905	0.763	3541	0.739	4269	0.71	5096	0.676	6031	0.636	7081	0.593	8257	0.544	-	-	-	-	-
			45	-	-	-	-	-	-	1805	1.186	2256	1.206	2772	1.215	3359	1.212	4027	1.198	4783	1.173	5636	1.138	6593	1.092	-	-	-	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	60	5	3009	1.03	3787	1.045	4725	1.032	5840	0.975	7151	0.86	8676	0.673	10435	0.399	-	-	-	-	-	-	-	-	-	-	-	-	
			25	2371	1.478	3054	1.512	3863	1.557	4817	1.597	5934	1.618	7232	1.605	8730	1.545	10445	1.422	12396	1.222	14602	0.931	17081	0.533	-	-	-	-	-
			45	-	-	2284	2.273	2937	2.269	3702	2.3	4597	2.351	5638	2.407	6845	2.454	8235	2.478	9825	2.463	11634	2.395	13680	2.261	-	-	-	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	3761	3.531	4622	3.58	5626	3.643	6789	3.707	8128	3.758	9660	3.78	-	-	-
	6000	100	5	5025	1.941	6302	1.986	7834	1.976	9651	1.898	11784	1.739	14263	1.484	17119	1.12	-	-	-	-	-	-	-	-	-	-	-	-	
			25	4004	2.614	5147	2.745	6495	2.859	8075	2.942	9920	2.982	12058	2.964	14520	2.876	17336	2.703	20536	2.431	24150	2.048	28209	1.539	-	-	-	-	-
			45	-	-	3860	3.807	4978	3.929	6278	4.059	7789	4.183	9540	4.288	11560	4.36	13879	4.385	16527	4.349	19532	4.24	22923	4.044	-	-	-	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	6426	6.009	7912	6.126	9633	6.234	11616	6.32	13888	6.37	16477	6.37	-	-	-	-
VZH035CG	1800	30	5	-	-	2268	0.652	2851	0.627	3542	0.602	4350	0.578	5287	0.555	6363	0.534	-	-	-	-	-	-	-	-	-	-	-		
			25	-	-	1848	0.981	2370	0.971	2977	0.954	3677	0.931	4483	0.901	5403	0.866	6450	0.824	7634	0.776	8964	0.723	10452	0.664	-	-	-	-	-
			45	-	-	-	-	-	-	2284	1.447	2856	1.471	3508	1.481	4252	1.478	5098	1.461	6055	1.431	7134	1.388	8346	1.331	-	-	-	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	60	5	3808	1.256	4794	1.274	5981	1.258	7392	1.188	9052	1.049	10983	0.82	13209	0.486	-	-	-	-	-	-	-	-	-	-	-	-	
			25	3002	1.802	3866	1.844	4890	1.898	6098	1.947	7512	1.973	9155	1.958	11050	1.884	13222	1.734	15692	1.49	18484	1.135	21622	0.65	-	-	-	-	-
			45	-	-	2891	2.771	3718	2.767	4687	2.805	5819	2.867	7137	2.935	8665	2.993	10424	3.021	12437	3.003	14727	2.921	17316	2.757	-	-	-	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	4760	4.306	5851	4.365	7121	4.442	8594	4.52	10289	4.582	12228	4.609	-	-	-	-
	6000	100	5	6361	2.321	7977	2.374	9916	2.363	12217	2.27	14917	2.079	18055	1.774	21670	1.339	-	-	-	-	-	-	-	-	-	-	-	-	
			25	5069	3.126	6516	3.282	8221	3.418	10222	3.518	12557	3.565	15263	3.544	18379	3.438	21944	3.231	25994	2.907	30570	2.449	35708	1.841	-	-	-	-	-
			45	-	-	4885	4.551	6301	4.698	7947	4.853	9859	5.002	12076	5.127	14633	5.213	17569	5.243	20920	5.2	24723	5.07	29017	4.835	-	-	-	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	8134	7.184	10015	7.324	12193	7.454	14704	7.556	17580	7.616	20857	7.617	-	-	-	-
VZH044CG	1800	30	5	-	-	2916	0.815	3666	0.784	4554	0.753	5594	0.723	6799	0.695	8183	0.668	-	-	-	-	-	-	-	-	-	-	-		
			25	-	-	2377	1.227	3048	1.214	3828	1.194	4729	1.165	5765	1.128	6949	1.083	8295	1.03	9817	0.971	11527	0.904	13441	0.83	-	-	-	-	-
			45	-	-	-	-	-	-	2938	1.81	3673	1.84	4512	1.853	5468	1.849	6556	1.828	7787	1.79	9175	1.736	10733	1.666	-	-	-	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	60	5	4897	1.543	6165	1.565	7691	1.545	9507	1.46	11641	1.288	14124	1.008	16986	0.598	-	-	-	-	-	-	-	-	-	-	-	-	
			25	3860	2.213	4972	2.265	6289	2.332	7842	2.392	9660	2.423	11773	2.405	14211	2.314	17003	2.13	20180	1.831	23770	1.394	27806	0.799	-	-	-	-	-
			45	-	-	3718	3.405	4782	3.399	6027	3.446	7483	3.522	9179	3.606	11143	3.676	13405	3.711	15994	3.689	18939	3.588	22269	3.386	-	-	-	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	6122	5.29	7524	5.362	9158	5.457	11052	5.553	13232	5.629	15725	5.662	-	-	-	-
	6000	100	5	8180	2.903	10259	2.97	12752	2.956	15711	2.84	19183	2.601	23219	2.22	27868	1.675	-	-	-	-	-	-	-	-	-	-	-	-	
			25	6518	3.91	8379	4.105	10572	4.276	13145	4.401	16148	4.46	19628	4.434	23636	4.302	28220	4.042	33429	3.637	39313	3.063	45920	2.303	-	-	-	-	-
			45	-	-	6283	5.694	8103	5.877	10220	6.071	12679	6.257	15529	6.414	18818	6.521	22593	6.559	26903	6.506	31794	6.343	37316	6.049	-	-	-	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	10460	8.988	12879	9.162	15681	9.324	18909	9.453	22608	9.528	26823	9.528	-	-	-	-

To: Evaporating temperature in [°C]
Tc: Condensing temperature in [°C]
Qo: Cooling capacity in [W]
Pe: Power input in [kW] (with drive loss)
Subcooling: 0 K
Superheat: 10 K

Technical data and ordering

VZH - Inverter scrolls compressors - VZH028CJ-VZH035CJ-VZH044CJ

ARI

Type	[rpm]	[rps]	Te		-30		-25		-20		-15		-10		-5		0		5		10		15		20		
			Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
VZH028CJ	1800	30	5	-	-	1894	0.54	2380	0.519	2954	0.499	3626	0.479	4405	0.46	5298	0.442	-	-	-	-	-	-	-	-	-	-
			25	-	-	1568	0.812	2009	0.804	2521	0.79	3111	0.771	3790	0.747	4565	0.717	5445	0.682	6440	0.643	7557	0.599	8805	0.55		
			45	-	-	-	-	-	-	1990	1.198	2484	1.218	3048	1.227	3690	1.224	4418	1.21	5242	1.185	6171	1.149	7212	1.103		
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3600	60	5	3183	1.04	4004	1.056	4992	1.042	6167	0.984	7546	0.869	9150	0.68	10999	0.403	-	-	-	-	-	-	-	-	-	-
			25	2550	1.492	3280	1.527	4145	1.572	5164	1.613	6356	1.634	7740	1.622	9336	1.56	11162	1.436	13237	1.234	15582	0.94	18215	0.539		
			45	-	-	2526	2.296	3244	2.292	4082	2.323	5062	2.375	6200	2.431	7518	2.479	9034	2.502	10767	2.487	12737	2.419	14963	2.283		
			65	-	-	-	-	-	-	-	-	-	-	4505	3.567	5520	3.615	6701	3.68	8067	3.744	9637	3.795	11431	3.818		
	6000	100	5	5317	1.96	6663	2.006	8277	1.996	10191	1.917	12435	1.756	15043	1.499	18044	1.131	-	-	-	-	-	-	-	-	-	
			25	4305	2.64	5528	2.772	6969	2.887	8657	2.972	10625	3.012	12905	2.994	15527	2.905	18525	2.73	21928	2.456	25770	2.068	30082	1.555		
			45	-	-	4269	3.845	5497	3.968	6922	4.1	8576	4.225	10491	4.331	12697	4.403	15226	4.429	18111	4.393	21383	4.283	25074	4.084		
			65	-	-	-	-	-	-	-	-	-	-	7698	6.069	9450	6.187	11474	6.296	13802	6.383	16466	6.433	19498	6.434		
VZH035CJ	1800	30	5	-	-	2398	0.658	3012	0.633	3740	0.608	4590	0.584	5576	0.561	6707	0.539	-	-	-	-	-	-	-	-	-	
			25	-	-	1985	0.99	2543	0.98	3191	0.964	3939	0.94	4797	0.91	5778	0.874	6893	0.832	8151	0.784	9565	0.73	11146	0.67		
			45	-	-	-	-	-	-	2519	1.461	3145	1.485	3858	1.496	4670	1.492	5593	1.475	6636	1.445	7811	1.401	9129	1.345		
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3600	60	5	4029	1.268	5069	1.287	6319	1.27	7806	1.2	9552	1.059	11583	0.829	13922	0.491	-	-	-	-	-	-	-	-	-	
			25	3227	1.82	4152	1.862	5247	1.917	6537	1.966	8046	1.992	9798	1.977	11817	1.903	14129	1.751	16756	1.505	19724	1.146	23057	0.657		
			45	-	-	3198	2.799	4106	2.795	5168	2.833	6407	2.895	7849	2.965	9517	3.022	11436	3.051	13630	3.033	16123	2.95	18941	2.784		
			65	-	-	-	-	-	-	-	-	-	-	5703	4.349	6988	4.408	8483	4.487	10212	4.566	12199	4.628	14469	4.655		
	6000	100	5	6730	2.344	8434	2.398	10478	2.387	12900	2.293	15741	2.1	19041	1.792	22841	1.353	-	-	-	-	-	-	-	-	-	
			25	5449	3.157	6998	3.314	8821	3.452	10958	3.553	13449	3.601	16335	3.58	19655	3.473	23449	3.264	27758	2.936	32621	2.473	38079	1.859		
			45	-	-	5403	4.597	6958	4.745	8763	4.902	10856	5.052	13279	5.178	16072	5.265	19274	5.295	22926	5.253	27067	5.121	31739	4.883		
			65	-	-	-	-	-	-	-	-	-	-	9744	7.256	11962	7.397	14524	7.528	17471	7.632	20844	7.692	24681	7.693		
VZH044CJ	1800	30	5	-	-	3083	0.824	3874	0.792	4809	0.76	5903	0.731	7171	0.702	8625	0.675	-	-	-	-	-	-	-	-		
			25	-	-	2553	1.239	3271	1.227	4104	1.206	5065	1.176	6169	1.139	7431	1.094	8864	1.041	10483	0.98	12301	0.913	14333	0.839		
			45	-	-	-	-	-	-	3239	1.828	4044	1.858	4961	1.871	6006	1.867	7192	1.846	8533	1.808	10045	1.753	11740	1.682		
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	3600	60	5	5182	1.558	6518	1.581	8127	1.561	10038	1.475	12284	1.301	14896	1.018	17904	0.604	-	-	-	-	-	-	-	-	-	
			25	4150	2.235	5340	2.288	6748	2.355	8407	2.416	10347	2.448	12600	2.429	15197	2.337	18169	2.152	21548	1.849	25365	1.408	29652	0.807		
			45	-	-	4113	3.439	5280	3.433	6646	3.48	8239	3.557	10093	3.642	12238	3.713	14706	3.748	17528	3.726	20734	3.624	24357	3.42		
			65	-	-	-	-	-	-	-	-	-	-	7334	5.343	8986	5.416	10909	5.512	13132	5.609	15688	5.685	18607	5.718		
	6000	100	5	8654	2.932	10846	3	13474	2.986	16589	2.868	20243	2.627	24487	2.242	29373	1.692	-	-	-	-	-	-	-	-		
			25	7008	3.949	9000	4.146	11344	4.318	14092	4.445	17296	4.505	21007	4.478	25276	4.345	30155	4.083	35696	3.673	41950	3.094	48969	2.326		
			45	-	-	6949	5.751	8949	5.936	11269	6.132	13961	6.32	17077	6.478	20668	6.586	24786	6.624	29483	6.571	34809	6.406	40816	6.109		
			65	-	-	-	-	-	-	-	-	-	-	12531	9.077	15383	9.254	18678	9.418	22468	9.547	26805	9.623	31740	9.624		

To: Evaporating temperature in [°C]

Tc: Condensing temperature in [°C]

Qo: Cooling capacity in [W]

Pe: Power input in [kW] (with drive loss)

Subcooling: 8.3 K

Superheat: 11.1 K

Rating point: ARI at 60 rps

To / Tc / SH / SC: 7.2 °C / 54.4 °C / 11.1 K / 8.3 K at 60 rps

Technical data and ordering

VZH - Inverter scrolls compressors - VZH028CG-VZH035CG-VZH044CG

ARI

Type	[rpm]	[rps]	Te		-30		-25		-20		-15		-10		-5		0		5		10		15		20		
			Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
VZH028CG	1800	30	5	-	-	1894	0.535	2380	0.514	2954	0.494	3626	0.474	4405	0.456	5298	0.438	-	-	-	-	-	-	-	-	-	-
			25	-	-	1568	0.804	2009	0.796	2521	0.783	3111	0.763	3790	0.739	4565	0.71	5445	0.676	6440	0.636	7557	0.593	8805	0.544	-	-
			45	-	-	-	-	-	-	1990	1.186	2484	1.206	3048	1.215	3690	1.212	4418	1.198	5242	1.173	6171	1.138	7212	1.092	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	60	5	3183	1.03	4004	1.045	4992	1.032	6167	0.975	7546	0.86	9150	0.673	10999	0.399	-	-	-	-	-	-	-	-	-	-
			25	2550	1.478	3280	1.512	4145	1.557	5164	1.597	6356	1.618	7740	1.605	9336	1.545	11162	1.422	13237	1.222	15582	0.931	18215	0.533	-	-
			45	-	-	2526	2.273	3244	2.269	4082	2.3	5062	2.351	6200	2.407	7518	2.454	9034	2.478	10767	2.463	12737	2.395	14963	2.261	-	-
			65	-	-	-	-	-	-	-	-	-	-	4505	3.531	5520	3.58	6701	3.643	8067	3.707	9637	3.758	11431	3.78	-	-
	6000	100	5	5317	1.941	6663	1.986	8277	1.976	10191	1.898	12435	1.739	15043	1.484	18044	1.12	-	-	-	-	-	-	-	-	-	-
			25	4305	2.614	5528	2.745	6969	2.859	8657	2.942	10625	2.982	12905	2.964	15527	2.876	18525	2.703	21928	2.431	25770	2.048	30082	1.539	-	-
			45	-	-	4269	3.807	5497	3.929	6922	4.059	8576	4.183	10491	4.288	12697	4.36	15226	4.385	18111	4.349	21383	4.24	25074	4.044	-	-
			65	-	-	-	-	-	-	-	-	-	-	7698	6.009	9450	6.126	11474	6.234	13802	6.32	16466	6.37	19498	6.37	-	-
VZH035CG	1800	30	5	-	-	2398	0.652	3012	0.627	3740	0.602	4590	0.578	5576	0.555	6707	0.534	-	-	-	-	-	-	-	-	-	
			25	-	-	1985	0.981	2543	0.971	3191	0.954	3939	0.931	4797	0.901	5778	0.866	6893	0.824	8151	0.776	9565	0.723	11146	0.664	-	-
			45	-	-	-	-	-	-	2519	1.447	3145	1.471	3858	1.481	4670	1.478	5593	1.461	6636	1.431	7811	1.388	9129	1.331	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	60	5	4029	1.256	5069	1.274	6319	1.258	7806	1.188	9552	1.049	11583	0.82	13922	0.486	-	-	-	-	-	-	-	-	-	-
			25	3227	1.802	4152	1.844	5247	1.898	6537	1.947	8046	1.973	9798	1.958	11817	1.884	14129	1.734	16756	1.49	19724	1.135	23057	0.65	-	-
			45	-	-	3198	2.771	4106	2.767	5168	2.805	6407	2.867	7849	2.935	9517	2.993	11436	3.021	13630	3.003	16123	2.921	18941	2.757	-	-
			65	-	-	-	-	-	-	-	-	-	-	5703	4.306	6988	4.365	8483	4.442	10212	4.52	12199	4.582	14469	4.609	-	-
	6000	100	5	6730	2.321	8434	2.374	10478	2.363	12900	2.27	15741	2.079	19041	1.774	22841	1.339	-	-	-	-	-	-	-	-	-	-
			25	5449	3.126	6998	3.282	8821	3.418	10958	3.518	13449	3.565	16335	3.544	19655	3.438	23449	3.231	27758	2.907	32621	2.449	38079	1.841	-	-
			45	-	-	5403	4.551	6958	4.698	8763	4.853	10856	5.002	13279	5.127	16072	5.213	19274	5.243	22926	5.2	27067	5.07	31739	4.835	-	-
			65	-	-	-	-	-	-	-	-	-	-	9744	7.184	11962	7.324	14524	7.454	17471	7.556	20844	7.616	24681	7.617	-	-
VZH044CG	1800	30	5	-	-	3083	0.815	3874	0.784	4809	0.753	5903	0.723	7171	0.695	8625	0.668	-	-	-	-	-	-	-	-	-	
			25	-	-	2553	1.227	3271	1.214	4104	1.194	5065	1.165	6169	1.128	7431	1.083	8864	1.03	10483	0.971	12301	0.904	14333	0.83	-	-
			45	-	-	-	-	-	-	3239	1.81	4044	1.84	4961	1.853	6006	1.849	7192	1.828	8533	1.79	10045	1.736	11740	1.666	-	-
			65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	60	5	5182	1.543	6518	1.565	8127	1.545	10038	1.46	12284	1.288	14896	1.008	17904	0.598	-	-	-	-	-	-	-	-	-	-
			25	4150	2.213	5340	2.265	6748	2.332	8407	2.392	10347	2.423	12600	2.405	15197	2.314	18169	2.13	21548	1.831	25365	1.394	29652	0.799	-	-
			45	-	-	4113	3.405	5280	3.399	6646	3.446	8239	3.522	10093	3.606	12238	3.676	14706	3.711	17528	3.689	20734	3.588	24357	3.386	-	-
			65	-	-	-	-	-	-	-	-	-	-	7334	5.29	8986	5.362	10909	5.457	13132	5.553	15688	5.629	18607	5.662	-	-
	6000	100	5	8654	2.903	10846	2.97	13474	2.956	16589	2.84	20243	2.601	24487	2.22	29373	1.675	-	-	-	-	-	-	-	-	-	-
			25	7008	3.91	9000	4.105	11344	4.276	14092	4.401	17296	4.46	21007	4.434	25276	4.302	30155	4.042	35696	3.637	41950	3.063	48969	2.303	-	-
			45	-	-	6949	5.694	8949	5.877	11269	6.071	13961	6.257	17077	6.414	20668	6.521	24786	6.559	29483	6.506	34809	6.343	40816	6.049	-	-
			65	-	-	-	-	-	-	-	-	-	-	12531	8.988	15383	9.162	18678	9.324	22468	9.453	26805	9.528	31740	9.528	-	-

To: Evaporating temperature in [°C]

Tc: Condensing temperature in [°C]

Qo: Cooling capacity in [W]

Subcooling: 8.3 K

Superheat: 11.1 K

Pe: Power input in [kW] (with drive loss)

Rating point: ARI at 60 rps

To / Tc / SH / SC: 7.2°C / 54.4°C / 11.1 K / 8.3 K at 60 rps

Technical data and ordering

Inverter scrolls compressors - VZH 088-170BG - R410A

Low pressure ratio - ARI

Type	[rpm]	Te		-25		-20		-15		-10		-5		0		5		10		15		
		Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
VZH088BG	1500	20	-	-	6500	1.795	7900	1.699	9400	1.613	11200	1.541	13300	1.488	15700	1.457	-	-	-	-	-	-
	1500	30	-	-	5600	2.335	6900	2.256	8300	2.176	10000	2.098	12000	2.025	14200	1.963	16700	1.914	19600	1.882	-	-
	1500	40	-	-	4700	2.925	5900	2.886	7300	2.833	8900	2.77	10700	2.701	12700	2.628	15100	2.558	17700	2.492	-	-
	1500	50	-	-	-	-	-	-	6200	3.651	7600	3.624	9300	3.579	11200	3.52	13400	3.449	15800	3.371	-	-
	1500	60	-	-	-	-	-	-	-	-	-	-	7900	4.727	9600	4.702	11600	4.653	13900	4.585	-	-
	1500	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	11900	4.447	14600	4.419	17800	4.338	21700	4.232	26200	4.133	31400	4.071	37400	4.074	-	-	-	-	-	-
	3600	30	10500	5.484	13100	5.537	16200	5.5	19800	5.405	24100	5.281	28900	5.157	34400	5.064	40700	5.032	47700	5.091	-	-
	3600	40	-	-	11700	6.799	14600	6.856	18000	6.818	21900	6.715	26300	6.579	31400	6.438	37100	6.322	43500	6.262	-	-
	3600	50	-	-	-	-	-	-	15900	8.502	19500	8.47	23500	8.368	28100	8.226	33200	8.074	39100	7.943	-	-
	3600	60	-	-	-	-	-	-	-	-	-	-	20200	10.556	24300	10.461	29000	10.321	34200	10.166	-	-
	3600	63	-	-	-	-	-	-	-	-	-	-	-	-	23200	11.223	27600	11.096	32700	10.943	-	-
	6000	20	-	-	23900	7.6	28900	7.596	34900	7.554	42000	7.54	50200	7.618	59600	7.857	-	-	-	-	-	-
	6000	30	-	-	22000	9.669	26900	9.74	32700	9.694	39500	9.598	47300	9.517	56200	9.517	66400	9.666	77900	10.029	-	-
	6000	40	-	-	19800	11.778	24500	12.018	29900	12.063	36200	11.98	43400	11.835	51700	11.693	61100	11.621	71800	11.685	-	-
	6000	50	-	-	-	-	-	-	26400	14.579	32000	14.605	38500	14.489	45900	14.3	54400	14.103	64100	13.964	-	-
	6000	60	-	-	-	-	-	-	-	-	-	-	32600	17.398	39100	17.256	46500	17.029	55100	16.781	-	-
	6000	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VZH117BG	1500	20	-	-	8700	2.357	10500	2.231	12700	2.118	15100	2.024	17900	1.954	21100	1.913	-	-	-	-	-	-
	1500	30	-	-	7500	3.066	9200	2.963	11200	2.858	13500	2.755	16100	2.66	19100	2.578	22500	2.513	26300	2.472	-	-
	1500	40	-	-	6300	3.842	7900	3.791	9800	3.721	11900	3.638	14300	3.547	17100	3.452	20200	3.359	23800	3.273	-	-
	1500	50	-	-	-	-	-	-	8300	4.795	10200	4.76	12500	4.701	15000	4.623	18000	4.53	21300	4.428	-	-
	1500	60	-	-	-	-	-	-	-	-	-	-	10600	6.209	12900	6.175	15600	6.111	18700	6.021	-	-
	1500	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	15900	5.84	19600	5.804	23900	5.697	29100	5.559	35200	5.429	42200	5.347	50200	5.351	-	-	-	-	-	-
	3600	30	14100	7.203	17600	7.272	21800	7.224	26600	7.099	32300	6.935	38800	6.773	46200	6.651	54600	6.61	64000	6.687	-	-
	3600	40	-	-	15700	8.93	19600	9.004	24200	8.954	29400	8.82	35300	8.64	42100	8.455	49800	8.303	58500	8.224	-	-
	3600	50	-	-	-	-	-	-	21400	11.167	26100	11.124	31500	10.99	37700	10.804	44600	10.605	52400	10.432	-	-
	3600	60	-	-	-	-	-	-	-	-	-	-	27200	13.864	32700	13.739	38900	13.555	45900	13.352	-	-
	3600	63	-	-	-	-	-	-	-	-	-	-	-	-	31100	14.74	37100	14.573	43900	14.373	-	-
	6000	20	-	-	32000	9.981	38800	9.977	46900	9.922	56300	9.902	67300	10.006	80000	10.319	-	-	-	-	-	-
	6000	30	-	-	29500	12.699	36100	12.792	43900	12.732	53000	12.605	63500	12.499	75500	12.5	89200	12.695	104600	13.171	-	-
	6000	40	-	-	26600	15.469	32900	15.784	40100	15.844	48500	15.735	58300	15.544	69400	15.357	82000	15.263	96300	15.347	-	-
	6000	50	-	-	-	-	-	-	35400	19.148	43000	19.182	51700	19.03	61600	18.782	73100	18.522	86000	18.34	-	-
	6000	60	-	-	-	-	-	-	-	-	-	-	43800	22.851	52500	22.664	62500	22.365	73900	22.04	-	-
	6000	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VZH170BG	1500	20	-	-	12400	3.172	14900	3.041	17900	2.907	21400	2.762	25400	2.597	30000	2.405	-	-	-	-	-	-
	1500	30	-	-	10800	4.297	13300	4.157	16100	4.026	19400	3.895	23200	3.755	27600	3.599	32500	3.418	38100	3.204	-	-
	1500	40	-	-	9300	5.546	11600	5.397	14300	5.268	17300	5.15	20900	5.035	24900	4.915	29600	4.781	34800	4.625	-	-
	1500	50	-	-	-	-	-	-	12200	6.784	15100	6.679	18300	6.589	22000	6.504	26300	6.416	31200	6.318	-	-
	1500	60	-	-	-	-	-	-	-	-	-	-	15500	8.566	18900	8.516	22800	8.475	27300	8.434	-	-
	1500	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	22900	8.352	28200	8.195	34600	8.029	42200	7.839	51100	7.608	61400	7.321	73300	6.961	-	-	-	-	-	-
	3600	30	20500	10.392	25600	10.262	31600	10.137	38700	10.004	47000	9.845	56600	9.646	67700	9.389	80400	9.06	94800	8.642	-	-
	3600	40	-	-	22900	12.728	28400	12.623	34900	12.524	42500	12.416	51300	12.282	61500	12.106	73100	11.873	86400	11.566	-	-
	3600	50	-	-	-	-	-	-	30900	15.652	37600	15.572	45500	15.481	54600	15.363	65200	15.204	77200	14.986	-	-
	3600	60	-	-	-	-	-	-	-	-	-	-	39300	19.495	47300	19.414	56600	19.306	67400	19.156	-	-
	3600	63	-	-	-	-	-	-	-	-	-	-	-	-	45100	20.821	54100	20.725	64500	20.59	-	-
	6000	20	-	-	47100	14.689	57600	14.8	70000	14.747	84500	14.48	101400	13.947	120800	13.097	-	-	-	-	-	-
	6000	30	-	-	42800	17.702	52900	17.949	64700	18.102	78500	18.111	94400	17.924	112700	17.488	133500	16.754	157200	15.669	-	-
	6000	40	-	-	38300	21.481	47700	21.744	58700	21.983	71500	22.147	86300	22.185	103200	22.046	122600	21.676	144700	21.026	-	-
	6000	50	-	-	-	-	-	-	52000	26.837	63500	27.037	76900	27.18	92400	27.216	110100	27.091	130400	26.756	-	-
	6000	60	-	-	-	-	-	-	-	-	-	-	66600	33.356	80400	33.446	96400	33.447	114700	33.306	-	-
	6000	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

To: Evaporating temperature in [°C]
 Tc: Condensing temperature in [°C]
 Pe: Power input in [kW]
 Qo: Cooling capacity in [W]
 Subcooling: 8.3 K
 Superheat: 11.1 K
 Voltage code: G: 380 – 480 V / 3 / 50 and 60 Hz

Technical data and ordering

Inverter scrolls compressors - VZH088-VZH170BG - R410A

Low pressure ratio - EN12900

Type	[rpm]	Te		-25		-20		-15		-10		-5		0		5		10		15		
		Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
VZH088BG	1500	20	-	-	6100	1.795	7400	1.699	8800	1.613	10600	1.541	12500	1.488	14700	1.457	-	-	-	-	-	-
	1500	30	-	-	5200	2.335	6400	2.256	7800	2.176	9300	2.098	11200	2.025	13200	1.963	15600	1.914	18300	1.882	-	-
	1500	40	-	-	4300	2.925	5400	2.886	6700	2.833	8100	2.77	9800	2.701	11700	2.628	13900	2.558	16300	2.492	-	-
	1500	50	-	-	-	-	-	-	5500	3.651	6900	3.624	8400	3.579	10100	3.52	12100	3.449	14300	3.371	-	-
	1500	60	-	-	-	-	-	-	-	-	-	-	6800	4.727	8400	4.702	10100	4.653	12200	4.585	-	-
	1500	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	11100	4.447	13600	4.419	16700	4.338	20400	4.232	24600	4.133	29500	4.071	35100	4.074	-	-	-	-	-	-
	3600	30	9700	5.484	12200	5.537	15000	5.5	18400	5.405	22400	5.281	26900	5.157	32000	5.064	37900	5.032	44500	5.091	-	-
	3600	40	-	-	10700	6.799	13400	6.856	16500	6.818	20100	6.715	24200	6.579	28800	6.438	34100	6.322	40100	6.262	-	-
	3600	50	-	-	-	-	-	-	14300	8.502	17500	8.47	21100	8.368	25300	8.226	30000	8.074	35300	7.943	-	-
	3600	60	-	-	-	-	-	-	-	-	-	-	17600	10.556	21200	10.461	25200	10.321	29800	10.166	-	-
	3600	63	-	-	-	-	-	-	-	-	-	-	-	-	19800	11.223	23700	11.096	28100	10.943	-	-
	6000	20	-	-	22300	7.6	27100	7.596	32700	7.554	39400	7.54	47100	7.618	56000	7.857	-	-	-	-	-	-
	6000	30	-	-	20400	9.669	25000	9.74	30400	9.694	36700	9.598	44000	9.517	52400	9.517	61900	9.666	72700	10.029	-	-
	6000	40	-	-	18100	11.778	22400	12.018	27400	12.063	33200	11.98	39900	11.835	47500	11.693	56200	11.621	66100	11.685	-	-
	6000	50	-	-	-	-	-	-	23700	14.579	28800	14.605	34700	14.489	41400	14.3	49100	14.103	57900	13.964	-	-
	6000	60	-	-	-	-	-	-	-	-	-	-	28300	17.398	34000	17.256	40600	17.029	48100	16.781	-	-
	6000	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VZH117BG	1500	20	-	-	8200	2.357	9900	2.231	11900	2.118	14200	2.024	16800	1.954	19800	1.913	-	-	-	-	-	-
	1500	30	-	-	6900	3.066	8500	2.963	10400	2.858	12500	2.755	15000	2.66	17800	2.578	20900	2.513	24500	2.472	-	-
	1500	40	-	-	5700	3.842	7200	3.791	8900	3.721	10900	3.638	13200	3.547	15700	3.452	18600	3.359	21900	3.273	-	-
	1500	50	-	-	-	-	-	-	7400	4.795	9200	4.76	11200	4.701	13600	4.623	16200	4.53	19200	4.428	-	-
	1500	60	-	-	-	-	-	-	-	-	-	-	9200	6.209	11200	6.175	13600	6.111	16300	6.021	-	-
	1500	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	14900	5.84	18300	5.804	22400	5.697	27300	5.559	33000	5.429	39600	5.347	47200	5.351	-	-	-	-	-	-
	3600	30	13100	7.203	16300	7.272	20200	7.224	24700	7.099	30000	6.935	36100	6.773	43000	6.651	50900	6.61	59700	6.687	-	-
	3600	40	-	-	14400	8.93	18000	9.004	22100	8.954	26900	8.82	32400	8.64	38700	8.455	45800	8.303	53800	8.224	-	-
	3600	50	-	-	-	-	-	-	19200	11.167	23500	11.124	28400	10.99	34000	10.804	40300	10.605	47400	10.432	-	-
	3600	60	-	-	-	-	-	-	-	-	-	-	23600	13.864	28400	13.739	33900	13.555	40100	13.352	-	-
	3600	63	-	-	-	-	-	-	-	-	-	-	-	-	26500	14.74	31800	14.573	37700	14.373	-	-
	6000	20	-	-	30000	9.981	36400	9.977	43900	9.922	52900	9.902	63200	10.006	75200	10.319	-	-	-	-	-	-
	6000	30	-	-	27400	12.699	33500	12.792	40800	12.732	49300	12.605	59100	12.499	70300	12.5	83100	12.695	97500	13.171	-	-
	6000	40	-	-	24400	15.469	30100	15.784	36800	15.844	44500	15.735	53500	15.544	63800	15.357	75500	15.263	88700	15.347	-	-
	6000	50	-	-	-	-	-	-	31800	19.148	38600	19.182	46500	19.03	55600	18.782	66000	18.522	77700	18.34	-	-
	6000	60	-	-	-	-	-	-	-	-	-	-	38000	22.851	45600	22.664	54400	22.365	64500	22.04	-	-
	6000	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VZH170BG	1500	20	-	-	11600	3.172	14000	3.041	16800	2.907	20100	2.762	23800	2.597	28200	2.405	-	-	-	-	-	-
	1500	30	-	-	10000	4.297	12300	4.157	15000	4.026	18100	3.895	21600	3.755	25700	3.599	30300	3.418	35500	3.204	-	-
	1500	40	-	-	8500	5.546	10600	5.397	13100	5.268	15900	5.15	19200	5.035	22900	4.915	27200	4.781	32000	4.625	-	-
	1500	50	-	-	-	-	-	-	11000	6.784	13500	6.679	16500	6.589	19900	6.504	23800	6.416	28200	6.318	-	-
	1500	60	-	-	-	-	-	-	-	-	-	-	13500	8.566	16500	8.516	19900	8.475	23800	8.434	-	-
	1500	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	21400	8.352	26400	8.195	32400	8.029	39600	7.839	47900	7.608	57700	7.321	68900	6.961	-	-	-	-	-	-
	3600	30	19000	10.392	23700	10.262	29300	10.137	35900	10.004	43700	9.845	52700	9.646	63000	9.389	74900	9.06	88400	8.642	-	-
	3600	40	-	-	20900	12.728	26000	12.623	32000	12.524	39000	12.416	47100	12.282	56500	12.106	67300	11.873	79600	11.566	-	-
	3600	50	-	-	-	-	-	-	27700	15.652	33800	15.572	41000	15.481	49300	15.363	58800	15.204	69800	14.986	-	-
	3600	60	-	-	-	-	-	-	-	-	-	-	34100	19.495	41100	19.414	49300	19.306	58800	19.156	-	-
	3600	63	-	-	-	-	-	-	-	-	-	-	-	-	38500	20.821	46300	20.725	55300	20.59	-	-
	6000	20	-	-	44100	14.689	54000	14.8	65700	14.747	79300	14.48	95200	13.947	113500	13.097	-	-	-	-	-	-
	6000	30	-	-	39700	17.702	49100	17.949	60100	18.102	72900	18.111	87800	17.924	104900	17.488	124500	16.754	146600	15.669	-	-
	6000	40	-	-	35000	21.481	43700	21.744	53800	21.983	65600	22.147	79200	22.185	94900	22.046	112900	21.676	133300	21.026	-	-
	6000	50	-	-	-	-	-	-	46700	26.837	57100	27.037	69300	27.18	83300	27.216	99400	27.091	117800	26.756	-	-
	6000	60	-	-	-	-	-	-	-	-	-	-	57800	33.356	69900	33.446	84000	33.447	100100	33.306	-	-
	6000	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

To: Evaporating temperature in [°C]

Tc: Condensing temperature in [°C]

Pe: Power input in [kW]

Qo: Cooling capacity in [W]

Subcooling: 0 K

Superheat: 10 K

Voltage code: G: 380 - 480 V / 3 / 50 and 60 Hz

Technical data and ordering

Inverter scrolls compressors - VZH088-VZH170AG - R410A

High pressure ratio - ARI

Type	[rpm]	Te Tc	-25		-20		-15		-10		-5		0		5		10		15	
			Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
VZH088AG	1500	20	-	-	5700	1.472	7100	1.542	8600	1.623	10400	1.677	12500	1.665	14900	1.549	-	-	-	-
	1500	30	-	-	5200	2.043	6500	2.008	7900	2.032	9700	2.076	11600	2.103	13900	2.073	16400	1.949	19200	1.692
	1500	40	-	-	4600	2.917	5800	2.735	7200	2.659	8800	2.651	10700	2.673	12700	2.687	15000	2.654	17600	2.537
	1500	50	-	-	-	-	5100	3.786	6400	3.568	7800	3.466	9500	3.441	11300	3.457	13400	3.473	15800	3.453
	1500	60	-	-	-	-	-	-	-	-	6600	4.587	8100	4.473	9700	4.447	11600	4.47	13600	4.504
	1500	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	12000	4.19	14700	4.258	17900	4.335	21700	4.424	26100	4.529	31200	4.652	37100	4.798	-	-	-	-
	3600	30	10600	5.044	13100	5.11	16200	5.181	19700	5.262	23900	5.357	28600	5.467	34100	5.596	40300	5.748	47300	5.926
	3600	40	-	-	11700	6.214	14600	6.274	17800	6.34	21600	6.417	26000	6.507	31000	6.613	36800	6.74	43200	6.889
	3600	50	-	-	-	-	12900	7.746	15800	7.79	19300	7.843	23200	7.906	27700	7.982	32900	8.076	38800	8.191
	3600	60	-	-	-	-	-	-	-	-	16600	9.767	20100	9.796	24100	9.836	28700	9.891	34000	9.963
	3600	68	-	-	-	-	-	-	-	-	-	-	-	-	21300	11.759	25600	11.777	30400	11.81
	6000	20	-	-	24000	7.654	29200	7.958	35400	8.307	42700	8.709	51100	9.176	60700	9.716	-	-	-	-
	6000	30	-	-	21800	9.043	26800	9.284	32700	9.558	39500	9.875	47400	10.245	56400	10.677	66700	11.18	78300	11.765
	6000	40	-	-	19800	10.85	24400	11.021	29800	11.213	36100	11.439	43300	11.705	51600	12.023	61000	12.401	71700	12.849
	6000	50	-	-	-	-	21800	13.353	26600	13.458	32200	13.585	38700	13.741	46100	13.938	54600	14.184	64200	14.49
6000	60	-	-	-	-	-	-	-	-	27900	16.498	33500	16.538	40000	16.607	47400	16.715	55900	16.87	
6000	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VZH117AG	1500	20	-	-	7700	1.933	9500	2.025	11600	2.132	14000	2.203	16800	2.187	20000	2.035	-	-	-	-
	1500	30	-	-	6900	2.683	8700	2.638	10700	2.669	13000	2.727	15600	2.762	18600	2.723	22000	2.56	25800	2.223
	1500	40	-	-	6100	3.831	7800	3.592	9700	3.492	11900	3.482	14300	3.511	17100	3.529	20200	3.486	23700	3.332
	1500	50	-	-	-	-	6800	4.973	8500	4.686	10500	4.552	12700	4.52	15200	4.54	18000	4.561	21200	4.535
	1500	60	-	-	-	-	-	-	-	-	8900	6.024	10800	5.875	13100	5.841	15500	5.871	18300	5.916
	1500	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	16200	5.503	19800	5.592	24000	5.693	29100	5.811	35000	5.948	41900	6.11	49700	6.301	-	-	-	-
	3600	30	14200	6.625	17600	6.711	21700	6.805	26500	6.912	32000	7.035	38500	7.18	45800	7.35	54100	7.55	63600	7.783
	3600	40	-	-	15700	8.162	19500	8.24	23900	8.327	29100	8.428	34900	8.546	41700	8.686	49300	8.852	58000	9.048
	3600	50	-	-	-	-	17300	10.173	21300	10.232	25800	10.3	31100	10.383	37200	10.484	44100	10.607	52000	10.757
	3600	60	-	-	-	-	-	-	-	-	22300	12.828	27000	12.866	32400	12.919	38500	12.991	45600	13.086
	3600	68	-	-	-	-	-	-	-	-	-	-	-	-	28700	15.444	34300	15.467	40800	15.512
	6000	20	-	-	32300	10.053	39200	10.452	47500	10.91	57300	11.439	68500	12.052	81500	12.761	-	-	-	-
	6000	30	-	-	29300	11.877	36000	12.193	43900	12.553	53000	12.97	63600	13.455	75700	14.023	89500	14.684	105100	15.452
	6000	40	-	-	26500	14.25	32800	14.474	40000	14.728	48500	15.023	58200	15.373	69300	15.791	81900	16.287	96200	16.876
	6000	50	-	-	-	-	29200	17.538	35800	17.676	43300	17.842	52000	18.048	61900	18.306	73300	18.63	86200	19.03
6000	60	-	-	-	-	-	-	-	-	37400	21.668	45000	21.721	53600	21.812	63600	21.953	75000	22.157	
6000	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VZH170AG	1500	20	-	-	11900	3.095	14500	3.074	17500	3.047	21100	2.982	25200	2.844	29900	2.601	-	-	-	-
	1500	30	-	-	10700	4.019	13100	3.962	16000	3.949	19400	3.948	23300	3.925	27700	3.847	32700	3.68	38400	3.391
	1500	40	-	-	9300	5.287	11600	5.112	14300	5.032	17400	5.013	21000	5.023	25000	5.029	29700	4.996	34900	4.891
	1500	50	-	-	-	-	9900	6.724	12300	6.495	15100	6.378	18300	6.339	21900	6.346	26100	6.366	30800	6.363
	1500	60	-	-	-	-	-	-	-	-	12500	8.242	15200	8.074	18400	8.001	22100	7.99	26300	8.009
	1500	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	24500	7.456	29300	7.626	35200	7.808	42400	7.979	50800	8.115	60700	8.191	72100	8.184	-	-	-	-
	3600	30	21800	9.377	26500	9.47	32200	9.611	39000	9.775	46900	9.94	56200	10.081	66900	10.174	79100	10.196	93100	10.122
	3600	40	-	-	24000	11.86	29300	11.904	35500	12.007	42800	12.146	51300	12.297	61100	12.435	72400	12.538	85200	12.581
	3600	50	-	-	-	-	26200	14.819	31700	14.806	38200	14.865	45800	14.97	54500	15.1	64600	15.229	76200	15.333
	3600	60	-	-	-	-	-	-	-	-	32900	18.228	39400	18.234	47000	18.299	55900	18.399	66100	18.511
	3600	68	-	-	-	-	-	-	-	-	-	-	-	-	41000	21.332	49000	21.369	58200	21.447
	6000	20	-	-	48200	13.279	58500	13.868	70800	14.517	85300	15.273	102100	16.184	121500	17.296	-	-	-	-
	6000	30	-	-	43000	16.274	52900	16.84	64400	17.388	77900	17.965	93500	18.618	111400	19.394	131800	20.341	154900	21.505
	6000	40	-	-	38900	19.827	48100	20.446	58800	20.967	71200	21.439	85400	21.909	101800	22.423	120400	23.03	141400	23.776
	6000	50	-	-	-	-	43400	24.851	53100	25.421	64200	25.863	77000	26.224	91700	26.551	108400	26.892	127300	27.294
6000	60	-	-	-	-	-	-	-	-	56400	31.402	67700	31.729	80600	31.943	95400	32.094	112200	32.226	
6000	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

To: Evaporating temperature in [°C]

Tc: Condensing temperature in [°C]

Pe: Power input in [kW]

Qo: Cooling capacity in [W]

Subcooling: 8.3 K

Superheat: 11.1 K

Voltage code: G: 380 – 480 V / 3 / 50 and 60 Hz

Technical data and ordering

Inverter scrolls compressors - VZH088-VZH170AG - R410A

High pressure ratio - EN12900

Type	[rpm]	Te	-25		-20		-15		-10		-5		0		5		10		15	
			Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo
VZH088AG	1500	20	-	-	5400	1.472	6600	1.542	8100	1.623	9800	1.677	11800	1.665	14000	1.549	-	-	-	-
	1500	30	-	-	4800	2.043	6000	2.008	7400	2.032	9000	2.076	10800	2.103	12900	2.073	15300	1.949	17900	1.692
	1500	40	-	-	4200	2.917	5300	2.735	6600	2.659	8100	2.651	9800	2.673	11700	2.687	13800	2.654	16200	2.537
	1500	50	-	-	-	-	4500	3.786	5700	3.568	7000	3.466	8500	3.441	10200	3.457	12100	3.473	14300	3.453
	1500	60	-	-	-	-	-	-	-	-	5700	4.587	7000	4.473	8500	4.447	10100	4.47	11900	4.504
	1500	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	11300	4.19	13800	4.258	16800	4.335	20300	4.424	24500	4.529	29300	4.652	34800	4.798	-	-	-	-
	3600	30	9800	5.044	12200	5.11	15000	5.181	18300	5.262	22200	5.357	26700	5.467	31800	5.596	37600	5.748	44200	5.926
	3600	40	-	-	10700	6.214	13300	6.274	16300	6.34	19900	6.417	23900	6.507	28500	6.613	33800	6.74	39800	6.889
	3600	50	-	-	-	-	11500	7.746	14200	7.79	17300	7.843	20900	7.906	25000	7.982	29700	8.076	35000	8.191
	3600	60	-	-	-	-	-	-	-	-	14400	9.767	17500	9.796	21000	9.836	25000	9.891	29600	9.963
	3600	68	-	-	-	-	-	-	-	-	-	-	-	-	17300	11.759	20800	11.777	24800	11.81
	6000	20	-	-	22500	7.654	27400	7.958	33200	8.307	40000	8.709	48000	9.176	57100	9.716	-	-	-	-
	6000	30	-	-	20200	9.043	24900	9.284	30400	9.558	36700	9.875	44100	10.245	52500	10.677	62100	11.18	73000	11.765
	6000	40	-	-	18100	10.85	22300	11.021	27300	11.213	33100	11.439	39800	11.705	47400	12.023	56200	12.401	66000	12.849
6000	50	-	-	-	-	19500	13.353	23900	13.458	29000	13.585	34900	13.741	41600	13.938	49300	14.184	58000	14.49	
6000	60	-	-	-	-	-	-	-	-	24200	16.498	29100	16.538	34800	16.607	41300	16.715	48800	16.87	
6000	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VZH117AG	1500	20	-	-	7200	1.933	8900	2.025	10800	2.132	13100	2.203	15800	2.187	18800	2.035	-	-	-	-
	1500	30	-	-	6400	2.683	8000	2.638	9900	2.669	12100	2.727	14500	2.762	17300	2.723	20500	2.56	24100	2.223
	1500	40	-	-	5600	3.831	7100	3.592	8900	3.492	10900	3.482	13100	3.511	15700	3.529	18600	3.486	21800	3.332
	1500	50	-	-	-	-	6100	4.973	7700	4.686	9400	4.552	11500	4.52	13700	4.54	16300	4.561	19100	4.535
	1500	60	-	-	-	-	-	-	-	-	7700	6.024	9400	5.875	11400	5.841	13500	5.871	16000	5.916
	1500	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	15100	5.503	18500	5.592	22500	5.693	27300	5.811	32900	5.948	39300	6.11	46700	6.301	-	-	-	-
	3600	30	13100	6.625	16400	6.711	20200	6.805	24600	6.912	29800	7.035	35800	7.18	42600	7.35	50400	7.55	59300	7.783
	3600	40	-	-	14400	8.162	17900	8.24	21900	8.327	26700	8.428	32100	8.546	38300	8.686	45400	8.852	53400	9.048
	3600	50	-	-	-	-	15500	10.173	19100	10.232	23200	10.3	28000	10.383	33600	10.484	39900	10.607	47000	10.757
	3600	60	-	-	-	-	-	-	-	-	19300	12.828	23400	12.866	28100	12.919	33600	12.991	39800	13.086
	3600	68	-	-	-	-	-	-	-	-	-	-	-	-	23200	15.444	27900	15.467	33300	15.512
	6000	20	-	-	30200	10.053	36800	10.452	44600	10.91	53700	11.439	64400	12.052	76600	12.761	-	-	-	-
	6000	30	-	-	27200	11.877	33400	12.193	40700	12.553	49300	12.97	59200	13.455	70500	14.023	83400	14.684	98000	15.452
	6000	40	-	-	24200	14.25	30000	14.474	36700	14.728	44500	15.023	53400	15.373	63700	15.791	75400	16.287	88600	16.876
6000	50	-	-	-	-	26200	17.538	32100	17.676	38900	17.842	46800	18.048	55800	18.306	66100	18.63	77900	19.03	
6000	60	-	-	-	-	-	-	-	-	32400	21.668	39000	21.721	46700	21.812	55400	21.953	65500	22.157	
6000	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VZH170AG	1500	20	-	-	11200	3.095	13600	3.074	16400	3.047	19800	2.982	23600	2.844	28100	2.601	-	-	-	-
	1500	30	-	-	9900	4.019	12200	3.962	14900	3.949	18000	3.948	21600	3.925	25800	3.847	30500	3.68	35800	3.391
	1500	40	-	-	8500	5.287	10600	5.112	13100	5.032	16000	5.013	19200	5.023	23000	5.029	27300	4.996	32200	4.891
	1500	50	-	-	-	-	8900	6.724	11000	6.495	13600	6.378	16400	6.339	19800	6.346	23600	6.366	27900	6.363
	1500	60	-	-	-	-	-	-	-	-	10800	8.242	13200	8.074	16000	8.001	19200	7.99	22900	8.009
	1500	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3600	20	22900	7.456	27500	7.626	33000	7.808	39700	7.979	47700	8.115	57000	8.191	67700	8.184	-	-	-	-
	3600	30	20200	9.377	24600	9.47	29900	9.611	36200	9.775	43600	9.94	52300	10.081	62300	10.174	73800	10.196	86800	10.122
	3600	40	-	-	21900	11.86	26800	11.904	32500	12.007	39300	12.146	47100	12.297	56200	12.435	66600	12.538	78500	12.581
	3600	50	-	-	-	-	23400	14.819	28500	14.806	34300	14.865	41200	14.97	49200	15.1	58400	15.229	68900	15.333
	3600	60	-	-	-	-	-	-	-	-	28500	18.228	34200	18.234	40900	18.299	48700	18.399	57700	18.511
	3600	68	-	-	-	-	-	-	-	-	-	-	-	-	33200	21.332	39800	21.369	47400	21.447
	6000	20	-	-	45100	13.279	54800	13.868	66400	14.517	80100	15.273	95900	16.184	114200	17.296	-	-	-	-
	6000	30	-	-	39900	16.274	49000	16.84	59800	17.388	72400	17.965	87000	18.618	103700	19.394	122800	20.341	144500	21.505
	6000	40	-	-	35600	19.827	44100	20.446	53900	20.967	65300	21.439	78500	21.909	93500	22.423	110800	23.03	130300	23.776
6000	50	-	-	-	-	38900	24.851	47700	25.421	57800	25.863	69400	26.224	82700	26.551	97800	26.892	115000	27.294	
6000	60	-	-	-	-	-	-	-	-	48900	31.402	58800	31.729	70100	31.943	83100	32.094	97900	32.226	
6000	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

To: Evaporating temperature in [°C]

Tc: Condensing temperature in [°C]

Pe: Power input in [kW]

Qo: Cooling capacity in [W]

Subcooling: 0 K

Superheat: 10 K

Voltage code: G: 380 - 480 V / 3 / 50 and 60 Hz

Nomenclature and Dimensions

V Variable speed

Z Family: VZH scroll

H Lubricant: PVE 32(FVC32D) lubricant R410A refrigerant

044 Swept volume: in [cm³/rev]

C Design pressure ratio: C: IDV and IEER optimized

G Evolution index

A Motor protection: N: no internal motor protection (protection by drive)

N Equipement version: A: brazed connections, single version B: brazed connections, manifold version

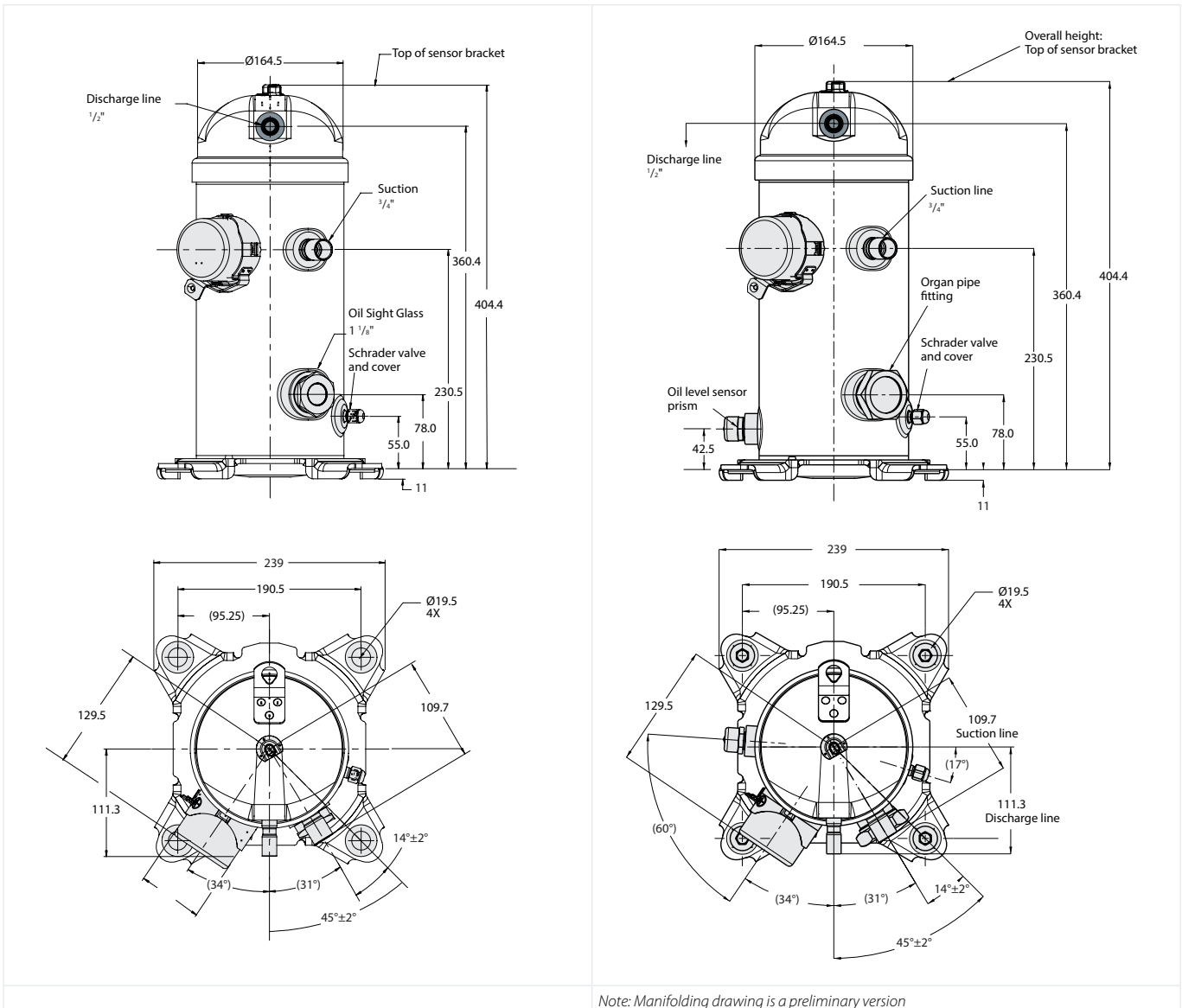
	Oil sight glass	Oil level switch
Single version	Threaded	None
Manifold version	None	Threaded

A Motor voltage code to CDS803: *)
G: 380 – 480 V / 3 ~ / 50 / 60 Hz
J: 200 – 240V / 3 ~ / 50 / 60 Hz

*) main supply voltage to frequency converter

VZH028-035-044G / J - Single version

VZH028-035-044G / J - Manifold version

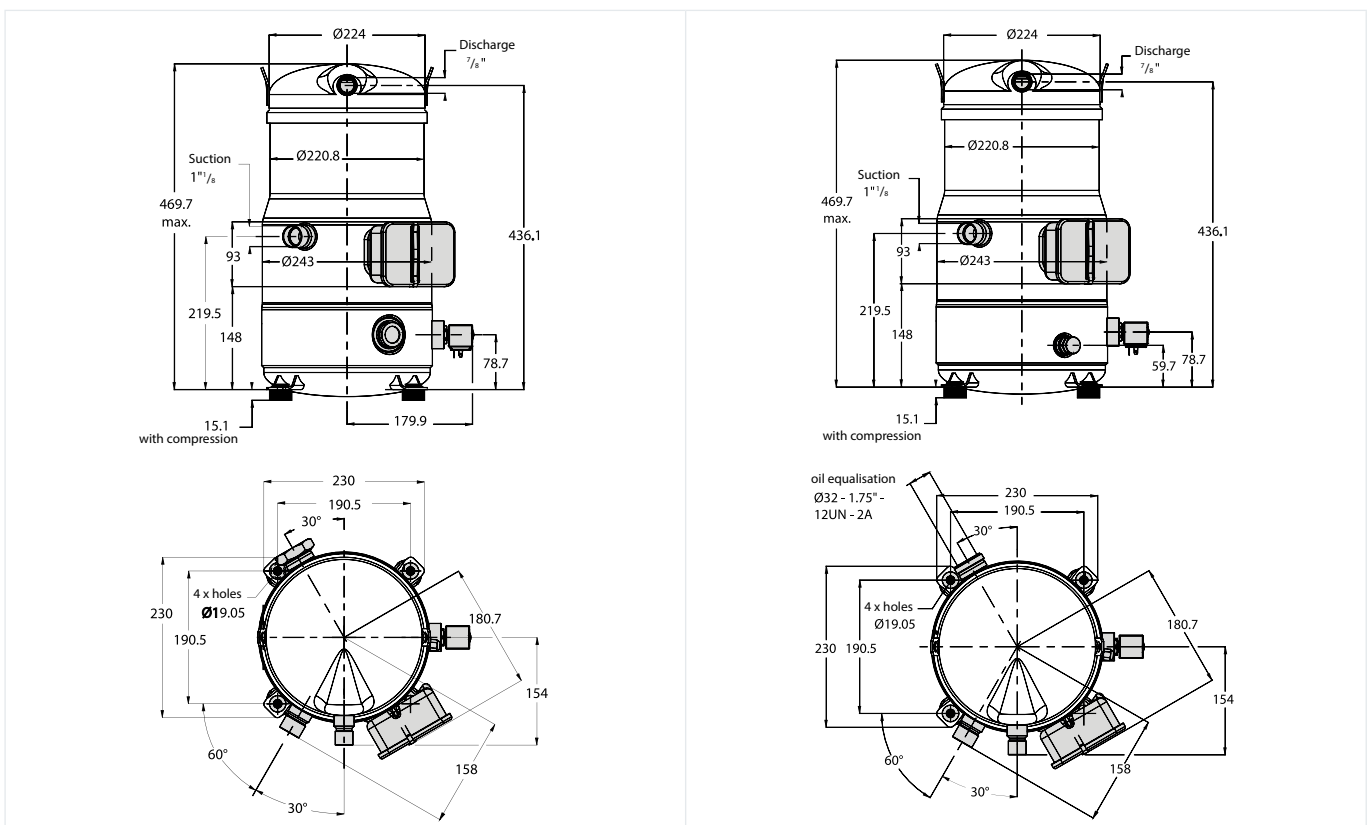


Nomenclature and Dimensions

<p>Variable speed:</p> <p>Family: VZH scroll</p> <p>Lubricant: POE lubricant R410A refrigerant</p> <p>Swept volume: in [cm³/rev]</p> <p>Design pressure ratio: A: high PR B: low PR</p>	<p>V</p> <p>Z</p> <p>H</p> <p>117</p> <p>A</p>	<p>G</p> <p>A</p> <p>N</p> <p>A</p>	<p>Evolution index</p> <p>Motor protection: N: no internal motor protection (protection by drive)</p> <p>Equipement version: A: brazed connections, single version B: brazed connections, manifold version</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td></td> <td>Oil sight glass</td> <td>Oil level switch</td> </tr> <tr> <td>Single version</td> <td>Threaded</td> <td>None</td> </tr> <tr> <td>Manifold version</td> <td>None</td> <td>Threaded</td> </tr> </table> <p>Motor voltage code to CDS303: *) G: 380 – 480 V / 3 ~ / 50 / 60 Hz H: 252 – 600 V / 3 ~ / 50 / 60 Hz J: 200 – 240 V / 3 ~ / 50 / 60 Hz</p> <p>*) main supply voltage to frequency converter</p>		Oil sight glass	Oil level switch	Single version	Threaded	None	Manifold version	None	Threaded
	Oil sight glass	Oil level switch										
Single version	Threaded	None										
Manifold version	None	Threaded										

VZH088-G-H - Single version

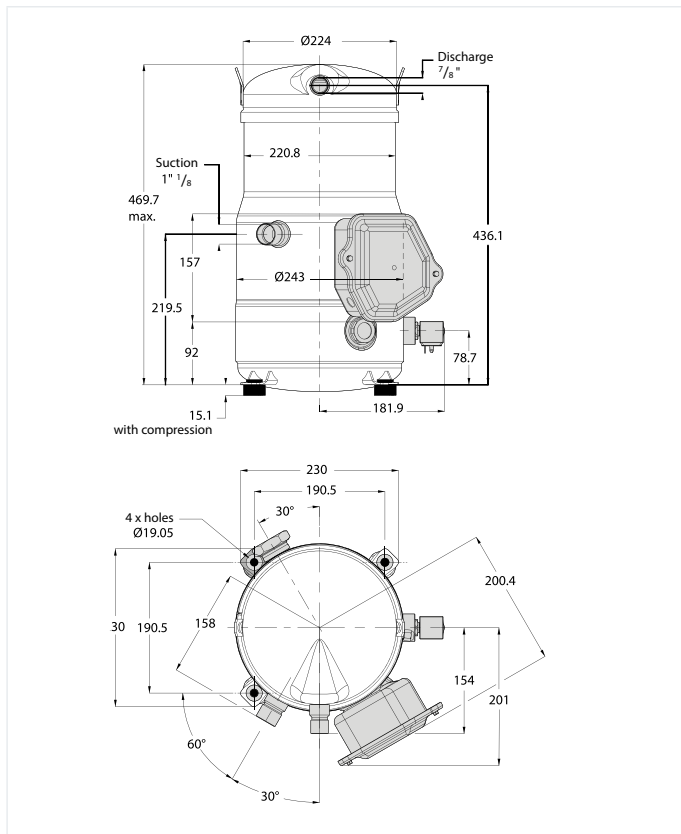
VZH088-G-H - Manifold version



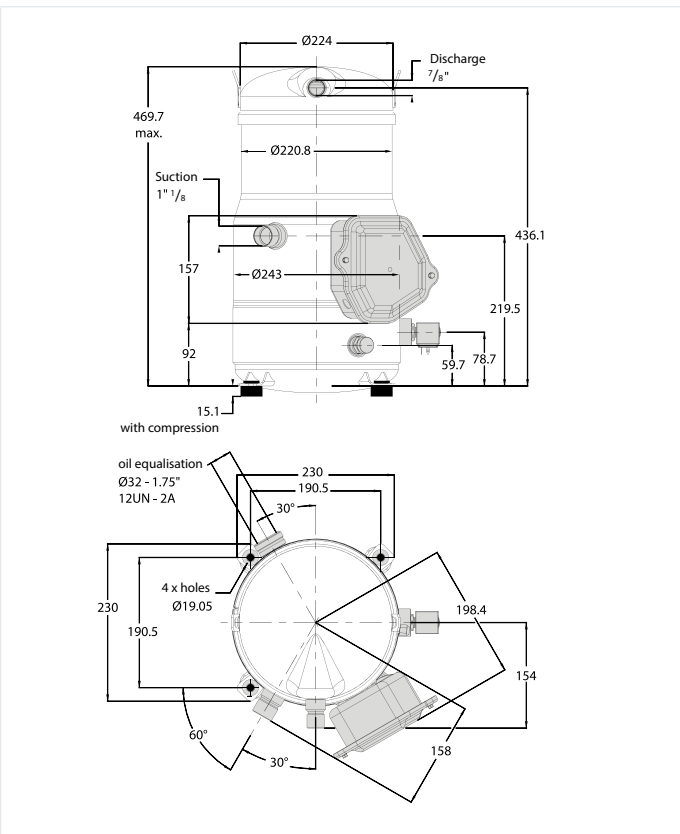
01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20

Dimensions

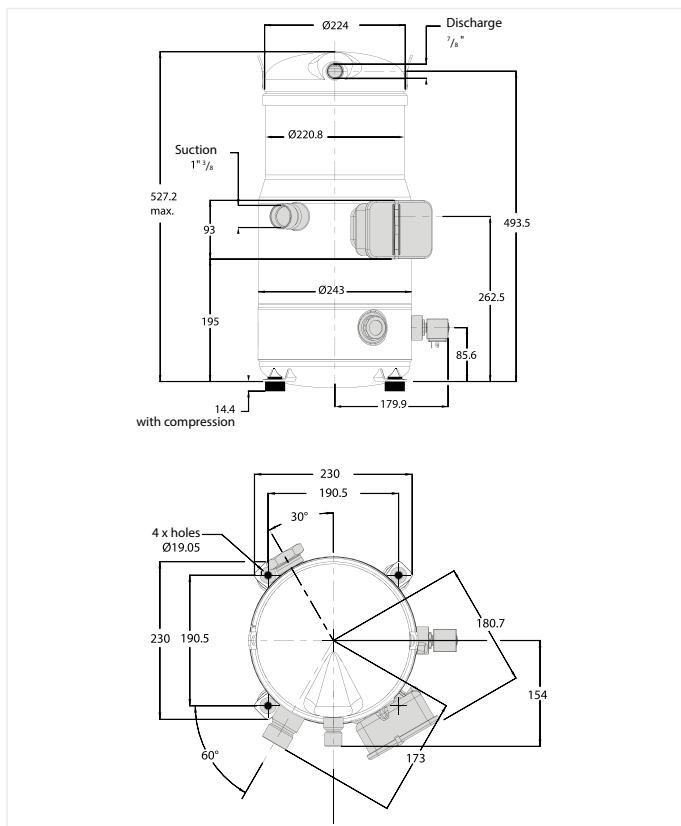
VZH088-J - Single version



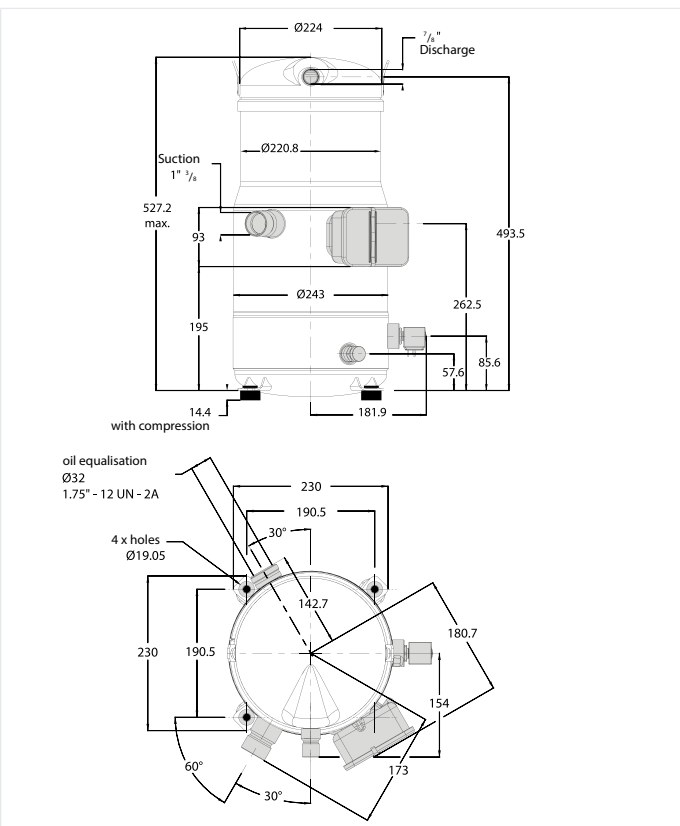
VZH088-J - Manifolded version



VZH117-G-H - Single version

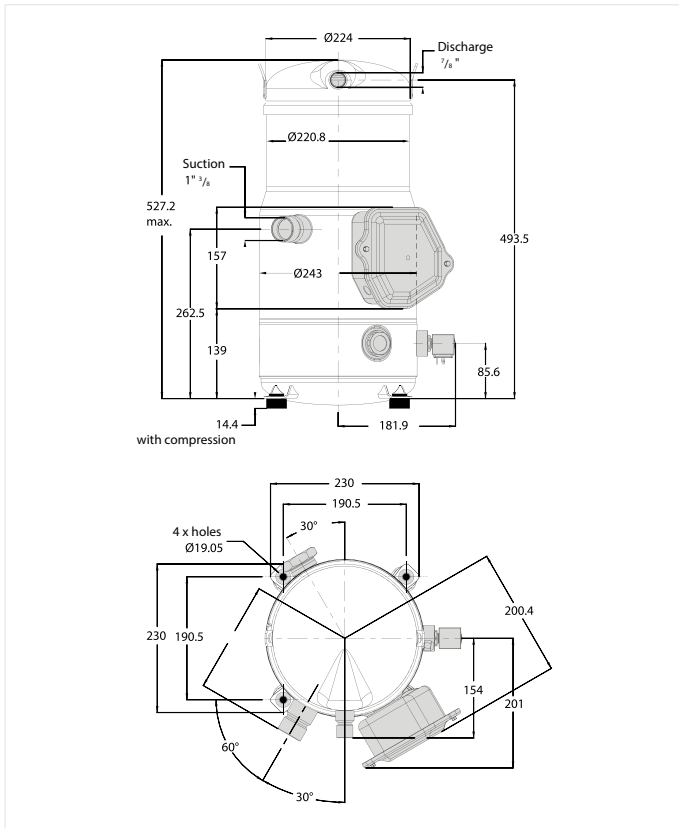


VZH117-G-H - Manifolded version

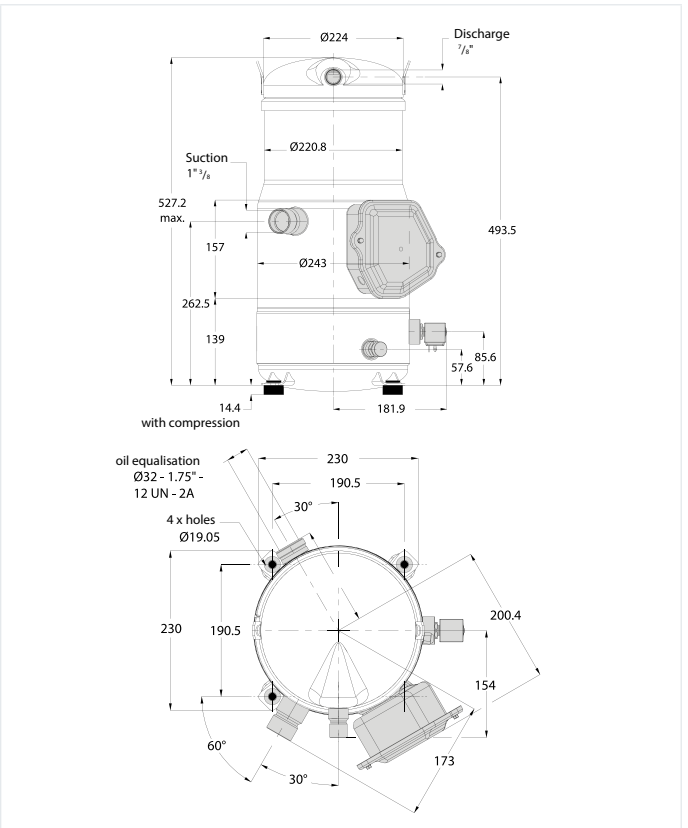


Dimensions

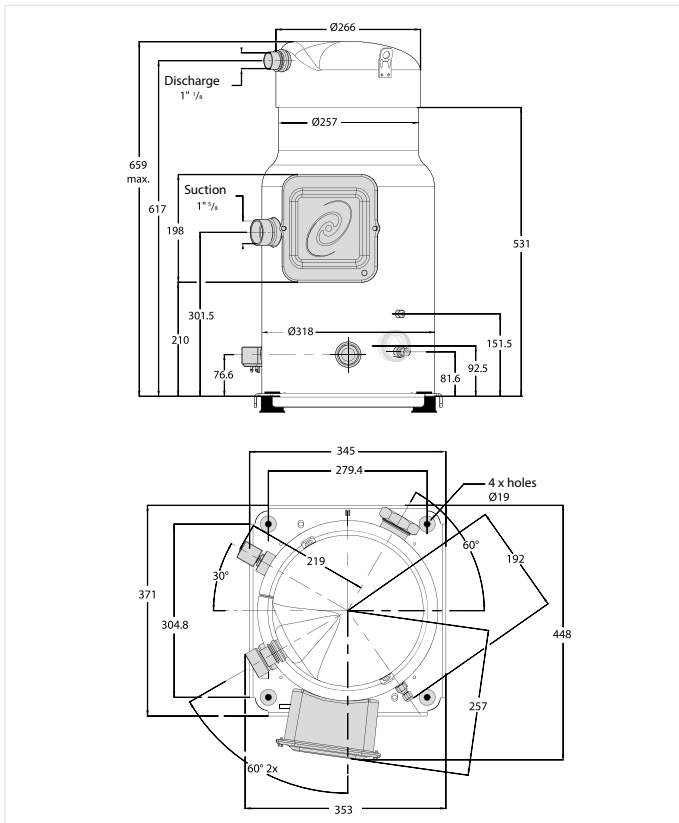
VZH117-J - Single version



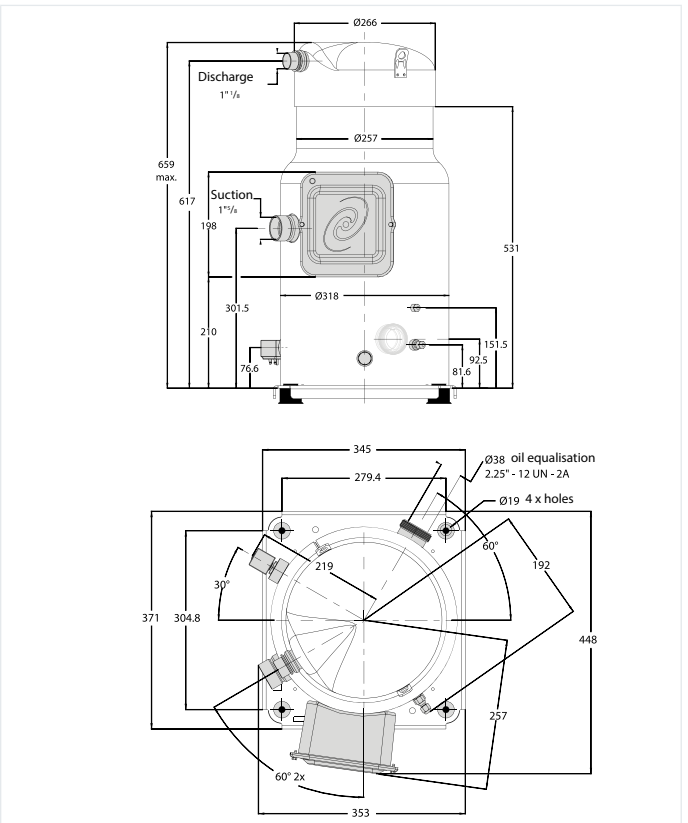
VZH117-J - Manifolded version



VZH170-G-H - Single version



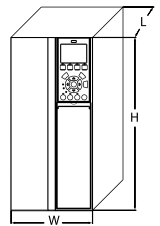
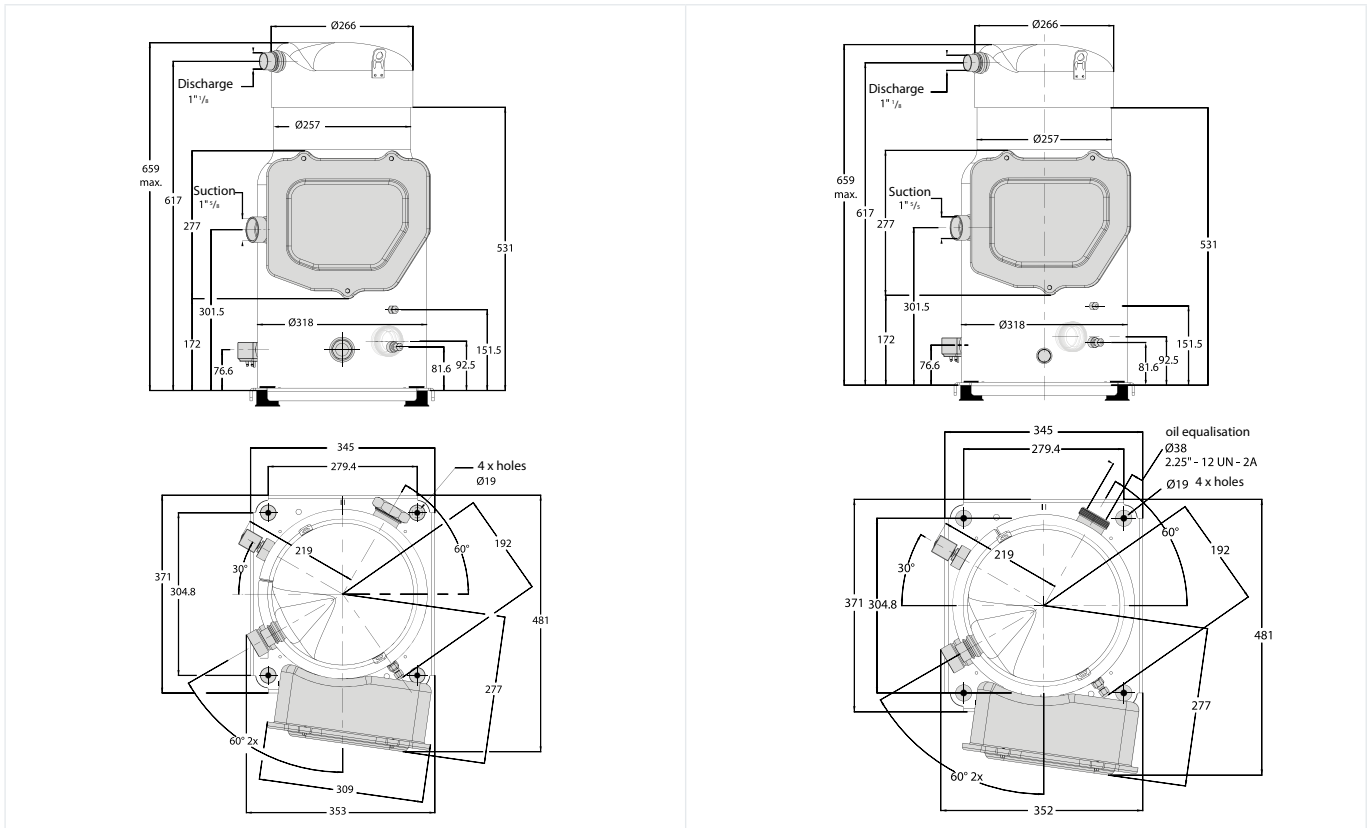
VZH170-G-H - Manifolded version



Dimensions

VZH170-J - Single version

VZH170-J - Manifolded version



Inverter Scroll Compressors - VZH 028-044 converter

Frequency converter dimensions

Drive supply voltage	Drive power [kW]	Compressor voltage code	Compressor model	IP20			
				Drive enclosure	Overall drive size (H x W x L) [mm]	Overall drive size incl. decoupling plate (H x W x L) [mm]	Clearance above/below [mm/inch.]
T2: 200 – 240 / 3 / 50 – 60	6	J	VZH028	H4	296 x 135 x 241	359 x 135 x 241	100 / 4
	7.5		VZH035	H4	296 x 135 x 241	359 x 135 x 241	100 / 4
	10		VZH044	H5	334 x 150 x 255	402 x 150 x 255	100 / 4
T4: 380 – 480 / 3 / 50 – 60	6	G	VZH028	H3	255 x 100 x 206	329 x 100 x 206	100 / 4
	7.5		VZH035	H3	255 x 100 x 206	329 x 100 x 206	100 / 4
	10		VZH044	H4	296 x 135 x 241	359 x 135 x 241	100 / 4

Frequency converter dimensions depend on supply voltage, IP rating and power
 The table gives an overview of the overall dimensions and different drive enclosures (H3 - H5)
 Details for each drive enclosure are on the following pages

Inverter Scroll Compressors - VZH 088-170 converter

Frequency converter dimensions

Drive supply voltage	Drive power [kW]	Compressor voltage code	Compressor model	IP20		IP55	
				Drive enclosure	Overall drive size (H x W x L) [mm]	Drive enclosure	Overall drive size (H x W x L) [mm]
T2: 200 – 240 / 3 / 50 – 60	15	J	VZH088	B4	595 x 231 x 242	C1	680 x 308 x 310
	18.5	J	VZH117	C3	630 x 308 x 334	C1	680 x 308 x 310
	22	J	VZH170	C3	630 x 308 x 334	C1	680 x 308 x 310
T4: 380 – 480 / 3 / 50 – 60	15	G	VZH088	B3	419 x 165 x 248	B1	480 x 240 x 260
	18.5	G	VZH117	B4	595 x 231 x 242	B2	650 x 242 x 260
	22	G	VZH170	B4	595 x 231 x 242	B2	650 x 242 x 260
T6: 525 – 600 / 3 / 50 – 60	18	H	VZH088	B4	595 x 230 x 242	-	-
	30	H	VZH117	B4	595 x 230 x 242	-	-
	30	H	VZH170	B4	595 x 230 x 242	-	-

Frequency converter dimensions depend on supply voltage, IP rating and power
 The table gives an overview of the overall dimensions and different drive enclosures (B1 - C3)
 Details for each drive enclosure are on the following pages

01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20

Optyma™ - Condensing Units

4 ranges to fit the different market needs of LBP, MBP refrigeration:

- Broad choice for various climates
- Fast installation and maintenance
- Low noise to fit in residential areas
- F-Gas: ready for refrigerants with lower GWP
- Eco Design compliance

Designed by Danfoss with 40 years of know-how in condensing units

Various options:



Optyma™

The widest range of hermetic condensing units with reciprocating compressors



Optyma™ Slim Pack

The compact and cost effective packaged unit with Micro Channel Heat Exchanger technology



Optyma™ Plus New Generation

The premium condensing unit: energy optimized, low noise levels and quick installation / maintenance



Optyma™ Plus INVERTER

Combines ease of use and energy efficiency with the latest Danfoss inverter scroll technology

Range span by refrigerant

Minimum / maximum Cooling capacity in [kW]	Optyma™	Optyma™ Slim Pack	Optyma™ Plus New Generation	Optyma™ Plus INVERTER
MBP				
R134a	0.1 / 13.6	2.1 / 6.7	1.7 / 10.4	-
R404A	0.3 / 21.9	0.8 / 10.6	0.6 / 16.5	1.8 / 9.2
R407A	1.8 / 19.5	3.3 / 10.1	3.3 / 14.9	1.7 / 8.6
R407C	1.7 / 20	-	-	-
R407F	1.9 / 20.5	3.5 / 10.8	3.5 / 15.9	1.8 / 9.3
LBP				
R404A	0.2 / 10.3	0.6 / 5.6	0.7 / 9.6	-

Rating Conditions: Ambient Temperature 32 °C, Superheat 10 K, Subcooling 0 K, Evaporator Temperature MBP: -10 °C / LBP: -25 °C

Quick Selection Notes:

Optyma™ - Condensing Units

Optyma™ is the widest range of hermetic condensing units on the market. Optyma™ condensing unit is available with reciprocating compressors to cover a large range of commercial refrigeration applications, reducing costs and complexity of the systems. All Optyma™ condensing units are extremely efficient and reliable.

That means less energy consumption and less running costs, less cost for service and maintenance. In addition to the wide Optyma™ range, we also offer local support and guidance if needed. A network of partner wholesalers and local Danfoss teams can offer you help and will do their utmost to fulfil your needs. At Danfoss we simply believe it is important to offer an "Optimum service".

Features
Optyma™



Optimum airflow due to Danfoss designed fan cowl

Base rails designed for easy installation

***) A01**



Single or double fan design

Receiver equipped with 3/8 inch. NPTF plug and shut-OFF valve with access port

Fully prewired and factory tested

Combined HP / LP pressure switch Danfoss KP17WB

Pre-mounted LP / HP tubes for easy connection of pressure switch

Easy accessible valves

Compact design and extended application envelope

A02

*) Version:
A00 - without valves and receiver for capillary tubes
A04 - A01 + KP17WB + FSA-kit + power cord

Facts

- Danfoss Optyma™ condensing units perfectly suit applications like:
 - Cold stores and freezer rooms
 - Milk cooling
 - Beer and wine cellars
 - Small food retail and mini markets
 - Garage forecourt shops
 - Display cabinets
 - Ice cream freezers
 - Bottle coolers
- HFC refrigerants R134a, R404A / R507, R407A, R407F, R407C and propane (R290)
- Capacity: from a few to 20000 Watt (R404A)
- High COP
- 100% factory tested for leakage
- Low energy consumption
- Wide application range
- Powder coated steel parts
- Crankcase heater standard (optional for fractional units)
- Service valves standard with access ports
- Access valves / stubs for easy connection
- High-efficiency condensers allowing an extended application envelope in high ambient conditions
- Low electrical consumption and low running costs
- Reliable components for longer life and less warranty call out costs
- Fully pre-wired and factory tested, reducing commissioning time on site
- Built-in grab handles for easier handling on site
- Base plate designed to allow easy mounting on wall brackets
- Flexible add-on design options including: fan speed control, oil separator, pressure switches or weather proof housing
- Easy access to all components for higher serviceability and simplified maintenance
- Compact dimensions and minimum foot print for easy handling, shipping and installation

Quick Selection Notes:

Technical data and ordering

Optyma™ - R404A/R507 LBP

Fan	Test conditions	Unit	Version code	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity [Btu/h] at evaporating temperature				
			D40				-40 °C	-35 °C	-30 °C	-25 °C	-20 °C
	SH = 18 K SC = 3 K	OP-LJZ048D	114N3343	N Q	NTZ048	32	2950	4400	6100	8000	10200
			114N3344			35	2700	4050	5650	7500	9550
						38	2400	3700	5200	6950	8900
						43	1950	3100	4500	6050	7850
		OP-LJZ068D	114N3347 114N3348 114N3349	N Q R	NTZ068	32	5050	7000	9200	11700	14450
						35	4650	6500	8600	10950	13550
						38	4250	6000	8000	10250	12700
						43	3650	5250	7050	9100	11350
		OP-LJZ108D	114N3352 114N3353 114N3354	N Q R	NTZ108	32	6550	9800	13600	17950	22850
						35	6050	9100	12700	16800	21450
						38	5500	8400	11800	15650	20050
		OP-LJZ136D	114N3356 114N3357 114N3358	N Q R	NTZ136	43	-	7150	10250	13750	17650
						32	9350	13500	18350	23900	30250
						35	8550	12500	17100	22450	28550
						38	7700	11500	15900	21000	26800
		OP-LGZ215D	114N3360 114N3361	Q R	NTZ215	43	-	9800	13900	18600	23950
						32	14900	20800	27750	35800	44950
						35	13500	19200	25850	33500	42250
						38	12100	17500	23900	31200	39500
		OP-LGZ271D	114N3363 114N3364	Q R	NTZ271	43	9700	14700	20500	27200	34800
32	20200					27600	36250	46000	56900		
35	18600					25700	33900	43200	53500		
38	17050					23800	31550	40300	50050		
				43	14400	20550	27550	35500	44300		

Electrical codes:

N - Compressor 230 V / 1-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

Q - Compressor 230 V / 3-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

R - Compressor 460 V / 3-ph / 60 Hz, Fan(s) 460 V / 1-ph / 60 Hz

Cooling capacity for three-phase models shown. For single-phase models a difference of ± 1% shall apply
The consumption values shown relate to an ambient temperature in the equipment room of 32°C.

Technical data and ordering

Optyma™ - R404A/R507 LBP

Unit	Condenser			Fan Ø [mm]	Receiver [L]	Power consumption [Btu/h] at evaporating temp.	Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Internal volume [l]				-25 °C	Figure	Height H [mm]	Depth D [mm]	Length L [mm]	Suction line	Liquid line	Gross
OP-LJZ048D	D8	2400	0.4	1x355	3	1900	1B	463	310	1000	5/8"	3/8"	85	76
OP-LJZ068D	D8	2400	0.4	1x355	3	2700	1B	463	310	1000	5/8"	3/8"	85	76
OP-LJZ108D	J8	6300	1.3	1x457	8	4450	1B	688	420	1150	7/8"	1/2"	134	121
OP-LJZ136D	J8	6300	1.3	1x457	8	5650	1B	688	420	1150	7/8"	1/2"	134	121
OP-LGZ215D	N8	8800	1.6	2x457	14	8650	2B	715	800	1200	1 1/8"	5/8"	201	186
OP-LGZ271D	N8	8800	1.6	2x457	14	10950	2B	715	800	1200	1 1/8"	5/8"	201	186


Technical data and ordering

Optyma™ - R404A / R507 LBP

Unit	Code no. Version A06	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]						Power consumption [W] at -30 °C evap temp	Dimensions (mm)			Weight
					-35 °C	-30 °C	-25 °C	-20 °C	-15 °C	-10 °C		Height	Depth	Length	
					mm	mm	mm	Kg							
OP-LCHE068	114X8000	G		35	1569	2094	2693	3366	4111	4924	1780				
	114X8001	D	NTZ068	43	1251	1699	2210	2785	3425	4126	1851	445	600	800	67
				48	1069	1469	1926	2441	3015	3647	1891				
OP-LCHE096	114X8002	D	NTZ096	35	1823	2496	3306	4258	5351	6582	2113	655	760	700	71
				43	1368	1935	2620	3432	4372	5439	2053				
				48	1093	1589	2195	2919	3763	4729	1991				
OP-LGHE108	114X8003	D	NTZ108	35	2175	2955	3849	4853	5957	7150	2497	555	700	1000	92
				43	1664	2327	3084	3932	4864	5874	2462				
				48	-	1944	2615	3365	4191	-	2409				
OP-LGHE136	114X8004	D	NTZ136	35	2865	3829	4951	6233	7675	9271	3466	555	700	1000	97
				43	2244	3067	4025	5121	6358	7732	3467				
				48	1868	2600	3453	4432	5540	-	3469				
OP-LGHE215	114X8005	D	NTZ215	35	4038	5371	6855	8473	10206	12031	5008	725	800	1210	141
				43	3010	4147	5404	6769	8228	-	4905				
				48	2377	3390	4502	5710	-	-	4766				
OP-LGHE271	114X8006	D	NTZ271	35	5787	7594	9616	11828	14203	16712	6729	725	800	1210	144
				43	4544	6066	7759	9607	11592	-	6817				
				48	3772	5112	6597	8217	-	-	6818				

Technical data and ordering

Optyma™ - R404A/R507 MBP/HBP

Fan	Test conditions	Unit	Version code		Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity [Btu/h] at evaporating temperature									
			D32	D40				-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	10 °C	
	SH = 18 K SC = 3 K	OP-HJZ018D	114N3207	114N3208	N Q R	MTZ018	32	2400	3950	5700	7800	10150	12850	15800	19050	22600	
			114N3209	114N3210			35	2100	3600	5300	7300	9550	12150	15000	18100	21500	
			114N3211	114N3212			38	1800	3200	4850	6800	8950	11400	14150	17150	20400	
							43	1300	2650	4150	5900	7950	10200	12700	15500	18550	
		OP-HJZ022D	114N3223	114N3224	N Q R	MTZ022	32	4250	6000	8100	10500	13300	16400	19800	23450	27400	
			114N3225	114N3226			35	3900	5600	7600	9950	12600	15550	18750	22300	26050	
			114N3227	114N3228			38	3550	5200	7100	9350	11850	14650	17700	21050	24650	
							43	3000	4500	6250	8250	10550	13100	15900	19000	22300	
		OP-HJZ028D	114N3238	114N3239	N Q R	MTZ028	32	6300	8650	11400	14550	18150	22150	26650	31500	36800	
			114N3240	114N3241			35	5900	8150	10800	13850	17250	21150	25400	30100	35200	
							38	5450	7650	10150	13100	16400	20100	24200	28650	33550	
							43	4650	6750	9100	11800	14850	18250	22050	26200	30750	
		OP-HJZ036D	114N3251	114N3252	N Q R	MTZ036	32	7350	10300	13750	17700	22200	27200	32700	38650	45050	
			114N3253	114N3254			35	6750	9550	12900	16700	21000	25800	31050	36750	42900	
			114N3255	114N3256			38	6150	8850	12050	15650	19800	24350	29400	34850	40750	
							43	5150	7700	10650	14000	17750	22000	26650	31700	37200	
		OP-HJZ040D	114N3267	114N3268	N Q R	MTZ040	32	8750	12250	16400	21200	26700	32900	39850	47400	55650	
			114N3269	114N3270			35	8100	11450	15450	20050	25300	31250	37900	45150	53050	
			114N3271	114N3272			38	7400	10650	14450	18900	23900	29600	35900	42900	50450	
							43	6350	9350	12900	16950	21600	26800	32650	39100	46200	
		OP-HJZ050D	114N3281	114N3282	N Q R	MTZ050	32	10850	15100	20000	25750	32250	39600	47750	56750	66500	
			114N3283	114N3284			35	9900	14000	18750	24250	30500	37600	45450	54100	63500	
			114N3285	114N3286			38	8950	12900	17450	22750	28750	35550	43100	51350	60450	
							43	7350	11000	15250	20150	25750	32050	39050	46800	55300	
OP-HGZ064D	114N3296	114N3297	N Q R	MTZ064	32	13700	18800	24700	31500	39100	47550	56700	66600	77200			
	114N3298	114N3299			35	12550	17450	23150	29600	36900	44950	53750	63250	73400			
	114N3300	114N3301			38	11400	16100	21550	27750	34700	42400	50800	59850	69650			
					43	9500	13850	18900	24600	30950	38050	45800	54250	63400			
OP-HGZ080D	114N3308	114N3309	Q R	MTZ080	32	19300	25650	33000	41500	51100	61800	73550	86350	100150			
	114N3310	114N3311			35	17950	24050	31100	39200	48400	58650	69900	82150	95400			
					38	16600	22450	29200	36900	45650	55450	66200	77950	90650			
					43	14400	19750	25950	33050	41050	50050	59950	70850	82750			
OP-HGZ100D	114N3318	114N3319	Q R	MTZ100	32	19800	27300	35950	45800	56850	68950	82150	96300	111400			
	114N3320	114N3321			35	18000	25200	33500	42900	53450	65050	77650	91250	105750			
					38	16250	23150	31100	40050	50100	61150	73200	86200	100100			
					43	13400	19800	27100	35300	44550	54700	65800	77900	90900			
OP-HGZ125D	114N3328	114N3329	Q R	MTZ125	32	29600	39100	50100	62700	76950	92950	110500	129750	150550			
	114N3330	114N3331			35	27300	36450	47050	59150	72800	88100	105000	123450	143450			
					38	25000	33850	44000	55550	68600	83250	99400	117100	136300			
					43	21250	29450	38850	49550	61600	75100	90050	106550	124500			
OP-HGZ160D	114N3338	114N3339	Q R	MTZ160	32	38250	49550	62500	77250	93750	112000	132000	153550	176700			
	114N3340	114N3341			35	35500	46300	58750	72900	88700	106200	125300	146050	168350			
					38	32700	43150	55000	68500	83600	100350	118650	138600	160050			
					43	28200	37850	48850	61250	75200	90650	107650	126250	146500			

Electrical codes:

N - Compressor 230 V / 1-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

Q - Compressor 230 V / 3-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

R - Compressor 460 V / 3-ph / 60 Hz, Fan(s) 460 V / 1-ph / 60 Hz

Cooling capacity for three-phase models shown. For single-phase models a difference of ± 1% shall apply
The consumption values shown relate to an ambient temperature in the equipment room of 32°C.




Technical data and ordering

Optyma™ - R404A/R507 MBP/HBP

Unit	Condenser			Fan Ø [mm]	Receiver [L]	Power consumption [Btu/h] at evaporating temp.		Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Internal volume [l]			-10°C	5°C	Figure	Height H [mm]	Depth D [mm]	Length L [mm]	Suction line	Liquid line	Gross	Net
OP-HJZ018D	D8	2400	0.4	1x355	3	1900	2250	D32= 1A D40= 1B	463	310	1000	1/2"	3/8"	D32= 64 D40= 80	D32= 55 D40= 71
OP-HJZ022D	D8	2400	0.4	1x355	3	2100	2700	D32= 1A D40= 1B	463	310	1000	1/2" 5/8" (N)	3/8"	D32= 64 D40= 80	D32= 55 D40= 71
OP-HJZ028D	G8	4800	0.5	1x457	6	3250	3900	D32= 1A D40= 1B	538	420	1150	1/2" 5/8" (N)	1/2"	D32= 83 D40= 107	D32= 71 D40= 95
OP-HJZ036D	G8	4800	0.5	1x457	8	3850	5000	D32= 1A D40= 1B	538	420	1150	5/8"	1/2"	D32= 85 D40= 109	D32= 73 D40= 97
OP-HJZ040D	J8	6300	1.3	1x457	8	4150	5350	D32= 1A D40= 1B	688	420	1150	5/8"	1/2"	D32= 93 D40= 120	D32= 80 D40= 107
OP-HJZ050D	J8	6300	1.3	1x457	8	4850	5900	D32= 1A D40= 1B	688	420	1150	7/8"	1/2"	D32= 104 D40= 134	D32= 91 D40= 121
OP-HGZ064D	N8	8800	1.6	2x457	10	6850	8350	D32= 2A D40= 2B	715	800	1200	1 1/8"	1/2"	D32= 140 D40= 182	D32= 125 D40= 167
OP-HGZ080D	N8	8800	1.6	2x457	14	8800	11100	D32= 2A D40= 2B	715	800	1200	1 1/8"	5/8"	D32= 143 D40= 185	D32= 128 D40= 170
OP-HGZ100D	N8	8800	1.6	2x457	14	9800	12150	D32= 2A D40= 2B	715	800	1200	1 1/8"	5/8"	D32= 159 D40= 201	D32= 144 D40= 186
OP-HGZ125D	Q8	13 980	2.5	2x550	14	12150	15100	D32= 2A D40= 2B	971	800	1500	1 1/8"	5/8"	D32= 243 D40= 302	D32= 225 D40= 284
OP-HGZ160D	Q8	13 980	2.5	2x550	14	15450	20250	D32= 2A D40= 2B	971	800	1500	1 1/8"	5/8"	D32= 248 D40= 307	D32= 230 D40= 289

Technical data and ordering

Optyma™ - R404A/R507 MBP/HBP

Fan	Test conditions	Unit	Version code	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity [Btu/h] at evaporating temperature								
			D40				-30 °C	-25 °C	-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	10 °C
	SH = 18 K SC = 3 K	OP-HNU015D	114N3366 114N3367 114N3368	N Q R	MLZ015	32	6400	8400	10700	13250	16100	19350	23000	27100	31600
						35	-	7900	10100	12600	15350	18500	22000	25900	30250
						38	-	7350	9500	11900	14550	17550	20950	24700	28950
						43	-	-	8450	10700	13200	16000	19150	22700	26650
		OP-HNU021D	114N3370 114N3371 114N3372	N Q R	MLZ021	32	9650	12150	15000	18300	22000	26150	30750	35800	41300
						35	-	11550	14300	17450	21000	25000	29450	34350	39750
						38	-	10900	13550	16550	19950	23800	28100	32900	38150
						43	-	-	12250	15050	18200	21850	25900	30450	35550
		OP-HNU030D	114N3374 114N3375 114N3376	N Q R	MLZ030	32	14400	18000	22150	27000	32500	38700	45600	53200	61500
						35	-	17100	21100	25750	31000	37000	43650	51000	59100
						38	-	16200	20000	24450	29500	35250	41650	48800	56700
						43	-	-	18100	22200	26900	32250	38300	45100	52700
 	SH = 18 K SC = 3 K	OP-HRU038D	114N3378 114N3379 114N3380	N Q R	MLZ038	32	16950	21650	27000	33000	39800	47350	55850	65300	75700
						35	-	20600	25750	31550	38050	45350	53550	62650	72800
						38	-	19450	24450	30050	36300	43300	51200	60000	69850
						43	-	-	22150	27350	33250	39800	47200	55500	64850
		OP-HRU048D	114N3382 114N3383	Q R	MLZ048	32	22750	28200	34700	42200	50800	60350	70900	82450	95000
						35	-	26850	33050	40250	48450	57600	67800	79000	91200
						38	-	25400	31300	38200	46000	54850	64650	75450	87350
						43	-	-	28300	34600	41850	50100	59250	69500	80900
		OP-HRU058D	114N3385 114N3386	Q R	MLZ058	32	23800	32050	41250	51450	62750	75300	89150	104300	120850
						35	-	29900	38800	48600	59450	71450	84700	99300	115200
						38	-	27700	36250	45700	56050	67550	80200	94150	109400
						43	-	-	31950	40650	50200	60750	72400	85300	99450
OP-HRU076D	114N3388 114N3389	Q R	MLZ076	32	35600	44500	54600	66150	79200	93850	110150	128100	147700		
				35	-	42300	52000	63000	75400	89400	104950	122100	140950		
				38	-	40000	49250	59750	71550	84850	99650	116050	134150		
				43	-	-	44550	54150	64950	77050	90650	105800	122650		

Electrical codes:

N - Compressor 230 V / 1-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

Q - Compressor 230 V / 3-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

R - Compressor 460 V / 3-ph / 60 Hz, Fan(s) 460 V / 1-ph / 60 Hz

Cooling capacity for three-phase models shown. For single-phase models a difference of ± 1% shall apply
The consumption values shown relate to an ambient temperature in the equipment room of 32°C.

Technical data and ordering

Optyma™ - R404A/R507 MBP/HBP

Unit	Condenser			Fan Ø [mm]	Receiver [L]	Power consumption [Btu/h] at evaporating temp.		Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Internal volume [l]			-10°C	5°C	Figure	Height H [mm]	Depth D [mm]	Length L [mm]	Suction line	Liquid line	Gross	Net
OP-HNU015D	G8	4800	0.5	1x457	6	2350	2600	3A	538	420	1150	5/8"	1/2"	115	103
OP-HNU021D	G8	4800	0.5	1x457	6	3450	3700	3A	538	420	1150	5/8"	1/2"	115	103
OP-HNU030D	J8	6300	1.3	1x457	8	4450	4850	3A	688	420	1150	7/8"	1/2"	136	123
OP-HRU038D	N8	8800	1.6	2x457	10	5350	5900	4A	715	800	1200	7/8"	1/2"	182	167
OP-HRU048D	N8	8800	1.6	2x457	10	7550	8250	4A	715	800	1200	7/8"	1/2"	182	167
OP-HRU058D	Q8	13 980	2.5	2x550	14	8950	10050	4A	971	800	1500	1 1/8"	5/8"	287	269
OP-HRU076D	Q8	13 980	2.5	2x550	14	11000	12300	4A	971	800	1500	1 1/8"	5/8"	288	270

01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20


Technical data and ordering

Optyma™ - R404A / R507 MBP

Unit	Code no. Version A06	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]					Power consumption [W] at -10 °C evap temp	Dimensions (mm)			Weight
					-15 °C	-10 °C	-5 °C	0 °C	5 °C		Height	Depth	Length	
					mm	mm	mm	Kg						
OP- MGZE038	114X8007	G	MTZ22	35	2273	2924	3668	4502	5422	1457	445	600	800	67
				43	1840	2392	3027	3743	4540	1530				
				48	1578	2066	2631	3273	3992	1571				
OP- MGZE048	114X8008	D	MTZ28	35	2847	3616	4473	5413	6433	1951	445	600	800	69
				43	2305	2971	3714	4532	5423	2039				
				48	1979	2580	3251	3993	–	2089				
OP- MGZE060	114X8009	G	MTZ36	35	3912	4865	5912	7048	8263	2580	555	700	1000	84
				43	3230	4043	4935	5901	6937	2718				
				48	2803	3528	4323	5186	–	2790				
OP- MGZE086	114X8010	D	MTZ50	35	5172	6528	8074	9797	11678	3608	725	800	1210	102
				43	4182	5327	6626	8070	9645	3759				
				48	3610	4605	5734	6990	–	3836				
OP- MGZE108	114X8011	D	MTZ64	35	6499	8097	9824	11656	13562	4619	725	800	1210	118
				43	5326	6672	8109	9618	11182	4814				
				48	4609	5779	7019	–	–	4914				
OP- MGZE136	114X8012	D	MTZ80	35	8866	10969	13308	15875	18656	5606	725	800	1210	128
				43	7386	9194	11209	13428	15844	5901				
				48	6477	8099	9910	11912	–	6072				
OP- MGZE171	114X8013	D	MTZ100	35	10661	13458	16598	20068	23851	6641	1005	875	1510	208
				43	8841	11239	13922	16890	20134	7027				
				48	7685	9839	12244	14905	17819	7209				
OP- MGZE215	114X8014	D	MTZ125	35	13211	16475	20134	24171	28561	8433	1005	875	1510	220
				43	10892	13678	16819	20306	24124	8864				
				48	9501	11984	14799	17942	–	9120				
OP- MGZE242	114X8015	D	MTZ144	35	15217	18722	22584	26777	31271	9876	1005	875	1510	223
				43	12576	15559	18853	22443	26308	10331				
				48	10945	13597	16534	19748	–	10585				
OP- MGZE271	114X8016	D	MTZ160	35	16714	20561	24799	29399	34321	11190	1005	875	1510	228
				43	13860	17146	20772	24721	28967	11732				
				48	12093	15021	18262	–	–	12058				
OP- MGUE126	114X8045	D	MLZ058	35	11266	13629	16275	19139	22157	5905	1005	875	1510	201
				43	9237	11328	13665	16187	18834	7036				
				48	7853	9779	11929	14244	16667	7897				
OP- MGUE148	114X8046	D	MLZ066	35	13164	15629	18342	21310	24544	6760	1005	875	1510	201
				43	11354	13504	15845	18393	21168	7994				
				48	10142	12101	14215	16507	19001	6454				
OP- MGUE162	114X8047	D	MLZ076	35	14923	17445	20230	23298	26686	7944	1005	875	1510	201
				43	12653	14592	16774	19224	21983	9268				
				48	11196	12741	14508	16550	18903	10204				
OP- MGZE217	114X8760	D	SZ160	35	16483	20068	24105	28568	33452	11282	1005	875	1510	249
				43	14225	17781	20006	23801	27957	13111				
				48	–	16799	19764	20630	24323	14558				

Technical data and ordering

Optyma™ - R134a MBP/HBP

Fan	Test conditions	Unit	Version code		Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity [Btu/h] at evaporating temperature						
			D32	D40				-10 °C	-5 °C	0 °C	5 °C	10 °C	15 °C	20 °C
	SH = 18 K SC = 3 K	OP-HJZ018D	114N3207 114N3209 114N3211	114N3208 114N3210 114N3212	N Q R	MTZ018	32	6000	7750	9900	12450	15400	18850	22750
							35	5650	7350	9400	11900	14800	18150	21950
							38	5300	6950	8950	11350	14200	17450	21100
							43	4700	6250	8200	10450	13150	16200	19700
		OP-HJZ022D	114N3223 114N3225 114N3227	114N3224 114N3226 114N3228	N Q R	MTZ022	32	7600	9900	12600	15750	19300	23250	27600
							35	7250	9450	12100	15100	18550	22400	26600
							38	6850	9000	11550	14450	17800	21450	25500
							43	6250	8250	10650	13350	16450	19900	23700
		OP-HJZ028D	114N3238 114N3240	114N3239 114N3241	N Q	MTZ028	32	10400	13500	17000	21000	25500	30400	35850
							35	9950	12950	16400	20250	24600	29400	34700
							38	9450	12350	15700	19500	23700	28400	33500
							43	8600	11400	14600	18150	22150	26600	31450
		OP-HJZ036D	114N3251 114N3253 114N3255	114N3252 114N3254 114N3256	N Q R	MTZ036	32	13500	17100	21250	26000	31300	37150	43550
							35	12800	16350	20400	25000	30150	35850	42050
							38	12150	15600	19550	24000	29000	34550	40550
							43	11050	14300	18100	22300	27050	32300	38000
		OP-HJZ040D	114N3267 114N3269 114N3271	114N3268 114N3270 114N3272	N Q R	MTZ040	32	17050	21100	25700	31050	37050	43850	51350
							35	16000	20000	24550	29800	35700	42350	49800
							38	15000	18900	23400	28550	34350	40950	48200
							43	13350	17150	21500	26550	32200	38550	45650
		OP-HJZ050D	114N3281 114N3283 114N3285	114N3282 114N3284 114N3286	N Q R	MTZ050	32	16950	22500	29000	36450	45000	54550	65100
							35	16300	21700	28050	35300	43600	52900	63150
							38	15600	20900	27000	34100	42150	51150	61050
							43	14300	19350	25200	31900	39500	48050	57450
OP-HGZ064D	114N3296 114N3298 114N3300	114N3297 114N3299 114N3301	N Q R	MTZ064	32	21800	28750	36750	45850	56000	67100	79100		
					35	20900	27650	35400	44250	54050	64800	76400		
					38	19950	26500	34050	42550	52050	62450	73650		
					43	18200	24450	31600	39700	48600	58400	69000		
OP-HGZ080D	114N3308 114N3310	114N3309 114N3311	Q R	MTZ080	32	29000	37600	47600	59000	71850	86100	101700		
					35	27750	36150	45850	56900	69350	83200	98300		
					38	26500	34650	44050	54800	66850	80250	94900		
					43	24400	32100	41000	51150	62600	75250	89150		
OP-HGZ100D	114N3318 114N3320	114N3319 114N3321	Q R	MTZ100	32	33250	43200	54700	67600	82050	97950	115150		
					35	31350	41000	52150	64650	78650	93950	110600		
					38	29450	38800	49550	61650	75150	89950	106000		
					43	26250	35100	45150	56550	69250	83150	98250		
OP-HGZ125D	114N3328 114N3330	114N3329 114N3331	Q R	MTZ125	32	42950	55750	70650	87600	106750	127900	151050		
					35	40600	53050	67450	83900	102350	122800	145200		
					38	38300	50350	64250	80100	97950	117650	139250		
					43	34450	45800	58850	73700	90350	108850	129050		
OP-HGZ160D	114N3338 114N3340	114N3339 114N3341	Q R	MTZ160	32	60400	75500	92550	111500	132400	155100	179550		
					35	57700	72400	89000	107450	127700	149700	173400		
					38	54950	69250	85400	103250	122900	144200	167150		
					43	50250	63850	79100	96050	114600	134750	156400		

Electrical codes:

N - Compressor 230 V / 1-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

Q - Compressor 230 V / 3-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

R - Compressor 460 V / 3-ph / 60 Hz, Fan(s) 460 V / 1-ph / 60 Hz

Cooling capacity for three-phase models shown. For single-phase models a difference of $\pm 1\%$ shall apply
The consumption values shown relate to an ambient temperature in the equipment room of 32°C.



Technical data and ordering

Optyma™ - R134a MBP/HBP

Unit	Condenser			Fan Ø [mm]	Receiver [L]	Power consumption [Btu/h] at evaporating temp.		Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Internal volume [l]			-10°C	5°C	Figure	Height H [mm]	Depth D [mm]	Length L [mm]	Suction line	Liquid line	Gross	Net
OP-HJZ018D	D8	2400	0.4	1x355	3	1050	1300	D32= 1A D40= 1B	463	310	1000	1/2"	3/8"	D32= 64 D40= 80	D32= 55 D40= 71
OP-HJZ022D	D8	2400	0.4	1x355	3	1250	1600	D32=1A D40=1B	463	310	1000	1/2" 5/8" (N)	3/8"	D32=64 D40=80	D32=55 D40=71
OP-HJZ028D	G8	4800	0.5	1x457	6	2150	2600	D32=1A D40=1B	538	420	1150	1/2" 5/8" (N)	1/2"	D32=83 D40=107	D32=71 D40=95
OP-HJZ036D	G8	4800	0.5	1x457	8	2650	3350	D32=1A D40=1B	538	420	1150	5/8"	1/2"	D32= 85 D40= 109	D32= 73 D40= 97
OP-HJZ040D	J8	6300	1.3	1x457	8	2850	3600	D32= 1A D40= 1B	688	420	1150	5/8"	1/2"	D32= 93 D40= 120	D32= 80 D40= 107
OP-HJZ050D	J8	6300	1.3	1x457	8	3000	3600	D32= 1A D40= 1B	688	420	1150	7/8"	1/2"	D32= 104 D40= 134	D32= 91 D40= 121
OP-HGZ064D	N8	8800	1.6	2x457	10	3600	4550	D32= 2A D40= 2B	715	800	1200	1 1/8"	1/2"	D32= 140 D40= 182	D32= 125 D40= 167
OP-HGZ080D	N8	8800	1.6	2x457	14	5250	6500	D32= 2A D40= 2B	715	800	1200	1 1/8"	5/8"	D32= 143 D40= 185	D32= 128 D40= 170
OP-HGZ100D	N8	8800	1.6	2x457	14	6050	7600	D32= 2A D40= 2B	715	800	1200	1 1/8"	5/8"	D32= 159 D40= 201	D32= 144 D40= 186
OP-HGZ125D	Q8	13 980	2.5	2x550	14	6900	8800	D32= 2A D40= 2B	971	800	1500	1 1/8"	5/8"	D32= 243 D40= 302	D32= 225 D40= 284
OP-HGZ160D	Q8	13 980	2.5	2x550	14	9200	11800	D32= 2A D40= 2B	971	800	1500	1 1/8"	5/8"	D32= 248 D40= 307	D32= 230 D40= 289

Technical data and ordering

Optyma™ - R134a MBP/HBP

Fan	Test conditions	Unit	Version code	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity [Btu/h] at evaporating temperature						
							-15 °C	-10 °C	-5 °C	0 °C	5 °C	10 °C	15 °C
	SH = 18 K SC = 3 K	OP-HNU015D	114N3366 114N3367 114N3368	N Q R	MLZ015	32	7500	9500	11900	14600	17600	20900	24450
						35	7200	9200	11550	14200	17100	20350	23850
						38	6950	8900	11150	13750	16650	19800	23200
						43	6450	8350	10500	13000	15750	18800	22100
		OP-HNU021D	114N3370 114N3371 114N3372	N Q R	MLZ021	32	10300	13300	16650	20400	24650	29300	34500
						35	9900	12850	16150	19850	24000	28600	33650
						38	9450	12400	15650	19300	23350	27850	32750
						43	8750	11600	14800	18300	22200	26550	31250
		OP-HNU030D	114N3374 114N3375 114N3376	N Q R	MLZ030	32	15600	19850	24800	30500	36900	43950	51600
						35	15000	19200	24100	29700	35950	42850	50350
						38	14450	18550	23350	28800	34950	41700	49100
						43	13450	17400	22050	27350	33250	39750	46850
	SH = 18 K SC = 3 K	OP-HRU038D	114N3378 114N3379 114N3380	N Q R	MLZ038	32	18300	23050	28750	35400	42850	51000	59800
						35	17700	22300	27900	34400	41700	49700	58350
						38	17100	21600	27050	33400	40500	48350	56850
						43	16100	20350	25550	31600	38500	46050	54200
		OP-HRU048D	114N3382 114N3383	Q R	MLZ048	32	24100	30400	37700	46100	55450	65850	77200
						35	23200	29300	36450	44650	53800	63950	75050
						38	22300	28200	35150	43150	52100	62000	72900
						43	20700	26350	32950	40550	49150	58700	69100
		OP-HRU058D	114N3385 114N3386	Q R	MLZ058	32	28550	35800	44100	53500	64050	75650	88350
						35	27600	34600	42650	51850	62100	73500	85950
						38	26600	33400	41200	50150	60150	71250	83450
						43	25000	31350	38750	47250	56800	67450	79150
OP-HRU076D	114N3388 114N3389	Q R	MLZ076	32	37800	46950	57850	70400	84450	100000	116850		
				35	36450	45450	56100	68350	82100	97250	113650		
				38	35050	43850	54300	66250	79650	94400	110450		
				43	32650	41150	51150	62600	75450	89600	104900		

Electrical codes:

N - Compressor 230 V / 1-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

Q - Compressor 230 V / 3-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

R - Compressor 460 V / 3-ph / 60 Hz, Fan(s) 460 V / 1-ph / 60 Hz

Cooling capacity for three-phase models shown. For single-phase models a difference of +/- 1% shall apply
The consumption values shown relate to an ambient temperature in the equipment room of 32°C.

Technical data and ordering

Optyma™ - R134a MBP/HBP

Unit	Condenser			Fan Ø [mm]	Receiver [L]	Power consumption [Btu/h] at evaporating temp.		Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Internal volume [l]			-10°C	5°C	Figure	Height H [mm]	Depth D [mm]	Length L [mm]	Suction line	Liquid line	Gross	Net
OP-HNU015D	G8	4800	0.5	1x457	6	2450	2650	3A	538	420	1150	5/8"	1/2"	115	103
OP-HNU021D	G8	4800	0.5	1x457	6	3100	3400	3A	538	420	1150	5/8"	1/2"	115	103
OP-HNU030D	J8	6300	1.3	1x457	8	4050	4550	3A	688	420	1150	7/8"	1/2"	136	123
OP-HRU038D	N8	8800	1.6	2x457	10	5400	5950	4A	715	800	1200	7/8"	1/2"	182	167
OP-HRU048D	N8	8800	1.6	2x457	10	6750	7550	4A	715	800	1200	7/8"	1/2"	182	167
OP-HRU058D	Q8	13 980	2.5	2x550	14	7600	8350	4A	971	800	1500	1 1/8"	5/8"	287	269
OP-HRU076D	Q8	13 980	2.5	2x550	14	9750	10900	4A	971	800	1500	1 1/8"	5/8"	288	270

Technical data and ordering

Optyma™ - R134a MBP

Unit	Code no. Version A06	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]					Power consumption [W] at -10 °C evap temp	Dimensions (mm)			Weight
					-15 °C	-10 °C	-5 °C	0 °C	5 °C		Height	Depth	Length	
					mm	mm	mm	Kg						
OP- MGZE038	114X8007	G	MTZ22	35	1220	1700	2273	2946	3721	789	445	600	800	67
				43	1004	1436	1949	2550	3243	822				
				48	889	1286	1757	2309	2946	835				
OP- MGZE048	114X8008	D	MTZ28	35	1516	2054	2716	3511	4443	985	445	600	800	69
				43	1306	1785	2374	3081	3911	1040				
				48	1201	1635	2171	2817	3579	1069				
OP- MGZE060	114X8009	G	MTZ36	35	2444	3179	4045	5046	6186	1409	555	700	1000	84
				43	2138	2810	3596	4503	5533	1489				
				48	1952	2579	3309	4151	5108	1528				
OP- MGZE086	114X8010	D	MTZ50	35	2990	4030	5279	6747	8441	1967	725	800	1210	102
				43	2496	3441	4569	5893	7417	2033				
				48	2238	3111	4152	5373	6783	2060				
OP- MGZE108	114X8011	D	MTZ64	35	3682	4977	6506	8278	10294	2404	725	800	1210	118
				43	3070	4257	5653	7264	9095	2471				
				48	2729	3840	5142	6644	8350	2494				
OP- MGZE136	114X8012	D	MTZ80	35	5404	7113	9119	11434	14069	3053	725	800	1210	128
				43	4603	6177	8013	10128	12527	3158				
				48	4118	5594	7312	9288	11530	3204				
OP- MGZE171	114X8013	D	MTZ100	35	5877	7949	10433	13360	16751	3513	1005	875	1510	208
				43	4964	6854	9112	11765	14840	3692				
				48	4481	6237	8332	10796	13655	3777				
OP- MGZE215	114X8014	D	MTZ125	35	7377	9867	12808	16225	20133	4094	1005	875	1510	220
				43	6130	8420	11107	14221	17773	4211				
				48	5419	7560	10070	12974	16290	4239				
OP- MGZE242	114X8015	D	MTZ144	35	9417	12318	15702	19587	23977	5294	1005	875	1510	223
				43	8079	10738	13822	17346	21321	5556				
				48	7296	9781	12655	15936	19635	5692				
OP- MGZE271	114X8016	D	MTZ160	35	10425	13589	17295	21559	26383	5721	1005	875	1510	228
				43	9051	11919	15258	19082	23398	5992				
				48	8254	10903	13979	17504	21476	6143				
OP- MGUE126	114X8045	D	MLZ058	35	6314	7990	9922	12133	14643	3228	1005	875	1510	201
				43	5599	7163	8959	11011	13339	3774				
				48	-	6632	8339	10287	12497	4135				
OP- MGUE148	114X8046	D	MLZ066	35	7321	9203	11405	13938	16810	3725	1005	875	1510	201
				43	6522	8259	10291	12631	15287	4347				
				48	-	7654	9575	11788	14304	4757				
OP- MGUE162	114X8047	D	MLZ076	35	8068	10168	12608	15403	18564	4291	1005	875	1510	201
				43	7242	9138	11362	13930	16852	5018				
				48	-	8496	10571	12983	15745	5503				
OP- MGZE217	114X8760	D	SZ160	35	11469	14602	18198	22277	26851	6145	1005	875	1510	249
				43	10241	13170	16520	20306	24543	7188				
				48	-	12235	15413	19001	23015	7944				

Technical data and ordering


Optyma™ - R22 MBP

Unit	Code no. Version A06	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity range in [W] at evaporating temperature [°C]					Power consumption [W] at -10 °C evap temp	Dimensions (mm)			Weight
					-15 °C	-10 °C	-5 °C	0 °C	5 °C		Height	Depth	Length	
					mm	mm	mm	Kg						
OP- MCME038	114X8017	G	MT22	35°C	2064	2740	3505	4362	5310	1260	445	600	800	67
				43°C	1703	2322	3020	3800	4664	1317				
				48°C	1479	2058	2711	3440	4247	1342				
OP- MCME048	114X8018	D	MT28	35°C	3028	3853	4762	5757	6833	1811	445	600	800	69
				43°C	2596	3358	4195	5103	6084	1887				
				48°C	2318	3038	3826	4680	5597	1927				
OP- MCME060	114X8111	G	MT36	35°C	3928	4952	6071	7289	8598	2350	655	760	700	72
	114X8112	D		43°C	3361	4313	5349	6470	7672	2494				
				48°C	3001	3904	4886	5942	7073	2582				
OP- MGME086	114X8019	D	MT50	35°C	4809	6111	7642	9415	11434	2917	725	800	1210	102
				43°C	4119	5306	6703	8318	10162	3111				
				48°C	3692	4799	6104	7620	9351	3214				
OP- MGME108	114X8022	D	MT64	35°C	6018	7687	9559	11630	13890	3942	725	800	1210	118
				43°C	5284	6808	8511	10387	12429	4170				
				48°C		6308	7896	9643	11541	4280				
OP- MGME121	114X8025	D	MT73	35°C	6997	9058	11373	13946	16766	4156	725	800	1210	122
				43°C	6024	7910	10026	12364	14929	4401				
				48°C	5414	7192	9180	11375	13783	4521				
OP- MGME136	114X8026	D	MT80	35°C	8424	10732	13308	16144	19231	4860	725	800	1210	128
				43°C	7340	9448	11784	14352	17143	5196				
				48°C	6666	8643	10831	13226	15831	5369				
OP- MGME171	114X8028	D	MT100	35°C	9639	12347	15478	19049	23065	5680	1005	875	1510	208
				43°C	8153	10638	13504	16769	20441	5966				
				48°C	7353	9681	12365	15424	18866	6147				
OP- MGME215	114X8029	D	MT125	35°C	12580	15909	19678	23900	28560	7499	1005	875	1510	220
				43°C	10927	13918	17300	21066	25225	7968				
				48°C	9964	12721	15835	19310	23143	8221				
OP- MGME242	114X8030	D	MT144	35°C	14038	17667	21765	26337	31357	8495	1005	875	1510	223
				43°C	12146	15382	19030	23084	27531	8995				
				48°C		14013	17351	21062	25133	9263				
OP- MGME271	114X8031	D	MT160	35°C	15601	19605	24156	29241	34840	9530	1005	875	1510	228
				43°C	13559	17148	21207	25724	30714	10084				
				48°C		15655	19381	23538	28112	10382				
OP- MGUE126	114X8045	D	MLZ058	35°C	10651	12994	15712	18822	22341	5000	1005	875	1510	201
				43°C	9680	11783	14249	17095	20338	5868				
				48°C		10867	13165	15834	18891	5333				
OP- MGUE148	114X8046	D	MLZ066	35°C	11923	14751	17971	21538	25402	5729	1005	875	1510	201
				43°C	10885	13477	16432	19704	23245	6715				
				48°C		12522	15303	18382	21714	7477				
OP- MGUE162	114X8047	D	MLZ076	35°C	13977	17042	20480	24279	28416	6896	1005	875	1510	201
				43°C	12636	15471	18635	22118	25900	8139				
				48°C		14714	17311	20592	24148	9038				
OP- MGME217	114X8660	D	SM160	35°C	17697	21780	26359	31427	36989	9660	1005	875	1510	249
				43°C	16402	19757	23798	28482	33611	11401				
				48°C		18666	21960	26397	31240	12659				

01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20

Technical data and ordering

Optyma™ - R22 MBP/HBP

Fan	Test conditions	Unit	Version code		Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity [Btu/h] at evaporating temperature						
			D32	D40				-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	10 °C
	SH = 18 K SC = 3 K	OP-HJM018D	114N3200 114N3203	114N3201 114N3204	N Q	MT018	32	4350	6100	8150	10600	13500	16800	20450
							35	4100	5750	7750	10100	12900	16050	19550
							38	3850	5400	7350	9600	12250	15250	18650
							43	3400	4900	6650	8750	11150	14000	17150
		OP-HJM022D	114N3216 114N3219	114N3217 114N3220	N Q	MT022	32	6350	8750	11500	14550	17950	21700	25750
							35	5900	8250	10900	13850	17150	20750	24650
							38	5400	7700	10250	13150	16300	19800	23550
		OP-HJM028D	114N3232 114N3235	114N3233 114N3236	N Q	MT028	32	10400	13650	17350	21450	26000	30950	36350
							35	9800	13000	16600	20600	25050	29850	35100
							38	9200	12350	15850	19750	24050	28750	33850
							43	8250	11250	14600	18300	22400	26850	31650
		OP-HJM036D	114N3244 114N3247	114N3245 114N3248	N Q	MT036	32	13300	17250	21650	26450	31700	37350	43400
							35	12550	16400	20700	25400	30500	36000	41850
							38	11750	15550	19700	24300	29250	34600	40300
		OP-HJM040D	114N3259 114N3262	114N3260 114N3263	N Q	MT040	32	15000	19450	24500	30100	36400	43350	51000
							35	14100	18500	23450	29050	35250	42100	49600
							38	13150	17550	22450	27950	34050	40850	48250
							43	11650	15950	20750	26150	32100	38700	45950
		OP-HJM050D	114N3274 114N3277	114N3275 114N3278	N Q	MT050	32	16300	21600	27700	34700	42500	51150	60600
							35	15500	20650	26550	33300	40850	49200	58300
38	14750						19700	25400	31900	39200	47250	56050		
43	13500						18150	23550	29650	36500	44050	52300		
OP-HGM064D	114N3289 114N3292	114N3290 114N3293	N Q	MT064	32	21100	27400	34700	43000	52300	62500	73600		
					35	20300	26300	33350	41350	50300	60150	70800		
					38	19450	25250	32000	39700	48300	57750	68050		
					43	18150	23500	29750	36900	44950	53800	63450		
OP-HGM080D	114N3303	114N3304	Q	MT080	32	28250	36700	46350	57350	69600	83050	97800		
					35	27050	35200	44600	55250	67100	80200	94400		
					38	25750	33700	42800	53100	64600	77250	91000		
					43	23650	31200	39800	49500	60350	72300	85250		
OP-HGM100D	114N3313	114N3314	Q	MT100	32	30850	40050	50750	62950	76650	91850	108550		
					35	28750	37750	48150	60000	73350	88100	104250		
					38	26800	35550	45650	57200	70100	84400	100000		
					43	23900	32200	41800	52650	64850	78350	93000		
OP-HGM125D	114N3323	114N3324	Q	MT125	32	42950	55500	70050	86650	105250	125950	148600		
					35	40650	52850	66900	82950	100950	120900	142750		
					38	38450	50250	63800	79250	96650	115800	136850		
					43	35000	46050	58750	73200	89400	107300	126900		
OP-HGM160D	114N3333	114N3334	Q	MT160	32	53000	67900	85100	104650	126450	150500	176550		
					35	50250	64700	81350	100100	121150	144300	169350		
					38	47600	61500	77550	95650	115850	138050	162100		
					43	43400	56450	71350	88200	106950	127600	149950		

Electrical codes:

N - Compressor 230 V / 1-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

Q - Compressor 230 V / 3-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

Cooling capacity for three-phase models shown. For single-phase models a difference of +/- 1% shall apply
The consumption values shown relate to an ambient temperature in the equipment room of 32°C.



Technical data and ordering

Optyma™ - R22 MBP/HBP

Unit	Condenser			Fan Ø [mm]	Receiver [L]	Power consumption [Btu/h] at evaporating temp.		Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Internal volume [l]			-10°C	5°C	Figure	Height H [mm]	Depth D [mm]	Length L [mm]	Suction line	Liquid line	Gross	Net
OP-HJM018D	D8	2400	0.4	1x355	3	1400	1800	D32= 1A D40= 1B	463	310	1000	1/2"	3/8"	D32= 64 D40= 80	D32= 55 D40= 71
OP-HJM022D	D8	2400	0.4	1x355	3	1800	2350	D32= 1A D40= 1B	463	310	1000	1/2" 5/8" (N)	3/8"	D32= 64 D40= 80	D32= 55 D40= 71
OP-HJM028D	G8	4800	0.5	1x457	6	3000	3550	D32= 1A D40= 1B	538	420	1150	1/2" 5/8" (N)	1/2"	D32= 83 D40= 107	D32= 71 D40= 95
OP-HJM036D	G8	4800	0.5	1x457	8	3650	4550	D32= 1A D40= 1B	538	420	1150	5/8"	1/2"	D32= 85 D40= 109	D32= 73 D40= 97
OP-HJM040D	J8	6300	1.3	1x457	8	3900	4800	D32= 1A D40= 1B	688	420	1150	5/8"	1/2"	D32=93 D40=120	D32= 80 D40= 107
OP-HJM050D	J8	6300	1.3	1x457	8	4250	5250	D32= 1A D40= 1B	688	420	1150	7/8"	1/2"	D32= 104 D40= 134	D32= 91 D40= 121
OP-HGM064D	N8	8800	1.6	2x457	10	5950	7200	D32= 2A D40= 2B	715	800	1200	1 1/8"	1/2"	D32= 140 D40= 182	D32= 125 D40= 167
OP-HGM080D	N8	8800	1.6	2x457	14	7350	9400	D32= 2A D40= 2B	715	800	1200	1 1/8"	5/8"	D32= 143 D40= 185	D32= 128 D40= 170
OP-HGM100D	N8	8800	1.6	2x457	14	8650	10650	D32= 2A D40= 2B	715	800	1200	1 1/8"	5/8"	D32= 159 D40= 201	D32= 144 D40= 186
OP-HGM125D	Q8	13,980	2.5	2x550	14	10700	13350	D32= 2A D40= 2B	971	800	1500	1 1/8"	5/8"	D32= 243 D40= 302	D32= 225 D40= 284
OP-HGM160D	Q8	13,980	2.5	2x550	14	13150	16850	D32= 2A D40= 2B	971	800	1500	1 1/8"	5/8"	D32= 248 D40= 307	D32= 230 D40= 289

Technical data and ordering

Optyma™ - R22 MBP/HBP

Fan	Test conditions	Unit	Version code	Electrical code	Compressor	Amb. temp. [°C]	Cooling capacity [Btu/h] at evaporating temperature						
							-20 °C	-15 °C	-10 °C	-5 °C	0 °C	5 °C	10 °C
	SH = 18 K SC = 3 K	OP-HNU015D	114N3366 114N3367 114N3368	N Q R	MLZ015	32	10000	12400	15100	18150	21550	25300	29350
						35	9650	12000	14650	17650	20950	24600	28600
						38	9250	11550	14200	17100	20350	23900	27800
						43	-	10950	13450	16250	19350	22800	26550
		OP-HNU021D	114N3370 114N3371 114N3372	N Q R	MLZ021	32	13800	17050	20800	25050	29700	34700	40050
						35	13350	16550	20200	24300	28850	33750	39000
						38	12900	15950	19550	23550	27950	32750	37900
						43	-	15000	18400	22250	26500	31100	36050
		OP-HNU030D	114N3374 114N3375 114N3376	N Q R	MLZ030	32	20000	24900	30600	37000	44050	51650	59700
						35	19450	24200	29750	36000	42900	50300	58250
						38	18800	23450	28850	34950	41650	48950	56700
						43	-	22050	27200	33050	39500	46500	53950
	SH = 18 K SC = 3 K	OP-HRU038D	114N3378 114N3379 114N3380	N Q R	MLZ038	32	23550	29450	36350	44200	52750	61950	71600
						35	22900	28600	35350	43000	51350	60350	69800
						38	22200	27750	34300	41750	49950	58750	68000
						43	-	26150	32400	39550	47400	55900	64850
		OP-HRU048D	114N3382 114N3383	Q R	MLZ048	32	31450	39200	48000	57800	68600	80350	92900
						35	30250	37800	46400	56000	66600	78050	90400
						38	29000	36400	44750	54150	64450	75700	87750
						43	-	33900	41900	50900	60750	71550	83200
		OP-HRU058D	114N3385 114N3386	Q R	MLZ058	32	37000	46100	56850	69200	83000	98200	114700
						35	36000	44800	55250	67250	80750	95650	111800
						38	34900	43400	53500	65200	78350	92900	108800
						43	-	40850	50400	61500	74050	88100	103400
OP-HRU076D	114N3388 114N3389	Q R	MLZ076	32	48600	60650	74700	90400	107500	125700	144650		
				35	47250	58950	72600	87950	104600	122350	140950		
				38	45700	57100	70400	85350	101600	118950	137050		
				43	-	53500	66250	80600	96150	112850	130250		

Electrical codes:

N - Compressor 230 V / 1-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

Q - Compressor 230 V / 3-ph / 60 Hz, Fan(s) 230 V / 1-ph / 60 Hz

R - Compressor 460 V / 3-ph / 60 Hz, Fan(s) 460 V / 1-ph / 60 Hz

Cooling capacity for three-phase models shown. For single-phase models a difference of +/- 1% shall apply
The consumption values shown relate to an ambient temperature in the equipment room of 32°C.

Technical data and ordering

Optyma™ - R22 MBP/HBP

Unit	Condenser			Fan Ø [mm]	Receiver [L]	Power consumption [Btu/h] at evaporating temp.		Dimensions [mm]						Weight [kg]	
	Type	Air flow [m³/h]	Internal volume [l]			-10°C	5°C	Figure	Height H [mm]	Depth D [mm]	Length L [mm]	Suction line	Liquid line	Gross	Net
OP-HNU015D	G8	4800	0.5	1x457	6	2450	2650	3A	538	420	1150	5/8"	1/2"	115	103
OP-HNU021D	G8	4800	0.5	1x457	6	3100	3400	3A	538	420	1150	5/8"	1/2"	115	103
OP-HNU030D	J8	6300	1.3	1x457	8	4050	4550	3A	688	420	1150	7/8"	1/2"	136	123
OP-HRU038D	N8	8800	1.6	2x457	10	5400	5950	4A	715	800	1200	7/8"	1/2"	182	167
OP-HRU048D	N8	8800	1.6	2x457	10	6750	7550	4A	715	800	1200	7/8"	1/2"	182	167
OP-HRU058D	Q8	13,980	2.5	2x550	14	7600	8350	4A	971	800	1500	1 1/8"	5/8"	287	269
OP-HRU076D	Q8	13,980	2.5	2x550	14	9750	10900	4A	971	800	1500	1 1/8"	5/8"	288	270

Technical data and ordering

Optyma™ - LBP

Electrical characteristics - 230 V / 1phase / 60 Hz

Unit	Wiring diagram	LRA compressor (A) 230 V / 1 phase	MCC compressor (A) 230 V / 1 phase	FLA Fan (A) 230 V / 1 phase
OP-LJZ048D	–	43.7	13.2	1.2
OP-LJZ068D	–	72	21	1.2
OP-LJZ108D	–	97	33	3.6
OP-LJZ136D	–	140	41	3.6

Optyma™ - LBP

Electrical characteristics - 230 V / 3phase / 60 Hz

Unit	Wiring diagram	LRA compressor (A) 230 V / 3 phase	MCC compressor (A) 230 V / 3 phase	FLA Fan (A) 230 V / 1 phase
OP-LJZ048D	–	32	10.1	1.2
OP-LJZ068D	–	48.5	14.8	1.2
OP-LJZ108D	–	72	21.4	3.6
OP-LJZ136D	–	97.2	29	3.6
OP-LGZ215D	–	147.7	42.3	7.2
OP-LGZ271D	–	198	56.5	7.2

Optyma™ - LBP

Electrical characteristics - 460 V / 3phase / 60 Hz

Unit	Wiring diagram	LRA compressor (A) 460 V / 3 phase	MCC compressor (A) 460 V / 3 phase	FLA Fan (A) 230 V / 1 phase
OP-LJZ068D	–	25	8.4	0.6
OP-LJZ108D	–	45	12.1	1.8
OP-LJZ136D	–	51	14.3	1.8
OP-LGZ215D	–	74	22.3	3.6
OP-LGZ271D	–	96	27	3.6

Technical data and ordering

Optyma™ - MBP

Electrical characteristics - 230 V / 1phase / 60 Hz

Unit	LRA compressor (A) 230 V / 1 phase	MCC compressor (A) 230 V / 1 phase	FLA Fan (A) 230 V / 1 phase
OP-HJM(Z)018D	51	13	1.2
OP-HJM(Z)022D	49.3	17	1.2
OP-HJM(Z)028D	81	25	3.6
OP-HJM(Z)036D	84	30	3.6
OP-HJM(Z)040D	99	34	3.6
OP-HJM(Z)050D	114	36	3.6
OP-HGM(Z)064D	143	46	7.2
OP-HNU015D	69	19	3.6
OP-HNU021D	97	24.5	3.6
OP-HNU030D	150	38	3.6
OP-HRU038D	160	45	7.2

Optyma™ - MBP

Electrical characteristics - 230 V / 3phase / 60 Hz

Unit	LRA compressor (A) 230 V / 3 phase	MCC compressor (A) 230 V / 3 phase	FLA Fan (A) 230 V / 1 phase
OP-HJM(Z)018D	38	9	1.2
OP-HJM(Z)022D	38	11	1.2
OP-HJM(Z)028D	57	16	3.6
OP-HJM(Z)036D	74	17	3.6
OP-HJM(Z)040D	98	22	3.6
OP-HJM(Z)050D	115	25	3.6
OP-HGM(Z)064D	137	29	7.2
OP-HGM(Z)080D	140	36	7.2
OP-HGM(Z)100D	157	43	7.2
OP-HGM(Z)125D	210	54	8.8
OP-HGM(Z)160D	259	70	8.8
OP-HNU015D	60	14.5	3.6
OP-HNU021D	95	17.5	3.6
OP-HNU030D	120	26	3.6
OP-HRU038D	123	26	7.2
OP-HRU048D	190	37	7.2
OP-HRU058D	190	40	8.8
OP-HRU076D	235	50	8.8

Optyma™ - MBP

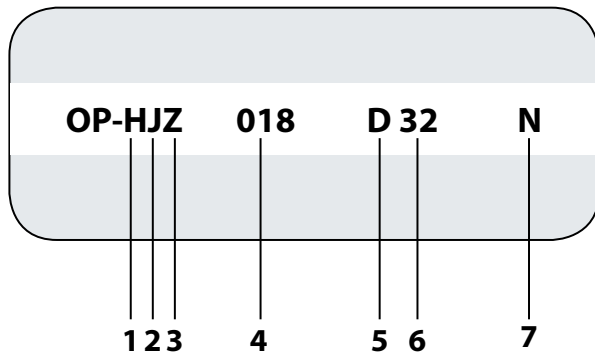
Electrical characteristics - 460 V / 3phase / 60 Hz

Unit	LRA compressor (A) 460 V / 3 phase	MCC compressor (A) 460 V / 3 phase	FLA Fan (A) 230 V / 1 phase
OP-HJM(Z)018D	20	5	0.6
OP-HJM(Z)022D	16	6	0.6
OP-HJM(Z)028D	23	7.5	1.8
OP-HJM(Z)036D	30	9	1.8
OP-HJM(Z)040D	38	10	1.8
OP-HJM(Z)050D	48.5	11.5	1.8
OP-HGM(Z)064D	64	14	3.6
OP-HGM(Z)080D	80	19	3.6
OP-HGM(Z)100D	90	22	3.6
OP-HGM(Z)125D	105	27	4.4
OP-HGM(Z)160D	130	36	4.4
OP-HNU015D	30	7	1.8
OP-HNU021D	45	9.5	1.8
OP-HNU030D	60	13	1.8
OP-HRU038D	70	15	3.6
OP-HRU048D	87	16	3.6
OP-HRU058D	95	20	4.4
OP-HRU076D	140	25	4.4

Nomenclature

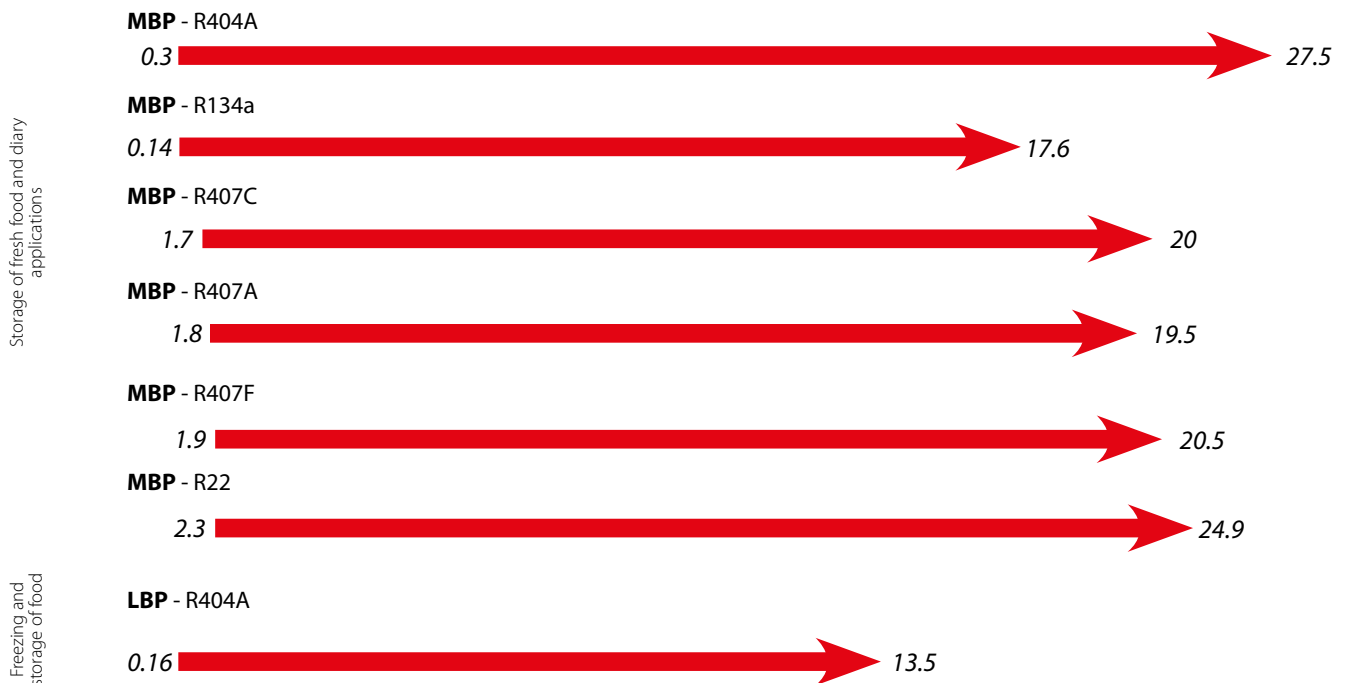
Designation system for the Optyma™ standard programm

(additional programm voltage, frequency etc.: please contact your local wholesaler)



No.	Title	Description	No.	Title	Description
1	Application	H = High and medium evaporating temperature (MBP) L = Low evaporating temperature (LBP)	5	Platform	D = Micro-channel technology
2	Platform or design	J = Condensing unit with reciprocating compressor and one fan N = Condensing unit with scroll compressor and one fan G = Condensing unit with reciprocating compressor and two fans R = Condensing unit with scroll compressor and two fans	6	Product configuration	32 / 40 = See table below
3	Refrigerant	M = R22 - Mineral Z = R134a/R404A/R507 - Polyolester U = R22/R134a/R404A/R507 - Polyvinyl ether	7	Version Electrical code	N = Compressor 230 V/1-ph/60 Hz, fan 230 V/1-ph/60 Hz Q = Compressor 230 V/3-ph/60 Hz, fan 230 V/1-ph/60 Hz R = Compressor 460 V/3-ph/60 Hz, fan 460 V/1-ph/60 Hz
4	Compressor model	MT and MTZ series for MBP reciprocating compressor NTZ series for LBP scroll compressor MLZ series for MBP scroll compressor			

Cooling capacity range [kW]



Test condition

	LBP	MBP
Ambient temperature:	32 °C	32 °C
Evaporating temperature:	-25 °C	-10 °C

Superheat and Subcooling depend on compressor type used in condensing units; for details please see cooling capacity tables

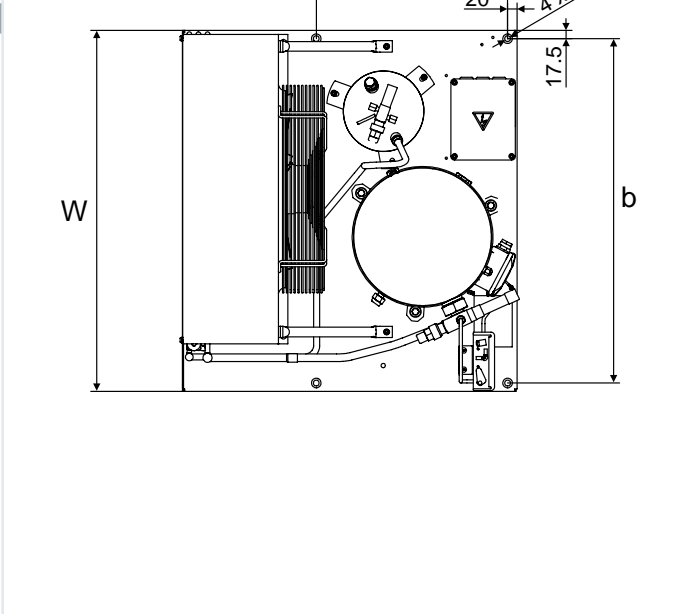
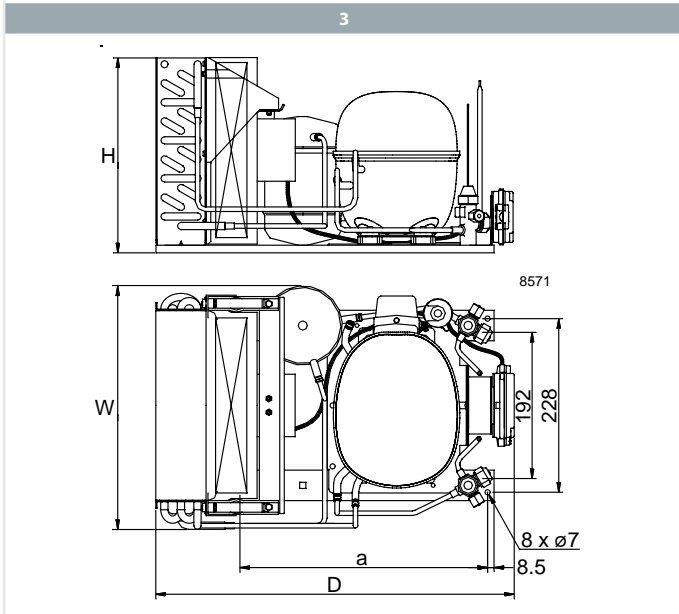
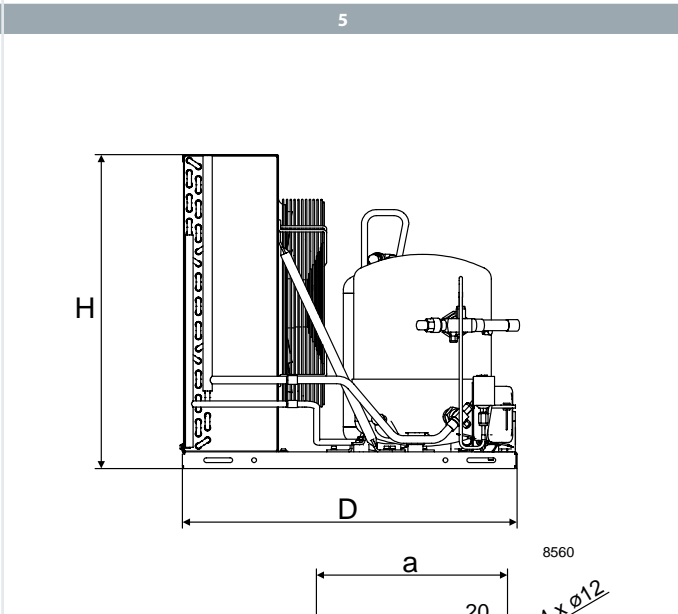
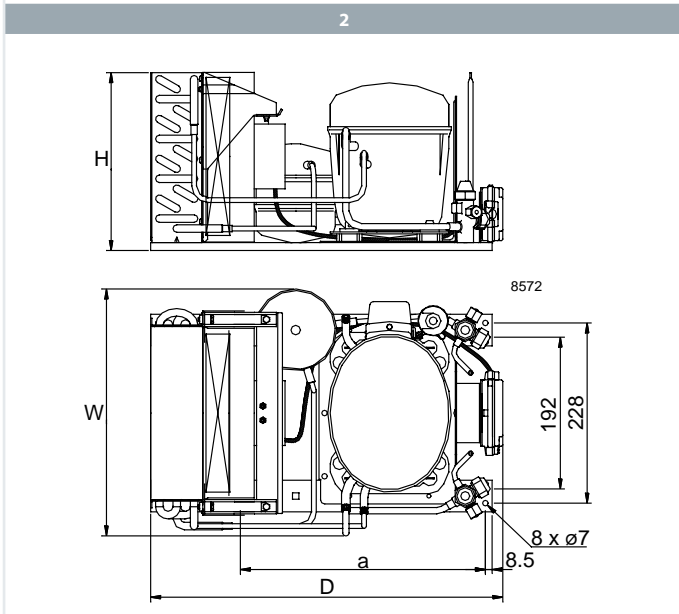
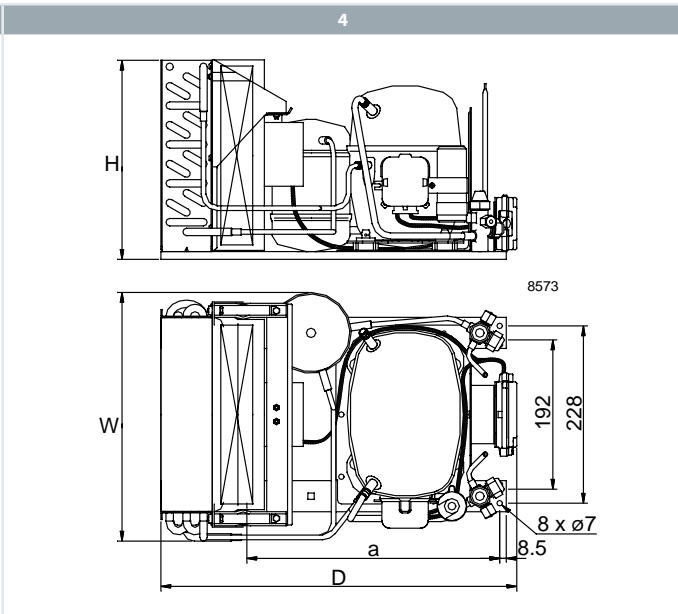
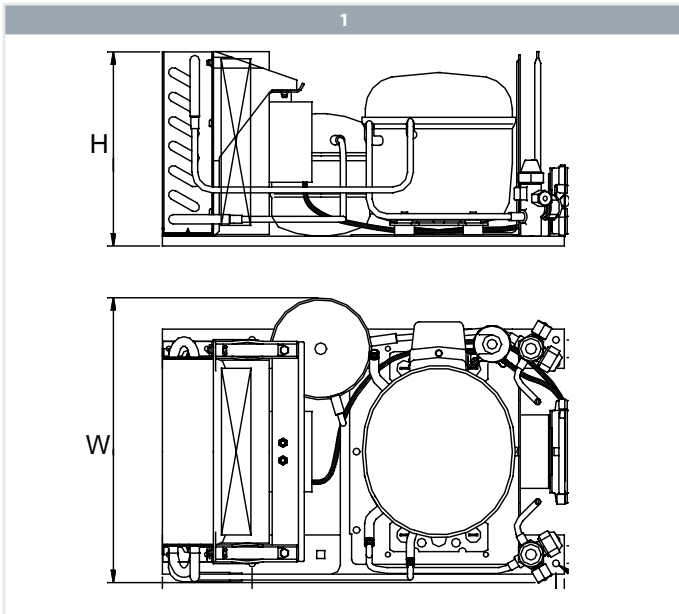
Optyma™ units can work in the following evaporating temperature range:

LBP R404A:	-40 °C - -10 °C
MBP R404A:	-20 - 10 °C
MBP R407A / R407F:	-20 - 10 °C
MBP R134a:	-15 °C - 15 °C
MBP R407C:	-15 °C - 10 °C

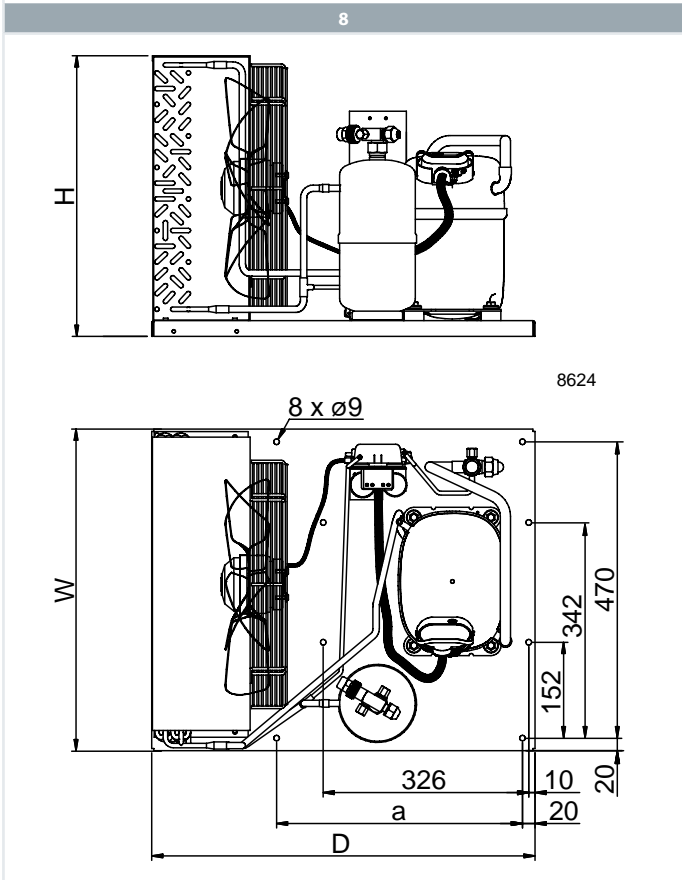
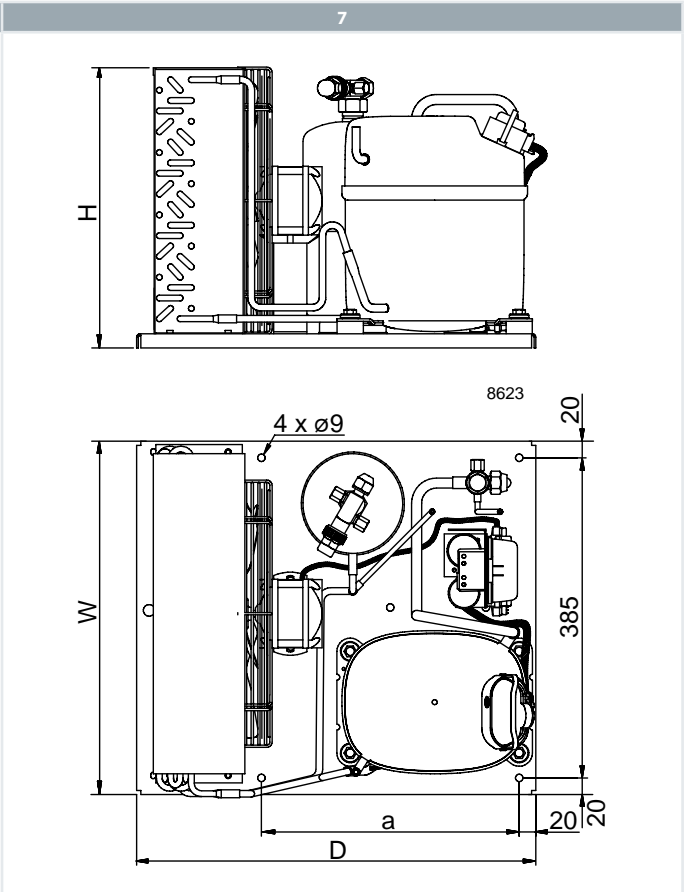
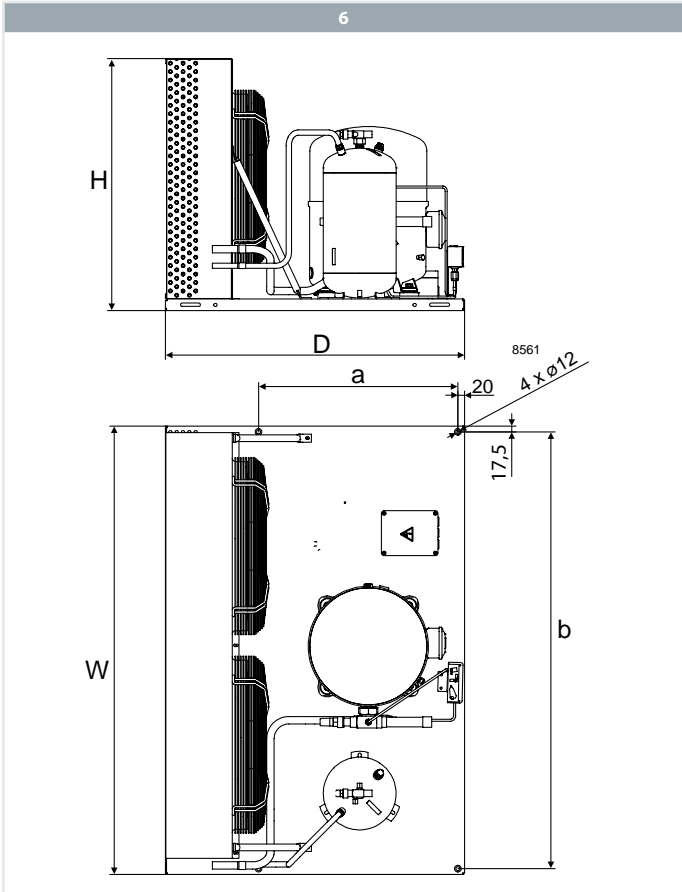
For further detailed information, please contact Danfoss or use dedicated software

Dimensions

01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20



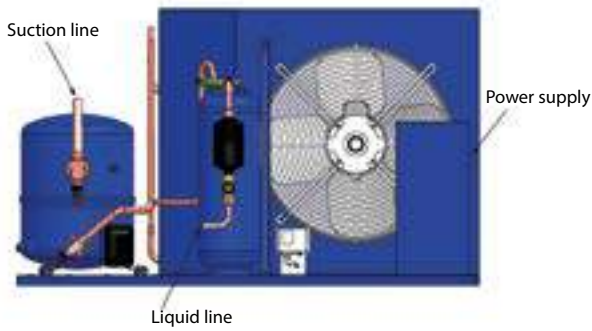
Dimensions



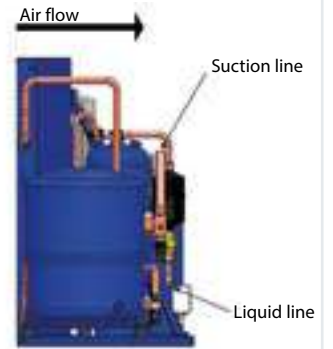
Dimensions

Figure 1A - D32 version (Reciprocating compressor - 1 fan)

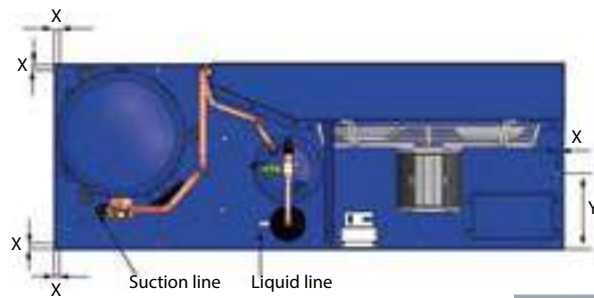
Front view



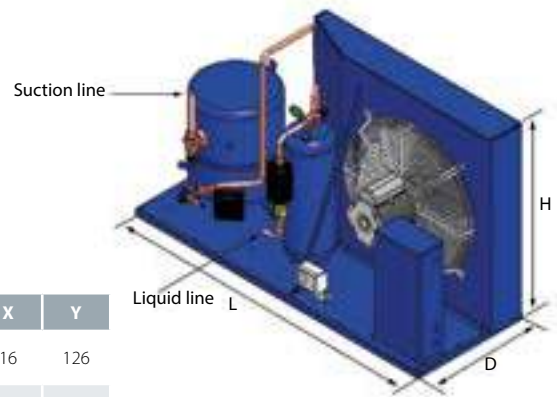
Viewed from rear left



Top view



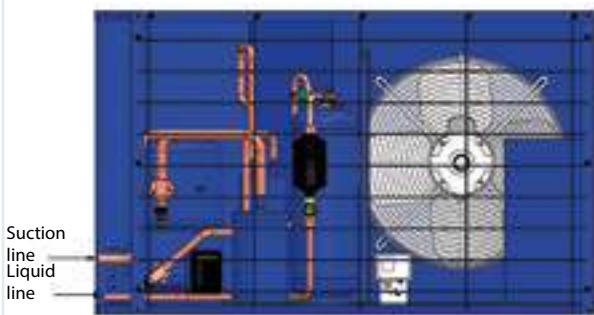
Isometric view



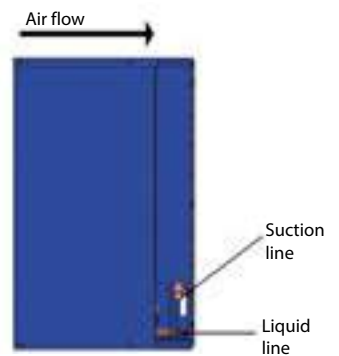
Fixing points	X	Y
OP-HJ...018D to 022D	16	126
OP-HJ...028D to 050D	14	174

Figure 1B - D40 version (Reciprocating compressor - 1 fan)

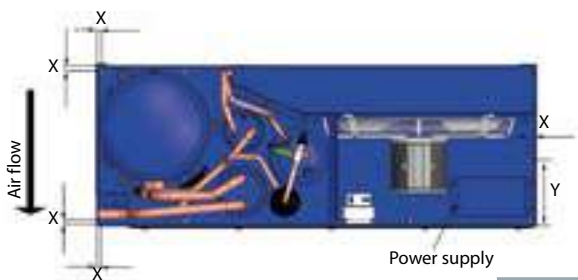
Front view



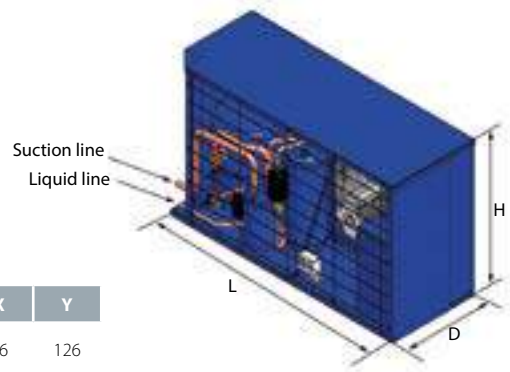
Viewed from rear left



Top view (without cover cap)



Isometric view

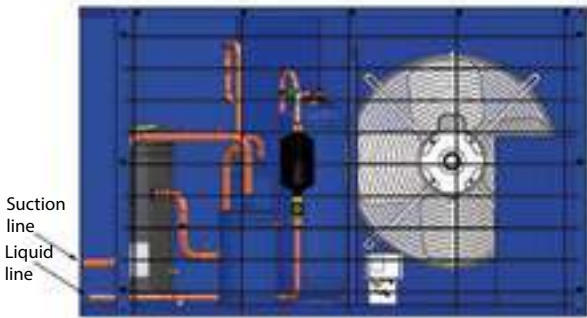


Fixing points	X	Y
OP-HJ...018D to 022D OP-LJ...048D to 068D	16	126
OP-HJ...028D to 050D OP-LJ...108D to 136D	14	174

Dimensions

Figure 3A - D40 version (scroll compressor - 1 fan)

Front view



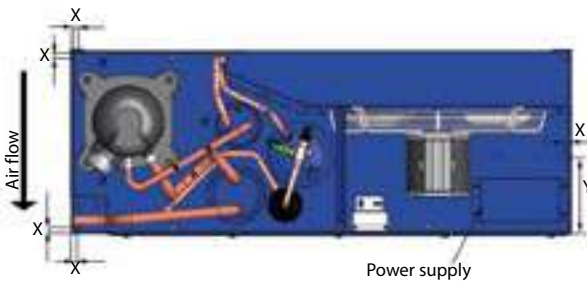
Suction line
Liquid line

Viewed from rear left



Suction line
Liquid line

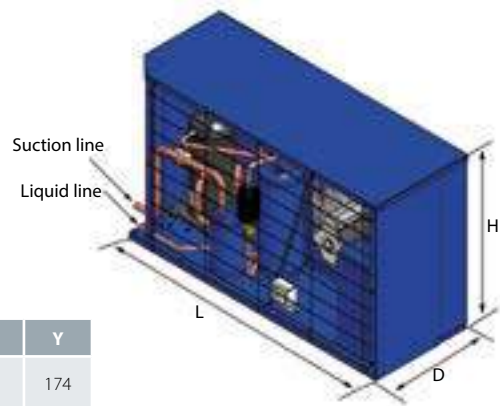
Top view (without cover cap)



Air flow

Power supply

Isometric view

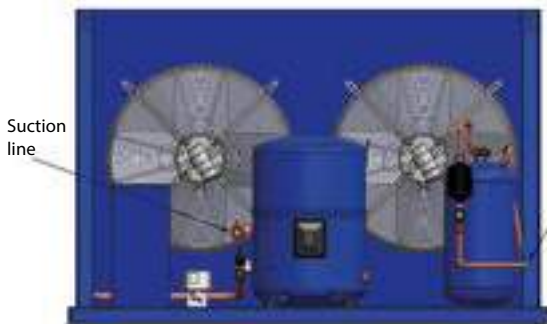


Suction line
Liquid line

Fixing points	X	Y
OP-HNU...015D to 030D	14	174

Figure 2A - D32 version (Reciprocating compressor - 2 fans)

Front view



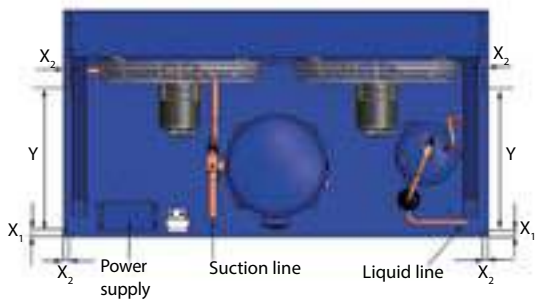
Suction line

Liquid line

Viewed from rear left



Top view

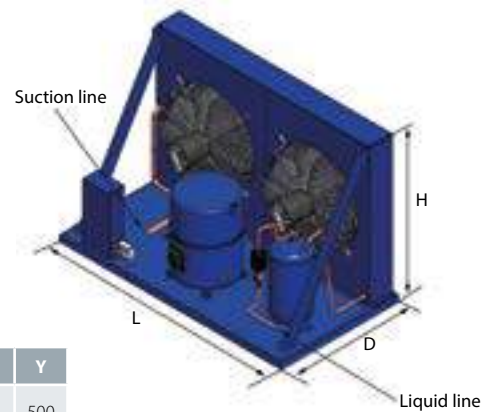


Power supply

Suction line

Liquid line

Isometric view



Suction line

Liquid line

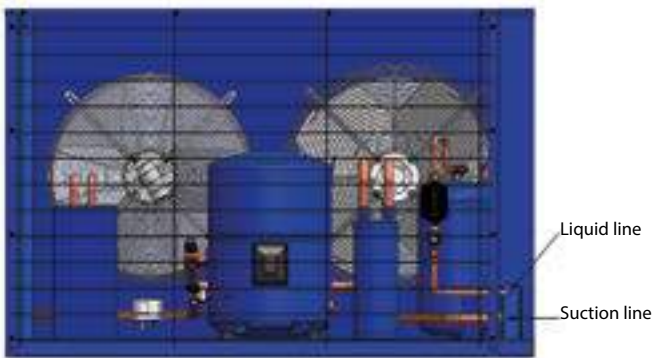
Fixing points	X ₁	X ₂	Y
OP-HG...064D to 160D	25	20	500

01
02
03
04
05
06
07
08
09
10
11
12
13
14
15
16
17
18
19
20

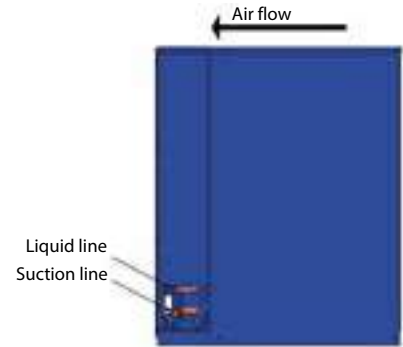
Dimensions

Figure 2B - D40 version (Reciprocating compressor - 2 fans)

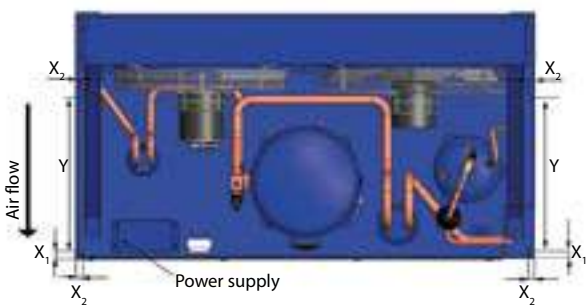
Front view



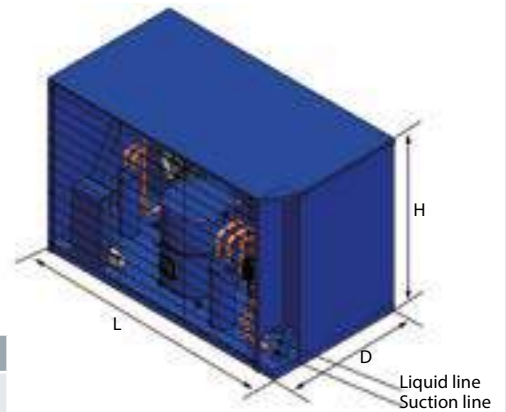
Viewed from rear right



Top view (without cover cap)



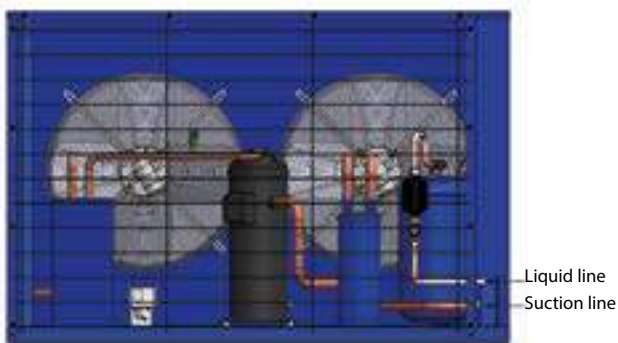
Isometric view



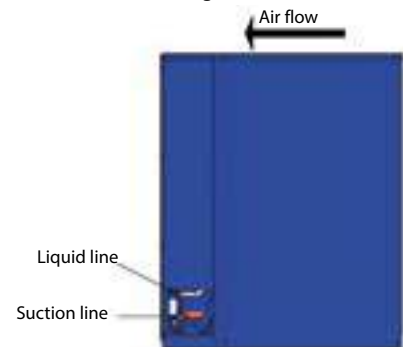
Fixing points	X ₁	X ₂	Y
OP-HG...064D to 160D	25	20	500
OP-LG...215D to 271D			

Figure 4A - D40 version (scroll compressor - 2 fans)

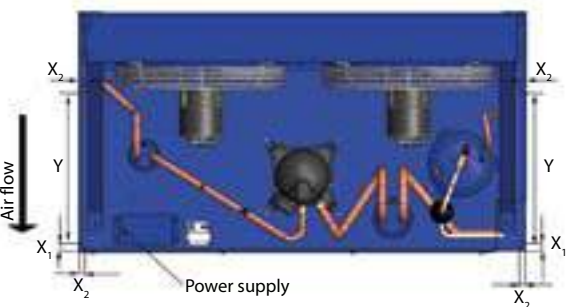
Front view



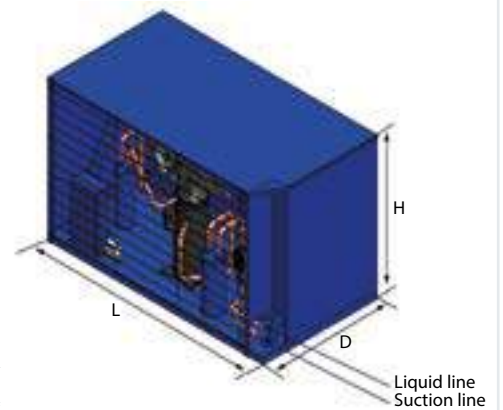
Viewed from rear right



Top view (without cover cap)



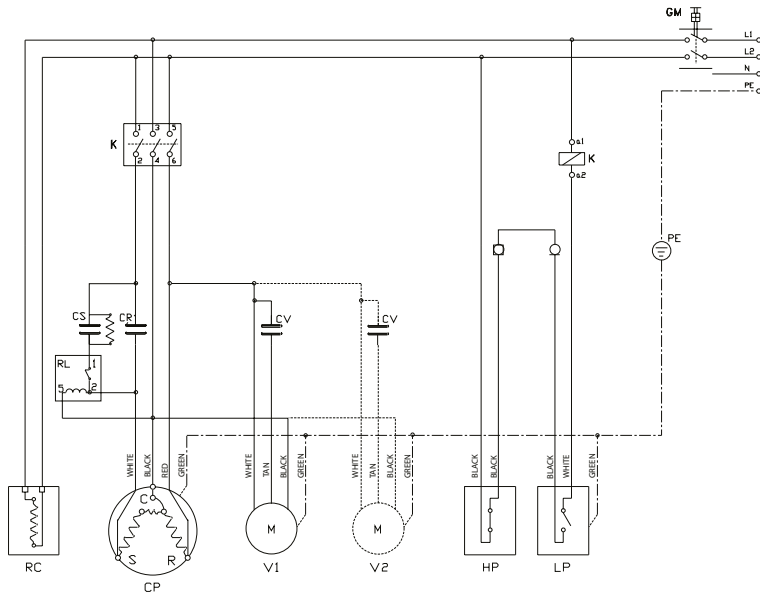
Isometric view



Fixing points	X ₁	X ₂	Y
OP-HRU...038D to 076D	25	20	500

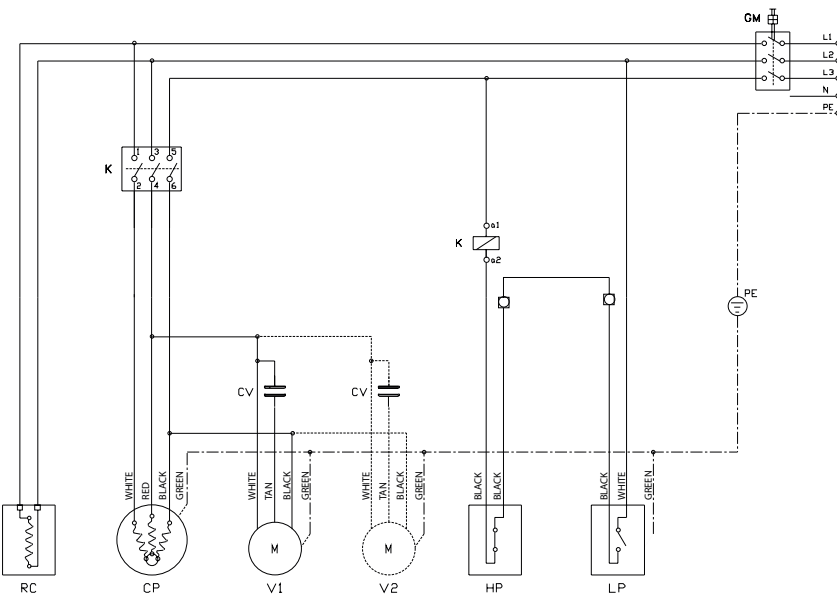
Wiring diagram

Electrical code N - 230 V/1-ph/60 Hz - Units equipped with reciprocating hermetic and scroll compressors



Legend	
CP	Compressor
CR	Run capacitor
CS	Starting capacitor
CV	Fan capacitor
GM	Motor protection
K	Contactur
HP	High-pressure switch
LP	Low-pressure switch
RC	Crankcase heater
RL	Relay
V	Fan

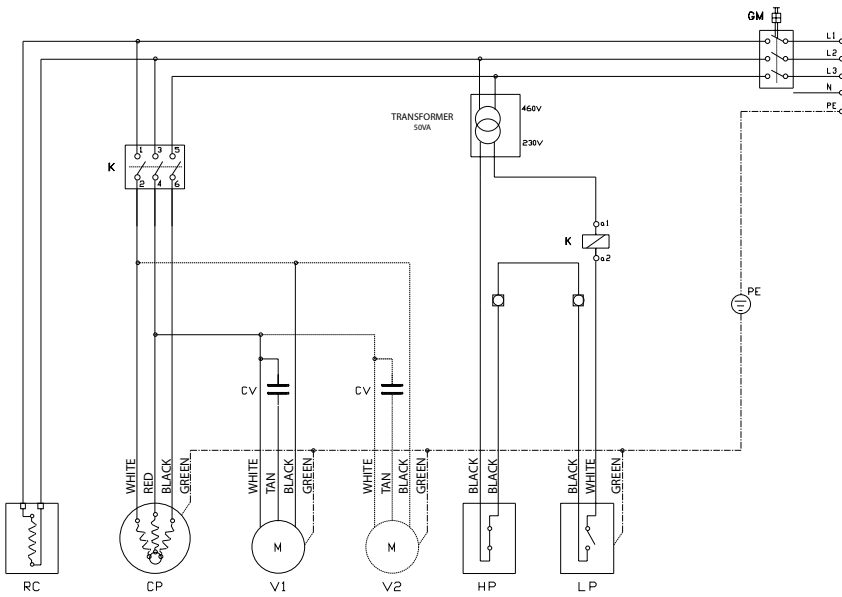
Electrical code Q - 230 V/3-ph/60 Hz - Units equipped with reciprocating hermetic compressors



Legend	
CP	Compressor
CV	Fan capacitor
GH	Motor protection
K	Contactur
HP	High-pressure switch
LP	Low-pressure switch
RC	Crankcase heater
V1-V2	Fan

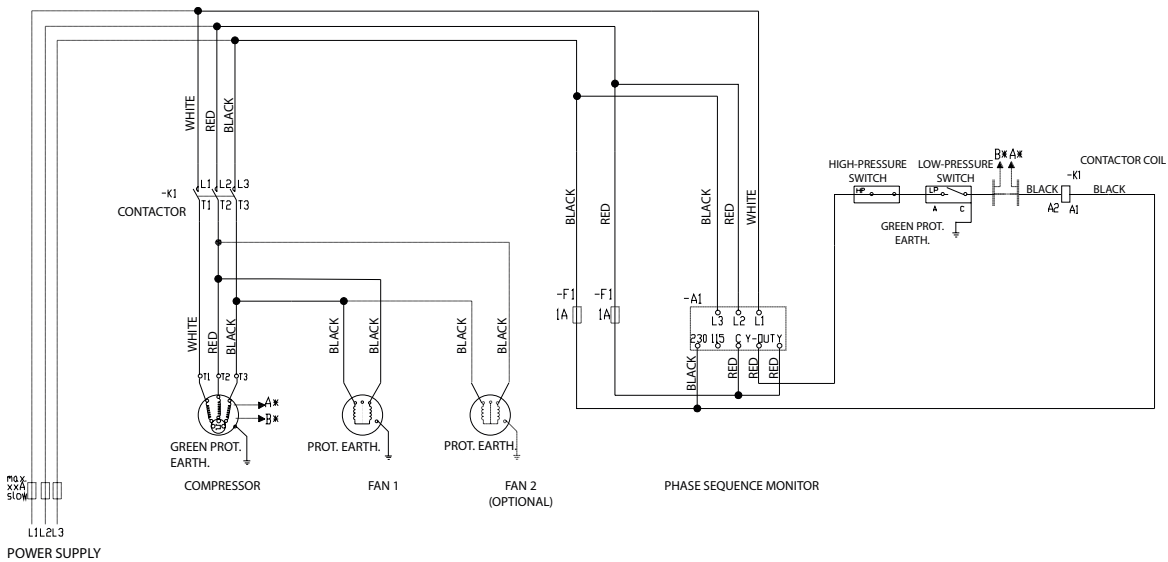
Wiring diagram

Electrical code R - 460 V/3-ph/60 Hz - Units equipped with reciprocating hermetic compressors



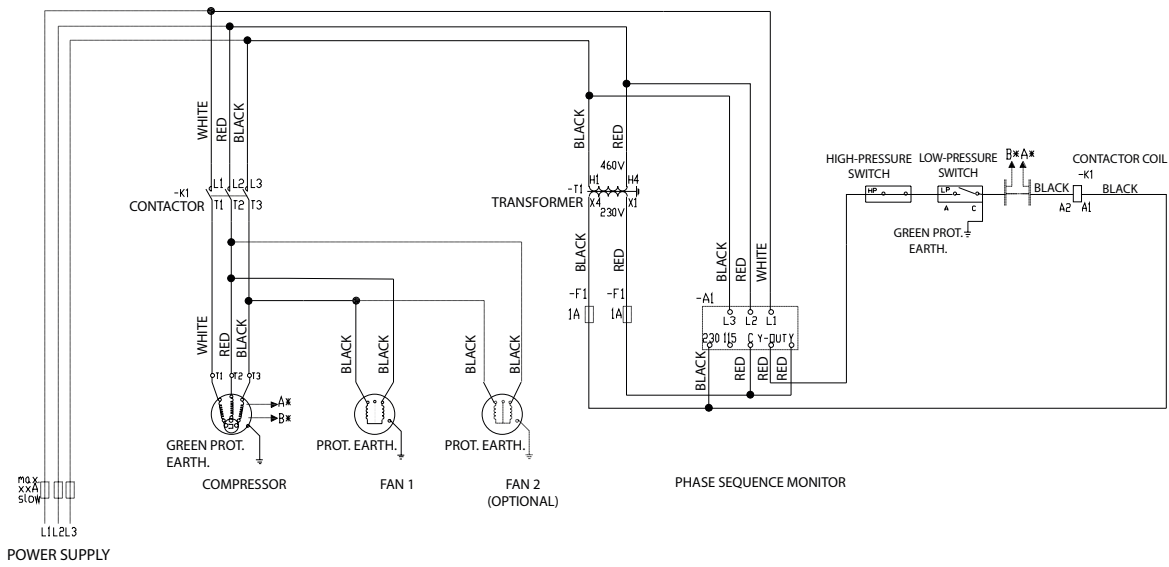
Legend	
CP	Compressor
CV	Fan capacitor
GM	Motor protection
K	Contactor
HP	High-pressure switch
LP	Low-pressure switch
RC	Crankcase heater
V1-V2	Fan

Electrical code Q - 230 V/3-ph/60 Hz - Units equipped with scroll compressors



Wiring diagram

Electrical code R - 460 V/3-ph/60 Hz - Units equipped with scroll compressors



Quick Selection Notes:

Optyma™ Slim Pack - The cost effective outdoor solution

Optyma™ **Slim Pack** is the cost effective packaged condensing unit with a new condenser technology - Micro Channel Heat Exchanger. Danfoss has developed Optyma™ **Slim Pack** to meet all customers' needs in MBP and LBP applications.

Reliability, compactness and low cost make the Danfoss Optyma™ **Slim Pack** condensing unit an optimal cooling solution for refrigeration. Dedicated outdoor condensing unit for cold, fermentation and storage rooms in all kinds of convenience stores or restaurants.



Resistance to corrosion of the heat exchanger and housing prolongs the lifetime of the unit

Accessible fan and condenser for easy maintenance

Receiver with shut-off valve makes servicing easier

Filter drier and sight glass protect the unit from moisture, acids and solid particles. Flare connections simplify maintenance

Thanks to Schrader valve the unit is prepared for using different types of fan control



Micro-channel heat exchanger is light and easy to clean

Accessible pre-wired electrical junction panel enables easy servicing

Quick connections accelerate installation: just mount, braze and plug

Accessible service ports on service valves (suction and liquid)

Dual KP17WB pressure control for enhanced safety

Crankcase heater protects the compressor when operating under cold weather conditions

Facts

Applications:

- Mini-markets / supermarkets
- Restaurants
- Wine cellars
- Fish markets
- Butchers' shops
- Bakeries
- Laboratories
- Florists Petrol stations
- Industrial processes
- Milk cooling
- Dairy and general food storage
- Freezers

- System designed to perfectly fit into a compact and light housing. The Optyma™ **Slim Pack** weights up to 87 kg, which makes it the lightest solution in the market
- With quick connections of suction and liquid lines and service ports outside Optyma™ **Slim Pack** is among the fastest and easiest to install. Easy to clean MCHE saves your time and efforts, ensuring longer lifetime and optimized efficiency
- Thanks to weatherproof housing the Optyma™ **Slim Pack** meets outdoor application requirements and completes the Optyma™ range

- We provide the units with highly reliable compressors, micro channel heat exchangers and all needed components which are pre-assembled, integrated and factory tested
- Danfoss Optyma™ **Slim Pack** extends your possibilities with models for low and medium temperatures
- Danfoss Optyma™ **Slim Pack** condensing units meet the Energy related Product (ErP) directive applicable for fan motors