

ZENITH TWIN SCROLL Condensing Units



Authorised User No. 00460

ECA Accredited

Easy to install, multiple cabinets, varying loads, economic and green.

- **ECA Qualified**
- **Seamless, variable capacity output from 10% to 100%**
- 10 small and 7 large unit sizes
- Copeland scroll compressors with isolation valves
- Balanced oil return system
- Oil separator
- Main discharge line with isolation valve and check valve
- Liquid line with filter, sightglass and isolation valve
- Suction line
- Liquid receiver with PRV rated at 31barg
- Integral control panel with isolator
- Automatic Backup System
- Services exit to left or right
- Integral 2-fan condenser with Low Energy EC fans
- Acoustically lined weatherproof housing
- Optional digital scroll lead compressor
- Optional electronic soft starter
- Optional crankcase heaters
- Optional unit anti-vibration mounts
- Optional heat reclaim to water
- Suitable for refrigerants:
R404A, R407A, R407F

Twin Compressor Unit Range

Small

HTS038-1PH	A9020	-51	ZB19 twin, single phase
HTS038-3PH	A9020	-52	ZB19 twin, three phase
HTS042D-1PH	A9020	-53D	ZB21 twin, single phase with digital lead compressor
HTS042-1PH	A9020	-53	ZB21 twin, single phase
HTS042D-3PH	A9020	-54D	ZB21 twin, three phase with digital lead compressor
HTS042-3PH	A9020	-54	ZB21 twin, three phase
HTS052-1PH	A9020	-55	ZB26 twin, single phase
HTS052-3PH	A9020	-56	ZB26 twin, three phase
HTS060D-3PH	A9020	-57D	ZB30 twin, three phase only with digital lead compressor
HTS060-3PH	A9020	-57	ZB30 twin, three phase only

Large

HTS076D-3PH	A9020	-58D	ZB38 twin, three phase only with digital lead compressor
HTS076-3PH	A9020	-58	ZB38 twin, three phase only
HTS090D-3PH	A9020	-59D	ZB45 twin, three phase only with digital lead compressor
HTS090-3PH	A9020	-59	ZB45 twin, three phase only
HTS100-3PH	A9020	-60	ZB50 twin, three phase only
HTS116D-3PH	A9020	-61D	ZB58 twin, three phase only with digital lead compressor
HTS116-3PH	A9020	-61	ZB58 twin, three phase only

ZENITH TWIN SCROLL Condensing Units

Twin Scroll Compressor Units ECA compliant - R404A

Performance Data

Refrigerant R404A Condensing at 45°C, Ambient 32°C, Useful superheat 100%, Suction superheat 20K, Liquid subcooling within the limits of the unit.

Single phase Units

Model	Evap Temp°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	+5°C
HTS038-1PH	Duty kW	4.30	5.44	6.80	8.38	10.24	12.20	14.92
ZB19 + ZB19	Current A	19.66	19.72	19.74	19.72	19.68	19.60	19.50
	Power input kW	4.08	4.08	4.08	4.06	4.04	4.02	3.98
HTS042-1PH	Duty kW	5.50	6.96	8.68	10.72	13.08	15.86	19.06
ZB21 + ZB21	Current A	25.24	25.32	25.34	25.32	25.26	25.18	25.06
	Power input kW	5.18	5.20	5.18	5.18	5.18	5.14	5.10
HTS052-1PH	Duty kW	6.22	7.88	9.84	12.16	14.86	18.02	21.70
ZB26 + ZB26	Current A	29.44	29.54	29.56	29.54	29.48	29.36	29.20
	Power input kW	6.88	6.76	6.62	6.48	6.30	6.12	5.90

Single phase Units with Digital Lead Compressor

Model	Evap Temp°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	+5°C
HTS042D-1PH	Duty kW	n/a	6.96	8.68	10.63	12.95	15.66	18.81
ZBD21 lead	Current A	n/a	23.94	24.23	24.47	24.64	24.74	24.76
+ ZB21	Power input kW	n/a	4.85	4.91	4.97	5.00	5.01	5.01

Three phase Units

Model	Evap Temp°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	+5°C
HTS038-3PH	Duty kW	4.48	5.64	7.02	8.64	10.56	12.82	15.44
ZB19 + ZB19	Current A	8.36	8.38	8.38	8.40	8.40	8.36	8.30
	Power input kW	4.24	4.24	4.22	4.20	4.18	4.14	4.12
HTS042-3PH	Duty kW	5.38	6.80	8.50	10.48	12.82	15.52	18.66
ZB21 + ZB21	Current A	9.99	9.98	10.00	10.00	9.99	9.94	9.88
	Power input kW	5.04	5.04	5.04	5.02	5.00	4.96	4.92
HTS052-3PH	Duty kW	6.26	7.90	9.84	12.12	14.82	17.98	21.70
ZB26 + ZB26	Current A	11.68	11.70	11.72	11.72	11.68	11.64	11.58
	Power input kW	5.92	5.92	5.90	5.88	5.86	5.82	5.78
HTS060-3PH	Duty kW	7.24	9.18	11.52	14.26	17.50	21.30	25.60
ZB30 + ZB30	Current A	14.88	14.92	14.94	14.92	14.90	14.84	14.76
	Power input kW	6.78	6.78	6.74	6.70	6.64	6.60	6.54
HTS076-3PH	Duty kW	9.10	11.48	14.34	17.72	21.70	26.30	31.70
ZB38 + ZB38	Current A	18.66	18.72	18.74	18.72	18.68	18.62	18.52
	Power input kW	8.36	8.38	8.40	8.40	8.40	8.38	8.32
HTS090-3PH	Duty kW	10.74	13.56	16.90	20.90	25.50	30.90	n/a
ZB45 + ZB45	Current A	18.98	19.04	19.06	19.06	19.02	18.94	n/a
	Power input kW	9.58	9.62	9.64	9.62	9.58	9.52	n/a
HTS100-3PH	Duty kW	n/a	14.20	19.28	24.70	30.60	n/a	n/a
ZB50 + ZB50	Current A	n/a	21.94	21.82	21.72	21.62	n/a	n/a
	Power input kW	n/a	11.60	11.52	11.44	11.36	n/a	n/a
HTS116-3PH	Duty kW	n/a	16.78	21.90	27.60	n/a	n/a	n/a
ZB58 + ZB58	Current A	n/a	24.12	24.12	24.12	n/a	n/a	n/a
	Power input kW	n/a	12.62	12.62	12.62	n/a	n/a	n/a

For R407A and R407F performance data please contact Hubbard Technical on 0044(0)1473 892280 or 0044(0)1473 892291

ZENITH TWIN SCROLL Condensing Units

Twin Scroll Compressor Units ECA compliant - R404A

Performance Data - continued

Refrigerant R404A Condensing at 45°C, Ambient 32°C, Useful superheat 100%, Suction superheat 20K, Liquid subcooling within the limits of the unit.

Three phase Units with Digital Lead Compressor

Model	Evap Temp°C	-25°C	-20°C	-15°C	-10°C	-5°C	0°C	+5°C
HTS042D-3PH	Duty kW	n/a	6.79	8.52	10.53	12.86	15.54	18.63
ZBD21 lead	Current A	n/a	9.13	9.23	9.30	9.33	9.36	9.35
+ ZB21	Power input kW	n/a	4.67	4.75	4.80	4.83	4.84	4.83
HTS060D-3PH	Duty kW	n/a	9.35	11.66	14.38	17.58	21.30	25.55
ZBD30 lead	Current A	n/a	12.55	12.75	12.88	13.00	13.10	13.21
+ ZB30	Power input kW	n/a	6.28	6.40	6.49	6.56	6.63	6.72
HTS076D-3PH	Duty kW	n/a	11.62	14.45	17.78	21.70	26.25	31.50
ZBD38 lead	Current A	n/a	16.03	16.24	16.40	16.54	16.64	16.70
+ ZB38	Power input kW	n/a	7.73	7.90	8.05	8.19	8.29	8.35
HTS090D-3PH	Duty kW	n/a	13.77	17.13	21.10	25.75	31.15	n/a
ZBD45 lead	Current A	n/a	17.21	17.45	17.64	17.79	17.95	n/a
+ ZB45	Power input kW	n/a	0.03	9.23	9.40	9.56	9.71	n/a
HTS116D-3PH	Duty kW	n/a	16.94	22.10	27.80	n/a	n/a	n/a
ZBD58 lead	Current A	n/a	24.30	24.26	24.28	n/a	n/a	n/a
+ ZB58	Power input kW	n/a	12.70	12.66	12.67	n/a	n/a	n/a

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Twin Scroll Compressor Units ECA compliant - R404A

MODEL	Refrigeration connections		Condenser fan		Receiver Volume Litre	Typical Sound pressure level 10m dB(A)*	Electrical Data			
	Suction line	Liquid line	Size	Airflow m ³ /h			1 ph units		3 ph units	
							Unit FLA	Unit LRA	Unit FLA	Unit LRA
HTS038-1PH	1.1/8"	1/2"	2 x 450mm	6700	16	39	39	96		
HTS038-3PH	1.1/8"	1/2"	2 x 450mm	6700	16	39			15.2	47
HTS042D-1PH	1.1/8"	1/2"	2 x 450mm	9500	16	44	37.4	136		
HTS042-1PH	1.1/8"	1/2"	2 x 450mm	9500	16	44	37.2	119		
HTS042D-3PH	1.1/8"	1/2"	2 x 450mm	9500	16	44			15.6	56
HTS042-3PH	1.1/8"	1/2"	2 x 450mm	9500	16	44			16.6	57
HTS052-1PH	1.1/8"	1/2"	2 x 450mm	9500	16	44	40.4	137		
HTS052-3PH	1.1/8"	1/2"	2 x 450mm	9500	16	44			19.9	66
HTS060D-3PH	1.1/8"	1/2"	2 x 450mm	12000	16	47			18.0	67
HTS060-3PH	1.1/8"	1/2"	2 x 450mm	12000	16	47			22.8	72
Large										
HTS076D-3PH	1.5/8"	5/8"	2 x 630mm	10000	21	45			25.8	90
HTS076-3PH	1.5/8"	5/8"	2 x 630mm	10000	21	45			28.8	94
HTS090D-3PH	1.5/8"	5/8"	2 x 630mm	13000	21	45			27.4	101
HTS090-3PH	1.5/8"	5/8"	2 x 630mm	13000	21	45			29.4	103
HTS100-3PH	1.5/8"	3/4"	2 x 630mm	12000	21	48			32.4	132
HTS116D-3PH	1.5/8"	3/4"	2 x 630mm	14000	21	50			34.4	129
HTS116-3PH	1.5/8"	3/4"	2 x 630mm	14000	21	50			34.4	129

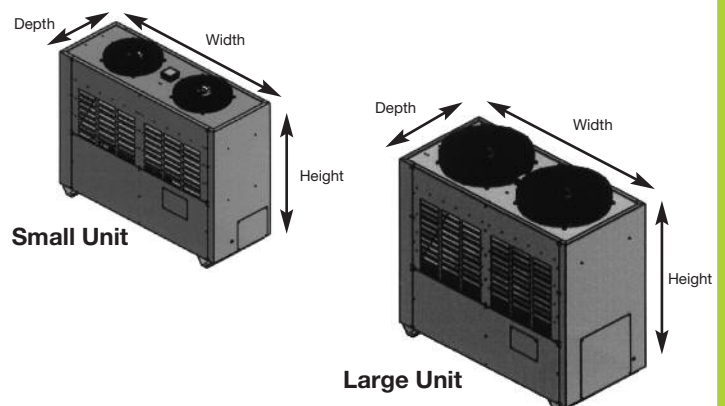


Twin Scroll Condensing Unit - Small case size (mm)

Depth	Width	Height	Feet Centres
617	1804	1648	1580

Twin Scroll Condensing Unit - Large case size (mm)

Depth	Width	Height	Feet Centres
820	1804	1921	1580



f-gas
friendly



With
planned
maintenance
contract.
Conditions
apply.



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For further information

Contact your refrigeration contractor for further details on the extensive range of Hubbard equipment or telephone the Hubbard Helpline

Sales Helpline 0044(0)1473 892289

Technical Helpline 0044(0)1473 892280 or 0044(0)1473 892291

THE LEADERS IN LOW CARBON COMMERCIAL COOLING

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