



condensing unit

Technical Catalog

**Hermetic
ICU-HM/HL**



hermetic CONDENSING UNIT

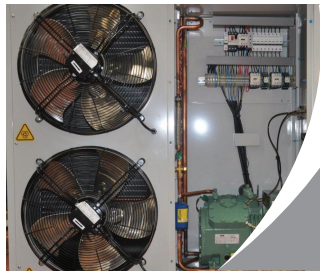
hermetic split



ICU-HM/HL

Hermetic Split System for small and medium size cold rooms, low noise condensing unit and evaporator with accessories installed, supplied without piping. Thermostatic expansion valve, remote control panel. Suitable for outdoor use.

Cooling Capacity:
 MT = from 1103 W to 13100 W (-5 °C / +45 °C)
 LT = from 753 W to 3550 W (-30 °C / +45 °C)



ICU-SM/SL

Semi-Hermetic Split System for small and medium size cold rooms, low noise condensing unit and evaporator with accessories installed, supplied without piping. Thermostatic expansion valve, remote control panel. Suitable for outdoor use.

Cooling Capacity:
 MT = from 1960 W to 35530 W (-5 °C / +45 °C)
 LT = from 840 W to 17995 W (-30 °C / +45 °C)



ICU-CM/CL

Scroll Split System for small and medium size cold rooms, low noise condensing unit and evaporator with accessories installed, supplied without piping. Thermostatic expansion valve, remote control panel. Suitable for outdoor use.

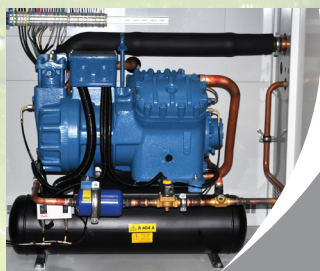
Cooling Capacity:
 MT = from 4040 W to 26300 W (-5 °C / +45 °C)
 LT = from 2250 W to 12200 W (-30 °C / +45 °C)



ICU-TS

Shock Cooling Split System for small and medium size cold rooms, low noise condensing unit and evaporator with accessories installed, supplied without piping. Thermostatic expansion valve, remote control panel. Suitable for outdoor use.

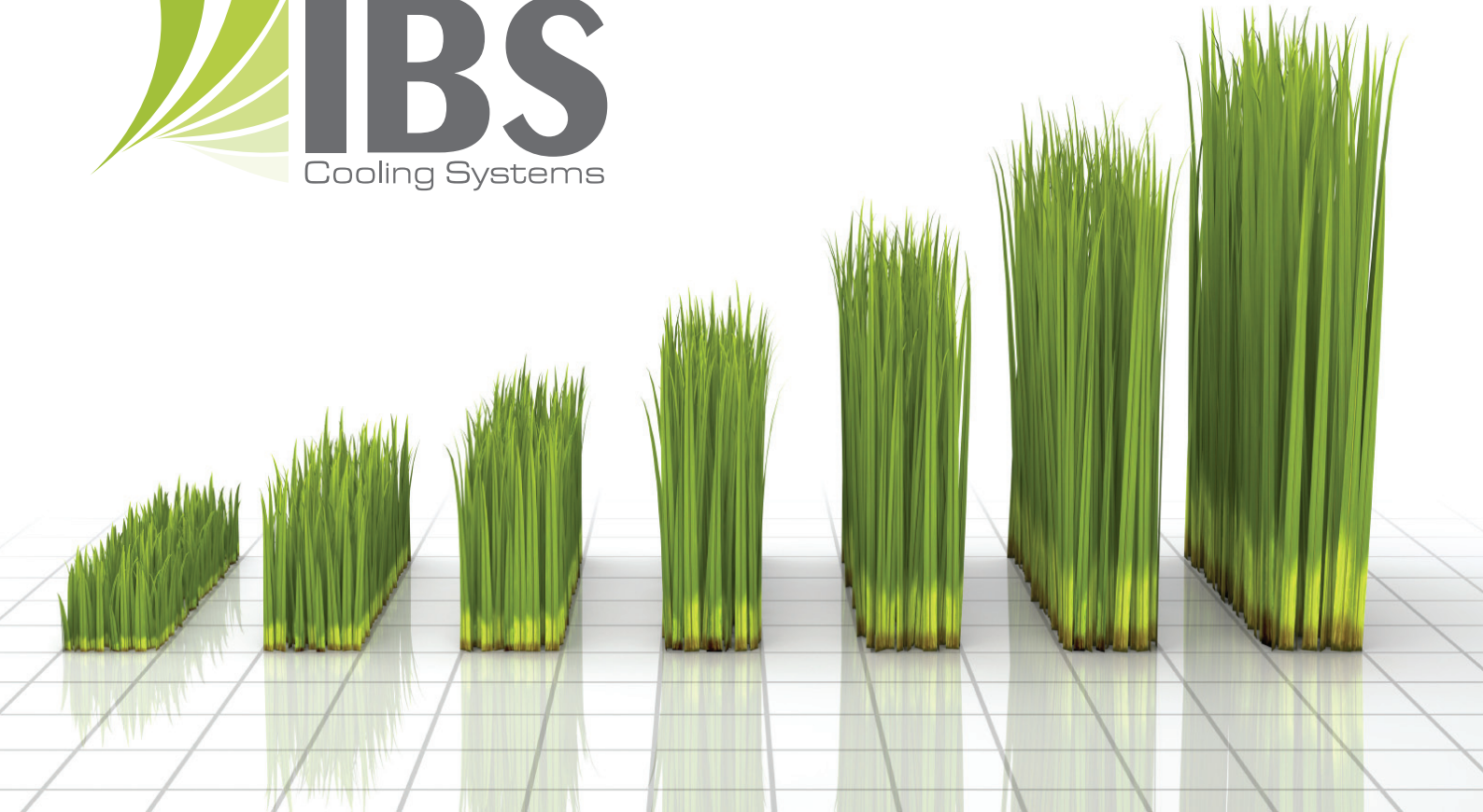
Cooling Capacity:
 LT = from 5970 W to 29500 W (-35 °C / +45 °C)



ICU-IM/IL

Industrial Split System for small and medium size cold rooms, low noise condensing unit and evaporator with accessories installed, supplied without piping. Thermostatic expansion valve, remote control panel. Suitable for outdoor use.

Cooling Capacity:
 MT = from 42950 W to 105560 W (-5 °C / +45 °C)
 LT = from 20090 W to 31950 W (-30 °C / +45 °C)



About IBS

IBS likes to describe itself as a business based on a distinct work ethic, love of innovation, the will to invest, and above all on an unrivaled respect for its customers and their satisfaction. These business characteristics are also shared by the companies that work with IBS, in a technical-economic network that generates products and services in the commercial refrigeration sector. The remarkable growth of IBS's supply companies, from components to service providers, should be considered the most positive and stabilizing aspect of the modern development of IBS.

IBS is the leading company in cooling and servicing in Turkey.

We produce everykind of cooling equipments in a variety of system solutions and scale in many countries in Europe.

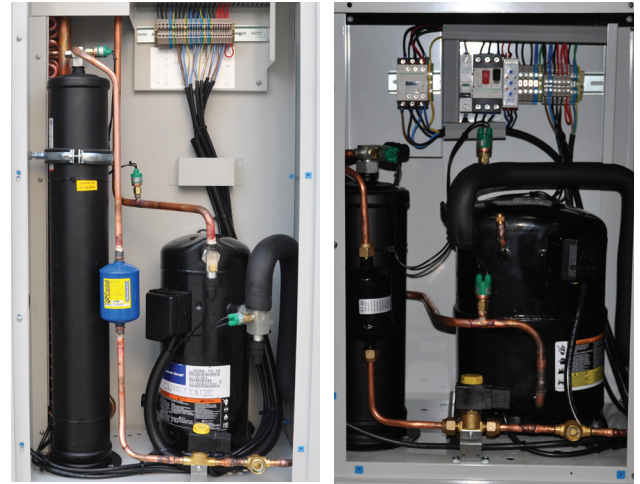
IBS with the brand name IBS is produced by the largest producer of this type of cooling systems in Turkey. The company has all their departments (development production administration etc.) beneath one roof and they meet the ISO 9001 -2000 standards.

We also develop special systems for special projects from heatrecovery upto automisation and temporization of any kind of product.

Products

We care for our customers for equipment ergonomy and for our inviorment. The future is energy and according to that point we use energy very efficient.

Our solutions includes Central Refrigeration Systems, Split Type Condensing Unit, Air Cooler, Turnkey Projects, Automation, Special Projects, 7/24 Service.



hermetic

Advantages

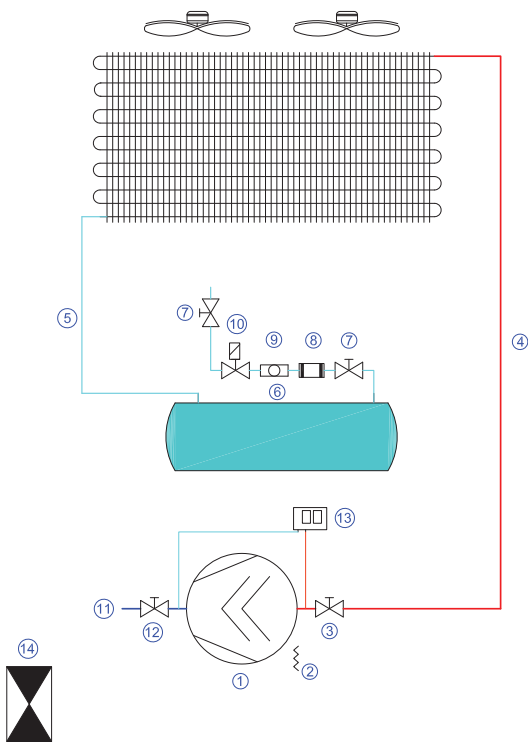
- Appropriate to standards
- High efficiency
- High quality components
- Full cabinet unit for outside applications
- Easy assembling and mounting
- Designed for easy maintenance and mounting
- Floor or wall mount opportunities
- Wide product range
- Complete, ready to install unit
- Special models/designs are also available

Technical specifications

- Electrostatic painted, steel galvanized unit
- Voltage protection relay
- Magneto-thermal switch on three phase models
- Contactor on all model range
- Crankcase heater
- Cu/Al Condenser
- Electronic fan speed control
- Liquid receiver
- Drier filter
- Gas flow gauge with humidity indicator
- Service/maintenance valve on liquid line
- LP/HP combined pressure on-off
- Integrated electric box
- Pressure relay valve
- Acoustic insulation
- Electric isolator
- Specially designed mounting brackets

Optional

- Electronic fan speed control
- Soundproofing kit
- Suction Line Accumulators
- Muffler
- Oil Separator



- | | |
|------------------------------|------------------------|
| 1. Compressor | 8. Filter |
| 2. Crankcase Heater | 9. Gas Flow Gauge |
| 3. Discharge Line Valve | 10. Solenoid Valve |
| 4. Discharge Line | 11. Suction Line |
| 5. Condenser Return Line | 12. Suction Line Valve |
| 6. Liquid Tank | 13. Pressure Control |
| 7. Liquid Line Service Valve | 14. Electrical Box |



ICU-HM Technical Specifications

Model (With Condanser)	Compressor Model	Cooling Capacity W						Current Max. A	Electrical Power kW (-10°C) 400 V / 3 / 50Hz	Sound Power dB	Condanser		Connection		Weight Kg	Cabin Type
		-5/+45	-5/+50	-10/+45	-10/+50	-15/+45	-15/+50				m ²	Fan	Suction line Discharge Line			
TECUMSEH / Hermetic Compressor / High Speed Fan																
ICU-HM 02.Z.T-4	CAE 9460 Z	1103	983	894	794	712	629	5,27	0,72	31	6,26	1x250	1/2"	56	F 00	
ICU-HM 02.5.Z.T-4	CAJ 9480 Z	1553	1380	1266	1120	1011	889	6,90	1,01	38	6,26	1x300	5/8"	57	F 00	
ICU-HM 03.Z.T-4	CAJ 9510 Z	1792	1597	1460	1298	1170	1036	9,40	1,26	43	6,26	1x350	5/8"	57	F 00	
ICU-HM 04.Z.T-4	CAJ 9513 Z	2350	2086	1871	1654	1447	1269	10,59	1,50	43	9,39	1x400	5/8"	60	F 00	
ICU-HM 05.Z.T-4	CAJ-4517 Z	2753	2451	2238	1987	1794	1588	11,69	1,66	43	15,33	1x400	5/8"	74	F 11	
ICU-HM 06.Z.T-4	CAJ-4519 Z	3638	3239	2951	2620	2336	2067	16,19	2,19	43	15,33	1x400	5/8"	75	F 11	
ICU-HM 08.Z.T-4	TFH-4524 Z	3872	3395	3042	2639	2306	1964	7,85	2,67	44	15,33	1x450	5/8"	76	F 11	
ICU-HM 10.Z.T-4	TFH 4531 Z	4991	4398	3968	3460	3055	2613	8,89	3,08	43	28,01	1x400	7/8"	93	F 21	
ICU-HM 13.Z.T-4	TFH 4540 Z	6437	5707	5173	4551	4043	3507	10,75	4,22	44	28,01	1x450	7/8"	94	F 21	
ICU-HM 16.Z.T-4	TAG 4546 Z	7122	6134	5457	4646	4035	3370	12,95	4,47	44	37,47	1x450	7/8"	96	F22	
ICU-HM 18.Z.T-4	TAG 4553 Z	8062	6957	6220	5306	4633	3868	16,76	5,48	48	37,47	1x500	7/8"	100	F22	
ICU-HM 20.Z.T-4	TAG 4561 Z	9082	7914	7107	6133	5389	4560	17,09	6,04	49	44,07	2x450	7/8"	139	F31	
ICU-HM 22.Z.T-4	TAG 4568 Z	10702	9463	8477	7429	6533	5639	22,38	7,50	51	44,07	2x500	1"1/8	142	F31	
ICU-HM 24.Z.T-4	TAG 4573 Z	11508	10122	9156	8000	7121	6155	25,18	8,29	51	58,75	2x500	1"1/8	146	F31	
TECUMSEH / Hermetic Compressor / Low Speed Fan																
ICU-HM 02.Z.T-6	CAE 9460 Z	1103	983	894	794	712	629	5,27	0,72	26	6,26	1x250	1/2"	56	F 00	
ICU-HM 02.5.Z.T-6	CAJ 9480 Z	1553	1380	1266	1120	1011	889	6,86	1,00	33	6,26	1x300	5/8"	57	F 00	
ICU-HM 03.Z.T-6	CAJ 9510 Z	1792	1597	1460	1298	1170	1036	9,28	1,23	38	9,39	1x350	5/8"	57	F 00	
ICU-HM 04.Z.T-6	CAJ 9513 Z	2350	2086	1871	1654	1447	1269	10,45	1,47	38	9,39	1x400	5/8"	60	F 00	
ICU-HM 05.Z.T-6	CAJ-4517 Z	2753	2451	2238	1987	1794	1588	11,55	1,63	38	15,33	1x400	5/8"	74	F 11	
ICU-HM 06.Z.T-6	CAJ-4519 Z	3638	3239	2951	2620	2336	2067	16,18	2,19	38	15,33	1x450	5/8"	75	F 11	
ICU-HM 08.Z.T-6	TFH-4524 Z	3872	3395	3042	2639	2306	1964	6,85	2,45	39	28,01	1x400	5/8"	76	F 21	
ICU-HM 10.Z.T-6	TFH 4531 Z	4991	4398	3968	3460	3055	2613	8,86	3,08	38	28,01	1x450	7/8"	93	F 21	
ICU-HM 13.Z.T-6	TFH 4540 Z	6437	5707	5173	4551	4043	3507	10,47	4,16	39	28,01	1x500	7/8"	94	F 21	
ICU-HM 16.Z.T-6	TAG 4546 Z	7122	6134	5457	4646	4035	3370	12,67	4,41	39	37,47	1x500	7/8"	96	F22	
ICU-HM 18.Z.T-6	TAG 4553 Z	8062	6957	6220	5306	4633	3868	14,54	4,99	43	44,07	2x400	7/8"	100	F31	
ICU-HM 20.Z.T-6	TAG 4561 Z	9082	7914	7107	6133	5389	4560	15,36	5,66	44	58,75	2x450	7/8"	139	F31	
ICU-HM 22.Z.T-6	TAG 4568 Z	10702	9463	8477	7429	6533	5639	17,47	6,42	46	58,75	2x500	1"1/8	142	F31	
ICU-HM 24.Z.T-6	TAG 4573 Z	11508	10122	9156	8000	7121	6155	20,27	7,21	46	72,75	2x500	1"1/8	146	F31	
COPELAND / Hermetic Compressor / High Speed Fan																
ICU-HM 03 E.C-4	CR-18KQ TFD	2890	2590	2245	2050	1915	-	3,1	1,1	40	15,33	1x350	5/8"	76	F 11	
ICU-HM 04 E.C-4	CR-24KQ TFD	3750	3400	2875	2585	2175	-	3,5	1,35	42	15,33	1x400	5/8"	76	F 11	
ICU-HM 05 E.C-4	CR-28KQ TFD	4500	4100	3450	3100	2610	-	4,1	1,57	44	28,11	1x400	3/4"	96	F 21	
ICU-HM 06 E.C-4	CR-33KQ TFD	5200	4700	3950	3600	3000	-	4,9	1,85	47	28,11	1x400	3/4"	96	F 21	
ICU-HM 07 E.C-4	CR-37KQ TFD	6200	5700	4750	4350	3600	-	5,9	2,3	47	28,11	1x450	7/8"	96	F 21	
ICU-HM 08 E.C-4	CR-41KQ TFD	6900	6350	5350	4850	4050	-	6,5	2,56	48	37,47	1x450	7/8"	96	F 21	
ICU-HM 09 E.C-4	CR-47KQ TFD	8000	7350	6200	5700	3000	-	7,7	3,4	48	37,47	1x500	7/8"	146	F 21	
ICU-HM 10 E.C-4	CR-53KQ TFD	9100	8400	7150	6550	5450	-	8,8	3,72	49	44,07	2x450	7/8"	146	F 31	
ICU-HM 11 E.C-4	CRNQ-500 KQ TFD	10250	9400	8050	7300	6200	-	9,8	4,84	55	44,07	2x500	1"1/8	146	F 31	

Model Designation

ICU	H	M	10	Z	T	4
1	2	3	4	5	6	7

- Production Serie
- Compressor Make Model
H: Hermetic **C:** Scroll **S:** Semi-Hermetic
- Application Temperature
M: -5/+5 °C **L:** -15 / -25 °C
- Total Displacement

- Refrigerant
E: R 22 **Z:** R 404 A **Y:** R 134 A
- Compressor Make
B: Bitzer **F:** Frascold **T:** Tecumseh **C:** Copeland **BS:** Bristol **S:** Sanyo
- Fan Speed
4: 1400 d/d **6:** 900 d/d **8:** 660 d/d **12:** 330 d/d

ICU-HM Technical Specifications

Model (With Condenser)	Compressor Model	Cooling Capacity W						Current Max. A	Electrical Power kW (-10°C) 400 V / 3 / 50Hz	Sound Power dB	Condenser		Connection Suction line Discharge Line	Weight Kg	Cabin Type
		-5/+45	-5/+50	-10/+45	-10/+50	-15/+45	-15/+50				m ²	Fan			
COPELAND / Hermetic Compressor / Low Speed Fan															
ICU-HM 03 E.C-6	CR-18KQ TFD	2890	2590	2245	2050	1915	-	3,07	1,07	35	15,33	1x400	5/8"	76	F 11
ICU-HM 04 E.C-6	CR-24KQ TFD	3750	3400	2875	2585	2175	-	3,3	1,15	37	15,33	1x450	5/8"	76	F 11
ICU-HM 05 E.C-6	CR-28KQ TFD	4500	4100	3450	3100	2610	-	3,91	1,38	39	28,11	1x450	3/4"	96	F 21
ICU-HM 06 E.C-6	CR-33KQ TFD	5200	4700	3950	3600	3000	-	4,71	1,65	42	28,11	1x450	3/4"	96	F 21
ICU-HM 07 E.C-6	CR-37KQ TFD	6200	5700	4750	4350	3600	-	5,45	1,84	42	28,11	1x500	7/8"	96	F 21
ICU-HM 08 E.C-6	CR-41KQ TFD	6900	6350	5350	4850	4050	-	6,05	2,1	43	37,47	1x500	7/8"	96	F 21
ICU-HM 09 E.C-6	CR-47KQ TFD	8000	7350	6200	5700	3000	-	7,64	3,34	43	44,07	2x400	7/8"	146	F 31
ICU-HM 10 E.C-6	CR-53KQ TFD	9100	8400	7150	6550	5450	-	8,24	3,34	44	58,75	2x450	7/8"	146	F 31
ICU-HM 11 E.C-6	CRNQ-50 KQ TFD	10250	9400	8050	7300	6200	-	8,86	3,92	50	58,75	2x500	1"1/8	146	F 31
COPELAND / CS Series Hermetic Compressor / High Speed Fan															
ICU-HM 04 Z.CS-4	CS10K6E-TFD	3500	3050	2675	2320	2030	1720	3,4	1,37	28	15,33	1x400	5/8"	74	F 11
ICU-HM 08 Z.CS-4	CS14K6E-TFD	4650	4150	3800	3350	3000	2615	4,7	1,82	31	28,11	1x400	3/4"	94	F 21
ICU-HM 10 Z.CS-4	CS18K6E-TFD	6000	5300	4800	4200	3700	3200	5,9	2,38	32	28,11	1x450	3/4"	95	F 21
ICU-HM 13 Z.CS-4	CS20K6E-TFD	6900	6050	5350	4700	4150	3600	6,9	3,01	32	37,47	1x500	7/8"	97	F 21
ICU-HM 16 Z.CS-4	CS27K3E-TFD	8900	7850	7100	6200	5500	4750	7	3,86	36	44,07	2x450	7/8"	138	F 31
ICU-HM 18 Z.CS-4	CS33K3E-TFD	10550	9350	8350	7300	6500	5600	10,2	5,21	38	58,75	2x450	1"1/8	142	F 31
BRISTOL / Hermetic Compressor / High Speed Fan															
ICU-HM 08 Z.B-4	H71J233DBVA	3324	2804	2542	2097	1873	1484	3,3	1,46	40	15,33	1x400	5/8"	88	F 11
ICU-HM 09 Z.B-4	H71J323DBVA	4478	3801	3313	2598	2623	2150	5,2	2,04	42	15,33	1x450	3/4"	90	F 11
ICU-HM 10 Z.B-4	H71J343DBVA	4999	4305	3956	3389	3067	2596	5,2	2,10	44	28,11	1x400	3/4"	109	F 21
ICU-HM 11 Z.B-4	H71J363DBVA	5274	4522	4132	3509	3359	2672	4,7	2,18	47	28,11	1x400	3/4"	111	F 21
ICU-HM 12 Z.B-4	H71J383DBVA	5664	4840	4446	3768	3455	2928	5	2,29	47	28,11	1x400	3/4"	112	F 21
ICU-HM 13 Z.B-4	H71J433DBVA	6522	5649	5155	4456	4017	3453	6	2,79	48	28,11	1x450	7/8"	112	F 21
ICU-HM 14 Z.B-4	H71J493DBEA	7340	6416	5851	5093	4566	3960	6,1	3,03	48	37,47	1x450	7/8"	110	F 21
ICU-HM 16 Z.B-4	H73A543DBEA	7717	6720	6013	5279	4926	3955	7,21	3,47	50	37,47	1x500	7/8"	108	F 21
ICU-HM 18 Z.B-4	H73A623DBEA	8932	7889	6981	6981	5351	4640	8,41	3,71	52	44,07	2x450	7/8"	121	F 31
ICU-HM 21 Z.B-4	H79A723DBVA	13100	10600	9300	7900	7500	6200	9,6	4,25	55	58,75	2x500	1"1/8	132	F 31

Model Designation

ICU	H	M	10	Z	T	4
1	2	3	4	5	6	7

- Production Serie
- Compressor Make Model
H: Hermetic C: Scroll S: Semi-Hermetic
- Application Temperature
M: -5/+5 °C L: -15 / -25 °C
- Total Displacement

- Refrigerant
E: R 22 Z: R 404 A Y: R 134 A
- Compressor Make
B: Bitzer F: Frascold T: Tecumseh C: Copeland BS: Bristol S: Sanyo
- Fan Speed
4: 1400 d/d 6: 900 d/d 8: 660 d/d 12: 330 d/d

ICU-HL Technical Specifications

Model (With Condanser)	Compressor Model	Cooling Capacity W						Current Max. A	Electrical Power kW (-30°C) 400 V / 3 / 50Hz	Condanser		Connection Suction line Discharge Line	Weight Kg	Cabin Type
		-25/+45	-25/+50	-30/+45	-30/+50	-35/+45	-35/+50			m²	Fan			
TECUMSEH / Hermetic Compressor / High Speed Fan														
ICU-HL 04 Z.T-4	CAJ-2446 Z	1001	876	753	651	541	458	9,7	0,7	9,39	1x300	5/8"	60	F 00
ICU-HL 06 Z.T-4	CAJ-2464 Z	1285	1131	971	846		603	13,6	1,0	9,39	1x350	5/8"	60	F 00
ICU HL 10 Z.T-4	TFH-2480 Z	1866	1622	1376	1165	941	757	5,5	1,3	15,33	1x400	5/8"	76	F 11
ICU HL 13 Z.T-4	TFH-2511 Z	2518	2170	1819	1529	1237	997	2,2	1,5	28,10	1x 400	3/4"	96	F 21
ICU HL 20 Z.T-4	TAG-2516 Z	3687	3169	2711	2272	1957	1571	11,3	2,5	28,10	1x 450	7/8"	96	F 22
ICU HL 24 Z.T-4	TAG-2522 Z	4702	4039	3550	2972	2661	2133	14,0	3,1	37,47	1x 450	1"1/8	96	F 22
TECUMSEH / Hermetic Compressor / Low Speed Fan														
ICU-HL 04 Z.T-6	CAJ-2446 Z	1001	876	753	651	541	458	9,8	0,7	9,39	1x350	5/8"	60	F 00
ICU-HL 06 Z.T-6	CAJ-2464 Z	1285	1131	971	846		603	13,6	1,0	9,39	1x400	5/8"	60	F 00
ICU HL 10 Z.T-6	TFH-2480 Z	1866	1622	1376	1165	941	757	5,5	1,3	15,33	1x450	5/8"	76	F 11
ICU HL 13 Z.T-6	TFH-2511 Z	2518	2170	1819	1529	1237	997	5,7	1,5	28,10	1x 450	3/4"	96	F 21
ICU HL 20 Z.T-6	TAG-2516 Z	3687	3169	2711	2272	1957	1571	11,1	2,4	28,10	1x 500	7/8"	96	F 22
ICU HL 24 Z.T-6	TAG-2522 Z	4702	4039	3550	2972	2661	2133	12,5	3,0	37,47	1x 500	1"1/8	96	F 22
BRISTOL / Hermetic Compressor / High Speed Fan														
ICU-HBL 11.Z.B-4	L63A113DBEA	1893	1532	1260	988	774	587	5,4	1,2	15,33	1x400	3/4"	86	F 11
ICU-HBL 18.Z.B-4	L63A183DBEA	3270	2725	2241	1786	1395	1015	9,8	2,0	28,11	1x400	3/4"	110	F 21

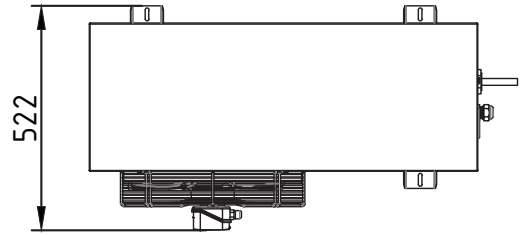
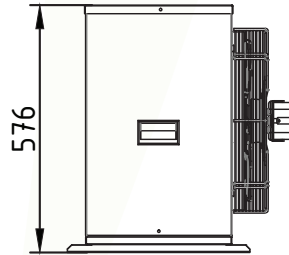
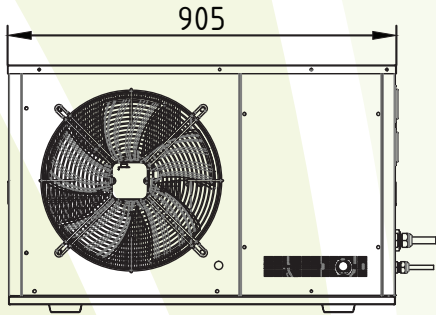
Model Designation

ICU	H	L	20	Z	T	4
1	2	3	4	5	6	7

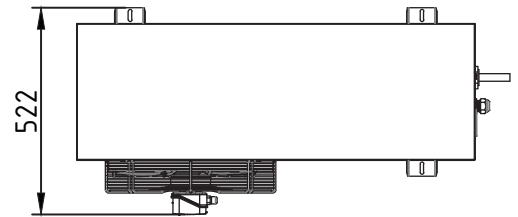
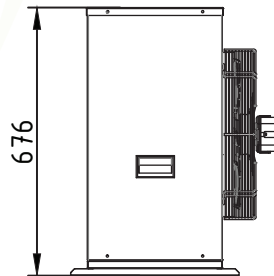
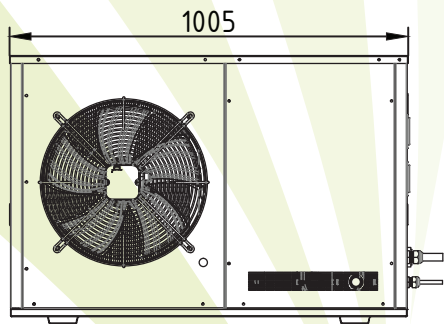
- 1** Production Serie
- 2** Compressor Make Model
H: Hermetic **C:** Scroll **S:** Semi-Hermetic
- 3** Application Temperature
M: -5/+5 °C **L:** -15 / -25 °C
- 4** Total Displacement

- 5** Refrigerant
E: R 22 **Z:** R 404 A **Y:** R 134 A
- 6** Compressor Make
B: Bitzer **F:** Frascold **T:** Tecumseh **C:** Copeland **BS:** Bristol **S:** Sanyo
- 7** Fan Speed
4: 1400 d/d **6:** 900 d/d **8:** 660 d/d **12:** 330 d/d

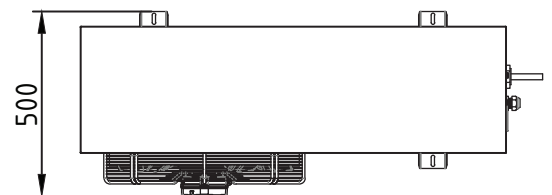
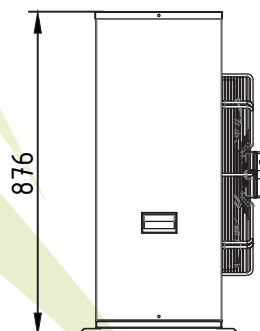
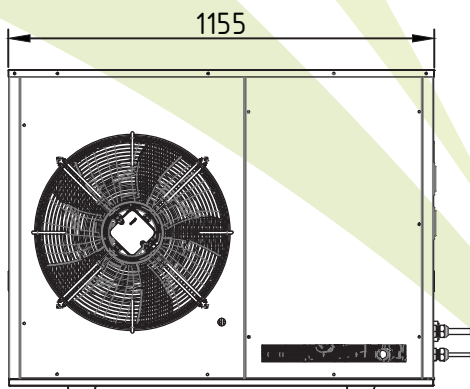
F00



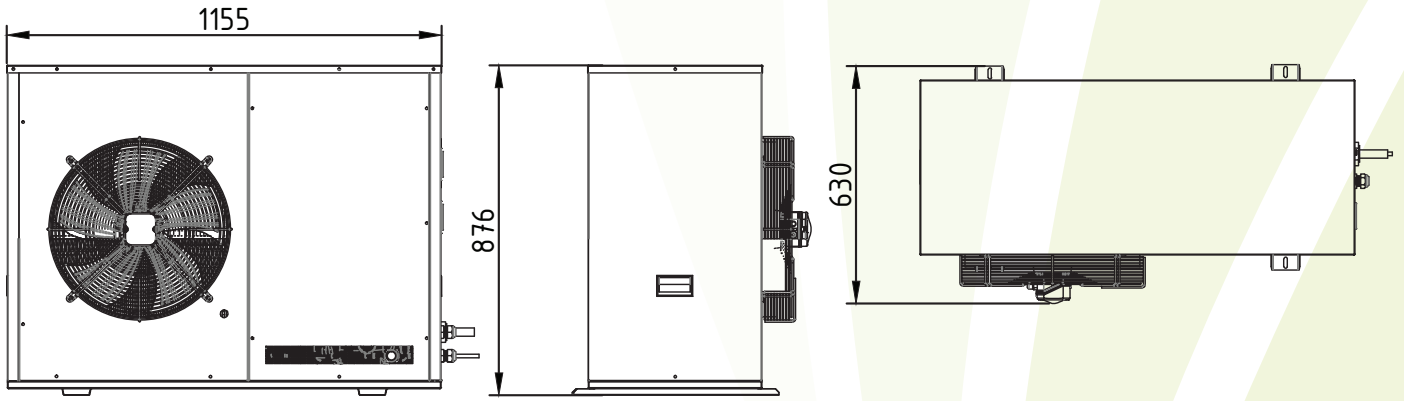
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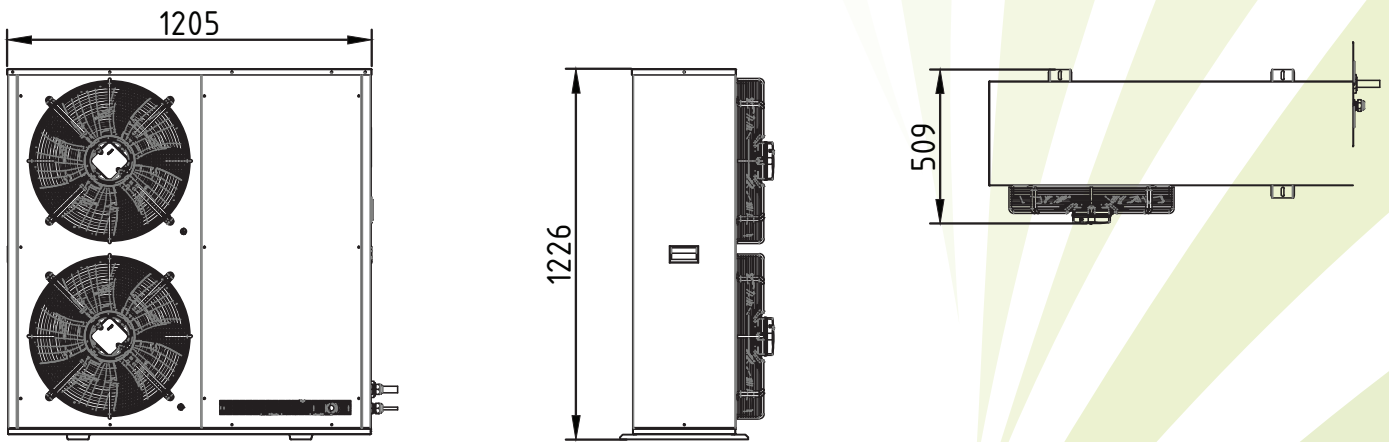
F21

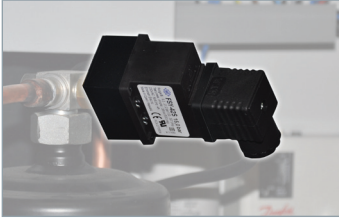


F22



F31





Fan Speed Control



Combine Pressure Control



Safety Switch



Liquid Indicators Unit



Solenoid Valves



Fan



Pressure Manometer



Helical Oil Separators



Vibration Eliminators



Vertical Liquid Receivers



Easy to Carry



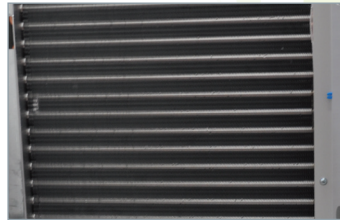
Acoustic Insulation



Connection



Electrical Board



Efficient use of Condanser



Suction Line Accumulators



Easy Installation Equipment



Sound Jacket



Cabinet Unit for Outside Applications



Filter Driers



Solenoid Valves



Rotolock Valves



Subcooling



Pressure Switch



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