



Technology and Reliability

Medium Profile  
High Flow



## Medium Profile Unit Cooler

**Hd**  
400

**Hdl**  
400

**Cold**

2.389 to 35.376 Kcal/h  
2.777 to 41.135 W

**Frozen**

1.906 to 28.747 Kcal/h  
2.217 to 33.428 W



### Cold

2.389 to 35.376 Kcal/h  
2.777 to 41.135 W



### Frozen

1.906 to 28.747 Kcal/h  
2.217 to 33.428 W

## Low profile Unit cooler



For chambers up to 6m high

### Benefits

Revolution in the Hd/Hdl line with excellent performance and with innovations that facilitate installation, operation and maintenance, with a harmonious and clean design, with capacities from 1.906 to 33.428 W, in 24 models from 1 to 4 fans.

#### What's new?

- Innovative project with total accesses without the need for tools
- Tilting and individual hoods
- Tilting side locks
- Inclined and tilting condensation collecting pan
- Copper, aluminum or stainless steel tubes
- Smooth flat aluminum casing, white epoxy paint or stainless steel
- With optional protection of the finned block for operation in harsh environments
- Direct or indirect expansion for glycol, ammonia and CO2
- Back connection for condensing water drainage
- Quick access to defrost resistors
- High performance AC or electronic EC motor-fans
- Easy access to expansion valves
- External and individual electrical panels: Power supply for Motor-fans – Resistors – Controls, through spring-loaded electrical connectors

### Values the operation

- Developed for optimum performance for freezing and cooling operations
- Industrial and commercial applications
- Access without tools to all internal parts and with no loose parts for temperature adjustment through the expansion valve regulation and pressure readings
- Tilting and individual frontal hoods allows full access to the internal compartment of the equipment for cleaning and total access to the ventilation assembly for verification
- Drain pan tilting for inspection, cleaning and repairs without using tools and with no need to remove parts
- Safe, with independent electrical panels to power supply the motors, defrost resistors and electronic controls through electrical connectors
- With high efficiency AC or electronic EC motor-fans that guarantee operation with low power consumption and high performance
- Motor-fans equipped with thermal protectors that act in case of overload, connected to the power supply panel
- High efficiency to reach, uniform and stabilize the temperature of the refrigerated environment
- Air range from 18 to 22 meters guarantees uniformity of ambient temperature

### Values the maintenance

- Total and easy tilting opening of the hood, drain pan and side locks to quick and complete access the interior of the equipment without using tools and mainly without removing parts, thus guaranteeing safety for the operation, adjustments, maintenance and cleaning
- Inclined and tilting collector pan for perfect water runoff to the drain and for cleaning
- Tilting and removable collector pan for on-site and off-site cleaning
- Tilting and individual frontal hoods allows full access to the internal compartment of the equipment for cleaning and total access to easy access to the ventilation
- Equipment designed to allow verification, removal and replacement of defrost resistors from the back of the equipment
- Safe maintenance with independent electrical panels to power the motor-fans, defrost resistors and electronic controls through spring-loaded electrical connectors

## Values the investment

With a modern design harmonized with the environment, the high-efficiency Hd400/Hdl400 Unit Cooler was conceived with a focus on performance, high quality, safety and practicality for operation, using the best concepts and best practices of sustainability throughout all the value chain.

- High efficiency AC or electronic EC motor-fans guarantee operation with low power consumption and high performance
- Copper, aluminum or stainless steel tubes
- Smooth flat aluminum casing, white epoxy paint or stainless steel
- With optional protection of the finned block for operation in harsh environments
- Built with the experience of more than 400,000 unit coolers of the Hd/Hdl line produced and in operation in the market

## Values the application

### ■ Food

Conservation of cold and frozen goods, supermarkets, cafes, bars, restaurants, kitchens, bakeries, butcheries, ice cream parlors, breweries, industrial kitchens and small distribution centers

### ■ Pharmaceuticals

Vaccines preservation rooms, medicines, blood bank and supplies

### ■ Hospital

Kitchens, rooms for organs and waste

### ■ Industrial

Food processing rooms, paints and varnishes, glass, resins and solvents, beverages, meat and fish processing

## Values the installation

- Lightweight, updated design, robust style, high efficiency and low energy consumption, with a superior finish standard that harmonizes with your installation
- Installation flush to the ceiling, without surfaces for dirt accumulation, complying with European standards
- Tilting and removable collector pan with back drain for perfect water runoff and simplicity of drainage installation
- In versions with electric defrost comes with a drain resistance installed.
- Total and easy tilting opening to access the interior of the equipment without using tools and mainly without removing parts, thus guaranteeing safety for the operation, adjustments, maintenance and cleaning
- Models equipped with electronic motor-fans have independent panels for connection and controls, facilitating and speeding up a safe installation.
- Spring-retaining tilting side covers for easy access to expansion valve, pressure tap and electrical connectors
- Spring-loaded electrical connectors ensure fast installation and safe operation




## Exclusive advantages

- Updated design, robust style, high efficiency and low energy consumption, with a superior finish standard that harmonizes with your installation
- Built with aluminum fins and tubes options in copper, aluminum or stainless steel for all refrigerant gases for direct and indirect expansion for glycol, ammonia and CO2
- With optional protection of the finned block for operation in harsh environments
- Direct or indirect expansion for glycol, ammonia and CO2
- Installation flush to the ceiling, without spaces for dirt accumulation, complying with European standards
- Total and easy tilting opening to access the interior of the equipment without using tools and mainly without removing parts, thus guaranteeing safety for the operation, adjustments, maintenance and cleaning
- Tilting and removable collector pan with back drain for perfect water runoff that simplifies and harmonizes the installation
- High efficiency AC or electronic EC motor-fans guarantee operation with low power consumption and high performance
- Tilting ventilation set that provides lightness, strength, efficiency and easy access
- Tilting side covers for easy access to expansion valve and pressure tap
- Spring-loaded electrical connectors ensure fast installation and safe operation, with individual panels - power supply for Motor-fans – Resistors – Electronic Controls

## Features

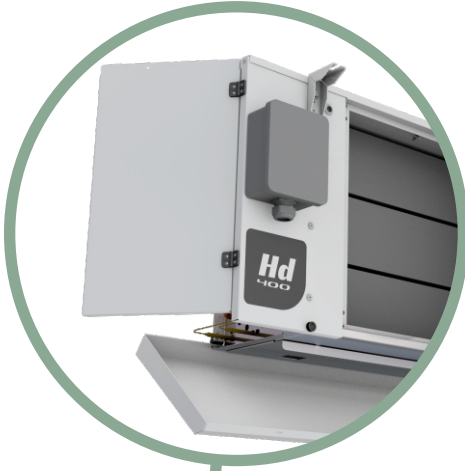
- Indicated for chambers up to 6m high
- Provides air flow from 18 to 22 m
- Built with aluminum fins and tubes options in copper, aluminum or stainless steel
- For all refrigerant gases for direct and indirect expansion for glycol, ammonia and CO2
- 4,5 mm (Hd) and 8,0 mm (Hdl) in between fins spacing
- Direct expansion with connection for threaded expansion valve SAE 1/2"
- Copper, aluminum or stainless steel tubes
- Smooth flat aluminum casing
- With optional protection of the finned block for operation in harsh environments
- Non-metallic components in ANTI-FLAME materials
- AC or electronic EC motor-fans to operations at low temperatures
- Standardized electrical connectors with spring technology
- Direct or indirect expansion for glycol, ammonia and CO2

## Optional

- Built-in shielded and flexible drain defrost electric resistors
- High performance electronic motor-fans
- Casing with white electrostatic paint
- Stainless steel casing
- Aluminum or stainless steel tubes
-  protection of the finned block for operation in harsh environments
- Direct or indirect expansion for glycol, ammonia and CO2
- Built-in expansion and solenoid valves
- Defrost by hot gas
- Mixed defrost (hot gas and electric in the drain pan)

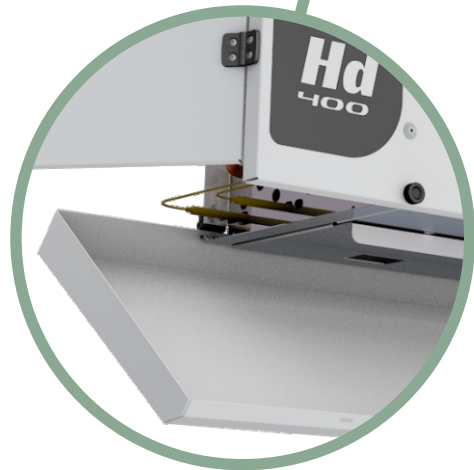
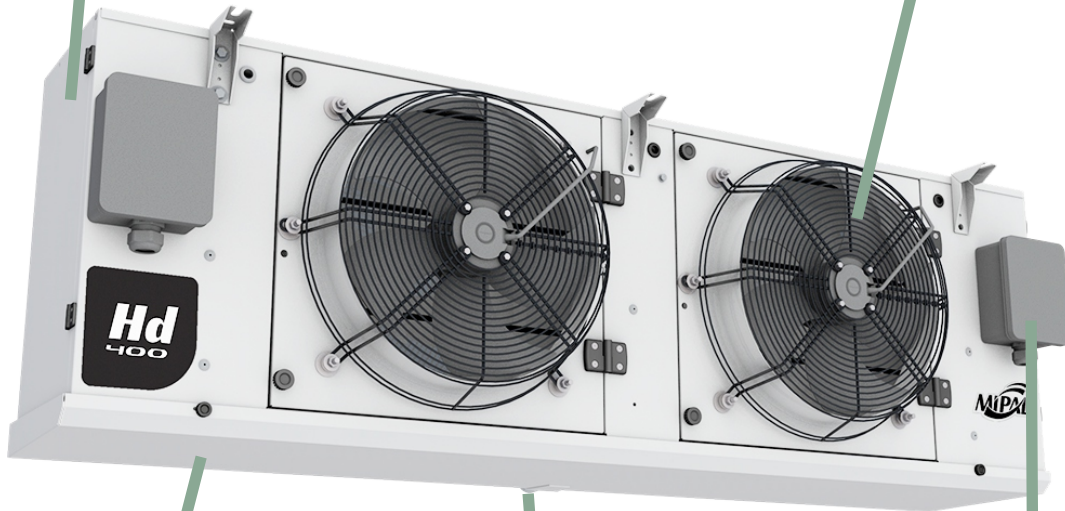
## Exclusive advantages

Total and easy tilting opening, without using tools

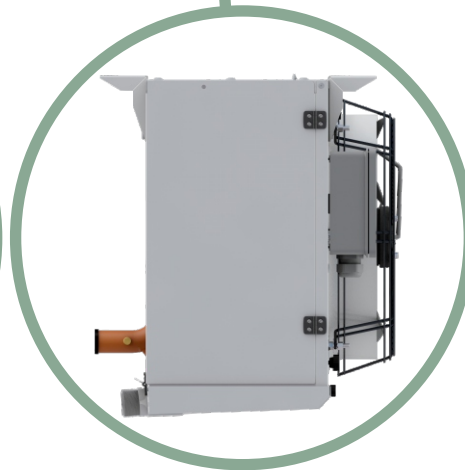


Tilting side locks

Tilting and individual frontal hoods



Inclined and tilting condensation collecting pan

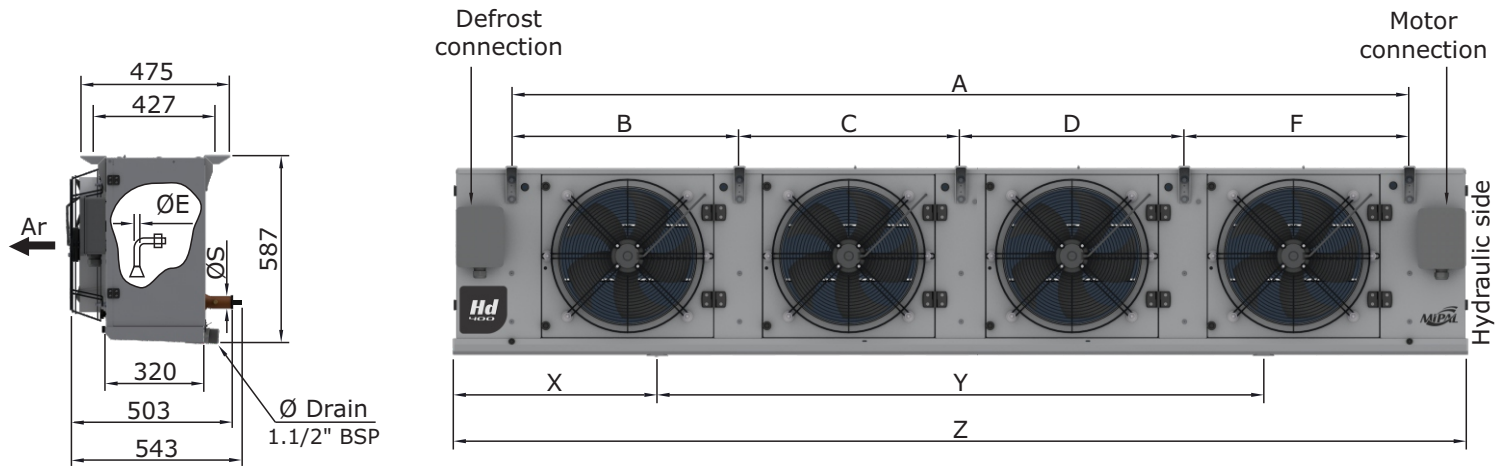


Back connection for condensing water drainage



External and individual electrical panels with spring-loaded electrical connectors

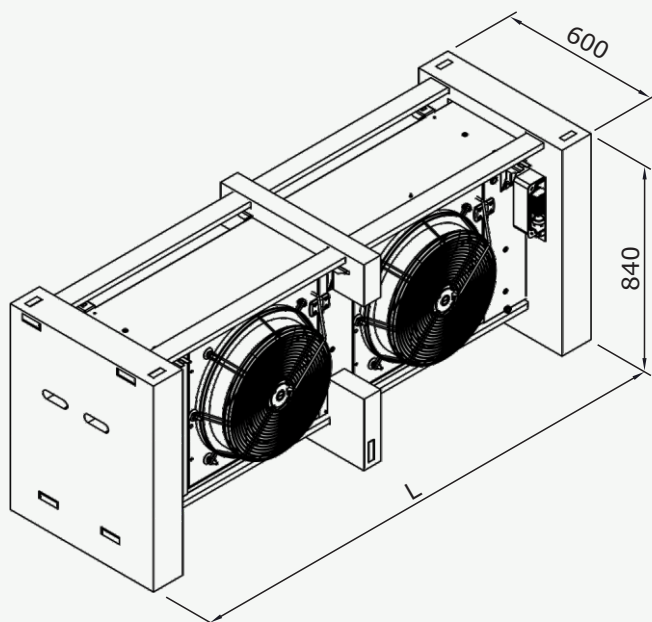
## Dimensions



Model	Dimensions (mm)										Ø		Net Weight (Kg)	
	Hd	Hdl	A	B	C	D	F	X	Y	Z	ØE	ØS	Hd	Hdl
1 0042 0031			586	-	-	-	-	472	-	944	1/2"	5/8"	22,8	17,7
1 0050 0038			586	-	-	-	-	472	-	944	1/2"	1 1/8"	26,3	20,2
1 0064 0048			800	-	-	-	-	582	-	1164	1/2"	1 1/8"	41,7	32,1
1 0077 0058			800	-	-	-	-	582	-	1164	1/2"	1 1/8"	43,8	34,2
2 0086 0064			1150	575	-	-	-	755	-	1510	1/2"	1 1/8"	53,7	44,1
2 0103 0077			1150	575	-	-	-	755	-	1510	1/2"	1 1/4"	60,7	49,2
2 0115 0086			1400	700	-	-	-	881	-	1763	5/8"	1 1/4"	69,0	55,4
2 0138 0103			1400	700	-	-	-	881	-	1763	5/8"	1 1/2"	70,9	58,2
3 0173 0129			2100	710	690	700	-	633	1195	2463	5/8"	1 1/2"	99,9	79,8
3 0208 0155			2100	710	690	700	-	633	1195	2463	5/8"	2"	102,8	84,3
4 0265 0198			3200	774	826	825	775	1000	1563	3563	7/8"	2"	140,8	112,2
4 0318 0238			3200	774	826	825	775	1000	1563	3563	7/8"	2"	148,6	120,0

Connector resistant to temperature variations, vibration and shock. Spring-loaded technology reduces the time for electrical installations without the need for special tools. Standardized electrical components.

## Packing



Model	Gross Weight (Kg)	
	Hd	Hdl
1 0042 0031	37,4	32,3
1 0050 0038	41,2	34,8
1 0064 0048	48,7	39,1
1 0077 0058	50,8	41,2
2 0086 0064	62,9	53,3
2 0103 0077	69,9	58,4
2 0115 0086	76,8	63,2
2 0138 0103	78,7	70,1
3 0173 0129	111,5	91,4
3 0208 0155	114,4	96,3
4 0265 0198	181,4	152,8
4 0318 0238	189,2	160,6

## Capacities Hd400 • AC Fans

Model Hd	Kcal/h									Watts								
	Evaporation Temperatures																	
	-31 °F -35 °C	-22 °F -30 °C	-13 °F -25 °C	-4 °F -20 °C	5 °F -15 °C	14 °F -10 °C	23 °F -5 °C	32 °F 0 °C	41 °F 5 °C	-31 °F -35 °C	-22 °F -30 °C	-13 °F -25 °C	-4 °F -20 °C	5 °F -15 °C	14 °F -10 °C	23 °F -5 °C	32 °F 0 °C	41 °F 5 °C
0042	2389	2670	2975	3256	3511	3730	3938	4129	4305	2777	3105	3460	3786	4083	4337	4579	4802	5005
0050	2856	3193	3558	3893	4199	4460	4708	4938	5147	3321	3713	4137	4527	4882	5186	5475	5741	5985
0064	3657	4088	4555	4985	5375	5710	6028	6322	6590	4252	4753	5296	5796	6250	6640	7009	7351	7662
0077	4380	4897	5456	5971	6439	6840	7221	7573	7894	5093	5694	6345	6943	7487	7953	8396	8805	9179
0086	4918	5498	6126	6704	7230	7680	8108	8503	8863	5719	6393	7124	7796	8407	8930	9428	9887	10306
0103	5892	6586	7339	8031	8661	9200	9712	10185	10617	6851	7659	8534	9339	10071	10698	11293	11843	12346
0115	6516	7284	8117	8882	9579	10175	10742	11265	11742	7577	8470	9438	10328	11138	11831	12490	13099	13654
0138	7803	8723	9720	10637	11471	12185	12864	13490	14062	9073	10143	11303	12369	13338	14169	14958	15686	16351
0173	9684	10826	12063	13201	14236	15122	15964	16742	17451	11260	12588	14027	15350	16553	17584	18563	19467	20292
0208	11631	13003	14488	15855	17098	18162	19174	20107	20960	13524	15119	16847	18436	19881	21119	22295	23381	24372
0265	14819	16566	18459	20201	21784	23140	24429	25618	26705	17231	19263	21464	23489	25330	26907	28406	29789	31052
0318	17846	19950	22230	24327	26234	27867	29419	30852	32160	20751	23198	25849	28287	30504	32403	34208	35874	37395

### Capacities (DT=10,8°F / DT1=6°K)

(\*) The capacities above are for 60Hz. For 50Hz capacities, multiply by 0,92. Capacities in R-22 refrigerant.

Dt1: Difference between the air temperature input in the evaporator and the refrigerant evaporation temperature.

°K = Kelvin °F = Fahrenheit

### Refrigerant correction factor

R22	R134A	R404A	R407C	R410A
1	1,01	0,983	0,98	0,95

The temperature of the air input in the evaporator is considered as the approximate temperature of the chamber.

## Capacities Hd400 • EC Fans

Model Hd	Kcal/h									Watts								
	Evaporation Temperatures																	
	-31 °F -35 °C	-22 °F -30 °C	-13 °F -25 °C	-4 °F -20 °C	5 °F -15 °C	14 °F -10 °C	23 °F -5 °C	32 °F 0 °C	41 °F 5 °C	-31 °F -35 °C	-22 °F -30 °C	-13 °F -25 °C	-4 °F -20 °C	5 °F -15 °C	14 °F -10 °C	23 °F -5 °C	32 °F 0 °C	41 °F 5 °C
0042	2628	2937	3273	3582	3862	4103	4332	4542	4736	3055	3416	3806	4165	4491	4771	5037	5282	5506
0050	3142	3512	3914	4282	4619	4906	5179	5432	5662	3653	4084	4551	4980	5370	5705	6023	6315	6584
0064	4023	4497	5011	5484	5913	6281	6631	6954	7249	4677	5228	5297	6376	6875	7304	7710	8086	8428
0077	4818	5387	6002	6568	7083	7524	7943	8330	8683	5602	6263	6980	7637	8236	8748	9236	9686	10097
0086	5410	6048	6739	7374	7953	8448	8919	9353	9749	6291	7032	7836	8576	9248	9823	10371	10876	11337
0103	6481	7245	8073	8834	9527	10120	10683	11204	11678	7536	8425	9387	10273	11078	11768	12422	13027	13581
0115	7168	8012	8929	9770	10537	11193	11817	12392	12916	8335	9317	10382	11361	12252	13014	13739	14409	15019
0138	8583	9593	10692	11701	12618	13404	14150	14839	15468	9980	11157	12433	13606	14672	15586	16454	17256	17986
0173	10652	11909	13269	14521	15660	16634	17560	18416	19196	12368	13847	15430	16885	18208	19342	20419	21414	22321
0208	12794	14303	15937	17441	18808	19978	21091	22118	23056	14876	16631	18532	20280	21869	23231	24525	25719	26809
0265	16301	18223	20305	22221	23962	24454	26872	28180	29376	18954	21189	23610	25838	27863	29598	31247	32768	34157
0318	19631	21945	24453	26760	28857	30654	32361	33937	35376	22826	25518	28434	31116	33554	35643	37629	39461	41135

### Capacities (DT=10,8°F / DT1=6°K)

(\*) The capacities above are for 60Hz. For 50Hz capacities, multiply by 0,92. Capacities in R-22 refrigerant.

Dt1: Difference between the air temperature input in the evaporator and the refrigerant evaporation temperature.

°K = Kelvin °F = Fahrenheit

### Refrigerant correction factor

R22	R134A	R404A	R407C	R410A
1	1,01	0,983	0,98	0,95

The temperature of the air input in the evaporator is considered as the approximate temperature of the chamber.

## Capacities Hd1400 • AC Fans

Model Hd1400	Kcal/h										Watts									
	Evaporation Temperatures																			
	-31 °F -35 °C	-22 °F -30 °C	-13 °F -25 °C	-4 °F -20 °C	5 °F -15 °C	14 °F -10 °C	23 °F -5 °C	32 °F 0 °C	41 °F 5 °C	-31 °F -35 °C	-22 °F -30 °C	-13 °F -25 °C	-4 °F -20 °C	5 °F -15 °C	14 °F -10 °C	23 °F -5 °C	32 °F 0 °C	41 °F 5 °C		
0031	1906	2131	2375	2599	2803	2977	3143	3296	3436	2217	2478	2761	3022	3259	3462	3654	3832	3995		
0038	2287	2557	2849	3118	3363	3572	3771	3955	4122	2660	2974	3313	3626	3910	4153	4385	4598	4793		
0048	2936	3282	3657	4002	4315	4584	4839	5075	5290	3413	3816	4252	4653	5018	5330	5627	5901	6151		
0058	3523	3938	4388	4802	5179	5501	5807	6090	6348	4096	4579	5103	5584	6022	6397	6753	7082	7382		
0064	3927	4390	4892	5353	5773	6132	6474	6789	7077	4566	5105	5688	6224	6712	7130	7527	7894	8229		
0077	4712	5268	5870	6423	6927	7358	7768	8146	8491	5479	6125	6825	7469	8054	8556	9032	9472	9874		
0086	5223	5839	6506	7120	7678	8156	8610	9029	9412	6073	6790	7565	8279	8928	9484	10012	10499	10945		
0103	6267	7007	7807	8544	9213	9787	10332	10835	11295	7288	8147	9078	9935	10713	11380	12014	12599	13133		
0129	7892	8822	9830	10758	11601	12323	13009	13643	14221	9176	10258	11431	12509	13489	14329	15127	15864	16536		
0155	9470	10587	11797	12909	13921	14788	15612	16372	17066	11012	12310	13717	15011	16187	17195	18153	19037	19844		
0198	12085	13510	15054	16474	17765	18871	19922	20892	21778	14052	15709	17504	19156	20657	21943	23165	24293	25323		
0238	14502	16213	18065	19769	21319	22646	23907	25071	26134	16863	18852	21006	22987	24789	26333	27799	29153	30389		

### Capacities (DT=10,8°F / DT1=6°K)

(\*) The capacities above are for 60Hz. For 50Hz capacities, multiply by 0,92. Capacities in R-22 refrigerant.

Dt1: Difference between the air temperature input in the evaporator and the refrigerant evaporation temperature.

°K = Kelvin °F = Fahrenheit

Refrigerant correction factor				
R22	R134A	R404A	R407C	R410A
1	1,01	0,983	0,98	0,95

The temperature of the air input in the evaporator is considered as the approximate temperature of the chamber.

## Capacities Hd400 • EC Fans

Model Hd400	Kcal/h										Watts									
	Evaporation Temperatures																			
	-31 °F -35 °C	-22 °F -30 °C	-13 °F -25 °C	-4 °F -20 °C	5 °F -15 °C	14 °F -10 °C	23 °F -5 °C	32 °F 0 °C	41 °F 5 °C	-31 °F -35 °C	-22 °F -30 °C	-13 °F -25 °C	-4 °F -20 °C	5 °F -15 °C	14 °F -10 °C	23 °F -5 °C	32 °F 0 °C	41 °F 5 °C		
0031	2097	2344	2613	2859	3083	3275	3457	3626	3880	2439	2726	3037	3324	3585	3808	4019	4215	4395		
0038	2516	2813	3134	3430	3699	3929	4148	4351	4534	2926	3271	3644	3989	4301	4568	4824	5058	5273		
0048	3230	3610	4023	4402	4747	5042	5323	5583	5819	3754	4198	4677	5118	5520	5863	6190	6491	6766		
0058	3875	4332	4827	5282	5697	6051	6388	6699	6983	4506	5037	5613	6142	6624	7037	7428	7790	8120		
0064	4318	4829	5381	5888	6350	6745	7121	7468	7785	5023	5616	6257	6846	7383	7843	8280	8683	9052		
0077	5183	5795	6457	7065	7620	8094	8545	8961	9340	6027	6738	7508	8216	8859	9412	9935	10419	10861		
0086	5745	6423	7157	7832	8446	8972	9471	9932	10353	6680	7469	8322	9107	9821	10432	11013	11549	12040		
0103	6894	7708	8588	9398	10134	10766	11365	11919	12425	8017	8962	9986	10929	11784	12518	13215	13859	14446		
0129	8681	9704	10813	11834	12761	13555	14310	15007	15643	10094	11284	12574	13760	14838	15762	16640	17450	18190		
0155	13294	11646	12977	14200	15313	16267	17173	18009	18773	12113	13541	15089	16512	17806	18915	19968	20941	21828		
0198	13294	14861	16559	18121	19542	20758	21914	22981	23956	15457	17280	19254	21072	22723	24137	25482	26722	27855		
0238	15952	17834	19872	21746	23451	24911	26298	27758	28747	18549	20737	23107	25286	27268	28966	30579	32068	33428		

### Capacities (DT=10,8°F / DT1=6°K)

(\*) The capacities above are for 60Hz. For 50Hz capacities, multiply by 0,92. Capacities in R-22 refrigerant.

Dt1: Difference between the air temperature input in the evaporator and the refrigerant evaporation temperature.


°K = Kelvin °F = Fahrenheit

Refrigerant correction factor				
R22	R134A	R404A	R407C	R410A
1	1,01	0,983	0,98	0,95


The temperature of the air input in the evaporator is considered as the approximate temperature of the chamber.



## Electrical characteristics • Hd 400 Motor fan

Model Hd400		V dm <sup>3</sup>	C Kg	Noise dBA	EC Fan			AC Fan										
					VAZÃO m <sup>3</sup> /h	1 ~ 230V		Flow rate m <sup>3</sup> /h	1 ~ 220V				3~ 230V/380V		3~ 230V		3~ 380V	
						W	A		W		A		W	A	W	A		
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz					
0042	1	4,08	0,80	62	1 X 4260	400	2,45	1 x 4100	280	410	1,30	1,80	220	315	0,88	0,97	0,51	0,56
0050	1	5,40	1,00	63	1 X 4200	400	2,45	1 x 4040	280	410	1,30	1,80	220	315	0,88	0,97	0,51	0,56
0064	1	9,3	1,90	62	1 X 4160	400	2,45	1 x 4000	280	410	1,30	1,80	220	315	0,88	0,97	0,51	0,56
0077	1	10,3	2,10	63	1 X 4120	400	2,45	1 x 3960	280	410	1,30	1,80	220	315	0,88	0,97	0,51	0,56
0086	2	8,40	1,75	65	2 X 4260	800	4,90	2 x 4100	560	820	2,60	3,60	440	630	1,76	1,94	1,02	1,12
0103	2	10,0	2,00	66	2 X 4200	800	4,90	2 x 4040	560	820	2,60	3,60	440	630	1,76	1,94	1,02	1,12
0115	2	15,5	3,10	65	2 X 4160	800	4,90	2 x 4000	560	820	2,60	3,60	440	630	1,76	1,94	1,02	1,12
0138	2	18,7	3,70	66	2 X 4120	800	4,90	2 x 3960	560	820	2,60	3,60	440	630	1,76	1,94	1,02	1,12
0173	3	22,8	4,60	67	3 X 4160	1200	7,35	3 x 4000	840	1230	3,90	5,40	660	945	2,64	2,91	1,53	1,68
0208	3	27,4	5,50	68	3 X 4120	1200	7,35	3 x 3960	840	1230	3,90	5,40	660	945	2,64	2,91	1,53	1,68
0265	4	34,4	6,90	68	4 X 4160	1600	9,80	4 x 4000	1120	1640	5,20	7,20	880	1260	3,52	3,88	2,04	2,24
0318	4	41,1	8,20	69	4 X 4120	1600	9,80	4 x 3960	1120	1640	5,20	7,20	880	1260	3,52	3,88	2,04	2,24



## Electrical characteristics • Hdl 400 Motor fan

Model Hdl400		V dm <sup>3</sup>	C Kg	Noise dBA	EC Fan			AC Fan										
					Flow rate m <sup>3</sup> /h	1 ~ 230V		Flow rate m <sup>3</sup> /h	1 ~ 220V				3~ 230V/380V		3~ 230V		3~ 380V	
						W	A		W		A		W	A	W	A		
50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz					
0031	1	4,08	0,80	62	1 X 4300	400	2,30	1 x 4150	280	410	1,30	1,80	220	315	0,88	0,97	0,51	0,56
0038	1	5,40	1,00	63	1 X 4240	400	2,30	1 x 4090	280	410	1,30	1,80	220	315	0,88	0,97	0,51	0,56
0048	1	9,30	1,90	62	1 X 4200	400	2,30	1 x 4040	280	410	1,30	1,80	220	315	0,88	0,97	0,51	0,56
0058	1	10,30	2,10	63	1 X 4160	400	2,30	1 x 4000	280	410	1,30	1,80	220	315	0,88	0,97	0,51	0,56
0064	2	8,40	1,75	65	2 X 4300	800	4,60	2 x 4150	560	820	2,60	3,60	440	630	1,76	1,94	1,02	1,12
0077	2	10,0	2,00	66	2 X 4240	800	4,60	2 x 4090	560	820	2,60	3,60	440	630	1,76	1,94	1,02	1,12
0086	2	15,5	3,10	65	2 X 4200	800	4,60	2 x 4040	560	820	2,60	3,60	440	630	1,76	1,94	1,02	1,12
0103	2	18,7	3,70	66	2 X 4160	800	4,60	2 x 4000	560	820	2,60	3,60	440	630	1,76	1,94	1,02	1,12
0129	3	22,8	4,60	67	3 X 4200	1200	6,90	3 x 4040	840	1230	3,90	5,40	660	945	2,64	2,91	1,53	1,68
0155	3	27,4	5,50	68	3 X 4160	1200	6,90	3 x 4000	840	1230	3,90	5,40	660	945	2,64	2,91	1,53	1,68
0198	4	34,4	6,90	68	4 X 4200	1600	9,20	4 x 4040	1120	1640	5,20	7,20	880	1260	3,52	3,88	2,04	2,24
0238	4	41,1	8,20	69	4 X 4160	1600	9,20	4 x 4000	1120	1640	5,20	7,20	880	1260	3,52	3,88	2,04	2,24

### Legendas

V = Internal Volume • C = Approximate charge of refrigerant • m<sup>3</sup>/h = Air flow measured at a density of 1,2 M<sup>3</sup> / Kg

## Electrical characteristics • Resistances

Hd 400	Hdl 400		W	3~220V	3~380V	W	3~440V	Hd 400	Hdl 400		W	3~220V	3~380V	W	3~440V
			Individual	A	A	Individual	A				Individual	A	Individual	A	
0042	0031	1	3 x 870	6,9	4,0	4 x 870	7,9d	0115	0086	2	3 x 2400	18,9	11,0	4 x 2400	21,8d
0050	0038	1	3 x 870	6,9	4,0	4 x 870	7,9d	0138	0103	2	3 x 2400	18,9	11,0	4 x 2400	21,8d
0064	0048	1	3 x 1350	10,6	6,2	4 x 1350	12,3d	0173	0129	3	3 x 3620	28,5	16,5	4 x 3620	32,9d
0077	0058	1	3 x 1350	10,6	6,2	4 x 1350	12,3d	0208	0155	3	3 x 3620	28,5	16,5	4 x 3620	32,9d
0086	0064	2	3 x 1800	14,2	8,2	4 x 1800	16,4d	0265	0198	4	3 x 5500	43,4	25,1	4 x 5500	50,0d
0103	0077	2	3 x 1800	14,2	8,2	4 x 1800	16,4d	0318	0238	4	3 x 5500	43,4	25,1	4 x 5500	50,0d

d = Unbalanced consumption

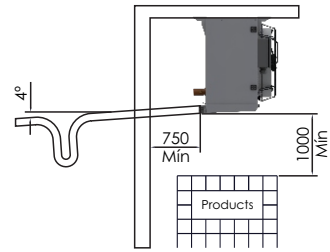
## Air reach



Hd400  
18 meters

Hdl400  
22 meters

## Installation

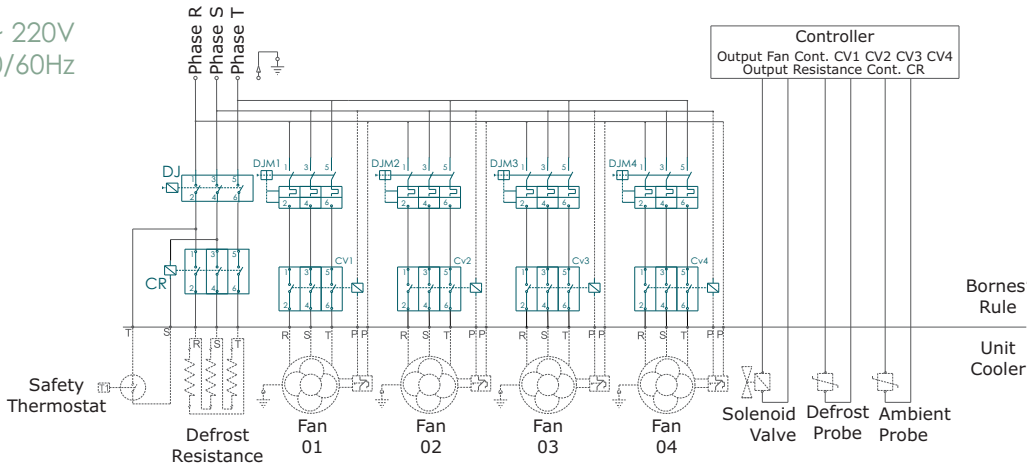


## How to buy

Model	Description	Available Options
HD4	Medium Profile Unit Cooler	Hd4 • Model Hd HL4 • Model Hdl
C	Spacing between fins	C • 4,5mm H • 8,0mm
E	Defrost	A • By air E • Electric in the core and drain pan F • Air in the core and drain pan G • Gas in the core and drain pan H • Gas in the core and electric in the drain pan J • By water K • By water and electric in the drain pan L • By water, hot gas in the core and drain pan M • By water, hot gas in the core and electric in the drain pan N • By water and electric in the core and drain pan
0042	Model	HD • 0042 to 0318 HDL • 0031 to 0238
C	Tubes	A • Aluminum B • Copper for Co2 C • Copper
A	Connections	A • Direct expansion thread connection (SAE) B • Direct expansion welded connection C • Hydronic - 2 Collectors welded connection D • Hydronic - 2 Collectors flange connection E • Hydronic - 2 Collectors thread connection (BSP) F • Hydronic - 2 Threaded collectors (AL)
00	Accessories	00 • Without accessories      13 • 1 + 3 01 • Expansion valve          14 • 1 + 2 + 3 + 4 02 • Solenoid valve            • 4 + 1 03 • Drain Resistance         • 4 + 2 04 • Double insulated drain pan • 4 + 3 10 • 1 + 2 + 3                    • 4 + 1 + 2 11 • 1 + 2                         • 4 + 1 + 3 12 • 2 + 3                         • 4 + 2 + 3
A	Finishing	A • Aluminum casing B • Smooth aluminum casing and fins N1 protection C • Smooth aluminum casing and fins N2 protection D • Protected aluminum casing E • Protected aluminum casing and fins N1 protection F • Protected aluminum casing and fins N2 protection J • Stainless steel casing K • Stainless steel casing and fins N1 protection L • Stainless steel casing and fins N2 protection
MEC	Motor	MAC • AC Motor Fan MEC • EC Motor Fan
N	Voltage and frequency	N • Motor = 230V/1F/60Hz H • Motor = 230V/3F/50Hz E • Motor = 380V/3F/50Hz Q • Motor = 230V/3F/60Hz V • Motor = 380V/3F/60Hz
1	Packing	1 • Crate 2 • Wooden box

# Electrical Diagram

AC 3~ 220V  
50/60Hz

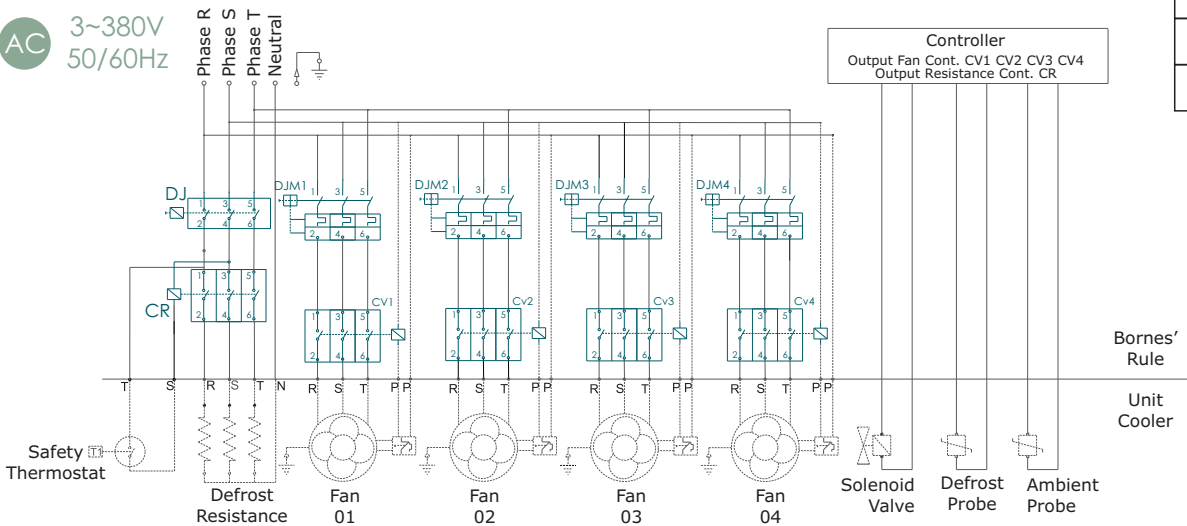


## Warning

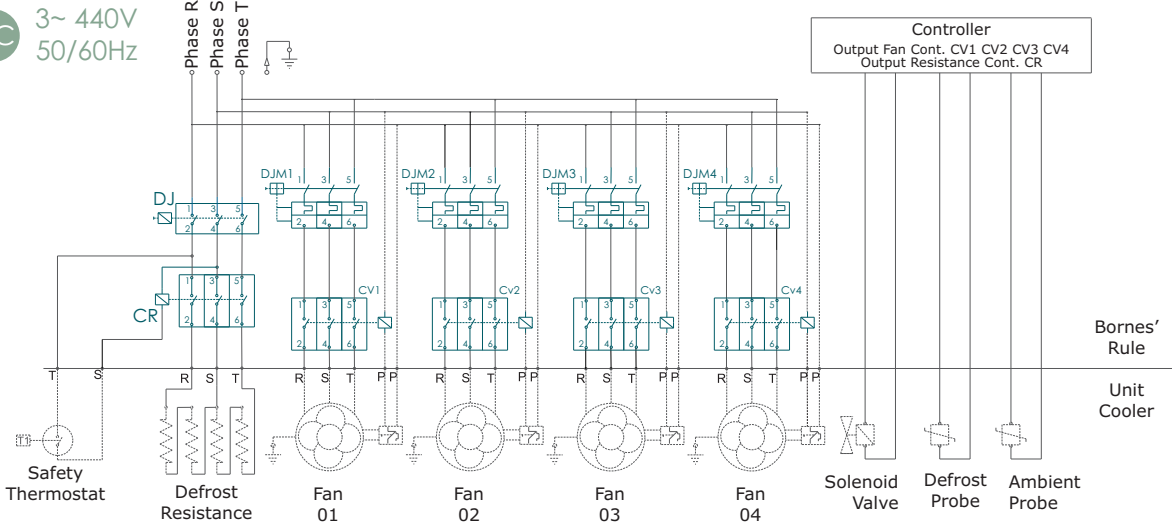
- When dimensioning installation components, refer to the catalog data table.
- In case of change factory power, contact Mipal engineering.
- The safety thermostat must be connected in series with the contactor coil and the heating controller.
- Always use the ground wire.

CR	Resistance Contactor
CV	Fan Contactor
CJ	Circuit breaker
DJM	Motor circuit breaker

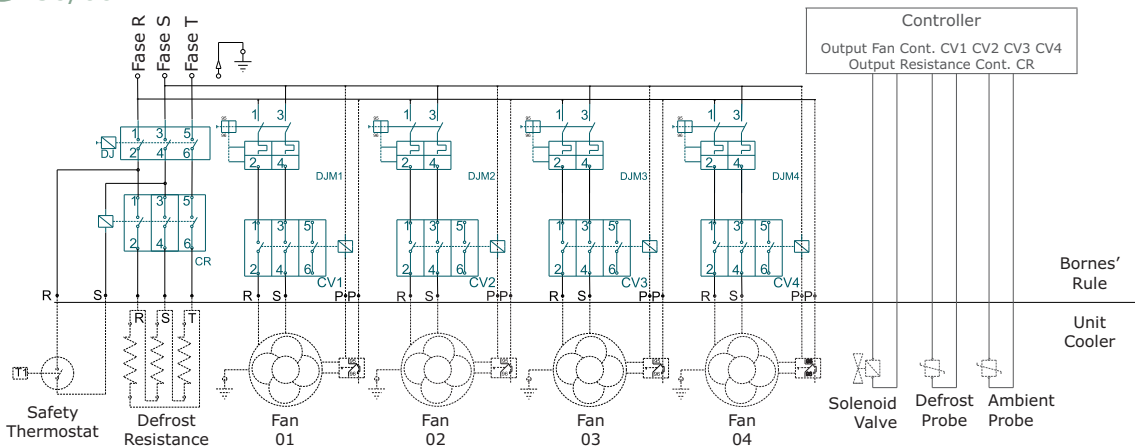
AC 3~380V  
50/60Hz



AC 3~ 440V  
50/60Hz

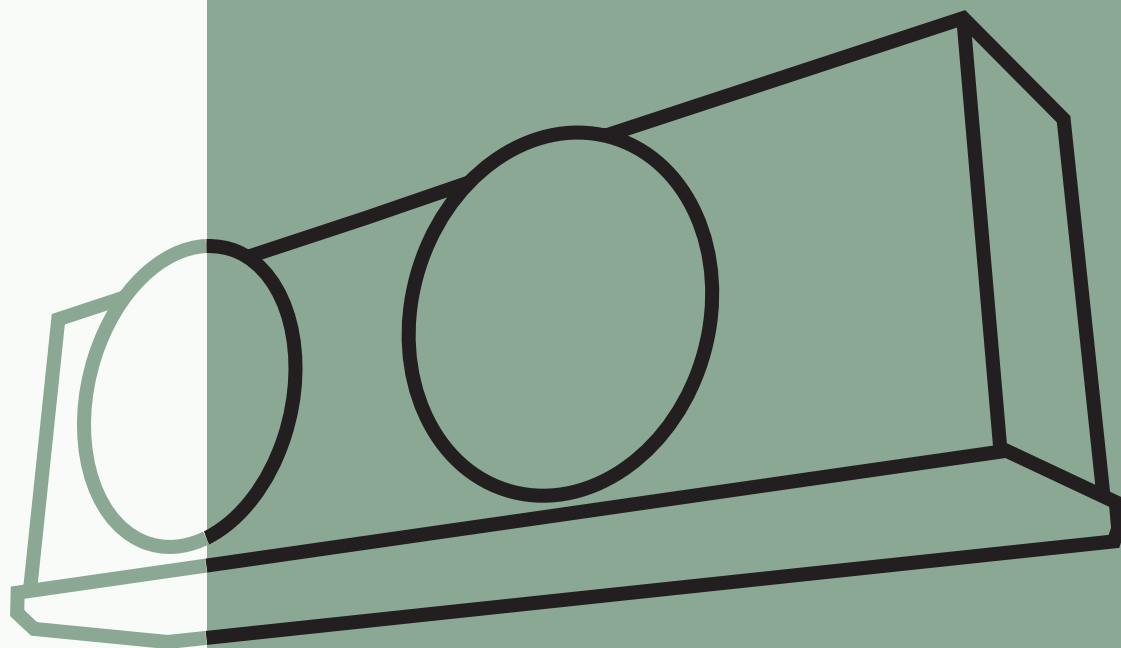


AC EC 1~ 220V (3~ Resistances)  
50/60Hz



## Warning:


- To supply power to the fan, use single-phase connection.





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