

Kelvion



Goedhart® air coolers

Goedhart® commercial Cu/Al air coolers

SIMPLY THE BEST FOR COOLING AND FREEZING







**Kelvion –
a tribute to
Lord Kelvin**

**70 branches and
sales partners
worldwide**

**More than 4,000
employees
worldwide**

Lord Kelvin (1824 – 1907) formulated
the laws of thermodynamics

EXPERTS IN HEAT EXCHANGE - SINCE 1920

Welcome to Kelvion. As successor to the GEA Heat Exchangers Group, we continue to break new ground, making discerning customers more successful than ever with our integrated heat exchanger solutions.

Our solutions for your applications:

We offer our customers one of the world's largest product portfolios in the field of heat exchangers. It includes individual solutions for practically all conceivable applications and complex environmental conditions: plate heat exchangers, shell and tube heat exchangers, finned tube heat exchangers, modular cooling tower systems, and refrigeration heat exchangers.

Your markets are our markets, too:

The markets in which you and we together operate are among the most important in the world: energy, the oil and gas industry, the chemical industry, marine applications, food and beverages, climate and environment. We provide every single market segment with solutions of outstanding efficiency, safety, and sustainability.

We are highly committed to earning your trust:

We want to win your trust with everything we do and convince you with the solutions we offer. With this high aim in mind, we invest our extensive know-how, our great precision, and our passion in everything we do: including product development, manufacturing, installation, and after-sales support.

Seeing things from the customer perspective:

Your specific requirements count – and nothing else. Whatever we offer you, it must meet these requirements. Our entire way of thinking and working is geared towards this aim. Our customers truly appreciate this: after all, this is how we make their companies more efficient.

We are at your service.

Kelvion – Experts in Heat Exchange.



GOEDHART® AIR COOLERS



Do not settle for compromise, but go for the best cooling solution to suit your situation. That is the philosophy which Kelvion makes himself hard. Since 1935 we develop, produce and deliver worldwide air coolers, air cooled condensers and composite systems for (semi) industrial applications and various markets. Our products are perfect for projects requiring a technical demand and involving a great deal of flexibility in terms of design, dimensions and accessories. Also, our products are suitable for all thinkable cooling system types and methods.

To achieve the most optimal and cost efficient air cooler system we are using three levels of engineering:

- **Commercial products:** standard cooling systems available in different fixed sizes;
- **Customized products:** custom made cooling systems built from standard modules;
- **Level 3 Designed to order products:** extensive cooling systems and applications developed especially for the niche market.

Extensive theoretical and practical project analysis by our professional sales engineers will determine which configuration, materials, and level of engineering best fit your program requirements. Additionally, you can use the innovative 'Goedhart Product Catalogue (GPC)', the digital design program for all commercial and customized industrial air coolers and air-cooled condensers.

For what level of engineering you choose; You are with Kelvion in good hands in the field of refrigeration and freezing. This brochure provides information on Copper/Aluminium series, a commercial product.

Do you have any further questions, we are happy to help you personally. We thank you in advance for the interest you have shown in Kelvion and its products.

PRODUCT FAMILY

CUSTOMIZED AIR COOLERS

INDUSTRIAL DESIGNED TO ORDER & OEM AIR COOLERS

APPLICATION DRIVEN DESIGNS

COMMERCIAL AIR COOLERS

Cu/Al (38x33)	Goedhart FC38S Küba Market SP Küba SG Classic Küba SG Commer. Searle KEC/KECX Searle KME/KMEX	Goedhart FC38D Küba-Comfort DP Searle DSR/DSRX	Goedhart FC38L Küba Junior DF Küba Compact DF Küba DE Prof. Searle TEC/TECX	Goedhart PAC	Küba Gastro FM	
		 Kelvion KDC (New)				
Cu/Al (50x50)	Küba KVB Natur.					
						

CONDENSERS

DRY COOLERS

RADIATORS

LIFE IS EASY THE GOEDHART SELECTION PROGRAM



The Goedhart selection program provides an electronic catalogue covering the majority of product ranges offered by Kelvion. The range of products available to you is very broad with many options. This software provides the fastest and easiest way to select the most appropriate product for your specific needs. This selection program runs on the latest versions of Windows (including both 32-bit and 64-bit versions of Vista, Windows 7, Windows 8 and Windows 10).

All four product types (Coolers, Condensers and Glycol Coolers) are available in a single program. The Goedhart selection program is an easy to use selection tool for contractors, consultants and every other thinkable user and gives you access to many advantages such as:

- Multilingual
- Pre-select buttons to application
- Spare parts
- Selections including drawings
- An extensive list of accessories
- Accurate capacities: During your selection a sophisticated capacity calculation program optimizes the circuits to the design conditions
- Selections possible on several criteria such as capacity, price, fan variations like noise and speed etc.

If you know the model number or the range you require (for example Goedhart® VCI-p 63457), you can type this into the Start area of the Goedhart selection program. This will make the selection faster and exclude models which may not be relevant for your needs.

You can start a selection by clicking the Start button, fill in the required heat exchanger data in the input area and produce PDF or Word files of your selection results. Also, it is possible to print a drawing of the selected unit and make your choice belonging to your selected unit. The program normally operates using SI units.

What is important to you? - You can decide which features of the product are most important for each application: energy efficiency, footprint (physical size) and price. You adjust the slider controls to indicate the relative importance to you of each of these three elements. You can also choose to display all possible models, or just the 'top 10' which best meet your selection criteria. Once the selected models are displayed, the 'best' options in each category (energy efficiency, footprint and price) will be on top of the table.

Quality, Support and Website - Trained staff will advise you through every step of the selection process. Our customer service continues past the product delivery, and we are always on hand to advise on any issues. Keep up to date with our products and latest news by visiting the website, www.kelvion.com



GOEDHART **CU/AL** COMMERCIAL SERIES

STANDARD FLEXIBLE

For all Cu/Al models and series of the Goedhart® air coolers your schedule of requirements is leading. Depending on the application, our sales team searches for the optimal configuration in close cooperation with the customer. You have a free choice in the so-called level 1 and 2 versions:

- dimensions
- Air direction
- blow-through or draw-through
- model: with feet of suspension profiles
- cooling system: natural (NH3 and CO2) and synthetic refrigerants
- materials: copper tubes/aluminium fins, Stainless steel tubes/aluminium fin, Stainless steel tubes and fins or steel tubes and fins / hot dipped galvanized
- accessories: EG defrost, coatings

LEVEL OF ENGINEERING - 'COMMERCIAL PRODUCTS'



The standard cooling systems available in different fixed sizes are so-called "Level 1 Commercial products". Within this level of engineering, you can choose from air coolers consisting of copper tubes with aluminium fins (Cu / Al 38x33) and stainless steel tubes with aluminium fins (St / Al 38x33).

INNOVATION

We can not often emphasize enough that we can meet our "customized production" philosophy to every customer requirements. Common customer requirements lead to innovation of our products. A good example is the energy efficient Goedhart® VCe-p and VCe-i ranges in the copper / aluminium version of our air coolers and air-cooled condensers



AVAILABLE CU/AL MODEL RANGES

Goedhart® Type		Tube configuration	Description	Cooling system	Internally increased tube possible
FC38SB-p FC38SB-i		38x33	Single blow-through / draw-through air cooler for industrial cooling and freezing applications	DX, coolant	Yes
FC38L-p FC38L-i		38x33	Standard air coolers for cold storage rooms with height limitation	DX, coolant	Yes

Goedhart® Cu/Al air coolers

BALANCED AIR FLOW



FAN SYSTEM

Because of the flexible construction of the Goedhart® air cooler, in principle it is possible to deliver with different fans. We selected a standard fan range of Ziehl Abegg (we reserve the right to alter the manufacturer) which fits perfectly on the Goedhart® flexible air coolers. The fans can be supplied in both blow-through and draw-through executions. Against an extra price stainless steel guards and EC-fans are available.

Fan execution

The fans meet the ErP2015 directive. The fans have very good aerodynamic features because of the special impeller geometry. This special impeller geometry gives the fan a low noise level and high efficiency.

SPECIFICATIONS

Fan data

1x230V-AC	: till -25°C environment temperature
3x400V-AC	: till -40°C environment temperature (between -40°C en -50°C environment temperature on request)
1x230V-EC	: till -25°C environment temperature
3x400V-EC	: till -35°C environment temperature

Tension	: 1x230V-50Hz (60 Hz on request) : 3x400V-50Hz : 3x400V or 3x460V-60Hz
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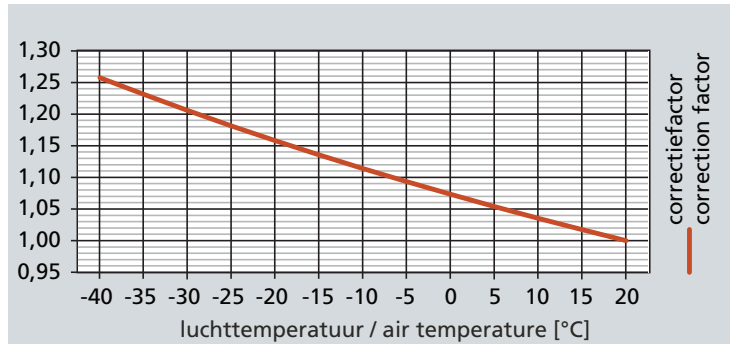
Protection class : IP44 / IP54

Color : RAL9005 (black)

Speed controlling	: 3 phases : 2 speeds by Δ -Y reconnection : frequency controller with all-pole sinus filter
	: 1 phase : phase-control : transformer

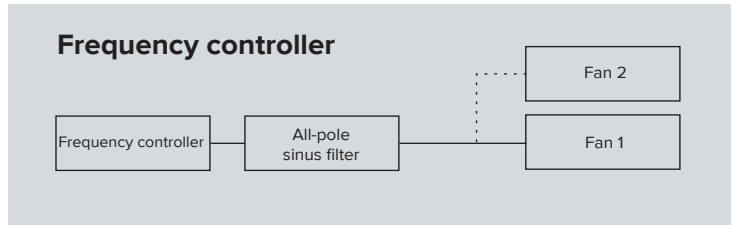
The motors are standard executed with a thermo contact and must be connected to prevent motor damages.

The maximum allowable working data in the table and on the name plate of the fans are to operate in an air temperature of +20 °C (air density of $\rho = 1,2 \text{ kg/m}^3$). For air temperatures lower than +20 °C, the current amperage can be calculated by using the diagram multiplication factor, suitable thermal overloads can then be selected. In our Goedhart GPC selection program also the values in the working point are indicated.



SOUND DATA

The mean sound pressure (LpA @ 3m ± 2 dB (A)) each air cooler is a calculated indication value according to the EN13487 standard parallel pipe. Kelvion uses the fan manufacturer's sound power level (LwA) at the inlet side of the fan. Changes to or by the fan or the product, affect the sound, in these cases consult the manufacturer for the new indication value. In critical sound requirements, we advise you to consult an expert.



DATA ON THE NAME PLATES

Fan diameter	Tension	Single phase - 50 Hz				Single phase - 60 Hz			
		Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))
mm	V	min ⁻¹	Watt	A	dB(A)	min ⁻¹	Watt	A	dB(A)
4 pole (n=1500 min⁻¹ nom.)									
250	1x230	1370	50	0,24	62	1520	50	0,23	
300	1x230	1290	90	0,39	64	1320	110	0,50	
350	1x230	1390	150	0,65	74	1520	230	1,00	72
450	1x230	1390	600	2,90	76	1430	820	3,50	75
500	1x230	1240	720	3,20	77	1260	1000	4,40	77
6 pole (n=1000 min⁻¹ nom.)									
400	1x230	950	130	0,60	67	1110	170	0,78	68
500	1x230	900	270	1,25	74	900	380	1,75	75

Mentioned data are for each fan according the supplier of the fans

Fan diameter	Tension	Three phase - 50Hz						Three phase - 60Hz					
		Δ			Y			Δ		Y			
		Speed	Nominal power	FLC	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))	
mm	V	min ⁻¹	Watt	A	min ⁻¹	Watt	A	dB(A)	dB(A)	min ⁻¹	Watt	A	dB(A)
4 pole (n=1500 min⁻¹ nom.)													
350	3x400/690	1390	190	0,40	1170	140	0,23	73	69	1630	300	0,46	74
400	3x400/690	1370	230	0,44	1110	170	0,27	75	70	1580	370	0,56	76
450	3x400/690	1350	540	1,10	1020	360	0,66	75	70	1560	880	1,40	79
500	3x400/690	1340	840	1,45	940	540	0,96	78	73	1480	1200	2,00	80



PIZZAS

PIZZAS

CORRECTION FACTOR DT1 (=AIR ON)

The nominal capacities of the Goedhart FC38i(dx) and FC38p(dx) air coolers are based on R-404A direct expansion, DT1 and a RH of 85%. DT1 is the difference between air-on temperature and the evaporation temperature of the cooler. The evaporation temperature is the saturated temperature corresponding to the pressure at the suction outlet of the cooler.

The nominal capacities:

- (SC1) $t_o = 0\text{ °C}$ and DT1= 10 K
- (SC2) $t_o = -8\text{ °C}$ and DT1= 8 K
- (SC3) $t_o = -25\text{ °C}$ and DT1= 7 K

Correction factors for various evaporation temperatures and temperature differences (DT1) are as indicated in the tables below. The requested capacity must be multiplied by a correction factor from the table. So that an air cooler with the resulting nominal capacity can be chosen from the selection tables.

Q nominal = factor x Q requested

R404A										
DT1	Evaporation temperature (°C)									
K	+7	+6	+5	+4	+3	+2	+1	0	-1	-2
6	1,81	1,81	1,82	1,82	1,83	1,83	1,84	1,84	1,84	1,85
7	1,49	1,50	1,50	1,50	1,51	1,51	1,52	1,52	1,52	1,53
8	1,27	1,28	1,28	1,29	1,29	1,29	1,30	1,30	1,30	1,31
9	1,10	1,10	1,11	1,11	1,12	1,12	1,13	1,13	1,13	1,14
10	0,97	0,98	0,98	0,99	0,99	0,99	1,00	1,00	1,00	1,01
11	0,88	0,88	0,88	0,89	0,89	0,89	0,90	0,90	0,90	0,91
12	0,79	0,79	0,79	0,80	0,80	0,81	0,81	0,81	0,81	0,82

SC1 DT1 = 10K
Air on = 10°C (0/+10°C)

R404A										
DT1	Evaporation temperature (°C)									
K	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12
6	1,30	1,34	1,38	1,42	1,42	1,43	1,43	1,43	1,44	1,44
7	1,04	1,07	1,10	1,14	1,17	1,18	1,18	1,18	1,19	1,19
8	0,86	0,88	0,91	0,94	0,97	1,00	1,00	1,01	1,01	1,01
9	0,75	0,75	0,77	0,79	0,82	0,84	0,87	0,87	0,87	0,88
10	0,66	0,66	0,66	0,68	0,70	0,72	0,74	0,77	0,77	0,77
11	0,59	0,59	0,59	0,59	0,61	0,63	0,65	0,67	0,69	0,69
12	0,54	0,54	0,54	0,54	0,54	0,55	0,57	0,58	0,60	0,62

SC2 DT1 = 8K
Air on = 0°C (-8/0°C)

R404A										
DT1	Evaporation temperature (°C)									
K	-21	-22	-23	-24	-25	-26	-27	-28	-29	-30
6	1,20	1,20	1,21	1,21	1,21	1,22	1,22	1,23	1,23	1,23
7	0,99	0,99	0,99	1,00	1,00	1,00	1,00	1,01	1,01	1,02
8	0,84	0,84	0,84	0,85	0,85	0,85	0,85	0,86	0,86	0,86
9	0,73	0,73	0,73	0,73	0,73	0,74	0,74	0,74	0,74	0,75
10	0,64	0,64	0,64	0,64	0,65	0,65	0,65	0,65	0,66	0,66
11	0,57	0,57	0,57	0,58	0,58	0,58	0,58	0,58	0,59	0,59
12	0,52	0,52	0,52	0,52	0,52	0,52	0,53	0,53	0,53	0,53

SC3 DT1 = 7K
Air on = -18°C (-25/-18°C)

CAPACITY OPTIMIZATION

To achieve the best possible combination of application, refrigerant and capacity, we can optimise the coil circuiting, depending on the specific conditions under which the products will be used. Goedhart® FC38 is a standard product to ensure shorter delivery times. The circuiting of these evaporators has been optimized according to the most commonly used coolants/refrigerants and conditions. Because of this each Goedhart® FC38 air cooler has his own order code, easy for purchasing. Specific applications can vary from this, our sales department is there to assist you in selecting the best circuiting for your application.

CORRECTION FACTOR FOR COOLANTS

The nominal capacities of the Goedhart FC38p(G) air coolers are based on an air-on temperature of 12°C, a RH of 85% and:

- Water : in / out temperature = +1/+5°C
- E-Glycol : in / out temperature = - 2/+3°C
- P-Glycol : in / out temperature = - 2/+3°C
- Pekasol : in / out temperature = - 2/+3°C
- Freezium : in / out temperature = - 2/+3°C

Correction factors for various air-on temperatures and refrigerants or secondary coolants are as indicated in the tables below. The requested capacity must be multiplied by a correction factor from the table, so that an air cooler with the resulting nominal capacity can be chosen from the selection tables.

Q nominal = factor x Q requested

Water									
in/out	Air-on temperature (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
1 / 5	1,99	1,59	1,32	1,14	1,00	0,88	0,78	0,72	0,66
2 / 6		1,95	1,57	1,30	1,12	0,98	0,87	0,78	0,71
3 / 7			1,92	1,54	1,28	1,11	0,97	0,86	0,77
4 / 8				1,94	1,56	1,31	1,13	0,98	0,87
5 / 9					1,86	1,49	1,25	1,07	0,94

E-Glycol 28%									
in/out	Air-on temperature (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
-2 / 3	1,81	1,46	1,34	1,16	1,00	0,88	0,82	0,81	0,69
-1 / 4	2,35	1,72	1,41	1,28	1,10	0,96	0,85	0,79	0,75
0 / 5	2,43	2,30	1,64	1,40	1,24	1,06	0,93	0,84	0,76
1 / 6		2,38	2,28	1,59	1,37	1,21	1,05	0,92	0,82
2 / 7			2,28	2,09	1,55	1,35	1,17	1,03	0,91

P-Glycol 28%									
in/out	Air-on temperature (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
-2 / 3	1,66	1,45	1,26	1,11	1,00	0,91	0,83	0,76	0,70
-1 / 4	2,00	1,65	1,42	1,24	1,11	1,01	0,90	0,81	0,77
0 / 5	2,48	1,94	1,65	1,41	1,23	1,14	1,00	0,91	0,85
1 / 6		2,46	1,97	1,64	1,42	1,29	1,12	1,00	0,92
2 / 7			2,45	1,96	1,63	1,42	1,28	1,11	1,00

Pekasol 50%									
in/out	Air-on temperature (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
-2 / 3	1,68	1,42	1,26	1,11	1,00	0,90	0,82	0,77	0,70
-1 / 4	2,02	1,65	1,42	1,24	1,10	0,98	0,89	0,81	0,76
0 / 5	2,39	1,96	1,62	1,39	1,22	1,07	0,96	0,87	0,80
1 / 6		2,36	1,93	1,60	1,37	1,20	1,06	0,94	0,86
2 / 7			2,32	1,89	1,57	1,35	1,18	1,05	0,94

Freezium 24%									
in/out	Luchtintrede temperatuur (°C)								
°C	+8	+9	+10	+11	+12	+13	+14	+15	+16
-2 / 3	1,66	1,44	1,25	1,11	1,00	0,91	0,83	0,77	0,71
-1 / 4	1,94	1,62	1,42	1,23	1,09	0,98	0,89	0,82	0,76
0 / 5	2,38	1,91	1,59	1,39	1,21	1,07	0,97	0,88	0,81
1 / 6		2,34	1,88	1,57	1,37	1,20	1,06	0,95	0,86
2 / 7			2,30	1,86	1,55	1,35	1,18	1,05	0,94



GOEDHART® FC38S AIR COOLERS

Simply cooling and freezing

The commercial range Goedhart® FC38S ceiling mounted air coolers are standard air coolers for cooling and freezing applications. Goedhart® FC38S is a standard product to ensure shorter delivery times. The circuiting of these evaporators has been optimized according to the most commonly used refrigerants/coolants and conditions. Because of this each Goedhart® FC38S air cooler has his own order code, easy for purchasing. The air direction is blow-through as standard (draw-through is available on request)

Coil block

Tube distance	: 38x33 mm staggered
Fin spacings	: 4 and 7mm.
Material	: 12 mm o.d internally plain (p) or increased (i) copper tubes
	: aluminium HT-fins

The coil blocks have copper tubes mechanically expanded into fully collared aluminium fins. A good thermal contact is achieved by expansion of the tubes into the fin collars, that are also utilized as spacers to provide a constant distance between the fins. All coolers are pressure tested to 40 bar (lower by coolants) and are supplied with a light over pressure charge of dried air. The suction header is executed with a Schröder valve for testing applications. Suitable for the most known refrigerants and coolants, with the exception of NH₃.

Casing

- Construction for ceiling mounting
- Casing material of galvanized sheet steel
- The drip tray is hinged and made from light aluminium
- Executed with a short air conduction plate as standard
- Standard white epoxy spray finishing
- Bend/header protection by end covers, easy removed for maintenance
- Standard refrigerant connections are positioned on the left hand side of the unit when looking with the direction of the airflow.
- Possible defrost by hot gas spiral or electric defrost elements will be fixed to the bottom side of the coil
- Stainless steel fasteners

Goedhart® FC38SB features

- For cooling and freezing applications
- Standard blow-through (draw-through available on request)
- Copper tubes and aluminium fins
- Available with internally plain or increased copper tubes
- Consisting of 144 models
- Capacity range from 1,7 to 74,1kW. (R404A dx, SC2)
- Suitable for most refrigerants / coolants with exception of NH₃
- Goedhart® FC38S is delivered in a wooden crate, easy to handle. The drip tray will be delivered separately
- Despite Goedhart® FC38S is a commercial air cooler some options are available (see page 32)



- 1** Range : Goedhart® FC38S
- 2** Air direction : B=blow Z=draw
- 3** Execution tube : p = internal plain
: i = internal increased
- 4** Refrigerant : (dx) = R404A, (G)= coolant
- 5** Rows deep : 4 ,6
- 6** Number of fans : 1 - 6
- 7** Fan diameter : 250, 300, 350, 400, 450, 500 mm
- 8** Fin spacing : 4, 7 mm
- 9** Tension : 1x230V, 3x400V fan
- 10** Defrost : E = electrical
H = hot gas

1
2
3
4
5

FC38S B i (dx) 6 3 45 7 230 E

6
7
8
9
10

GOEDHART® FC38S-FAN DATA

Fan diameter	Tension	Δ			Y			Δ	Y	Δ			
		Speed	Nominal power	FLC	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))	
mm	V	min ⁻¹	Watt	A	min ⁻¹	Watt	A	dB(A)	dB(A)	min ⁻¹	Watt	A	dB(A)
SINGLE PHASE - 50HZ										SINGLE PHASE - 60HZ			
250	1x230	1370	50	0,24				62		1520	50	0,23	
300	1x230	1290	90	0,39				64		1320	110	0,50	
350	1x230	1390	150	0,65				74		1520	230	1,00	72
450	1x230	1390	600	2,90				76		1430	820	3,50	75
500	1x230	1240	720	3,20				77		1260	1000	4,40	77
THREE PHASE - 50HZ										THREE PHASE - 60HZ			
350	3x400/690	1390	190	0,40	1170	140	0,23	73	69	1630	300	0,46	74
400	3x400/690	1370	230	0,44	1110	170	0,27	75	70	1580	370	0,56	76
450	3x400/690	1350	540	1,10	1020	360	0,66	75	70	1560	880	1,40	79
500	3x400/690	1340	840	1,45	940	540	0,96	78	73	1480	1200	2,00	80

Mentioned data are for each fan according the supplier of the fans

GOEDHART® FC38Si (DX-R404A)

Technical data | Fin spacing 4 mm

Type	Fan diameter	Order code	Order code Elec. defrost	Capacities Q at 4 pole-50Hz, DT1, R404A**			Air volume	LpA* @ 3m (+/- 2 dB(A))	Surface	Connections		Weight	Internal volume
				SC1	SC2	SC3				I	K		
Goedhart® FC38Si	mm	Standard		kW	kW	kW	m³/h	dB(A)	m²	mm	mm	kg	dm³
4.1.25.4	1x250	700401	700501	2,4	1,7		632	40,8	7	12	12	26	2
4.1.30.4	1x300	700402	700502	4,2	2,8		1204	42,7	11	12	28	34	2
6.1.30.4	1x300	700403	700503	4,6	3,2		1033	42,7	16	12	28	39	4
6.1.35.4	1x350	700408	700508	8	5,4		1870	52,5	25	12	28	51	5
6.1.40.4	1x400	710412	710512	11	7,5		2632	53,4	34	16	28	63	7
6.1.45.4	1x450	700416	700516	18,4	12,4		4807	54,3	45	16	28	75	9
4.2.30.4	2x300	700404	700504	8,3	5,6		2399	45,5	22	12	28	50	4
6.2.30.4	2x300	700405	700505	9,1	6,3		2056	45,5	32	12	28	61	6
6.2.35.4	2x350	700409	700509	15,9	10,8		3730	55,3	50	16	28	82	10
6.2.40.4	2x400	710413	710513	22	14,9		5249	56,2	68	16	35	103	13
6.2.45.4	2x450	700417	700517	36,6	24,7		9595	57	90	16	35	122	17
6.2.50.4	2x500	700422	700522	43	29,2		10969	57,8	112	16	42	204	22
6.3.30.4	3x300	700406	700506	13,7	9,4		3080	47,1	49	16	28	81	9
6.3.35.4	3x350	700410	700510	23,8	16,2		5591	56,8	75	16	28	112	14
6.3.40.4	3x400	710414	710514	33,2	22,8		7868	57,7	102	16	35	142	19
6.3.45.4	3x450	700418	700518	54,9	37,1		14382	58,4	134	16	42	174	25
6.3.50.4	3x500	700423	700523	64,7	44,0		16440	59,3	168	16	54	291	32
6.4.30.4	4x300	700407	700507	18,2	12,5		4103	48,2	65	16	28	104	12
6.4.35.4	4x350	700411	700511	31,5	21,6		7450	57,9	99	16	35	143	19
6.4.40.4	4x400	710415	710515	44,3	30,3		10485	58,7	136	22	42	183	25
6.4.45.4	4x450	700419	700519	73,3	49,4		19169	59,4	179	22	54	222	33
6.4.50.4	4x500	700424	700524	86,1	58,3		21911	60,2	224	28	54	376	42
6.5.45.4	5x450	700420	700520	92,1	62,1		23956	60,1	223	22	54	267	41
6.6.45.4	6x450	700421	700521	110,1	74,1		28744	60,7	268	28	54	322	50

Capacities	t ₁	t ₀	DT1
SC1	10	0	10
SC2	0	-8	8
SC3	-18	-25	7

Changes subject to modification

GOEDHART® FC38Si (DX)

Technical data | Fin spacing 7 mm

Type	Fan diameter	Order code	Order code Elec. defrost	Capacities Q at 4 pole-50Hz, DT1, R404A**			Air volume	LpA* @ 3m (+/- 2 dB(A))	Surface	Connections		Weight	Internal volume
				SC1	SC2	SC3				I	K		
Goedhart® FC38Si	mm	Standard		kW	kW	kW	m³/h	dB(A)	m²	mm	mm	kg	dm³
4.1.25.7	1x250	700621	700721	1,8	1,2	0,9	720	40,8	4	12	12	25	2
4.1.30.7	1x300	700622	700722	3,1	2,1	1,6	1442	42,7	7	12	28	32	2
6.1.30.7	1x300	700623	700723	4	2,8	2,0	1291	42,7	10	12	28	36	4
6.1.35.7	1x350	700628	700728	6,6	4,5	3,3	2216	52,5	15	12	28	46	5
6.1.40.7	1x400	710632	710732	9,3	6,3	4,6	3137	53,4	21	16	28	57	7
6.1.45.7	1x450	700636	700736	12,3	9,9	7,3	5676	54,3	27	16	28	67	9
4.2.30.7	2x300	700624	700724	6,2	4,2	3,1	2875	45,5	13	12	28	47	4
6.2.30.7	2x300	700625	700725	8,1	5,5	4,0	2573	45,5	19	12	28	56	6
6.2.35.7	2x350	700629	700729	13,3	9	6,6	4423	55,3	30	16	28	74	10
6.2.40.7	2x400	710633	710733	18,2	12,5	9,0	6264	56,2	41	16	28	92	13
6.2.45.7	2x450	700637	700737	24,5	19,8	14,5	11336	57	54	16	35	109	17
6.2.50.7	2x500	700642	700742	35,4	23,8	17,5	13252	57,8	67	16	35	186	22
6.3.30.7	3x300	700626	700726	12,1	8,2	6,0	3855	47,1	29	12	28	74	9
6.3.35.7	3x350	700630	700730	19,9	13,5	9,9	6631	56,8	45	16	28	100	14
6.3.40.7	3x400	710634	710734	27,7	18,9	13,9	9391	57,7	61	16	28	126	19
6.3.45.7	3x450	700638	700738	36,7	29,5	21,4	16998	58,4	80	16	42	152	25
6.3.50.7	3x500	700643	700743	53,1	35,6	26,3	19868	59,3	101	16	42	263	32
6.4.30.7	4x300	700627	700727	15,8	10,8	7,9	5137	48,2	39	16	28	93	12
6.4.35.7	4x350	700631	700731	26,5	18	13,2	8837	57,9	60	16	35	127	19
6.4.40.7	4x400	710635	710735	36,7	24,9	18,3	12517	58,7	82	16	35	161	25
6.4.45.7	4x450	700639	700739	48,9	39,5	28,9	22657	59,4	107	16	42	193	33
6.4.50.7	4x500	700644	700744	71	47,6	34,9	26482	60,2	134	28	54	339	42
6.5.45.7	5x450	700640	700740	61,1	49,2	36,3	28319	60,1	134	22	54	229	41
6.6.45.7	6x450	700641	700741	73,7	59,1	42,8	33979	60,7	161	22	54	279	49

Capacities	t ₁	t ₀	DT1
SC1	10	0	10
SC2	0	-8	8
SC3	-18	-25	7

Changes subject to modification

* = Sound pressure indication (LpA) at 3 m distance each air cooler (+/- 2 dB(A)), free field conditions, according EN13487

** = The standard tension of the fans is 1x230V, with the exception of the 400 mm fan, 4 poles is only available in 3x400V execution

GOEDHART® FC38SP (DX-R404A)

Technical data | Fin spacing 4 mm

Type	Fan diameter	Order code	Order code Elec. defrost	Capacities Q at 4 pole-50Hz, DT1, R404A**			Air volume	LpA* @ 3m (+/- 2 dB(A))	Surface	Connections		Weight	Internal volume
				SC1	SC2	SC3				I	K		
Goedhart® FC38Sp	mm	Standard		kW	kW	kW	m³/h	dB(A)	m²	mm	mm	kg	dm³
4.1.25.4	1x250	706421	706521	1,8	1,2		632	40,8	7	12	12	26	2
4.1.30.4	1x300	706422	706522	2,7	2,4		1204	42,7	11	12	12	34	2
6.1.30.4	1x300	706423	706523	3,8	2,5		1033	42,7	16	12	22	39	4
6.1.35.4	1x350	706428	706528	6,6	4,6		1870	52,5	25	12	22	51	5
6.1.40.4	1x400	716432	716532	9,5	6,5		2632	53,4	34	12	22	63	7
6.1.45.4	1x450	706436	706536	14,9	10,2		4807	54,3	45	12	22	75	9
4.2.30.4	2x300	706424	706524	5,3	4,8		2399	45,5	22	12	22	50	4
6.2.30.4	2x300	706425	706525	8	5,4		2056	45,5	32	12	22	61	7
6.2.35.4	2x350	706429	706529	13,2	9,2		3730	55,3	50	12	22	82	10
6.2.40.4	2x400	716433	716533	19,1	12,9		5249	56,2	68	16	28	103	13
6.2.45.4	2x450	706437	706537	29,8	20,5		9595	57	90	16	28	122	18
6.2.50.4	2x500	706422	706522	36,9	24,6		10969	57,8	112	16	35	204	22
6.3.30.4	3x300	706426	706526	11,9	8,1		3080	47,1	49	12	22	81	10
6.3.35.4	3x350	706430	706530	20,4	13,7		5591	56,8	75	16	28	112	14
6.3.40.4	3x400	716434	716534	27,9	18,5		7868	57,7	102	16	35	142	20
6.3.45.4	3x450	706438	706538	46,6	31,1		14382	58,4	134	16	35	174	26
6.3.50.4	3x500	706443	706543	55,4	37		16440	59,3	168	22	42	291	33
6.4.30.4	4x300	706427	706527	16	10,8		4103	48,2	65	16	28	104	12
6.4.35.4	4x350	706431	706531	27,7	18,6		7450	57,9	99	16	35	143	19
6.4.40.4	4x400	716435	716535	38,7	26		10485	58,7	136	16	35	183	26
6.4.45.4	4x450	706439	706539	62,7	41,8		19169	59,4	179	16	42	222	34
6.4.50.4	4x500	706444	706544	74,7	49,6		21911	60,2	224	22	42	376	43
6.5.45.4	5x450	706440	706540	79,5	52,5		23956	60,1	223	16	42	267	42
6.6.45.4	6x450	706441	706541	94,7	63,1		28744	60,7	268	22	42	322	50

Capacities	t ₁	t ₀	DT1
SC1	10	0	10
SC2	0	-8	8
SC3	-18	-25	7

Changes subject to modification

GOEDHART® FC38SP (DX-R404A)

Technical data | Fin spacing 7 mm

Type	Fan diameter	Order code	Order code Elec. defrost	Capacities Q at 4 pole-50Hz, DT1, R404A**			Air volume	LpA* @ 3m (+/- 2 dB(A))	Surface	Connections		Weight	Internal volume
				SC1	SC2	SC3				I	K		
Goedhart® FC38Sp	mm	Standard		kW	kW	kW	m³/h	dB(A)	m²	mm	mm	kg	dm³
4.1.25.7	1x250	706621	706721	1,3	0,8	0,6	720	40,8	4	12	12	25	2
4.1.30.7	1x300	706622	706722	2,8	1,9	1,4	1442	42,7	7	12	12	32	2
6.1.30.7	1x300	706623	706723	3,1	2	1,5	1291	42,7	10	12	12	36	4
6.1.35.7	1x350	706628	706728	5,8	3,9	2,8	2216	52,5	15	12	22	46	5
6.1.40.7	1x400	716632	716732	8,1	5,4	3,9	3137	53,4	21	12	22	57	7
6.1.45.7	1x450	706636	706736	10,6	8,4	6,1	5676	54,3	27	12	22	67	9
4.2.30.7	2x300	706624	706724	5,6	3,7	2,7	2875	45,5	13	12	22	47	4
6.2.30.7	2x300	706625	706725	7	4,6	3,4	2573	45,5	19	12	22	56	7
6.2.35.7	2x350	706629	706729	11,5	7,8	5,6	4423	55,3	30	12	22	74	10
6.2.40.7	2x400	716633	716733	16,1	10,8	7,8	6264	56,2	41	16	22	92	13
6.2.45.7	2x450	706637	706737	21,2	16,8	12,1	11336	57	54	16	28	109	18
6.2.50.7	2x500	706622	706722	30,6	20,3	14,6	13252	57,8	67	16	28	186	22
6.3.30.7	3x300	706626	706726	10,5	7,1	5,1	3855	47,1	29	12	22	74	9
6.3.35.7	3x350	706630	706730	17,3	11,6	8,4	6631	56,8	45	16	22	100	14
6.3.40.7	3x400	716634	716734	22,2	15,9	10,9	9391	57,7	61	16	28	126	20
6.3.45.7	3x450	706638	706738	32	25,2	18,1	16998	58,4	80	16	35	152	26
6.3.50.7	3x500	706643	706743	46,2	30,4	21,9	19868	59,3	101	16	35	263	32
6.4.30.7	4x300	706627	706727	14,1	9,5	6,8	5137	48,2	39	12	22	93	12
6.4.35.7	4x350	706631	706731	23,2	15,5	11,2	8837	57,9	60	16	28	127	19
6.4.40.7	4x400	716635	716735	32,4	21,5	15,7	12517	58,7	82	16	35	161	26
6.4.45.7	4x450	706639	706739	42,8	33,7	24,1	22657	59,4	107	16	35	193	34
6.4.50.7	4x500	706644	706744	61,9	40,6	29,2	26482	60,2	134	16	42	339	43
6.5.45.7	5x450	706640	706740	53,6	41,5	30,1	28319	60,1	134	16	42	229	42
6.6.45.7	6x450	706641	706741	64,4	50,8	36,2	33979	60,7	161	16	42	279	50

Capacities	t ₁	t ₀	DT1
SC1	10	0	10
SC2	0	-8	8
SC3	-18	-25	7

Changes subject to modification

* = Sound pressure indication (LpA) at 3 m distance each air cooler (+/- 2 dB(A)), free field conditions, according EN13487
 ** = The standard tension of the fans is 1x230V, with the exception of the 400 mm fan, 4 poles is only available in 3x400V execution

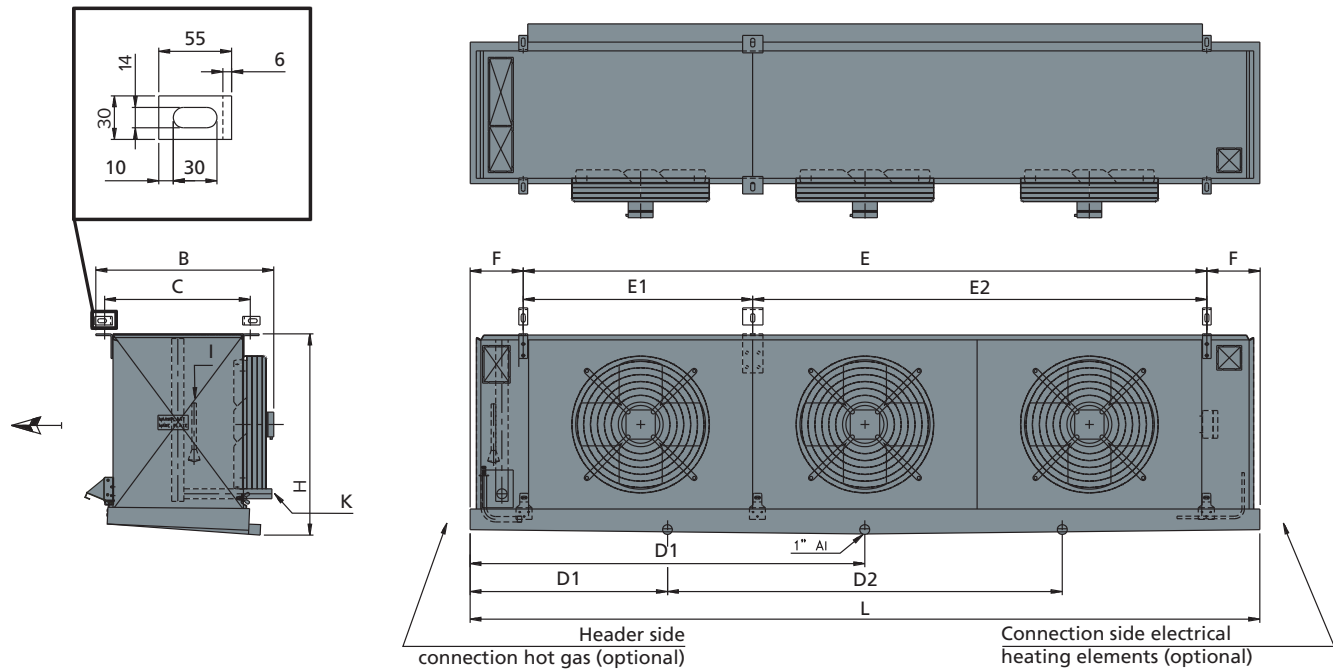
GOEDHART® FC38SB

Dimensions, Electrical defrost

Type	Dimensions										Electrical defrost at 3x400V						
	L	B	H	C	E	E1	E2	F	D1	D2	Coil block		Drip tray		Standard	Light	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	number	O (mm)	Number	O (mm)			kW
Goedhart® FC38SB																	
4.1.25.*	690	510	395	400	406			142	345		2x L=1000	66	1x L=1600	200	1,4		
4.1.30.*	765	510	470	400	481			142	383		2x L=1300	66	1x L=1600	200	1,6		
6.1.30.*	765	510	470	400	481			142	383		2x L=1300	66	1x L=1600	200	1,6		
6.1.35.*	970	640	550	500	606			182	485		3x L=1600	132	1x L=2200	300	2,8		
6.1.40.*	1070	640	625	500	706			182	535		3x L=1900	132	1x L=2500	300	3,3		
6.1.45.*	1170	735	700	500	806			182	585		5x L=1900	132	1x L=2500	300	4,8	3,7	
4.2.30.*	1210	510	470	400	926			142	605		2x L=2200	66	1x L=2500	200	2,8		
6.2.30.*	1210	510	470	400	926			142	605		2x L=2200	66	1x L=2500	200	2,8		
6.2.35.*	1540	640	550	500	1176			182	770		3x L=2800	132	1x L=3100	300	4,8		
6.2.40.*	1740	640	625	500	1376			182	870		3x L=3100	132	1x L=3700	300	5,4		
6.2.45.*	1940	735	700	500	1576			182	970		5x L=3700	132	1x L=4000	300	9,4	7,1	
6.2.50.*	2040	835	850	600	1576			232	1020		5x L=3700	132	1x L=4300	400	9,6	7,2	
6.3.30.*	1655	510	470	400	1371			142	828		2x L=3100	66	1x L=3700	200	4,1		
6.3.35.*	2110	640	550	500	1746			182	1055		3x L=4000	132	1x L=4600	300	6,1		
6.3.40.*	2410	640	625	500	2046			182	1205		3x L=4600	132	1x L=5200	300	8,0		
6.3.45.*	2710	735	700	500	2346			182	1355		5x L=5200	132	1x L=5800	300	13,5	10,2	
6.3.50.*	2810	835	850	600	2346			232	1405		5x L=5200	132	2x L=5800	400	13,5	10,2	
6.4.30.*	2100	510	470	400	1816			142	1050		2x L=4000	66	1x L=4600	200	5,3		
6.4.35.*	2680	640	550	500	2316			182	1340		3x L=5200	132	1x L=5800	300	9,1		
6.4.40.*	3080	640	625	500	2716			182	770	1540	3x L=5800	132	1x L=6700	300	10,3		
6.4.45.*	3480	735	700	500		1558	1558	182	870	1740	5x L=6700	132	1x L=7300	300	17,6	13,4	
6.4.50.*	3580	835	850	600		1558	1558	232	895	1790	5x L=6700	132	1x L=7600	400	17,8	13,5	
6.5.45.*	4250	640	700	500		1558	2328	182	1063	2125	10x L=4300	-	2x L=4600	-	22,0	16,6	
6.6.45.*	5020	640	700	500		2328	2328	182	1255	2510	10x L=4900	-	2x L=5200	-	25,1	18,9	

GOEDHART® FC38SB

Drawing



EC-Declarations for dx-R404A

Connection ≤ 35 mm : Declaration of incorporation (SEP)
 Connection 42mm and 54 mm : Declaration of conformity module A
 Group of fluid : 2
 PS : 28 bar
 TS : +55 / -40 °C

EC-Declarations for coolants

According : Declaration of incorporation (SEP)
 Group of fluid : 2
 PS : 28 bar
 TS : +55 / -40 °C



GOEDHART® FC38L AIR COOLERS

Simply low

The commercial range Goedhart® FC38L ceiling mounted air coolers are standard air coolers for cold storage rooms with height limitation. Goedhart® FC38L is a standard product to ensure shorter delivery times. The circuiting of these evaporators has been optimized according to the most commonly used refrigerants/coolants and conditions. Because of this each Goedhart® FC38L air cooler has his own order code, easy for purchasing. The air direction is blow-through as standard.

Coil block

Tube distance	: 38x33 mm staggered
Fin spacings	: 4 and 7mm.
Material	: 12 mm o.d internally plain (p) or increased (i) copper tubes
	: aluminium HT-fins

The coil blocks have copper tubes mechanically expanded into fully collared aluminium fins. A good thermal contact is achieved by expansion of the tubes into the fin collars, that are also utilized as spacers to provide a constant distance between the fins. All coolers are pressure tested to 40 bar (lower by coolants) and are supplied with a light over pressure charge of dried air. The suction header is executed with a Schröder valve for testing applications. Suitable for the most known refrigerants and coolants, with the exception of NH₃.

Casing

- Construction for ceiling mounting
- Casing material of galvanized sheet steel
- The drip tray is hinged and made from light aluminum
- Executed with a short air conduction plate as standard
- Standard white epoxy spray finishing
- Bend/header protection by end covers, easy removed for maintenance
- Standard refrigerant connections are positioned on the left hand side of the unit when looking with the direction of the airflow.
- Possible defrost by hot gas spiral or electric defrost elements will be fixed to the bottom side of the coil
- Stainless steel fasteners

Goedhart® FC38L features

- For cooling and freezing applications with height limitation
- Standard blow-through
- Copper tubes and aluminium fins
- Available with internally plain or increased copper tubes
- Consisting of 54 models
- Capacity range from 1,6 to 20,2kW. (R404A dx, SC2)
- Suitable for most refrigerants / coolants with exception of NH₃
- Goedhart® FC38L is delivered upside down in a wooden crate, easy to handle and preventing damage of the drip tray
- Despite Goedhart® FC38L is a commercial air cooler some options are available (see page 32)



1 2 3 4
FC38L **i** **(dx)** **6** **1** **30** **4** **230** **E**
5 6 7 8 9

- 1 Range : Goedhart® FC38L
- 2 Execution tube : p = internal plain
: i = internal increased
- 3 Refrigerant : (dx) = R404A, (G)= coolant
- 4 Rows deep : 6
- 5 Number of fans : 1 - 4
- 6 Fan diameter : 250, 300, 400 mm
- 7 Fin spacing : 4, 7 mm
- 8 Tension : 1x230V, 3x400V fan
- 9 Defrost : E = electrical
H = hot gas

GOEDHART® FC38L-FAN DATA

Fan diameter	Tension	△			Y			△	Y	△			
		Speed	Nominal power	FLC	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))	Speed	Nominal power	FLC	Sound power level each fan LwA (+/-2dB(A))	
mm	V	min ⁻¹	Watt	A	min ⁻¹	Watt	A	dB(A)	dB(A)	min ⁻¹	Watt	A	dB(A)
SINGLE PHASE - 50HZ										SINGLE PHASE - 60HZ			
250	1x230	1370	50	0,24				62		1520	50	0,23	
300	1x230	1290	90	0,39				64		1320	110	0,50	
THREE PHASE - 50HZ										THREE PHASE - 60HZ			
400	3x400/690	1370	230	0,44	110	170	0,27	75	70	1580	370	0,56	76

Mentioned data are for each fan according the supplier of the fans

GOEDHART® FC38Li (DX-R404A)

Technical data | Fin spacing 4 mm

Type	Fan diameter	Order code Standard	Order code elec. defrost	Capacities Q at 4 pole-50Hz, DT1, R404A**			Air volume	LpA* @ 3m (+/- 2 dB(A))	Surface	Connections		Weight	Internal volume
				SC1	SC2	SC3				I	K		
Goedhart® FC38Li	mm			kW	kW	kW	m³/h	dB(A)	m²	mm	mm	kg	dm³
6.1.25.4	1x250	702401	702501	2,3	1,6		510	40,7	9	12	12	15	2
6.1.30.4	1x300	702403	702503	3,8	2,6		876	42,6	13	12	28	20	3
6.1.40.4	1x400	712407	712507	9,8	6,7		2362	53,4	29	16	28	40	6
6.2.25.4	2x250	702402	702502	4,6	3,2		1020	43,5	18	12	28	25	4
6.2.30.4	2x300	702404	702504	7,7	5,3		1753	45,4	26	12	28	35	5
6.2.40.4	2x400	712408	712508	19,5	13,3		4724	56,1	58	16	35	60	11
6.3.30.4	3x300	702405	702505	11,5	7,9		2629	46,9	39	16	28	45	7
6.3.40.4	3x400	712409	712509	29,5	20,2		7086	57,5	87	16	35	90	16
6.4.30.4	4x300	702406	702506	15,2	10,5		3505	47,9	52	16	28	60	10

Capacities	t ₁	t ₂	DT1
SC1	10	0	10
SC2	0	-8	8
SC3	-18	-25	7

Changes subject to modification

GOEDHART® FC38Li (DX-R404A)

Technical data | Fin spacing 7 mm

Type	Fan diameter	Order code Standard	Order code elec. defrost	Capacities Q at 4 pole-50Hz, DT1, R404A**			Air volume	LpA* @ 3m (+/- 2 dB(A))	Surface	Connections		Weight	Internal volume
				SC1	SC2	SC3				I	K		
Goedhart® FC38Li	mm			kW	kW	kW	m³/h	dB(A)	m²	mm	mm	kg	dm³
6.1.25.7	1x250	702601	702701	2	1,4	1,0	612	40,7	5	12	12	15	2
6.1.30.7	1x300	702603	702703	3,4	2,3	1,7	1130	42,6	8	12	28	20	3
6.1.40.7	1x400	712607	712707	8,3	5,6	4,1	2903	53,4	17	16	28	30	6
6.2.25.7	2x250	702602	702702	4,1	2,8	2,0	1225	43,5	11	12	28	20	4
6.2.30.7	2x300	702604	702704	6,8	4,7	3,4	2261	45,4	16	12	28	30	5
6.2.40.7	2x400	712608	712708	16,3	11,1	8,1	5807	56,1	35	12	35	55	11
6.3.30.7	3x300	702605	702705	10,1	6,9	5,1	3391	46,9	23	16	28	55	7
6.3.40.7	3x400	712609	712709	24,9	16,8	12,4	8710	57,5	52	16	35	80	16
6.4.30.7	4x300	702606	702706	13,7	9,3	6,8	4521	47,9	31	16	28	55	10

Capacities	t ₁	t ₂	DT1
SC1	10	0	10
SC2	0	-8	8
SC3	-18	-25	7

Changes subject to modification

* = Sound pressure indication (LpA) at 3 m distance each air cooler (+/- 2 dB(A)), free field conditions, according EN13487

** = The standard tension of the fans is 1x230V, with the exception of the 400 mm fan, 4 poles is only available in 3x400V execution

GOEDHART® FC38Li (DX-R404A)

Technical data | Fin spacing 4 mm

Type	Fan diameter	Order code Standard	Order code elec. defrost	Capacities Q at 4 pole-50Hz, DT1, R404A**			Air volume	LpA* @ 3m (+/- 2 dB(A))	Surface	Connections		Weight	Internal volume
				SC1	SC2	SC3				I	K		
Goedhart® FC38Lp	mm			kW	kW	kW	m³/h	dB(A)	m²	mm	mm	kg	dm³
6.1.25.4	1x250	708401	708501	2,0	1,3		510	40,7	9	12	12	15	2
6.1.30.4	1x300	708403	708503	2,6	2,2		876	42,6	13	12	12	20	3
6.1.40.4	1x400	718407	718507	8,4	5,7		2362	53,4	29	12	22	40	6
6.2.25.4	2x250	708402	708502	4,0	2,6		1020	43,5	18	12	22	25	4
6.2.30.4	2x300	708404	708504	6,5	4,5		1753	45,4	26	12	22	35	5
6.2.40.4	2x400	718408	718508	16,9	11,4		4724	56,1	58	12	28	60	11
6.3.30.4	3x300	708405	708505	10,0	6,7		2629	46,9	39	12	22	45	7
6.3.40.4	3x400	718409	718509	25,0	16,6		7086	57,5	87	16	28	90	16
6.4.30.4	4x300	708406	708506	13,3	9,0		3505	47,9	52	16	22	60	10

Capacities	t ₁	t ₂	DT1
SC1	10	0	10
SC2	0	-8	8
SC3	-18	-25	7

Changes subject to modification

GOEDHART® FC38Lp (DX-R404A)

Technical data | Fin spacing 7 mm

Type	Fan diameter	Order code Standard	Order code elec. defrost	Capacities Q at 4 pole-50Hz, DT1, R404A**			Air volume	LpA* @ 3m (+/- 2 dB(A))	Surface	Connections		Weight	Internal volume
				SC1	SC2	SC3				I	K		
Goedhart® FC38Lp	mm			kW	kW	kW	m³/h	dB(A)	m²	mm	mm	kg	dm³
6.1.25.7	1x250	708601	708701	1,6	1,1	0,8	612	40,8	5	12	12	15	2
6.1.30.7	1x300	708603	708703	2,9	2,0	1,4	1130	43,7	8	12	12	20	3
6.1.40.7	1x400	718607	718707	7,0	4,7	3,4	2903	54,4	17	12	22	30	6
6.2.25.7	2x250	708602	708702	3,3	2,1	1,6	1225	43,7	11	12	12	20	4
6.2.30.7	2x300	708604	708704	5,9	4,0	2,9	2261	46,5	16	12	22	30	5
6.2.40.7	2x400	718608	718708	14,4	9,6	7,0	5807	57,1	35	12	22	55	11
6.3.30.7	3x300	708605	708705	9,0	6,0	4,3	3391	48,1	23	12	22	55	7
6.3.40.7	3x400	718609	718709	20,3	14,2	10,0	8710	58,6	52	16	28	80	16
6.4.30.7	4x300	708606	708706	12,0	8,0	5,7	4521	49,2	31	12	22	55	10

Capacities	t ₁	t ₂	DT1
SC1	10	0	10
SC2	0	-8	8
SC3	-18	-25	7

Changes subject to modification

* = Sound pressure indication (LpA) at 3 m distance each air cooler (+/- 2 dB(A)), free field conditions, according EN13487

** = The standard tension of the fans is 1x230V, with the exception of the 400 mm fan, 4 poles is only available in 3x400V execution

GOEDHART® FC38Lp (G-GLYCOL)

Technical data | Fin spacing 4 mm

Type	Order code Standard	Order code elec. defrost	1x230V-50Hz-4 pole (1500 min ⁻¹ nom.)**																Air volume m ³ /h	LpA @ 3 m (+/- 2 dB(A))*	Surface m ²	Connecti- ons		Weight kg	Internal volume dm ³
			E-Glycol 28% -2 / 3 °C (in/out)			Water 1 / 5 °C (in/out)			P-Glycol 34% -2 / 3 °C (in/out)			Pekasol 50% -2 / 3 °C (in/out)			Freezium 24% -2 / 3 °C (in/out)			I				K			
			Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW				Volume flow m ³ /h	Pressure drop kPa		
6.1.25.4	705401	705501	1,9	0,36	11,1	2,1	0,45	13,7	1,8	0,33	23,7	2,0	0,34	6,6	1,9	0,38	18,5	510	40,7	9	16	16	15	2	
6.1.30.4	705403	705503	3,1	0,57	22,6	3,8	0,82	46,6	3,0	0,54	47,9	4,6	0,79	54,4	4,6	0,90	65,9	876	42,6	13	16	16	20	3	
6.1.40.4	715407	715507	10,1	1,88	74,4	9,8	2,10	69,1	7,3	1,32	98,5	12,0	2,06	82,3	11,2	2,20	98	2362	53,4	29	22	22	40	6	
6.2.25.4	705402	705502	5,3	0,99	95,0	4,9	1,04	78,2	3,7	0,67	63,1	6,0	1,03	94,8	5,4	1,05	32,4	1020	43,5	18	16	16	25	4	
6.2.30.4	705404	705504	8,7	1,62	90,9	7,9	1,69	75,4	5,4	0,98	53,7	9,8	1,68	91,1	9,1	1,78	44,9	1753	45,4	26	22	22	35	5	
6.2.40.4	715408	715508	21,8	4,06	88,6	20,0	4,27	73,9	12,9	2,34	91,2	24,6	4,22	89,1	23,8	4,66	70,3	4724	56,1	58	35	35	60	12	
6.3.30.4	705405	705505	12,1	2,26	50,8	12,0	2,57	90,1	7,6	1,37	53,8	14,3	2,46	55,8	14,2	2,79	66,4	2629	46,9	39	28	28	45	8	
6.3.40.4	715409	715509	33,4	6,20	91,3	30,1	6,43	74,3	17,7	3,22	83,6	37,1	6,37	89,9	36,2	7,11	79,6	7086	57,5	87	42	42	90	17	
6.4.30.4	705406	705506	17,3	3,21	69,6	16,1	3,44	99	10,1	1,83	87,1	19,5	3,34	70,1	18,8	3,68	82,7	3505	47,9	52	28	28	60	10	

GOEDHART® FC38Lp (G-GLYCOL)

Technical data | Fin spacing 7 mm

Type	Order code Standard	Order code elec. defrost	1x230V-50Hz-4 pole (1500 min ⁻¹ nom.)																Air volume m ³ /h	LpA @ 3 m (+/- 2 dB(A))*	Surface m ²	Connecti- ons		Weight kg	Internal volume dm ³
			E-Glycol 28% -2 / 3 °C (in/out)			Water 1 / 5 °C (in/out)			P-Glycol 34% -2 / 3 °C (in/out)			Pekasol 50% -2 / 3 °C (in/out)			Freezium 24% -2 / 3 °C (in/out)			I				K			
			Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW	Volume flow m ³ /h	Pressure drop kPa	Capacity kW				Volume flow m ³ /h	Pressure drop kPa		
6.1.25.7	705601	705701	2,1	0,40	9,8	2,1	0,44	87,6	1,8	0,33	93,6	1,7	0,30	5,7	1,7	0,33	12	612	40,8	5	16	16	15	2	
6.1.30.7	705603	705703	2,8	0,51	20,1	3,3	0,70	35,4	2,7	0,48	42,8	3,9	0,67	40,4	3,9	0,76	49,8	1130	43,7	8	16	16	20	3	
6.1.40.7	715607	715707	6,3	1,16	21,5	8,1	1,73	48,7	6,4	1,16	85,9	9,9	1,69	57,3	9,8	1,92	69	2903	54,4	17	22	22	30	6	
6.2.25.7	705602	705702	4,2	0,79	63,7	4,1	0,88	58,1	3,2	0,59	55,6	5,0	0,87	69,9	5,0	0,98	83	1225	43,7	11	16	16	20	4	
6.2.30.7	705604	705704	7,2	1,34	64,1	6,9	1,47	57,8	4,9	0,89	48,2	8,4	1,45	69,3	7,7	1,52	82,3	2261	46,5	16	22	22	30	5	
6.2.40.7	715608	715708	17,2	3,20	57,4	16,8	3,59	82,5	11,4	2,08	80,3	20,2	3,47	62,5	20,1	3,94	74,4	5807	57,1	35	28	28	55	11	
6.3.30.7	705605	705705	11,5	2,15	84,7	10,4	2,23	69,3	7,3	1,33	92	12,9	2,21	84	12,2	2,40	99	3391	48,1	23	28	28	55	8	
6.3.40.7	715609	715709	28,1	5,22	88,8	25,2	5,39	71,8	15,8	2,87	74,2	31,2	5,34	87,2	30,4	5,96	75	8710	58,6	52	35	35	80	17	
6.4.30.7	705606	705706	15,8	2,93	96,3	14,0	2,99	76,1	9,2	1,66	78,5	17,3	2,97	92,8	16,7	3,28	63,4	4521	49,2	31	28	28	55	10	

* = Sound pressure indication (LpA) at 3 m distance each air cooler (+/- 2 dB(A)), free field conditions, according EN13487

** = The standard tension of the fans is 1x230V, with the exception of the 400 mm fan, 4 poles is only available in 3x400V execution

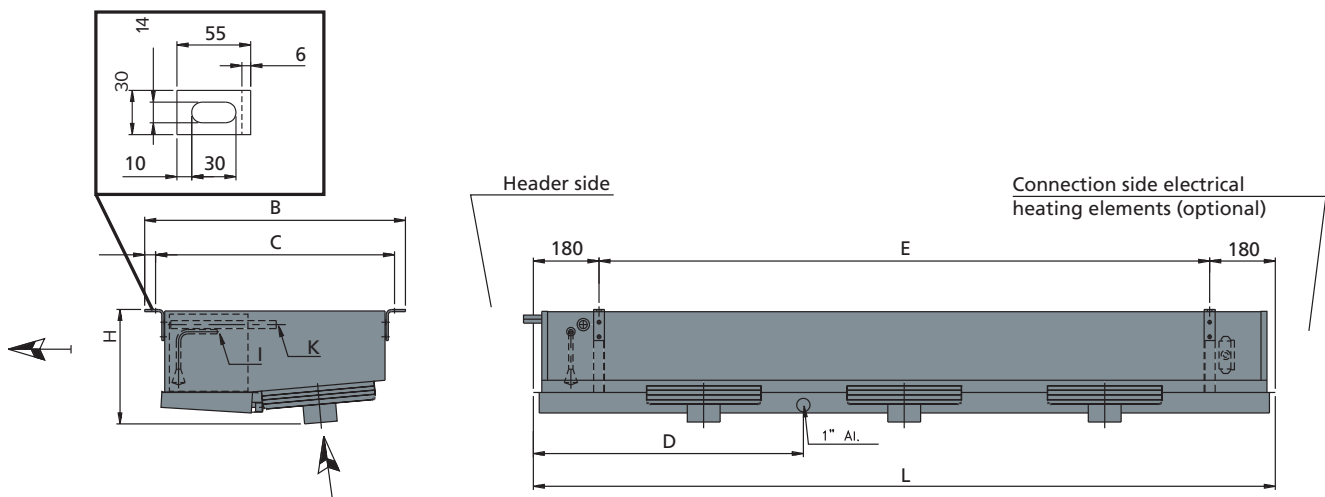
GOEDHART® FC38L

Dimensions, Electrical defrost

Type	Dimensions					Electrical defrost at 3x400V				Standard
	L	B	H	E	D1	Coil block		Drip tray		
Goedhart® FC38L	mm	mm	mm	mm	mm	number	O (mm)	Number	O (mm)	kW
6.1.25.*	890	705	280	530	245	2x L=1300	132	1x L=1300	175	1,5
6.1.30.*	990	705	315	630	295	2x L=1600	132	1x L=1600	175	1,9
6.1.40.*	1190	865	465	830	295	3x L=1900	132	1x L=2200	175	3,2
6.2.25.*	1390	705	280	1030	695	2x L=2500	132	1x L=2500	175	3,1
6.2.30.*	1590	705	315	1230	795	2x L=2800	132	1x L=2800	175	3,5
6.2.40.*	1990	865	465	1630	995	3x L=3700	132	1x L=3700	175	6,2
6.3.30.*	2190	705	315	1830	795	2x L=4000	132	1x L=4000	175	5,0
6.3.40.*	2790	865	465	2430	995	3x L=5200	132	1x L=5200	175	8,8
6.4.30.*	2790	705	315	2430	1395	2x L=5200	132	1x L=5200	175	6,6

GOEDHART® FC38L

Drawing



EC-Declarations for dx-R404A

Connection ≤ 35 mm : Declaration of incorporation (SEP)
 Connection 42mm and 54 mm : Declaration of conformity module A
 Group of fluid : 2
 PS : 28 bar
 TS : +55 / -40 °C

EC-Declarations for coolants

According : Declaration of incorporation (SEP)
 Group of fluid : 2
 PS : 28 bar
 TS : +55 / -40 °C

Options for Goedhart® commercial air coolers

CUSTOMIZE YOUR STANDARD AIR COOLER



Options		
	Goedhart® FC38S	Goedhart® FC38L
Blow-through	X	X
Draw-through	X	
Internally plain tube	X	X
Internally increased tube	X	X
Electrical defrost	X	X
Insulated driptray	X	
Stainless steel casing	X	X
Fins goldlack (4 7 mm fin spacing)	X	X
Fins Almg (4 mm fin spacing)	X	X
Options on request		
Hot gas defrost	X	
Integrated secundair defrost circuit	X	
Fan heating	X	X
Air conduction plate	X	
Stainless steel tubes	X	X



DEFROST SYSTEMS

For room temperatures where ice-build up can be expected and where the coil can not be defrosted by the room air, a defrost system is available.

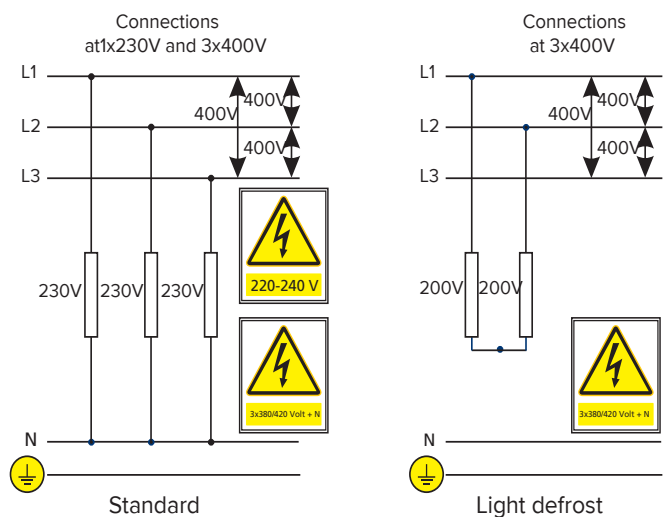
Electrical defrost

On request Goedhart® FC38 can be provided with electrical defrost. Goedhart® FC38 is always delivered with heavy defrost. The elements are rated for 220/240 V and are connected (IP55) for 380/415 V (with neutral) supply. The stainless steel heater elements are fitted in the coil block inside tubes which form a highly conductive medium between the heaters and the fins. In the drip-tray, the heater elements are fitted to the bottom side of the aluminium inner tray. The heater elements in the coil block are removable from the header side of the unit, whilst the tray heater elements can be removed once the outer tray has been taken off.

You can find in the Goedhart selection program the exact number of elements and electrical power for light and heavy defrost each air cooler.

Hot gas defrost

The coil block is suited for hot gas defrost (hot gas supply through the suction header). The drip tray can be provided with a copper hot gas spiral, which is enclosed in special aluminium profiles, which are rigidly secured to the underside of the aluminium inner tray.



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