

WATER CHILLERS



FOR COMMERCIAL REFRIGERATION
HIGH AND LOW TEMPERATURES
INDUSTRIAL APPLICATIONS
AND AIR CONDITIONING

Frigadon proudly presents the new generation FWC series of waterchillers designed from the bottom up to take advantage of the latest advances in heat transfer technology

Environmentally conscious governments all over the world keep applying more and more stringent legislation to phase out HCFCs and limit the use of HFCs. The large type DX-installation is quickly becoming a thing of the past.

The use of secondary refrigerant systems using an environmentally friendly brine and packaged chillers with minimal refrigerant charges is quickly gaining momentum.

Frigadon as a company started out more



than 25 years ago and chillers for various industrial applications has been an important part of the range for over 20 years. All the accumulated experience has been put to good use in this the latest generation of commercial chillers.

The range of air cooled packaged water chillers has now been extended to cover capacities up to 88 kW at -8°C flow temperatures and 44 kW at -31°C flow temperatures.

The range has been designed to use the latest types of very efficient salt based heat transfer fluids like Hycool® for outstanding energy efficiency, well on par with DX installations, but can of course be used with glycol brines as well.



FWC-500-S(4)

To be able to utilise the performance benefits of salt based brines the design needs to take into account amongst other things, choice of material, compatibility of components, type of joints (no threaded connections), pump design etc.

We have taken no shortcuts in this respect but have collaborated

closely with Hydro Formates (manufacturers of Hycool®) and Grundfos® (world leaders in pump technology) to get the design right. Failure to recognise these pitfalls will certainly result in problems as a lot of installations with converted air conditioning chillers running salt based heat transfer fluids have experienced.

The chillers are of compact design housed in a grey (NCS 3500) powder coated galvanized sheet-metal casing. The system is ready to use on delivery, just connect flow/return pipes and the power supply.

All units are weather protected and can be sited outdoors in temperatures between -20°C and +38°C, for temperatures outside this range please contact Frigadon for special model. For control use, a well proven microprocessor instrument keeps track of parameters such as flow and return temp, freeze protection alarm, compressor run time etc. Standard equipment further includes; air cooled condenser, pressure sensing speed controlled fan(s), flow switch, compact brazed heat exchanger(s) with integral distributor for optimum performance, HP and LP switches, complete hydraulic kit with Grundfos® pump for closed circuit operation (see tables for specific model data).

All units manufactured in accordance with the following directives, where applicable; 98/37/CE, 72/23/EEC, 89/336/EEC, 97/23/EC, EN 60204-1, EN 50081-1,2, EN 50082-1,2.



ELECTRICAL PANEL

Options includes liquid cooled condensers, customer specified colour, defrost timer with temperature termination, NONAIR® micro bubble remover, CARE® hydrocarbon primary refrigerant (dependent on local legislation).



NONAIR® MICRO BUBBLE REMOVER

Examples of applications are commercial refrigeration, supermarkets, industrial process cooling, air conditioning etc.

Frigadon also manufactures chillers for special applications cooling other fluids such as oil. Can be supplied in standard form or to complete OEM specification. Please inquire for more information.

EXAMPLES OF INSTALLATIONS



**FWC-500
CHILLERS FOR
INDUSTRIAL
PROCESS
COOLING AT
MACHINE TOOL
SHOP IN
EISENACH,
GERMANY**



**FWC-920-LT
FREEZER ROOM
CHILLERS
INSTALLED AT
COOPLANDS
BAKERY,
DONCASTER,
ENGLAND**

**FWC-870 AIR CONDITIONING
CHILLERS INSTALLED AT
DUNNES STORES,
LIMERICK, IRELAND**



**FWC-500-S(3)
AIR CONDITIONING
CHILLERS
INSTALLED AT
COOP BANK,
LONDON, ENGLAND**

**FWC-330-LT
FREEZER CHILLERS
AND FWC-400
COLD ROOM CHILLERS
INSTALLED AT
OSTFOLDFRUKT
MYSEN AS, NORWAY**

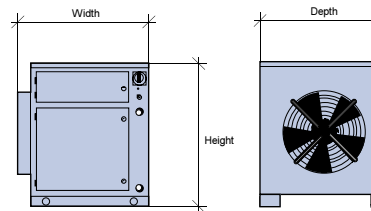


**FWC-870-S(6) WATER COOLED CHILLER OPERATING CHILLED CABINETS AT
SAINSBURY'S MILLENIUM STORE IN GREENWICH, LONDON, ENGLAND**

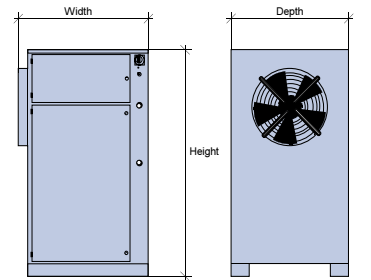
Cooling capacities/ flow rates	Cooling capacity* Brine temp return/flow				Flow rates (kg/s) int press drops (kPa)				Flow rates (kg/s) int press drops (kPa)			
					Water	30% PG	40% PG	40% PG		Hycool 20	Hycool 20	Hycool 20
	+22/+17°C	+12/+7°C	0/-4°C	-4/-8°C	+22/+17°C	+12/+7°C	0/-4°C	-4/-8°C	+22/+17°C	+12/+7°C	0/-4°C	-4/-8°C
Unit												
FWC-15	1,8	1,3	0,8	0,7	0,086/10	0,067/10	0,053/12	0,047/10	-	0,087/10	0,068/8	0,06/8
FWC-25	3	2,2	1,4	1,1	0,143/20	0,112/17	0,093/18	0,074/15	-	0,148/20	0,12/15	0,094/10
FWC-35	4,3	3,1	1,9	1,6	0,205/35	0,158/27	0,127/26	0,107/23	-	0,208/32	0,16/22	0,136/18
FWC-50	5,9	4,1	2,3	1,9	0,28/12	0,20/10	0,15/10	0,13/10	-	0,28/10	0,19/8	0,16/5
FWC-80	9,2	6,7	4,1	3,3	0,44/20	0,34/18	0,27/18	0,22/15	-	0,45/20	0,35/15	0,28/10
FWC-110	13,3	9,7	6	4,8	0,63/38	0,50/30	0,40/25	0,32/22	-	0,65/32	0,50/22	0,40/15
FWC-130-MT	-	-	7,6	6,2	-	-	0,5/15	0,41/15	-	-	0,64/10	0,53/10
FWC-130	18,3	13	7,6	6,2	0,87/20	0,67/15	0,5/15	0,41/15	-	0,87/15	0,64/10	0,53/10
FWC-170	22,5	16,3	10	8,1	1,07/25	0,83/20	0,67/20	0,54/18	-	1,1/22	0,85/15	0,69/13
FWC-220	-	20,7	12,8	10,5	-	1,1/28	0,85/27	0,7/23	-	1,34/30	1,09/22	0,89/18
FWC-220-S(1)	-	-	14,7	12	-	-	0,98/32	0,8/25	-	-	1,25/28	1,0/20
FWC-220-S(2)	-	-	-	15	-	-	-	1,0/35	-	-	-	1,27/30
FWC-300	36,7	28,2	20	15,2	1,75/27	1,44/22	1,34/26	1,02/22	-	1,9/28	1,7/24	1,29/17
FWC-400-MT	-	-	27	21,1	-	-	1,80/26	1,41/32	-	-	2,29/25	1,79/18
FWC-400	50	39,4	27	21,1	2,39/28	2,02/24	1,80/26	1,41/23	-	2,65/30	2,29/25	1,79/18
FWC-500	-	45,4	31,5	24,3	-	2,32/22	2,1/25	1,63/21	-	3,05/27	2,67/23	2,07/16
FWC-500-S(3)	-	54,2	34,3	28,6	-	2,78/22	2,29/22	1,91/20	-	3,64/27	2,90/21	2,43/16
FWC-500-S(4)	-	-	42,8	35,6	-	-	2,86/25	2,38/22	-	-	3,63/22	3,02/18
FWC-500-S(5)	-	-	52	43,8	-	-	3,47/28	2,93/25	-	-	4,40/25	3,72/20
FWC-650	79,9	59,4	39,5	32,8	3,81/25	3,04/22	2,63/24	2,19/23	-	3,99/21	3,34/21	2,78/18
FWC-720	93,5	69,9	45,9	38,1	4,46/24	3,57/21	3,06/23	2,54/22	-	4,69/24	3,89/20	3,23/17
FWC-870	-	86,5	56,1	47,2	-	4,43/21	3,75/22	3,16/21	-	5,81/26	4,75-20	4,01/16
FWC-870-S(5)	-	-	66,4	55,9	-	-	4,43/23	3,74/21	-	-	5,62/19	4,75/16
FWC-870-S(6)	-	-	78,7	66,1	-	-	5,26/23	4,42/21	-	-	6,67/20	5,62/16
FWC-870-S(7)	-	-	86,4	72,5	-	-	5,77/25	4,85/23	-	-	7,32/23	6,16/18
FWC-870-S(8)	-	-	95,1	80	-	-	6,35/24	5,35/22	-	-	8,06/22	6,80/18
FWC-870-S(9)	-	-	-	88,8	-	-	-	5,94/25	-	-	-	7,55/20

*Capacities are given at an ambient temperature of +27°C. For higher amb temp please deduct approx 1,2%/°C amb increase. Max amb temp approx +38°C. For higher temp please ask for special model.

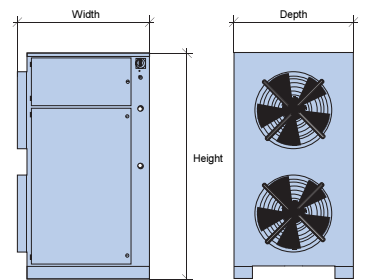
FWC-15 to 35
FWC-50 to 110



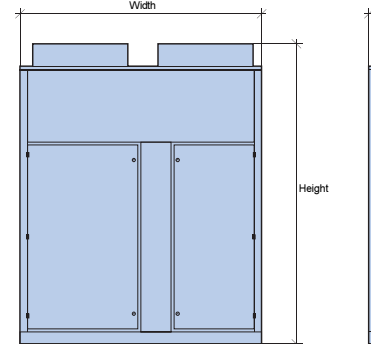
FWC-15 to 35-H
FWC-50 to 110-H
FWC-130-MT



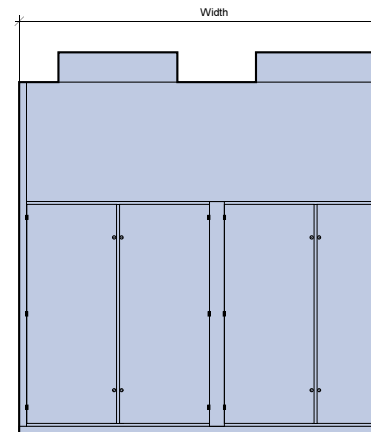
FWC-130 to 220-S(2)



FWC-300 to 500-S(5)



FWC-650 to 870-S(9)



General data	No. of refr. circ.	No. of compr./type	No. of fan(s)	Sound level dB(A), 10m	Refrigerant/charge (kg)	Std colour	Size WxDxH	Weight kg
Unit								
FWC-15	1	1xHerm.recip.	1xØ400	45	R404A/1,5	Grey NCS3500	730x640x700	80
FWC-15-H	1	1xHerm.recip.	1xØ400	45	R404A/1,5	Grey NCS3500	730x640x1170	135
FWC-25	1	1xHerm.recip.	1xØ400	45	R404A/1,5	Grey NCS3500	730x640x700	85
FWC-25-H	1	1xHerm.recip.	1xØ400	45	R404A/1,5	Grey NCS3500	730x640x1170	140
FWC-35	1	1xHerm.recip.	1xØ400	45	R404A/1,5	Grey NCS3500	730x640x700	85
FWC-35 H	1	1xHerm.recip.	1xØ400	45	R404A/1,5	Grey NCS3500	730x640x1170	140
FWC-50	1	1xHerm.recip.	1xØ560	47	R404A/3	Grey NCS3500	950x780x945	135
FWC-50-H	1	1xHerm.recip.	1xØ560	47	R404A/3	Grey NCS3500	950x780x1520	185
FWC-80	1	1xHerm.recip.	1xØ560	47	R404A/3	Grey NCS3500	950x780x945	140
FWC-80-H	1	1xHerm.recip.	1xØ560	47	R404A/3	Grey NCS3500	950x780x1520	190
FWC-110	1	1xHerm.recip.	1xØ560	47	R404A/3	Grey NCS3500	950x780x945	145
FWC-110-H	1	1xHerm.recip.	1xØ560	47	R404A/3	Grey NCS3500	950x780x1520	195
FWC-130-MT	1	1xHerm.recip.	1xØ560	51	R404A/3,5	Grey NCS3500	950x780x1520	210
FWC-130	1	1xHerm.recip.	2xØ560	51	R404A/5	Grey NCS3500	950x780x1520	220
FWC-170	1	1xHerm.recip.	2xØ560	51	R404A/5	Grey NCS3500	950x780x1520	230
FWC-220	1	1xHerm.recip.	2xØ560	51	R404A/5	Grey NCS3500	950x780x1520	240
FWC-220-S(1)	1	1xHerm.recip.	2xØ560	51	R404A/5	Grey NCS3500	950x780x1520	255
FWC-220-S(2)	1	1xHerm.recip.	2xØ560	51	R404A/5	Grey NCS3500	950x780x1520	260
FWC-300	1	1xHerm.scroll	2xØ630	45	R404A/8	Grey NCS3500	1600x1205x2000	580
FWC-400-MT	1	1xHerm.scroll	2xØ630	46	R404A/8	Grey NCS3500	1600x1205x2000	610
FWC-400	1	1xHerm.scroll	2xØ630	46	R404A/9	Grey NCS3500	1600x1205x2430	710
FWC-500	1	1xHerm.scroll	2xØ710	47	R404A/9	Grey NCS3500	1600x1205x2430	740
FWC-500-S(3)	1	2xHerm.scroll	2xØ710	48	R404A/9	Grey NCS3500	1600x1205x2430	850
FWC-500-S(4)	1	2xHerm.scroll	2xØ710	49	R404A/10	Grey NCS3500	1600x1205x2430	860
FWC-500-S(5)	1	2xHerm.scroll	2xØ710	50	R404A/10	Grey NCS3500	1600x1205x2430	900
FWC-650	2	2xSemi-herm.	2xØ710	47	R404A/2x10,5	Grey NCS3500	2655x1205x2590	1310
FWC-720	2	2xSemi-herm.	2xØ710	47	R404A/2x11	Grey NCS3500	2655x1205x2590	1320
FWC-870	2	2xSemi-herm.	2xØ800	48	R404A/2x11	Grey NCS3500	2655x1205x2590	1400
FWC-870-S(5)	2	2xSemi-herm.	2xØ800	48	R404A/2x11	Grey NCS3500	2655x1205x2590	1500
FWC-870-S(6)	2	2xSemi-herm.	2xØ800	49	R404A/2x11,5	Grey NCS3500	2655x1205x2590	1530
FWC-870-S(7)	2	2xSemi-herm.	2xØ800	49	R404A/2x11,5	Grey NCS3500	2655x1205x2590	1540
FWC-870-S(8)	2	2xSemi-herm.	2xØ800	49	R404A/2x12	Grey NCS3500	2655x1205x2590	1550
FWC-870-S(9)	2	2xSemi-herm.	2xØ800	50	R404A/2x12	Grey NCS3500	2655x1205x2590	1560

Frigadon AB reserves the right to change specification without notice. Data are to be considered approximate. Reservation for printing errors.

Hydraulic Data	Pump and exp vess	Pump type 1)	Max avail. press 2)	Exp vessel type	Type of connection	Flow control	Brine circuit press. sw.
Unit							
FWC-15	N	-	-	-	3/4" ball valve, G20 male thread	-	N
FWC-15-H	Y	UPS25-80	80 kPa	5 lit	3/4" ball valve, G20 male thread	"Flow guard" balancing valve with flow indication	N
FWC-25	N	-	-	-	3/4" ball valve, G20 male thread	-	N
FWC-25-H	Y	UPS25-80	70 kPa	5 lit	3/4" ball valve, G20 male thread	"Flow guard" balancing valve with flow indication	N
FWC-35	N	-	-	-	3/4" ball valve, G20 male thread	-	N
FWC-35 H	Y	UPS25-80	60 kPa	5 lit	3/4" ball valve, G20 male thread	"Flow guard" balancing valve with flow indication	N
FWC-50	N	-	-	-	1" ball valve, G25 male thread	-	N
FWC-50-H	Y	UPS25-120	110 kPa	8 lit	1" ball valve, G25 male thread	"Flow guard" balancing valve with flow indication	N
FWC-80	N	-	-	-	1" ball valve, G25 male thread	-	N
FWC-80-H	Y	UPS32-120	90 kPa	8 lit	1" ball valve, G25 male thread	"Flow guard" balancing valve with flow indication	N
FWC-110	N	-	-	-	1" ball valve, G25 male thread	-	N
FWC-110-H	Y	UPS32-120	75 kPa	8 lit	1" ball valve, G25 male thread	"Flow guard" balancing valve with flow indication	N
FWC-130-MT	Y	UPS40-120	85 kPa	12 lit	1 1/2" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-130	Y	UPS40-120	75 kPa	12 lit	1 1/2" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-170	Y	UPS40-180	105 kPa	12 lit	1 1/2" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-220	Y	UPS40-180	100 kPa	12 lit	1 1/2" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-220-S(1)	Y	UPS40-180	95 kPa	12 lit	1 1/2" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-220-S(2)	Y	UPS40-180	90 kPa	12 lit	1 1/2" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-300	Y	UPS40-180	85 kPa	20 lit stain. s.	2" ball valve, G50 male thread	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-400-MT	Y	UPS50-180	105 kPa	20 lit stain. s.	2" ball valve, G50 male thread	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-400	Y	UPS50-180	100 kPa	20 lit stain. s.	2" ball valve, G50 male thread	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-500	Y	UPS50-180	95 kPa	20 lit stain. s.	2" ball valve, G50 male thread	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-500-S(3)	Y	UPS65-180	110 kPa	20 lit stain. s.	2" ball valve, G50 male thread	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-500-S(4)	Y	UPS65-180	105 kPa	20 lit stain. s.	2" ball valve, G50 male thread	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-500-S(5)	Y	UPS65-180	100 kPa	20 lit stain. s.	2" ball valve, G50 male thread	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-650	Y	UPS65-180	95 kPa	20 lit stain. s.	Flanged ball valve DN50	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-720	Y	UPS65-180	90 kPa	20 lit stain. s.	Flanged ball valve DN50	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-870	Y	CRNE32-1-1	135 kPa	20 lit stain. s.	Flanged ball valve DN50	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-870-S(5)	Y	CRNE32-1-1	130 kPa	20 lit stain. s.	Flanged ball valve DN50	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-870-S(6)	Y	CRNE32-1-1	125 kPa	20 lit stain. s.	Flanged ball valve DN50	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-870-S(7)	Y	CRNE32-1-1	120 kPa	20 lit stain. s.	Flanged ball valve DN50	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-870-S(8)	Y	CRNE32-1-1	115 kPa	20 lit stain. s.	Flanged ball valve DN50	Class1, S.S.press. gauge with 3 measuring points	Y
FWC-870-S(9)	Y	CRNE32-1-1	110 kPa	20 lit stain. s.	Flanged ball valve DN50	Class1, S.S.press. gauge with 3 measuring points	Y

1) Standard pumps are Grundfos UPS, three speed "wet" type without shaft seals except for FWC-870 and are upwards that uses frequency controlled stainless steel pumps.
2) Available head pressures depends on the type of brine used and the flow temp indicates the worst case and pump set to max speed.

Electrical Data	Supply voltage	FLA	LRA	Power Input max (KW)	Power input (KW) Brine temp in/out			
Unit								
FWC-15	230/1/50	4,2	32,2	0,99	0,84	0,76	0,67	0,63
FWC-15-H	230/1/50	4,8	32,2	1,24	1,08	1	0,91	0,87
FWC-25	230/1/50	5,9	26,5	1,36	1,21	1,06	0,96	0,91
FWC-25-H	230/1/50	6,5	26,5	1,6	1,45	1,3	1,2	1,15
FWC-35	230/1/50	8,9	33,7	2,04	1,66	1,51	1,29	1,21
FWC-35 H	230/1/50	9,5	33,7	2,29	1,9	1,75	1,53	1,45
FWC-50	400/3N/50	4,2	16	2,02	1,67	1,63	1,48	1,41
FWC-50-H	400/3N/50	4,8	16	2,26	1,91	1,87	1,72	1,65
FWC-80	400/3N/50	6,1	23	3,17	2,61	2,54	2,25	2,1
FWC-80-H	400/3N/50	7,1	23	3,55	3	2,9	2,6	2,4
FWC-110	400/3N/50	8,8	38	4,8	4,1	3,8	3,26	3
FWC-110-H	400/3N/50	9,8	38	5,2	4,5	4,2	3,6	3,4
FWC-130-MT	400/3N/50	11,4	42	6,3	-	-	4,63	4,4
FWC-130	400/3N/50	11,4	42	6,3	5,26	5,1	4,63	4,4
FWC-170	400/3N/50	14,4	67	8,1	6,84	6,53	5,8	5,5
FWC-220	400/3N/50	17,4	80	10,2	-	8,13	7,1	6,7
FWC-220-S(1)	400/3N/50	19,2	90	11,2	-	-	7,8	7,4
FWC-220-S(2)	400/3N/50	22,4	105	13,9	-	-	-	8,9
FWC-300	400/3N/50	23	120	13,8	8,8	8,9	9,2	9,3
FWC-400-MT	400/3N/50	30	100	18,3	-	-	12,5	12,5
FWC-400	400/3N/50	30	100	18,3	12,3	12,4	12,5	12,5
FWC-500	400/3N/50	36	100	21,3	-	13,5	13,4	13,3
FWC-500-S(3)	400/3N/50	48	127	29,1	-	17,1	17,2	17,2
FWC-500-S(4)	400/3N/50	58	110	34,9	-	-	19,9	19,7
FWC-500-S(5)	400/3N/50	62	130	41,3	-	-	23,2	23,1
FWC-650	400/3N/50	42	49,2	23,3	21	19,7	17,7	16,8
FWC-720	400/3N/50	50	56,8	27,9	23,9	22,2	19,9	18,8
FWC-870	400/3N/50	72	77,8	36,7	-	28,7	25,4	19,5
FWC-870-S(5)	400/3N/50	84	96,7	42	-	-	28,8	27
FWC-870-S(6)	400/3N/50	92	113	49	-	-	34,4	32,1
FWC-870-S(7)	400/3N/50	116	122	51	-	-	41	38
FWC-870-S(8)	400/3N/50	124	136	58	-	-	47	44
FWC-870-S(9)	400/3N/50	132	148	68	-	-	-	50

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FWC - LT series of water chillers for freezing applications



STAINLESS STEEL PRESSURE GAUGE

The chillers in this range are of a similar basic design as the chillers designed for higher temperatures but differ of course in the internal design as it is optimised to run at low brine temperatures only .

The system is ready to use on delivery, just connect flow/return pipes and the power supply.

All units are weather protected and can be sited outdoors in temperatures between -20°C and +38°C, for temperatures outside this range please contact Frigadon for special model.

For control use, a well proven microprocessor instrument keeps track of parameters such as flow and return temp, freeze protection alarm, compressor run time etc. Standard equipment further includes; air cooled condenser, pressure sensing



ELECTRONIC FAN SPEED CONTROLLER

speed controlled fan(s), flow switch, compact brazed heat exchanger(s) with integral distributor for optimum performance, HP and LP switches, complete hydraulic kit with Grundfos® frequency controlled stainless steel pump for closed circuit operation (see tables for specific model data). The use of this pump type permits the installed system to be very accurately fine tuned for the lowest possible energy use.



VARIABLE SPEED PUMP

All units manufactured in accordance with the following directives, where applicable; 98/37/CE, 72/23/EEC, 89/336/EEC, 97/23/EC, EN 60204-1, EN 50081-1,2, EN 50082-1,2.



STAINLESS STEEL EXPANSION VESSEL

Options includes liquid cooled condensers, customer specified colour, WFD warm fluid defrost with temperature termination, NONAIR® micro bubble remover, CARE® hydrocarbon primary refrigerant (dependent on local legislation).

Examples of applications are commercial refrigeration, supermarkets, industrial process cooling etc.



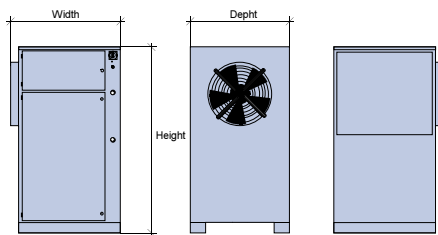
FWC-920-LT

Cooling capacities/ Flow rates	Cooling cap* Brine temp return/flow	Flow rates (kg/s) Int press drops (kPa) Hycocool45
Unit	-28/-31°C	-28/-31°C
FWC-50-LT	2,5	0,322/13
FWC-80-LT	3,5	0,465/18
FWC-110-LT	4,6	0,611/26
FWC-160-LT	7	0,943/25
FWC-220-LT	9	1,195/34
FWC-240-LT	11,4	1,514/24
FWC-330-LT	13,8	1,833/30
FWC-390-LT	16,2	2,151/26
FWC-440-LT	22,8	3,028/24
FWC-620-LT	29,6	3,930/33
FWC-770-LT	36	4,780/29
FWC-920-LT	44	5,842/29

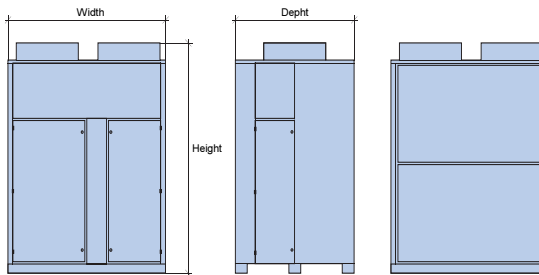
*Capacities are given at an ambient temperature of +27°C.
For higher amb temp please deduct approx 1,2%/°C amb increase. Max amb temp approx 38°C. For higher temp please ask for special model.

General data	No. of ref. circ	No. of compr.type	No. of fan(s)	Sound level dB(A), 10m	Refrigerant/ charge (kg)	Std colour	Size WxDxH	Weight kg
Unit								
FWC-50-LT	1	1xHerm.recip.	1xØ560	46	R404/2,3	Grey NCS3500	950x780x1520	220
FWC-80-LT	1	1xHerm.recip.	1xØ560	46	R404/2,3	Grey NCS3500	950x780x1520	240
FWC-110-LT	1	1xHerm.recip.	1xØ560	47	R404/2,3	Grey NCS3500	950x780x1520	260
FWC-160-LT	1	1xHerm.scroll	2xØ560	48	R404/4,0	Grey NCS3500	950x780x1520	300
FWC-220-LT	1	1xSemi.herm.	1xØ630	46	R404A/4	Grey NCS3500	1600x1205x2000	605
FWC-240-LT	1	1xSemi.herm.	1xØ630	46	R404A/6	Grey NCS3500	1600x1205x2000	660
FWC-330-LT	1	1xSemi.herm.	2xØ630	47	R404A/6	Grey NCS3500	1600x1205x2000	680
FWC-390-LT	1	1xSemi.herm.	2xØ630	48	R404A/8	Grey NCS3500	1600x1205x2430	860
FWC-440-LT	2	2xSemi.herm.	2xØ630	48	R404A/2x9	Grey NCS3500	2655x1205x2590	1490
FWC-620-LT	2	2xSemi.herm.	2xØ710	49	R404A/2x9	Grey NCS3500	2655x1205x2590	1570
FWC-770-LT	2	2xSemi.herm.	2xØ800	49	R404A/2x10	Grey NCS3500	2655x1205x2590	1620
FWC-920-LT	2	2xSemi.herm.	2xØ800	50	R404A/2x10	Grey NCS3500	2655x1205x2590	1650

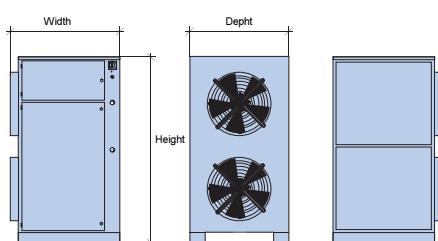
FWC-50 to 110-LT



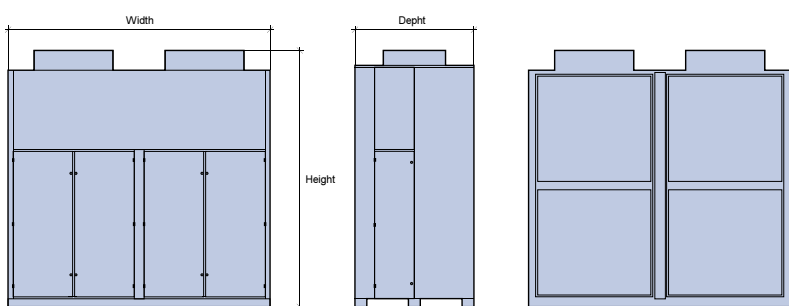
FWC-220 to 390-LT



FWC-160-LT



FWC-440 to 920-LT



Hydraulic data	Pump and exp vess	Pump type 1)	Max avail. press 2)	Exp vessel type	Type of connection	Flow control	Brine circuit press.sw.
Unit							
FWC-50-LT	Y	CRNE3-2	150 kPa	8 lit	1½" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-80-LT	Y	CRNE3-2	130 kPa	8 lit	1½" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-110-LT	Y	CRNE3-2	115 kPa	8 lit	1½" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-160-LT	Y	CRNE5-2	115 kPa	8 lit	1½" ball valve, G40 male thread	"Flow guard" balancing valve with flow indication	Y
FWC-220-LT	Y	CRNE5-2	110 kPa	20 lit stainl.s	2" ball valve, G50 male thread	Class 1, S.S.press. gauge with 3 measuring points	Y
FWC-240-LT	Y	CRNE8-20/1	105 kPa	20 lit stainl.s	2" ball valve, G50 male thread	Class 1, S.S.press. gauge with 3 measuring points	Y
FWC-330-LT	Y	CRNE8-20/1	100 kPa	20 lit stainl.s	2" ball valve, G50 male thread	Class 1, S.S.press. gauge with 3 measuring points	Y
FWC-390-LT	Y	CRNE8-20/1	100 kPa	20 lit stainl.s	2" ball valve, G50 male thread	Class 1, S.S.press. gauge with 3 measuring points	Y
FWC-440-LT	Y	CRNE32-1-1	175 kPa	20 lit stainl.s	Flanged ball valve DN50	Class 1, S.S.press. gauge with 3 measuring points	Y
FWC-620-LT	Y	CRNE32-1-1	160 kPa	20 lit stainl.s	Flanged ball valve DN50	Class 1, S.S.press. gauge with 3 measuring points	Y
FWC-770-LT	Y	CRNE32-1-1	160 kPa	20 lit stainl.s	Flanged ball valve DN50	Class 1, S.S.press. gauge with 3 measuring points	Y
FWC-920-LT	Y	CRNE32-1-1	150 kPa	20 lit stainl.s	Flanged ball valve DN50	Class 1, S.S.press. gauge with 3 measuring points	Y

1) Standard pumps are Grundfos CRNE, frequency controlled with stainless steel body.

2) Available head pressure depends on the type of brine used and the flow temp. Indicate the worst case and speed set to 100%.



FWC-390-LT

Electrical data	Supply voltage	FLA	LRA	Power input max (kW)	Power input(kW) Brine temp in/out
Unit					-28/-31
FWC-50-LT	400/3N/50	11,2	40	5,9	3,5
FWC-80-LT	400/3N/50	15,5	78,5	8,4	4,9
FWC-110-LT	400/3N/50	18	105	10,7	5,7
FWC-160-LT	400/3N/50	22,4	110	12	7,7
FWC-220-LT	400/3N/50	29,7	77,8	15,4	7,9
FWC-240-LT	400/3N/50	34,4	96,7	18	9,5
FWC-330-LT	400/3N/50	44,5	113	23,4	12,2
FWC-390-LT	400/3N/50	50,8	122	27,8	14
FWC-440-LT	400/3N/50	70	96,7	36,8	19,8
FWC-620-LT	400/3N/50	95	122	52	26,4
FWC-770-LT	400/3N/50	113	173	64	33
FWC-920-LT	400/3N/50	123	173	71	37

Frigadon AB

Frigadon is an up to date company working with development, design and manufacturing of refrigeration systems for industry and commercial use. About 30 personnel are employed, working with various applications of refrigeration.

Frigadon has been in the market since 1977. Operations began with small plug-in units for cold rooms. Today, the most expansive market is water chillers and custom designed products supplied to the industry on an OEM-basis*.

Our customers are mainly refrigeration installers and industries who buy process cooling and OEM applications. Most are located in Europe although some can be found in other parts of the world.

Our products are designed for Swedish climate conditions and meet the requirements of all relevant European directives and standards.

* OEM stands for Original Equipment Manufacturer. This means that Frigadon manufactures other companies original products.

Business idea

■ The right temperature...

we develop, manufacture and market environmentally friendly refrigeration units and equipment of compact, turn-key design to professional users all over the world



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