

Selection Correction Factors

Refrigerant correction factors													
Refrigerant	R404A			R507			R22			R134a			R407C
Factor(F1)	1.0			1.0			0.94			0.89			0.98

Fin correction factors						
Fin Material	AL	AL Hydrophilic	AL Epoxy	Cu	Iron	Stainless Steel
Factor(F2)	1.0	0.97	0.92	1.03	0.75	0.48

Correction factors for SC1													
SST°C	-14	-12	-10	-8	-6	-4	-2	0	2	4	6	8	12
(F5)Correction factor	0.75	0.77	0.79	0.85	1.02	0.87	0.94	1.00	1.04	1.09	1.15	1.21	1.25
Max. KTD	8	8	9	10	10	10	10	10	10	10	10	10	10
Min.KTD	4	4	4	4	4	4	4	5	5	5	5	6	6

Correction factors for SC2													
SST°C	-14	-12	-10	-8	-6	-4	-2	0	2	4	6	8	12
(F5)Correction factor	0.88	0.90	0.92	1.00	1.02	1.06	1.10	1.17	1.22	1.27	1.35	1.41	1.46
Max. KTD	8	8	9	10	10	10	10	10	10	10	10	10	10
Min.KTD	4	4	4	4	4	4	4	5	5	5	5	6	6

Correction factors for SC3									
SST°C	-40	-36	-30	-25	-20	-15	-12	-8	-4
(F5)Correction factor	0.75	0.82	0.91	1.00	1.09	1.18	1.26	1.36	1.46
Max. KTD	8	8	10	10	10	10	11	12	12
Min.KTD	4	4	4	4	4	4	4	4	4

Correction factors for SC4									
SST°C	-47	-44	-40	-36	-31	-25	-20	-15	-12
(F5)Correction factor	0.68	0.75	0.82	0.91	1.00	1.09	1.17	1.26	1.38
Max. KTD	6	8	8	8	10	10	10	10	11
Min.KTD	4	4	4	4	4	4	4	4	4

Correction factors for SC5									
SST°C	-55	-52	-50	-47	-44	-40	-36	-31	-25
(F5)Correction factor	0.69	0.75	0.81	0.87	0.93	1.00	1.10	1.21	1.28
Max. KTD	6	6	6	7	8	8	8	10	10
Min.KTD	4	4	4	4	4	4	4	4	4

SSTC =Te Evaporation temperature

Example

1. Demand cooling capacity: 30kW

2. Room temperature: -40° C

3. Evaporation temperature -47° C

4. Refrigerant:
- Qn=28kw

T1=-40° C

Te=-47° C

R22

Calculation

1. Actual temperature difference

2. Evaporating temperatur factor

3. Refrigerant factor

4. Standard product temperature difference SCX
- TD1=T1-Te=-40-(-47)=7KTD

0,87

0,94

SC5=Δ6K
- TD1=7K

T2=0.87

T3=0.94

TD=6K

Q=Qn/T2/T3/TD1*TD
Q=28/0.87/0.94/7*6=29.34KW check:29.34*0.87*0.94/6*7=28KW
The cooling capacity is close to 31KW from THE SC5 product
WEBF-263-10/250 SC5=29.1KW
WEBF-280-10/250 SC5=30.65KW

EVAPORATOR
WONGSO BLAST
FREEZER



The combination of high pressure static fan and Italian design software

FAN TECHNOLOGY

Adopting high quality motor with IP54, reasonable gap with the wind vane, guide ring and hyperbolic designed ducting, achieve maximum efficiency of fan.

PIPELINE DESAIN

Heat exchanger is adopted directly back to the oil and counter current, to avoid accumulation of oil and make full use of heat exchanger area, improving the heat transfer efficiency and ensuring the superheat temperature of heat exchanger.

COPPER PIPE

Efficient use of multiple tooth inner thread pipe,Rate of more than 99.9%, increasing of the innertube surface area and improving the efficiency of heat transfer.

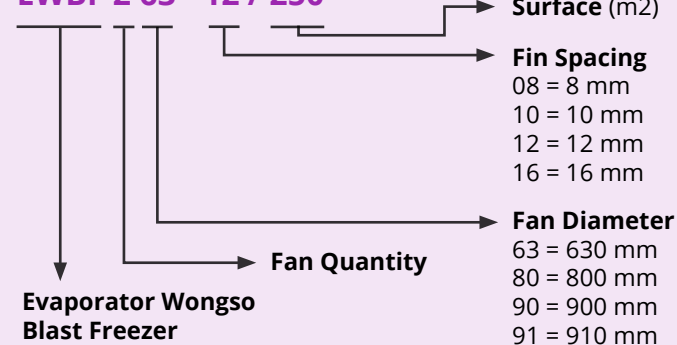
CASING BODY

Using 3003 aluminum alloy shell or DC51-D+180g, powder coating for outdoor, and after high temperature curing, the material has high strength, and strong corrosion resistance, standard color is RAL7035.



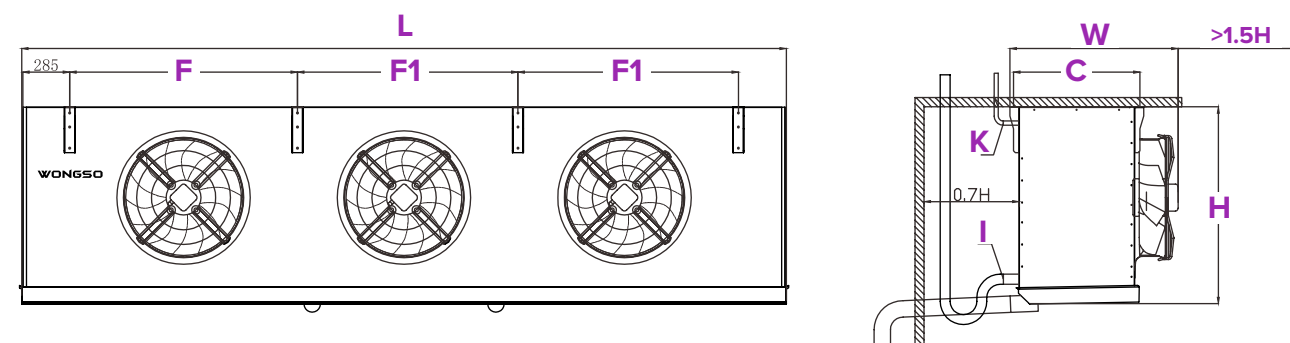
Nomenclatur

EWBF 2 63 - 12 / 250



EWBF Advantages

- DESIGN** Using the European design software ,according to the actual demand accurate design of heat exchanger, can design the latest refrigerant as: R404a, CO2, R410A, R507A and other special low-temperature cold equipments etc.
- SHAPE** Shape with flexible and changeable, drawing, blowing. Forward airflow, airflow up, airflow down, precision meet the actual needs of different occasions, the cold quantity to the location of the actual needs, improve efficiency.



EWBF Evaporator Freezer Series (Fin Spacing 12 mm)

Model	Diameter of fan	No. of fans	R404a				Tube Vol-ume	Ex-change surface	Air flow	Air throw	Noise pres-sure level	Coil Heat-er	Drain Pan Heater	The Motor Power	Total
			SC3 Δ7K TR = -18°C TE = -25°C	SC4 Δ6K TR = -25°C TE = -31°C	SC5 Δ6K TR = -34°C TE = -40°C	SC5 Δ6K -100PA									
			kw	kw	kw	kw									
EWBF 163-12/75	630	1	13	10,4	9,65	9,07	32,4	75	18338	33	70	9,73	3,36	1 x 2.7	15,79
EWBF 163-12/100		1	17,9	14,1	13,27	12,18	43,3	100	17839	32	70	13,9	3,36	1 x 2.7	19,96
EWBF 163-12/125		1	21	16,2	15,52	14	54,1	125	17378	31	69	16,68	3,36	1 x 2.7	22,74
EWBF 263-12/150		2	28,9	22,7	21,41	20,07	64,9	150	36750	35	72	17,78	5	2 x 2.7	28,18
EWBF 263-12/199		2	36,1	28,5	26,89	24,61	86,5	199	35767	34	72	20,32	5	2 x 2.7	30,72
EWBF 263-12/250		2	41,8	33,3	31,65	28,41	108,1	249	34858	33	71	27,94	5	2 x 2.7	38,34
EWBF 363-12/224		3	43,4	34,2	32,47	30,56	97,3	224	55014	36	73	27,3	7,88	3 x 2.7	43,28
EWBF 363-12/250		3	54	41,8	41	37,68	129,8	299	53650	35	73	32,76	7,88	3 x 2.7	48,74
EWBF 363-12/374		3	63,8	49,8	48,06	42,91	162,2	374	52132	34	72	30,94	7,88	3 x 2.7	46,92
EWBF 463-12/299		4	56,8	43,6	43,1	0,38	129,8	299	73499	37	74	31,2	12,56	4 x 2.7	54,56
EWBF 463-12/399		4	71,6	55,3	54,09	49,47	173	399	71534	36	74	40,8	12,56	4 x 2.7	64,16
EWBF 463-12/499		4	84,3	65,4	60,44	55,18	216,3	499	69715	35	73	50,4	12,56	4 x 2.7	73,76
EWBF 180-12/100	800	1	17,9	14,6	13,59	11,77	43,3	100	22812	35	70	13,44	3,94	1 x 1.85	19,23
EWBF 180-12/133		1	21	17,8	17,6	15,06	57,7	133	21926	34	68	18,48	3,94	1 x 1.85	24,27
EWBF 280-12/199		2	34,2	28,8	28,6	25	86,5	199	45624	38	72	26,38	7,28	2 x 1.85	37,36
EWBF 280-12/266		2	42	35,8	35,6	30,43	115,3	266	43852	37	70	35,28	7,28	2 x 1.85	46,26
EWBF 380-12/299		3	53,9	44,3	42,42	37,38	129,8	299	68436	40	76	40,8	10,16	3 x 1.85	56,51
EWBF 380-12/399		3	66,2	55,2	53,06	45,67	173	399	65778	39	73	52,8	10,16	3 x 1.85	68,51

Model	Diameter of fan	No. of fans	R404a (-100 PA WIN PRESSURE)				Tube Vol-ume	Ex-change surface	Air flow	Air throw	Noise pres-sure level	Coil Heat-er	Drain Pan Heater	The Motor Power	Total
			SC3 Δ7K TR = -18°C TE = -25°C	SC4 Δ6K TR = -25°C TE = -31°C	SC5 Δ6K TR = -34°C TE = -40°C	SC6 Δ6K TR = -38°C TE = -44°C									
			kw	kw	kw	kw									
EWBF290-08.16/219	900	2	47,8	38,8	38,2	35,7	73	219	64000	55	75	26,64	3,33	2 x 5.5	40,97
EWBF290-08.16/306		2	60,5	48,1	48,1	46,9	97,3	306	60000	53	75	33,3	3,33	2 x 5.5	47,63
EWBF290-08.16/392		2	70,2	58,2	55,9	52,6	121,6	392	56000	50	75	39,96	6,66	2 x 5.5	57,62
EWBF290-08.16/439		2	74	61,1	55,6	56,2	145,9	439	54000	45	75	46,62	6,66	2 x 5.5	64,28

EWBF Evaporator Freezer Series (Fin Spacing 12 mm)

Model	Inlet I	Outlet K	Hot gas in/out	Drain	Dimensions in mm waterspray defrost* dimension H+100						Weight
					L	W	H	F	F1	C	
					mm	mm	mm	mm	mm	mm	
EWBF 163-12/75	28,6	54	22,23	1*DN65	1820	960	1080	1250	1200	688	220
EWBF 163-12/100	28,6	54	22,23	1*DN65	1820	1060	1080	1250	1200	788	235
EWBF 163-12/125	28,6	67	22,23	1*DN65	1820	1160	1080	1250	1200	888	262
EWBF 263-12/150	28,6	67	22,23	1*DN65	3020	960	1080	1250	1200	688	346
EWBF 263-12/199	28,6	67	22,23	1*DN65	3020	1060	1080	1250	1200	788	367
EWBF 263-12/250	34,9	76	34,9	1*DN65	3020	1160	1080	1250	1200	888	426
EWBF 363-12/224	41,3	76	34,9	1*DN65	4220	960	1080	1250	1200	688	518
EWBF 363-12/250	41,3	76	34,9	1*DN65	4220	1060	1080	1250	1200	788	580
EWBF 363-12/374	41,3	76	34,9	1*DN65	4220	1160	1080	1250	1200	888	647
EWBF 463-12/299	41,3	76	34,9	2*DN65	5420	960	1080	1250	1200	688	671
EWBF 463-12/399	41,3	76	34,9	2*DN65	5420	1060	1080	1250	1200	788	753
EWBF 463-12/499	41,3	76	34,9	2*DN65	5420	1160	1080	1250	1200	888	831
EWBF 180-12/100	28,6	54	22,23	1*DN65	2020	1038	1280	1450	1400	708	278
EWBF 180-12/133	28,6	54	22,23	1*DN65	2020	1138	1280	1450	1400	808	314
EWBF 280-12/199	28,6	76	28,6	1*DN65	3420	1038	1280	1450	1400	708	582
EWBF 280-12/266	34,9	76	34,9	1*DN65	3420	1138	1280	1450	1400	808	637
EWBF 380-12/299	41,8	76	34,9	2*DN65	4820	1036	1280	1450	1400	708	712
EWBF 380-12/399	41,8	76	34,9	2*DN65	4820	1138	1280	1450	1400	808	836

Model	Inlet I	Outlet K	Hot gas in/out	Drain	Dimensions in mm waterspray defrost* dimension H+100						Weight
					L	W	H	F	F1	C	
					mm	mm	mm	mm	mm	mm	
EWBF290-08.16/219	22,2	66	22,2	1-DN65	2900	1450	1570	1200	1150	1000	450
EWBF290-08.16/306	22,2	76	22,2	1-DN65	2900	1450	1570	1200	1150	1000	520
EWBF290-08.16/392	28,6	76	28,6	1-DN65	2900	1550	1570	1200	1150	1100	620
EWBF290-08.16/439	28,6	76	28,6	1-DN65	2900	1550	1570	1200	1150	1100	690