cool with HITEMA international hitema.com

Water cooled chillers EWB1 series and condenserless CWB1 version, screw compressors R134a, shell and tube evaporator, shell and tube condenser, 1 refrigerating circuits

Cooling Big Evolution		**Model**	**300**	**350**	**400**	**460**	**570**	**630**	**720**	**770**
Cooling Mode - EWB1 version										
NOMINAL COOLING CAPACITY (1)		kW	314	361	432	494	569	647	701	776
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)		kW	61,9	70,1	85,2	96,7	108,4	122,5	137,5	152,4
EER (1)		kW/kW	5,08	5,16	5,07	5,11	5,25	5,28	5,10	5,09
ESEER (1)			5,02	5,07	4,80	4,86	4,98	5,01	4,85	4,89
IPLV (1)			6,26	6,32	6,00	6,07	6,23	6,27	6,14	6,18
EVAPORATING SECTION										
EVAPORATORS		nr.	1	1	1	1	1	1	1	1
EVAPORATOR NOMINAL WATER FLOW RATE (1)		m3/h	54,0	62,1	74,3	84,9	97,9	111,2	120,6	133,4
EVAPORATOR PRESSURE DROP (1)		kPa	41	37	48	56	42	48	57	59
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	125	125	125	150	150	150	150	200
CONDENSING SECTION										
CONDENSERS		nr.	1	1	1	1	1	1	1	1
CONDENSER NOMINAL WATER FLOW RATE EACH CONDENSER (1)		m3/h	64,6	74,2	88,9	101,5	116,5	132,3	144,2	159,6
CONDENSER PRESSURE DROP EACH CONDENSER (1) (4)		kPa	50	53	47	48	45	46	49	48
CONDENSER PRESSURE DROP WITH 2-WAYS CONTROL VALVE (1) (5)		kPa	65	73	59	62	63	68	75	59
CONDENSER PRESSURE DROP WITH 3-WAYS CONTROL VALVE (1) (5)		kPa	75	85	69	75	65	69	75	79
HYDRAULIC CONNECTIONS (FLANGED)		DN	1 x 80	1 x 80	1 x 100	1 x 100	1 x 125	1 x 125	1 x 125	1 x 125
HEAT RECOVERY										
PARTIAL RECOVERY HEATING CAPACITY (6)		kW	21	24	29	33	35	40	47	52
TOTAL RECOVERY HEATING CAPACITY (7)		kW	356	408	479	552	634	719	787	858
Heat Pump Mode - EWBH1 version										
NOMINAL HEATING CAPACITY IN HEATING MODE (2)		kW	356	408	479	552	634	719	787	858
TOTAL COMPRESSORS ABSORBED POWER (2)		kW	77,0	87,6	102,0	114,6	133,2	150,6	171,0	184,2
COP (2)		kW/kW	4,62	4,66	4,70	4,81	4,76	4,78	4,60	4,66
EVAPORATOR NOMINAL WATER FLOW RATE (2)		m3/h	47,9	55,1	64,8	75,2	86,1	97,8	106,0	115,8
CONDENSER NOMINAL WATER FLOW RATE EACH CONDENSER (2)		m3/h	61,2	70,2	82,4	94,9	109,0	123,7	135,4	147,5
Condenserless - CWB1 version										
NOMINAL COOLING CAPACITY IN COOLING MODE (3)		kW	289	332	391	454	517	588	636	696
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (3)		kW	73,1	83,3	97,2	109,4	126,9	143,4	164,1	176,0
EER (3)		kW/kW	3,96	3,99	4,02	4,15	4,08	4,10	3,87	3,96
EVAPORATOR NOMINAL WATER FLOW RATE (3)		m3/h	49,8	57,1	67,2	78,0	89,0	101,1	109,3	119,7
General Informations										
REFRIGERATING CIRCUITS		nr.	1	1	1	1	1	1	1	1
COMPRESSORS		nr.	1	1	1	1	1	1	1	1
PARTITION STEPS PER COMPRESSOR		%	50-75-100							
TOTAL ELETTRICAL DATA (8)										
MAXIMUM ASSORBED CURRENT PER COMPRESSOR (F.L.A.)	**EWB1**	A	177	203	233	266	306	345	378	411
MAXIMUM PEAK CURRENT PER COMPRESSOR (PW) (L.R.A.)		A	520 / 801	612 / 943	318 / 1182	436 / 1364	465 / 1442	586 / 1853	650 / 2029	805 / 2520
MAXIMUM ASSORBED CURRENT PER COMPRESSOR (F.L.A.)	**EWBH1**	A	196	214	280	310	320	360	413	447
MAXIMUM PEAK CURRENT PER COMPRESSOR (PW) (L.R.A.)	**CWB1**	A	612 / 943	665 / 1023	436 / 1364	465 / 1442	586 / 1853	650 / 2029	805 / 2520	917 / 2870
MOTOR CONNECTION (PW = part winding; Y-D = star-delta)			PW	PW	Y-D	Y-D	Y-D	Y-D	Y-D	Y-D
ELECTRIC FEED		V/Ph/Hz	400/3/50							
NOISE DATA										
SOUND PRESSURE FOR STANDARD CONFIGURATION (9)		dB(A)	64,1	64,5	65,5	65,7	66,6	67,5	68,3	69,9
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (9)		dB(A)	59,1	59,5	60,5	60,7	61,6	62,5	63,3	64,9
DIMENSIONS AND WEIGHT										
LENGTH		mm	3300	3300	4150	4150	4600	4600	4600	4600
WIDTH		mm	1500	1500	1600	1600	1900	1900	1900	1900
HEIGHT		mm	2050	2050	2050	2200	2300	2300	2300	2300
WEIGHT EMPTY FOR STANDARD CONFIGURATION	**EWB1**	kg	1720	1800	2500	2550	2960	3040	3180	3230
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION	**EWBH1**	kg	1930	2010	2820	2870	3500	3580	3720	3770
WEIGHT EMPTY FOR STANDARD CONFIGURATION	**CWB1**	kg	1525	1590	2195	2230	2575	2630	2735	2775

Updated on 29/10/2015

cool with HITEMA international hitema.com

Water cooled chillers EWB2 series and condenserless CWB2 version, screw compressors R134a, shell and tube evaporator, shell and tube condenser, 2 refrigerating circuits

Cooling Big Evolution		**Model**	**300**	**350**	**400**	**460**	**570**	**630**	**720**	**860**	**990**	**1140**	**1290**	**1400**	**1500**
Cooling Mode - EWB2 version															
NOMINAL COOLING CAPACITY (1)		kW	291	354	404	460	576	628	715	860	990	1141	1291	1398	1539
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)		kW	57,8	70,8	80,5	91,6	113,3	123,7	140,1	170,3	193,8	216,8	245,0	274,3	304,6
EER (1)		kW/kW	5,04	5,00	5,02	5,02	5,08	5,08	5,10	5,05	5,11	5,26	5,27	5,10	5,05
ESEER (1)			6,73	6,51	6,65	6,57	6,40	6,78	6,78	6,50	6,63	6,79	6,80	6,61	6,62
IPLV (1)			7,19	6,97	7,08	7,03	6,80	7,17	7,17	6,86	6,99	7,18	7,19	7,04	7,04
EVAPORATING SECTION															
EVAPORATORS		nr.	1	1	1	1	1	1	1	1	1	1	1	1	1
EVAPORATOR NOMINAL WATER FLOW RATE (1)		m3/h	50,1	60,8	69,5	79,2	99,0	108,0	123,0	148,0	170,2	196,2	222,1	240,4	264,6
EVAPORATOR PRESSURE DROP (1)		kPa	39	37	45	53	45	48	59	49	55	58	65	66	67
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	125	125	125	150	150	150	150	200	200	200	200	200	200
CONDENSING SECTION															
CONDENSERS		nr.	2	2	2	2	2	2	2	2	2	2	2	2	2
CONDENSER NOMINAL WATER FLOW RATE EACH CONDENSER (1)		m3/h	30,0	36,5	41,7	47,5	59,3	64,6	73,5	88,6	101,8	116,7	132,1	143,8	158,5
CONDENSER PRESSURE DROP EACH CONDENSER (1) (4)		kPa	45	48	45	47	48	50	53	47	48	45	46	49	48
CONDENSER PRESSURE DROP WITH 2-WAYS CONTROL VALVE (1) (5)		kPa	59	68	69	57	62	65	72	59	62	63	69	75	59
CONDENSER PRESSURE DROP WITH 3-WAYS CONTROL VALVE (1) (5)		kPa	74	68	68	76	71	75	84	69	75	64	69	75	79
HYDRAULIC CONNECTIONS (FLANGED)		DN	2 x 65	2 x 65	2 x 80	2 x 80	2 x 80	2 x 80	2 x 80	2 x 100	2 x 100	2 x 125	2 x 125	2 x 125	2 x 125
HEAT RECOVERY															
PARTIAL RECOVERY HEATING CAPACITY (6)		kW	21	25	28	32	39	44	48	58	67	71	78	92	105
TOTAL RECOVERY HEATING CAPACITY (7)		kW	330	391	453	517	641	713	811	953	1107	1268	1436	1566	1704
Heat Pump Mode - EWBH2 version															
NOMINAL HEATING CAPACITY IN HEATING MODE (2)		kW	330	391	453	517	641	713	811	953	1107	1268	1436	1566	1704
TOTAL COMPRESSORS ABSORBED POWER (2)		kW	70,4	86,8	98,2	111,6	136,6	154,0	174,6	203,8	229,4	266,4	301,1	341,6	367,9
COP (2)		kW/kW	4,68	4,50	4,62	4,63	4,69	4,63	4,65	4,68	4,83	4,76	4,77	4,58	4,63
EVAPORATOR NOMINAL WATER FLOW RATE (2)		m3/h	44,6	52,3	61,1	69,7	86,7	96,1	109,5	128,9	151,0	172,2	195,3	210,6	229,7
CONDENSER NOMINAL WATER FLOW RATE EACH CONDENSER (2)		m3/h	28,3	33,6	39,0	44,4	55,1	61,3	69,7	82,0	95,2	109,0	123,5	134,7	146,5
Condenserless - CWB2 version															
NOMINAL COOLING CAPACITY IN COOLING MODE (3)		kW	270	317	368	420	523	579	659	777	911	1035	1174	1264	1381
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (3)		kW	66,9	82,5	93,5	106,5	129,9	146,1	166,3	194,3	219,0	253,7	286,7	327,9	351,5
EER (3)		kW/kW	4,03	3,84	3,94	3,94	4,02	3,96	3,96	4,00	4,16	4,08	4,09	3,85	3,93
EVAPORATOR NOMINAL WATER FLOW RATE (3)		m3/h	46,4	54,5	63,3	72,2	89,9	99,5	113,3	133,6	156,7	178,0	201,9	217,3	237,5
General Informations															
REFRIGERATING CIRCUITS		nr.	2	2	2	2	2	2	2	2	2	2	2	2	2
COMPRESSORS		nr.	2	2	2	2	2	2	2	2	2	2	2	2	2
PARTITION STEPS PER COMPRESSOR		%							50-75-100						
TOTAL ELETTRICAL DATA (8)															
MAXIMUM ASSORBED CURRENT PER COMPRESSOR (F.L.A.)	**EWB2**	A	84	98	112	128	156	177	203	233	266	306	345	378	411
MAXIMUM PEAK CURRENT PER COMPRESSOR (PW) (L.R.A.)		A	218 / 441	267 / 449	290 / 485	350 / 585	439 / 675	520 / 801	612 / 943	318 / 1182	436 / 1364	465 / 1442	586 / 1853	650 / 2029	805 / 2520
MAXIMUM ASSORBED CURRENT PER COMPRESSOR (F.L.A.)	**EWBH2**	A	108	124	144	162	182	196	214	280	310	320	360	413	447
MAXIMUM PEAK CURRENT PER COMPRESSOR (PW) (L.R.A.)	**CWB2**	A	267 / 449	290 / 485	350 / 585	423 / 686	520 / 801	612 / 943	665 / 1023	436 / 1364	465 / 1442	586 / 1853	650 / 2029	805 / 2520	917 / 2870
MOTOR CONNECTION (PW = part winding; Y-D = star-delta)			PW	PW	PW	PW	PW	PW	PW	Y-D	Y-D	Y-D	Y-D	Y-D	Y-D
ELECTRIC FEED		V/Ph/Hz							400/3/50						
NOISE DATA															
SOUND PRESSURE FOR STANDARD CONFIGURATION (9)		dB(A)	62,5	62,7	62,9	62,6	68,4	67,1	67,5	68,5	68,7	69,6	70,5	71,3	72,9
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (9)		dB(A)	57,5	57,7	57,9	57,6	63,4	62,1	62,5	63,5	63,7	64,6	65,5	66,3	67,9
DIMENSIONS AND WEIGHT															
LENGTH		mm	3900	4200	4450	4450	4700	4700	4700	4900	4900	4900	4900	5100	5100
WIDTH		mm	1600	1600	1700	1700	1700	1700	1700	1850	1850	2000	2000	2000	2000
HEIGHT		mm	2050	2050	2100	2100	2200	2200	2200	2350	2350	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION	**EWB2**	kg	1570	2070	2240	2300	3300	3360	3470	4950	5060	5400	5480	5700	5870
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION	**EWBH2**	kg	1820	2380	2640	2700	3800	3860	3970	5830	5940	6370	6450	6770	6940
WEIGHT EMPTY FOR STANDARD CONFIGURATION	**CWB2**	kg	1360	1830	1925	1955	2925	2970	3040	4340	4415	4630	4660	4810	4960

Updated on 29/10/2015

cool with HITEMA international hitema.com

Water cooled chillers EWB3 series and condenserless CWB3 version, screw compressors R134a, shell and tube evaporator, shell and tube condenser, 3 refrigerating circuits

Cooling Big Evolution		Model	1690	1900	2050	2200
Cooling Mode - EWB3 version						
NOMINAL COOLING CAPACITY (1)		kW	1693	1912	2057	2240
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (1)		kW	324,2	366,4	409,9	448,0
EER (1)		kW/kW	5,22	5,22	5,02	5,00
ESEER (1)			6,66	6,66	6,43	6,40
IPLV (1)			7,07	7,07	6,88	6,82
EVAPORATING SECTION						
EVAPORATORS		nr.	1	1	1	1
EVAPORATOR NOMINAL WATER FLOW RATE (1)		m3/h	291,1	328,8	353,9	385,2
EVAPORATOR PRESSURE DROP (1)		kPa	49	58	62	67
HYDRAULIC CONNECTIONS (VICTAULIC)		DN	250	250	250	250
CONDENSING SECTION						
CONDENSERS		nr.	3	3	3	3
CONDENSER NOMINAL WATER FLOW RATE EACH CONDENSER (1)		m3/h	115,6	130,6	141,5	154,1
CONDENSER PRESSURE DROP EACH CONDENSER (1) (4)		kPa	45	46	49	49
CONDENSER PRESSURE DROP WITH 2-WAYS CONTROL VALVE (1) (5)		kPa	63	68	74	59
CONDENSER PRESSURE DROP WITH 3-WAYS CONTROL VALVE (1) (5)		kPa	64	69	74	78
HYDRAULIC CONNECTIONS (FLANGED)		DN	3 x 125	3 x 125	3 x 125	3 x 125
HEAT RECOVERY						
PARTIAL RECOVERY HEATING CAPACITY (6)		kW	103	117	138	149
TOTAL RECOVERY HEATING CAPACITY (7)		kW	1885	2130	2307	2490
Heat Pump Mode - EWBH3 version						
NOMINAL HEATING CAPACITY IN HEATING MODE (2)		kW	1885	2130	2307	2490
TOTAL COMPRESSORS ABSORBED POWER (2)		kW	399,1	450,8	509,7	546,9
COP (2)		kW/kW	4,72	4,72	4,53	4,55
EVAPORATOR NOMINAL WATER FLOW RATE (2)		m3/h	255,7	288,8	309,2	334,2
CONDENSER NOMINAL WATER FLOW RATE EACH CONDENSER (2)		m3/h	108,1	122,1	132,3	142,8
Condenserless - CWB3 version						
NOMINAL COOLING CAPACITY IN COOLING MODE (3)		kW	1537	1736	1853	2004
TOTAL COMPRESSORS NOMINAL ABSORBED POWER (3)		kW	380,1	429,3	490,1	524,4
EER (3)		kW/kW	4,04	4,04	3,78	3,82
EVAPORATOR NOMINAL WATER FLOW RATE (3)		m3/h	264,3	298,5	318,7	344,7
General Informations						
REFRIGERATING CIRCUITS		nr.	3	3	3	3
COMPRESSORS		nr.	3	3	3	3
PARTITION STEPS PER COMPRESSOR		%		50-75-100		
TOTAL ELETTRICAL DATA (8)						
MAXIMUM ASSORBED CURRENT PER COMPRESSOR (F.L.A.)	**EWB3**	A	306	345	378	411
MAXIMUM PEAK CURRENT PER COMPRESSOR (PW) (L.R.A.)		A	465 / 1442	586 / 1853	650 / 2029	805 / 2520
MAXIMUM ASSORBED CURRENT PER COMPRESSOR (F.L.A.)	**EWBH3 CWB3**	A	320	360	413	447
MAXIMUM PEAK CURRENT PER COMPRESSOR (PW) (L.R.A.)		A	586 / 1853	650 / 2029	805 / 2520	917 / 2870
MOTOR CONNECTION (PW = part winding; Y-D = star-delta)			Y-D	Y-D	Y-D	Y-D
ELECTRIC FEED		V/Ph/Hz		400/3/50		
NOISE DATA						
SOUND PRESSURE FOR STANDARD CONFIGURATION (9)		dB(A)	71,4	72,3	73,1	74,7
SOUND PRESSURE FOR LOW NOISE CONFIGURATION (9)		dB(A)	66,4	67,3	68,1	69,7
DIMENSIONS AND WEIGHT						
LENGTH		mm	4900	5200	5400	5600
WIDTH		mm	2210	2210	2210	2210
HEIGHT		mm	2450	2450	2450	2450
WEIGHT EMPTY FOR STANDARD CONFIGURATION	**EWB3**	kg	8500	8870	9070	9270
WEIGHT OPERATIVE FOR STANDARD CONFIGURATION	**EWBH3**	kg	10130	10500	10800	11000
WEIGHT EMPTY FOR STANDARD CONFIGURATION	**CWB3**	kg	7340	7640	7740	7910

Data referred to:

(1) Evaporator Inlet/Outlet water temperature = +12/+7 °C; Condenser Inlet/Outlet water temperature = +30/+35 °C; fouling factor = 0.000043 m²K/W.

(2) Evaporator Inlet/Outlet water temperature = +12/+7 °C; Condenser Inlet/Outlet water temperature = +40/+45 °C; fouling factor = 0.000043 m²K/W.

(3) Evaporator Inlet/Outlet water temperature = +12/+7 °C; Condensing temperature = +47 °C; fouling factor = 0.000043 m²K/W.

(4) Condenser only (excluding pressostatic condenser control valve).

(5) Only with option PCC2 or PCC3: Condenser + pressostatic control valve + piping pressure drop.

(6) Only with option PDS: Evaporator Inlet/Outlet water temperature = +12/+7 °C; Condenser Inlet/Outlet water temperature = +30/+35 °C; Desuperheater Inlet/Outlet water temperature = +40/+45 °C.

(7) Only with option TDS: Evaporator Inlet/Outlet water temperature = +12/+7 °C; Heat recovery Inlet/Outlet water temperature = +40/+45 °C.

(8) IP54 protection rating, chillers suitable for outdoor installation

(9) Sound pressure level referred to measures according to normative ISO3744, pressure level at distance of 10 m, referred to free field on reflecting surface.

Updated on 29/10/2015