

EWAT-B

Multi scroll chiller
with free cooling

Environmentally friendly
R-32 refrigerant with
675 GWP - A2L



R-32

BLUEvolution

AHUs

CHILLERS

PROJECTS

SERVICE

Why choose EWAT-B- chiller series?

- ✓ Improve energy efficiency and reduce running costs with innovative free-cooling options
- ✓ SEER up to 4.7, overcoming 2021 Eco-design requirements
- ✓ Glycol free solution
- ✓ No refrigerant pump required
- ✓ No extra footprint vs standard unit*
- ✓ No extra pressure drops on water side

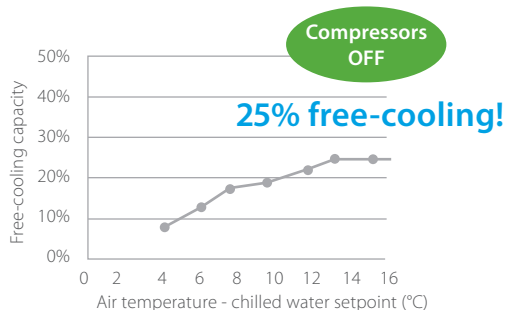
(*) except 4 fans model



Free cooling

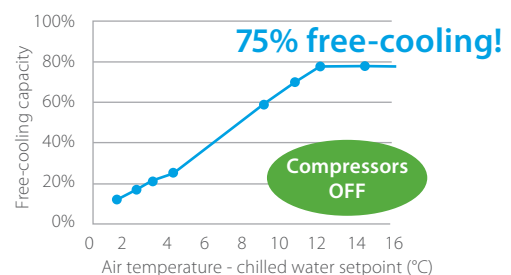
Free-cooling - Light

- › Refrigerant migration system allowing to recover up to 25% of normal unit capacity



Free-cooling - Full

- › 75% free-cooling due to additional "Shell & Tube" refrigerant to water exchanger (compared to Light version)

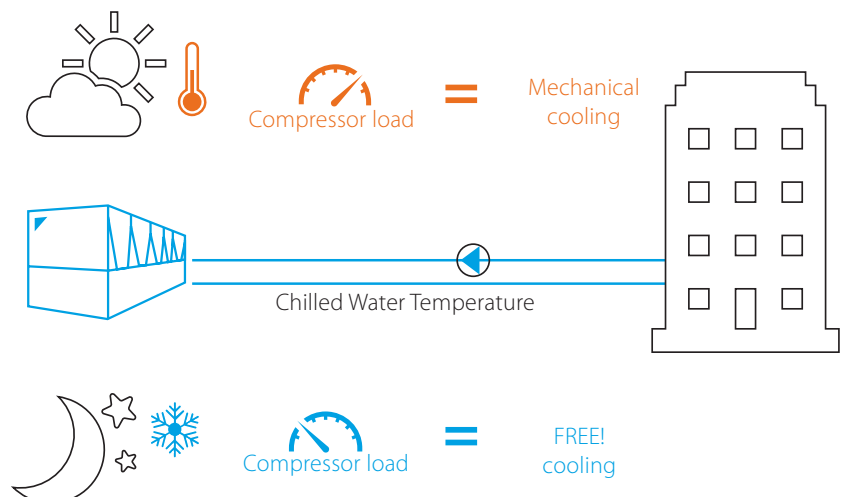


What is free cooling?

Free cooling operation will **reduce the power consumption** of the chiller by taking advantage of lower ambient temperatures to cool air or water (E.g. during colder or intermediate seasons or even during night time operation)

Why free-cooling?

All new buildings in the European Union shall be nZEB (**nearly Zero Energy Buildings**) from 31/12/2020 with public buildings leading the way to be nZEB compliant from 31/12/2018. From **2021** this will also apply to private buildings. [Energy Performance of Buildings Directive]

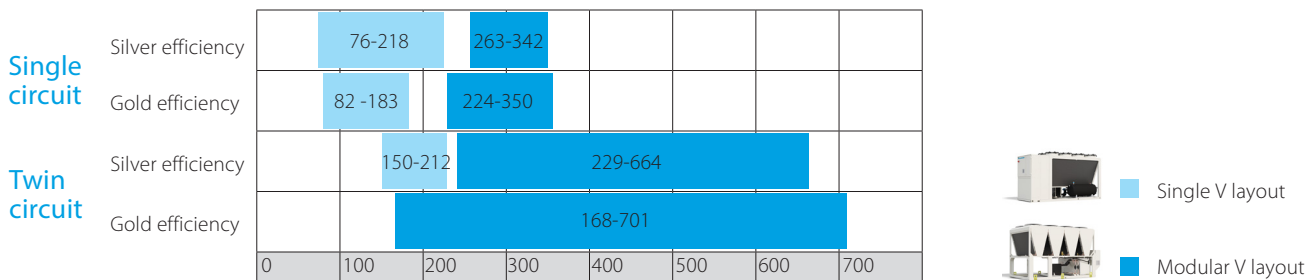


Range overview

EWAT-B is available with:

- › Two different layouts; single V coil and modular V coils
- › Two efficiency levels; Gold (high) and silver (standard)
- › One or two independent refrigerant circuits

Noise version / Source	Compressor enclosure	Fan speed	Avg sound power reduction	Compressor enclosure	Fan speed	Avg sound power reduction
Standard	Not insulated	Standard	-	-	Standard	-
Low	Insulated	Standard	-1.5 dB (A)	Insulated	Standard	-3.0 dB (A)
Reduced	Insulated	Reduced	-6.5 dB (A)	Insulated	Reduced	-8.5 dB (A)

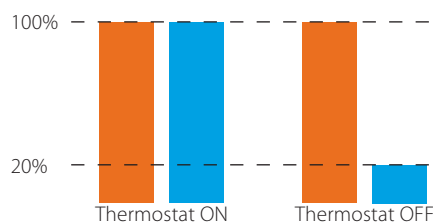


Options list

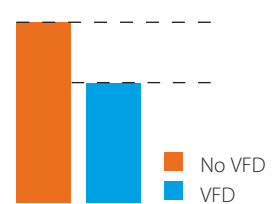
One / two centrifugal pump with buffer tank

- › Variable speed pump (for "thermostat on/off" pump speed function or to be controlled with external BMS) or variable primary flow management (via external 0-10 volt signal)
- › Unit mounted buffer tank available across the range for plug and play solution
- › Buffer tank with 500 ltr or 100 ltr capacity
- › All housed within the unit footprint

Pumping energy



Pumping costs over the year



Partial heat recovery

Condensation control to maintain heat recovery capacity at lower ambient temperatures (at 100% operating capacity)

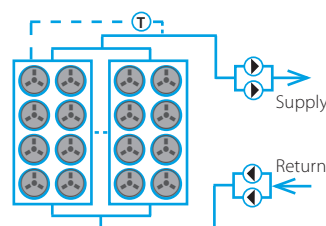
	HR @ 35°C ambient	HR @ 20°C ambient
Current	~ 15%	~ 3%
New	~ 15%	~ 15%

Master/Slave functionality supplied as standard

- › Manage up to 4 units on the same system
- › No need for external control devices

Fan Silent Mode

Both single V units and units with VFD option are equipped with Fan Silent Mode as standard. (By reducing fan velocity on scheduled time bands, this reduces unit noise emissions; enhancing comfort during night operation)



Technical details

Cooling only	R-32	EWAT-B-SSB/SLB			085	115	135	155	175	195	205	215	240	260	290	310	330	340	350	420	460	510	570	610	670
Space cooling	A Condition 35°C	Pdc	kW	80.92	108.97	131.42	158.15	174.93	191.39	210.53	217.08	241.41	260.58	282.93	306.42	329.59	343.51	350.1	416.28	467.54	513.41	566.53	611.64	667.91	
	ηs,c		%	161	173	161		176.2	170.6	173	161								-						
	ηs,c + VFDFAN		%					-					175.4	165.4	177.8	182.6	173.4	183.4	169.4	179.8	182.2	181.8	179.4	180.2	183.8
SEER				4.1	4.4	4.1		4.48	4.34	4.4	4.1	4.37	4.14	4.42	4.52	4.33	4.44	4.24		4.56				4.55	
SEER + VFDFAN								-				4.46	4.21	4.52	4.64	4.41	4.66	4.31	4.57	4.63	4.62	4.56	4.58	4.67	
Cooling capacity	Nom.		kW	81	109	131	158	175	191	211	217	241	261	283	306	330	344	350	416	468	513	567	612	668	
Power input	Cooling	Nom.	kW	31.8	38.5	49.8	61.9	67.8	69.5	80	85.8	85.2	95.6	108	113	122	117	132	147	171	186	216	230	238	
Capacity control	Method																								
	Minimum capacity		%	50	38	50	25	38	21	19	50	17	25	24	14	13	33	19	17	15	14	12	11	17	
EER				2.55	2.83	2.64	2.55	2.58	2.75	2.63	2.53	2.83	2.73	2.62	2.72	2.71	2.94	2.65	2.84	2.73	2.76	2.63	2.66	2.8	
IPLV				4.65	4.92	4.46	4.68	4.78	4.84	4.86	4.7	4.67	4.44	4.74	4.86	4.63	4.8	4.56	4.87	4.84	4.81	4.89	4.9	4.86	
EER + VFDFAN								-				2.83	2.73	2.62	2.72	2.7	2.93	2.65	2.83	2.73	2.76	2.62	2.66	2.8	
IPLV + VFDFAN								-				4.81	4.27	4.55	5.02	4.75	5	4.7	4.91	4.89	4.9	4.93	4.89	5	
Dimensions	Unit	Height	mm	1,801		1,822		1,801		1,822												2,540			
	Unit	Width	mm	1,204										2,236											
	Unit	Depth	mm	2,120		2,660		3,570		3,180		3,780		2,326			3,226			4,126				5,025	
Weight (SSB)	Unit		kg	681	767	811	1,007	984	1,166	1,158	1,184	1,712	1,739	1,912	2,186	2,214	2,343	2,242	2,721	2,881	3,037	3,278	3,712	4,073	
	Operation weight		kg	686	773	820	1,014	996	1,177	1,169	1,200	1,723	1,750	1,928	2,205	2,233	2,363	2,261	2,749	2,909	3,065	3,320	3,754	4,115	
Weight (SLB)	Unit			691	777	821	1,028	994	1,187	1,179	1,194	1,815	1,842	2,004	2,289	2,317	2,434	2,345	2,824	3,066	3,223	3,484	3,918	4,279	
	Operation weight			696	783	830	1,035	1,006	1,198	1,190	1,210	1,826	1,853	2,020	2,308	2,336	2,454	2,364	2,852	3,094	3,251	3,526	3,960	4,321	
Water heat exchanger	Type			Braze plate																					
	Water volume		l	5	6	9	7	12	11			16	11		16	19		20	19	28			42		
	Water flow rate	Cooling	Nom.	l/s	3.9	5.2	6.3	7.6	8.4	9.1	10.1	10.4	11.5	12.4	13.5	14.6	15.7	16.4	16.7	19.9	22.3	24.5	27	29.2	31.9
	Water pressure drop	Cooling	Nom.	kPa	27.3	34.4	26.5	64.2	41.7	45.9	54.4	41.4	69.7	80	66.7	46.4	52.9	77.2	59	54.5	67.2	79.6	65.4	75.1	88
Air heat exchanger	Type			Microchannel																					
Compressor	Type			Scroll compressor																					
	Quantity			2		4		2	4		2	4				3	4		3	4		5	6		
Fan	Type			Direct propeller																					
	Quantity			4	6		8		10			4				5		6	5	7		8		9	11
	Air flow rate	Nom.	l/s	6,022	9,036		13,354		12,023		16,710	15,057	20,306			25,382		30,459		25,382	35,535		40,612	45,688	55,841
	Speed		rpm	900																					
Sound power level (SSB)	Cooling	Nom.	dBA	84.8	88.2	89.7	87.8	91.8	89.9	90.9	93.2	93.3	93.8	94.8	94.9	95.3	96.1	95.6	96.7	97	97.6	97.8	98.3	99	
Sound power level (SLB)	Cooling	Nom.	dBA	83.7	86.2	87	86.7	88.8	88.1	88.7	90	90.8		91	91.8	91.9	92.7	91.9	93.3	93.4	93.9	94	94.5	95.3	
Sound pressure level (SSB)	Cooling	Nom.	dBA	67.4	70.5	72	69.5	73.8	71.3	72.3	74.8	74.3	74.8	75.8	75.4	75.8	76.6	76.1	76.7	77	77.6	77.9	78.2		
Sound pressure level (SLB)	Cooling	Nom.	dBA	66.3	68.5	69.3	68.4	70.7	69.5	70.1	71.6	71.8		72	72.3	72.4	73.2	72.4	73.3	73.4	74		74.1	74.6	
Refrigerant	Type/GWP			R-32/675																					
	Charge		kg	7.5	8.5		13	11	14.5		13	19			25.5	25	26	24	34.5	36	41	42	46.5	52.5	
	Circuits	Quantity		1		2		1	2		1	2		1	2		1	2							
Piping connections	Evaporator water inlet/outlet (OD)			76.1		88.9		76.1	88.9			76.1	88.9		76.1	88.9		76.1	88.9				114.3		
Unit	Starting current	Max	A	213	313	324	284	462	384	395	498	410	420	546	573	583	588	594	636	681	719	763	801	843	
	Running current	Cooling	Nom.	A	59	69	83	108	113	117	131	142	147	160	179	194	206	196	219	238	285	310	358	398	
	Running current	Max	A	73	86	96	143	132	156	167	168	182	193	216	243	254	258	265	307	351	389	433	471	513	
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50																					

Cooling only			R-32	EWAT-B-SRB				085	115	135	155	175	195	205	215	240	260	290	310	330	340	350	420	460	510	570	610	670		
Space cooling	A Condition 35°C	Pdc	kW	76.49	105	123.88	150.13	164.87	181.31	200.51	203.5	231.19	248.68	266.45	290.26	311.62	329.53	330.8	398.49	443.51	488.06	534.23	578.74	637.95						
	ηs,c		%	161	173	161	166.2	162.2	167.8	161	179.8	164.2	174.2	172.2	173.8	179	165	179	179.8	179.4					179					
SEER				4.1	4.4	4.1	4.23	4.13	4.27	4.1	4.57	4.18	4.43	4.38	4.42	4.55	4.2	4.55	5.57	4.56					4.55					
Cooling capacity	Nom.		kW	76	105	124	150	165	181	201	204	231	249	266	290	312	330	331	398	444	488	534	579	638						
Power input	Cooling	Nom.	kW	33.7	40.3	53	65.9	73	73.2	84.6	91.9	89	99.9	115	119	129	122	140	147	181	197	230	244	251						
Capacity control	Method	Step																												
	Minimum capacity		%	50	38	50	25	38	21	19	50	17	25	24	14	13	33	19	17	15	14	12	11	17						
EER				2.27	2.61	2.34	2.28	2.26	2.48	2.37	2.21	2.6	2.49	2.31	2.44	2.41	2.7	2.35	2.71	2.45	2.48	2.32	2.37	2.55						
IPLV				4.67	4.97	4.5	4.63	4.74	4.64	4.91	4.66	4.93	4.27	4.51	4.82	4.7	5	4.72	4.81	4.92	4.93	5.04	5.03	5.01						
Dimensions	Unit	Height	mm	1,801		1,822		1,801		1,822																2,540				
	Unit	Width	mm	1,204														2,236												
	Unit	Depth	mm	2,120	2,660		3,570		3,180		4,170		3,780		2,326				3,226				4,126				5,025	5,874		
Weight	Unit		kg	691	777	821	1,028	994	1,187	1,179	1,194	1,815	1,842	2,004	2,289	2,317	2,434	2,345	2,824	3,066	3,223	3,484	3,918	4,279						
	Operation weight		kg	696	783	830	1,035	1,006	1,198	1,190	1,210	1,826	1,853	2,020	2,308	2,336	2,454	2,364	2,852	3,094	3,251	3,526	3,960	4,321						
Water heat exchanger	Type	Braze plate																												
	Water volume		l	5	6	9	7	12	11			16	11		16	19		20	19	28			42							
	Water flow rate	Cooling	Nom.	l/s	3.7	5	5.9	7.2	7.9	8.7	9.6	9.7	11	11.9	12.7	13.9	14.9	15.7	15.8	19	21.2	23.3	25.5	27.6	30.4					
	Water pressure drop	Cooling	Nom.	kPa	24.6	32.2	23.8	58.5	37.5	41.6	49.9	36.8	64.5	73.5	59.9	42.1	47.8	71.7	53.2	50.4	61.1	72.7	58.9	68	81					
Air heat exchanger	Type	Microchannel																												
Compressor	Type	Scroll compressor																												
	Quantity	2				4		2	4			2	4		3	4		3	4		5			6						
Fan	Type	Direct propeller																												
	Quantity	4				6		8			10			4			5		6	5	7		8		9	11				
	Air flow rate	Nom.	l/s	4,929	7,396		11,352		9,838	14,202			12,325	17,064			21,330		25,596	21,330		29,862	34,128		38,394	46,926				
	Speed		rpm					1,200											780											
Sound power level	Cooling	Nom.	dBA	78.6	82.5	84.1	81.6	86.3	83.9	85.2	87.8	87	87.2	87.5	88.2	88.3	89.1	88.4	89.8		90.4		90.5	91	91.8					
Sound pressure level	Cooling	Nom.	dBA	61.2	64.7	66.4	63.3	68.3	65.3	66.6	69.4	68.1	68.2	68.5	68.7	68.8	69.6	68.9	69.8	69.9	70.5		70.6		71.1					
Refrigerant	Type/GWP	R-32/675																												
	Charge		kg	7.5	8.5		13	11	14.5			13	19			25.5	25	26	24	34.5	36	41	42	46.5	52.5					
	Circuits	Quantity		1		2		1	2		1	2		1		2		1	2			2								
Piping connections	Evaporator water inlet/outlet (OD)			76.1		88.9		76.1	88.9			76.1	88.9		76.1	88.9		76.1	88.9				114.3							
Unit	Starting current	Max	A	213	313	324	284	462	384	395	498	410	420	546	573	583	588	594	636	681	719	763	801	843						
	Running current	Cooling	Nom.	A	62	71	87	115	119	123	139	151		165	189	202	216	202	231	245	298	324	378	402	414					
	Running current	Max	A	73	86	96	143	132	156	167	168	182	193	216	243	254	258	265	307	351	389	433	471	513						
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50																										

Extensive list of options and accessories can be provided on request, such as fully integrated hydronic kit for fixed flow or variable flow operation, partial or total heat recovery for sanitary hot water production and many other solutions.

Cooling only			R-32	EWAT-B-XSB/XLB			085	115	145	180	185	200	220	230	250	280	300	310	320	360	370	430	470	540	600	660	700
Space cooling	A Condition 35°C	Pdc	kW	87.9	113.89	143.48	179.01	182.67	200.92	226.26	238.95	254.88	281.64	304.64	305.17	326.28	351.74	371.72	424.99	472.32	538.3	609.11	662.39	704.37			
	ηs,c		%	167	183	175	-	175.8																			
	ηsc + VFDFAN						181.8	-	176.2	184.2	174.6	184.2	188.6	190.2	184.6	178.2	181	179.8	182.6	179.8	187		190.6				
SEER				4.25	4.65	4.45	4.38	4.47	4.4	4.5	4.31	4.47	4.59	4.6	4.5	4.34	4.48	4.56	4.55	4.56	4.61	4.64	4.58				
SEER + VFDFAN					-		4.62	-	4.48	4.68	4.44	4.68	4.79	4.83	4.69	4.53	4.6	4.57	6.64	4.57	4.75		4.84				
Cooling capacity	Nom.		kW	88	114	143	179	183	201	226	239	255	282	305	326	352	372	425	472	538	609	662	704				
Power input	Cooling	Nom.	kW	28.8	36.6	44.4	57	63.6	65.7	74.7	74.6	81.7	87.9	97.3	97.4	106.8	113	121	137	153	175	195	211	227			
Capacity control	Method			Step																							
	Minimum capacity		%	50	38	50	25	38	21	19	19	17	16	24	14	22	33	19	17	25	14	12	11	17			
EER				3.05	3.12	3.23	3.14	2.87	3.06	3.03	3.21	3.12	3.2	3.13	3.313	3.06	3.11	3.06	3.11	3.09	3.07	3.12	3.14	3.1			
IPLV				4.83	5	4.82	4.65	4.74	4.67	4.72	4.6	4.69	4.78	4.86	4.77	4.79	4.38	4.7	4.8	4.9	4.8	4.79	4.82	4.77			
EER + VFDFAN					-		3.13	-	3.05	3.02	3.19	3.11	3.19	3.12	3.05	3.11	3.05	3.1	3.08	3.07	3.11	3.13	3.09				
IPLV + VFDFAN					-		5.11	-	4.87	4.97	5	5.02	5.14	4.95	4.93	4.97	4.96	4.95	4.92	4.71	5.05	5.08	5.12	5.1			
Dimensions	Unit	Height	mm	1,801	1,822	2,540	1,822	2,540																			
	Unit	Width	mm	1,204	2,236	1,204	2,236																				
	Unit	Depth	mm	2,660	3,180	3,780	2,326	3,780	2,326	3,226										4,126				5,025		5,874	6,774
Weight (XSB)	Unit		kg	737	830	949	1,633	1,066	1,663	1,699	2,082	1,987	2,128	2,226	2,159	2,196	2,639	2,698	2,785	3,228	3,448	3,900	4,294	4,436			
	Operation weight		kg	742	836	958	1,644	1,078	1,674	1,710	2,098	2,001	2,147	2,246	2,178	2,215	2,659	2,718	2,813	3,256	3,490	3,942	4,344	4,486			
Water heat exchanger	Type			747	840	959	1,736	1,076	1,766	1,802	2,082	2,090	2,231	2,318	2,262	2,299	2,731	2,801	2,888	3,393		4,106	4,500	4,642			
	Water volume		l	752	846	968	1,747	1,088	1,777	1,813	2,098	2,104	2,250	2,338	2,281	2,318	2,751	2,821	2,916	3,421		4,148	4,550	4,692			
	Water flow rate	Cooling Nom.	l/s	Braze plate																							
	Water pressure drop	Cooling Nom.	kPa	5	6	9	11	12	11	16	14	19	20	19	20	28	42	50									
Air heat exchanger	Type			4.2	5.4	6.9	8.6	8.7	9.6	10.8	11.4	12.2	13.4	14.5	14.6	15.6	16.8	17.7	20.3	22.5	25.7	29.1	31.6	33.6			
Compressor	Type			31.6	37.3	31	40.7	45.1	50.1	43.7	49.2	54.2	39.8	62.2	46.1	51.9	80.6	65.7	56.6	68.5	59.7	74.6	70.2	78.5			
	Quantity			Microchannel																							
Fan	Type			Scroll compressor																							
	Quantity			2	4	2	4	2	4	3	4	3	4	5	6												
	Air flow rate	Nom.	l/s	Direct propeller																							
	Speed		rpm	6	8	10	4	10	4	5	6	7	8	9	10	12	13	14									
Sound power level (XSB)	Cooling	Nom.	dB(A)	86	88.8	90.5	91.2	92.1	92	92.7	94.8	93.8	94.6	95.6	95	95.4	96.4	96.2	96.9	97.6	98	98.6	99	99.4			
Sound power level (XLB)	Cooling	Nom.	dB(A)	85.2	87.1	88.5	90.6	89.3	90.6	90.7	91.8	91.7	92.5	92.6	92.5	92.6	93.3	93.2	93.8	94.4		95.6	95.9	96.3			
Sound pressure level (XSB)	Cooling	Nom.	dB(A)	68.3	70.8	72.2	72.3	73.7	73.1	73.7	75.3	74.3	75.1	76.1	75.5	75.9	76.4	76.3	77	77.2	77.6	77.8	77.9	78.3			
Sound Pressure (XLB)	Cooling	Nom.	dB(A)	67.5	69.1	70.1	71.6	70.9	71.7	72.3	72.2	73	73.1	73	73.1	73	73.1	73.3	73.9	74		74.8	75.2				
Refrigerant	Type/GWP			R-32/-																							
	Charge		kg	9	10	11	20	12	20	23.5	24	27.5	28	27.5	32	31	36	43.5	49	55	60	66					
	Circuits	Quantity		1	2	1	2	1	2	1	2	1	2	1	2	1	2			2							
Piping connections	Evaporator water inlet/outlet (OD)			76.1		88.9	76.1	88.9	76.1	88.9	76.1	88.9	76.1	88.9	76.1	88.9	76.1		88.9			114.3					
Unit	Starting current	Max	A	215	315	328	290	464	388	399	506	414	543	554	564	592	602	640	678	727	779	817	855				
	Running current	Cooling Nom.	A	56	67	78	110	108	122	135	128	145	158	168	170	183	192	208	234	259	298	334	360	387			
	Running current	Max	A	75	87	100	149	134	160	171	176	186	213	224	235	262	273	311	348	397	449	487	525				
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50																							

Cooling only			R-32	EWAT-B-XRB				085	115	145	180	185	200	220	230	250	280	300	310	320	360	370	430	470	540	600	660	700				
Space cooling	A	Pdc	kW	81.86	108.59	135.62	168.03	166.16	187.56	208.44	224.52	238.22	264.73	284.94	284.65	301.84	328.88	346.48	394.41	439.5	501.51	571.63	621.1	659.28								
	ηs,c		%	213.28	179.4	166.6	177	164.6	186.6	179	169	177	186.6	185.8	183	173.8	180.6	176.2	181.8	179	183		187.4	185.4								
SEER				4.13	4.56	4.24	4.5	4.19	4.74	4.55	4.3	4.5	4.74	4.72	4.65	4.42	4.59	4.48	4.62	4.55	4.65		4.76	4.71								
Cooling capacity	Nom.		kW	82	109	136	168	166	188	208	225	238	265		285	302	329	346	394	440	502	572	621	659								
Power input	Cooling	Nom.	kW	30.8	38.9	46.9	59.1	70.5	69.8	80.7	79.2	87.3	92.2	105	103	115	121	130	147	163	190	207	224	242								
Capacity control	Method			Step																												
	Minimum capacity		%	50	38	50	25	38	21	19	50	17	16	24	14	22	33	19	17	25	14	12	11	17								
EER				2.66	2.79	2.89	2.84	2.36	2.69	2.58	2.84	2.73	2.87	2.72	2.76	2.63	2.71	2.67		2.69	2.64	2.76	2.77	2.72								
IPLV				4.74	5.1	4.76	5.04	4.72	5.05	4.97	4.86	4.91	5.08	4.78	4.94	4.62	5.04	4.95	4.88	4.72	4.96	5.04	5.07	5.08								
Dimensions	Unit	Height	mm	1,801		1,822	2,540	1,822												2,540												
	Unit	Width	mm		1,204		2,236	1,204												2,236												
	Unit	Depth	mm	2,660	3,180	3,780	2,326	3,780		2,326				3,226				4,126			5,025	5,874	6,774									
Weight	Unit		kg	747	840	959	1,736	1,076	1,766	1,802	2,082	2,090	2,231	2,318	2,262	2,299	2,731	2,801	2,888	3,393	3,633	4,106	4,500	4,642								
	Operation weight		kg	752	846	968	1,747	1,088	1,777	1,813	2,098	2,104	2,250	2,338	2,281	2,318	2,751	2,821	2,916	3,421	3,675	4,148	4,550	4,692								
Water heat exchanger	Type			Braze plate																												
	Water volume		l	5	6	9	11	12		11	16	14	19	20	19		20		28		42		50									
	Water flow rate	Cooling Nom.	l/s	3.9	5.2	6.5	8	7.9	9	10	10.7	11.4	12.6	13.6	14.4	15.7	16.5	18.8	21	23.9	27.3	29.6	31.5									
	Water pressure drop	Cooling Nom.	kPa	27.8	34.2	28	36.3	38	44.2	37.7	44	48.2	35.6	55.1	40.6	45.1	71.4	57.9	49.5	60.2	52.5	66.5	62.6	69.7								
Air heat exchanger	Type			Microchannel																												
	Type			Scroll compressor																												
Compressor	Quantity			2		4		2		4		2		4		3		4		3		4		5		6						
Fan	Type			Direct propeller																												
	Quantity			6	8	10	4	10	4		5		6			7			8		9		10		12		13		14			
	Air flow rate	Nom.	l/s	6,673	8,896	11,122	15,054	11,122	15,054		18,819		18,818		22,582			26,346			30,110		33,874		37,637		45,164		48,928		52,692	
	Speed		rpm	1,108		700		1,108		700																						
Sound power level	Cooling	Nom.	dBA	77.9	81.9	84	84.2	86	84.5	84.8	86.2	85.8	86.6	87	86.7	86.9	87.7	87.6	88.3	88.9	89.3	90	90.4	90.7								
Sound pressure level	Cooling	Nom.	dBA	60.2	63.9	65.6	65.3	67.7	65.5	65.8	66.7	66.3	67.1	67.5	67.2	67.4	67.8	67.7	68.3	68.5	68.9	69.2	69.3	69.6								
Refrigerant	Type/GWP			R-32/675																												
	Charge		kg	9	10	11	12	20			23.5	24	27.5	28		27.5	32	31	36	43.5	49	55	60	66								
	Circuits	Quantity		1		2		1		2		1		2		1		2		1		2										
Piping connections	Evaporator water inlet/outlet (OD)			76.1		88.9		76.1		88.9		76.1		88.9		76.1		88.9				76.1		88.9				114.3				
Unit	Starting current	Max	A	215	315	328	290	464	388	399	506	414	543	554		564	592	602	640	678	727	779	817	855								
	Running current	Cooling Nom.	A	59	71	83	113	118	128	143	134	151	164	177	179	194	204	221	250	276	319	352	381	410								
	Max		A	75	87	100	149	134	160	171	176	186	213	224		235	262	273	311	348	397	449	487	525								
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50																												

Service & Maintenance

with Daikin Applied Service

Daikin Applied Service offers maintenance, repairs and support on ALL brands of HVAC systems and applied system solutions; covering air handling units, chillers, split air conditioning, VRV and heat pumps.

Service capabilities

- › Flexible maintenance contracts tailored to your business needs
- › Maintenance of ALL brands of HVAC equipment
- › 24/7 emergency call out service
- › Up to four hour response time
- › Qualified site service engineers (F-Gas Registered)
- › Remote monitoring with Daikin On Site (DOS)
- › On site training for front-line personnel
- › Tailored Service Level Agreement (SLA)
- › Full chiller running logs taken on every service visit
- › Comprehensive spare parts availability & support on all brands
- › Retrofitting & refurbishment

Benefits of a maintained system

- › Lower operation costs and energy usage
- › Extended life-cycle of assets
- › Fast and reliable remote diagnostics with Daikin On Site
- › Reduced equipment downtime and costly repairs
- › Improved indoor air quality

Service Packages	 BUSINESS Saver	 BUSINESS Standard	 BUSINESS Plus
Conforms to SFG20 maintenance standard	✓	✓	✓
F-Gas leak test	✓	✓	✓
Unit controller set points, safeties and running conditions logged	✓	✓	✓
Equipment condition report	✓	✓	✓
Four visits per annum (1 major / 3 minor)		✓	
Calibration of all sensors, probes and safety switches		✓	✓
System Diagnostics		✓	✓
Oil Analysis		●	✓
Thermography	✓	●	●
Multi-site visits & bespoke offering			●
Daikin on Site remote monitoring			●
1 point vibration analysis			●
System water analysis			●
Condenser coil cleaning			●

● Optional extras that can be tailored to your needs.

Daikin on Site

Standard on all new installations

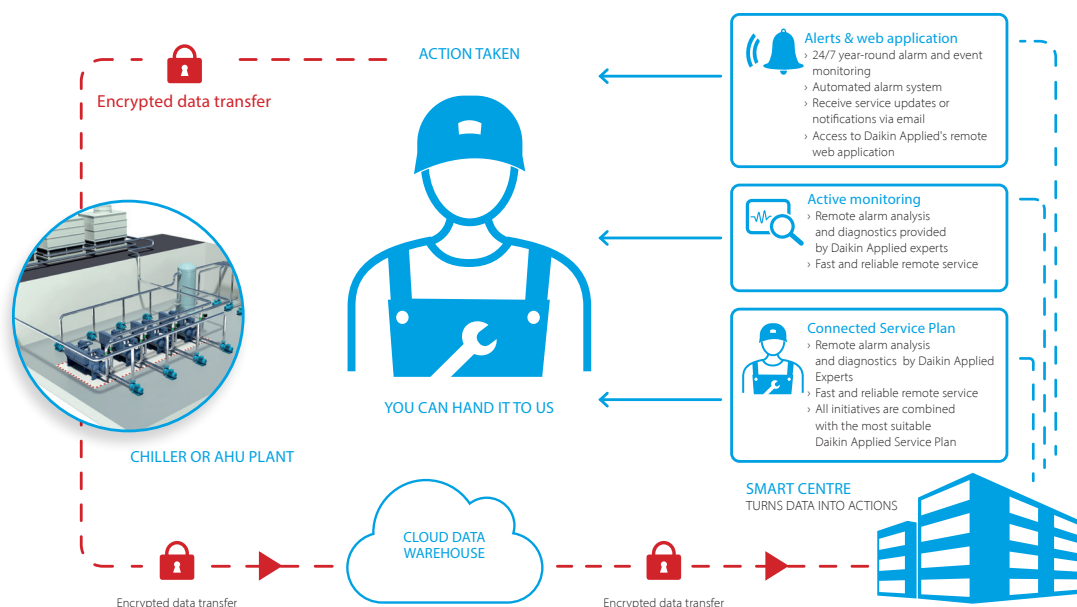
What is Daikin on Site?

Daikin on Site (DOS) is a web-based 24/7 remote monitoring system that collects complex operational data from the AHU or chiller control system.

Daikin's Smart Centre turns the operational data into useful information that allows the user to remotely monitor performance. It also allows Daikin professionals to remotely optimise and maintain the equipment.

Main benefits to DOS

- › Remote diagnostic support from Daikin experts
- › Enhanced reliability and reduced system downtime
- › Optimised energy efficiency and reduced operational costs over the systems lifetime
- › Insight into operational data to optimise the use of equipment via Trend Analysis



Cloud technology to hand

Remote maintenance allows your system to be accessed using any web-compatible devices any time and anywhere using cloud technology. Process data is collected automatically in real time and stored centrally.



Insight into operational data for enhanced control and reliability

Through enhanced operational data, Daikin engineers are able to remotely monitor system performance, run diagnostics and software upgrades. If an on-site visit is required, the service engineer will arrive already informed of the issue, reducing system downtime.



Simple, effective connection

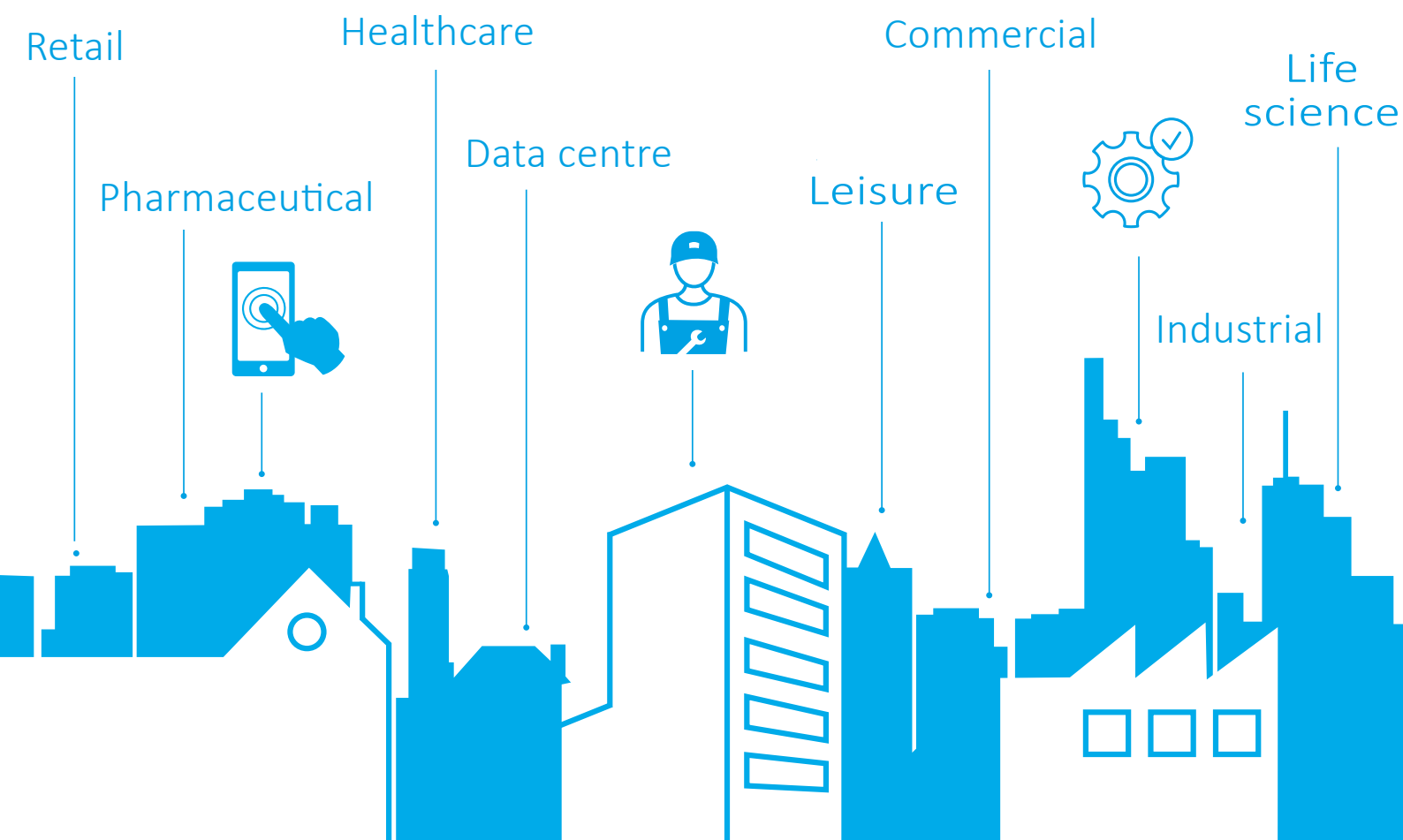
Most Daikin Applied Chiller and AHU controllers have a built-in IP interface. This allows connection for remote monitoring either through LAN or with wireless modem communication.



High security

Secure in all aspects such as data privacy, data storage security and data transport.

- › All connections are encrypted (HTTPS) to prevent wiretapping and man-in-the-middle (MITM) attacks
- › CSA security attestation
- › Data privacy conforming to EU data privacy regulations
- › Geo-redundant data storage in Northern Europe



For more information visit: www.daikinapplied.uk

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Daikin Europe N.V. participates in the Eurovent Certified Performance programme for Fan Coil Units and Variable Refrigerant Flow systems. Daikin Applied Europe S.p.A participates in the Eurovent Certified performance programme for Liquid Chilling Packages, Hydronic Heat Pumps and Air handling Units. Check ongoing validity of certificate: www.eurovent-certification.com

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