AQUAFORCE®

30XA/XQ

Air-Cooled Liquid Chiller
Reversible Air-to-Water Heat Pump

Nominal cooling capacity: 274–1518kW（30XA）

Nominal cooling capacity: 315–1471kW（30XQ）

Nominal heating capacity: 311–1412kW（30XQ）

Turn To The Experts

Carrier is a leading global provider of innovative HVAC, refrigeration, fire, security and building automation technologies.

Supported by the iconic Carrier name, the company's portfolio includes industry-leading brands such as Carrier, Kidde, Edwards, LenelS2 and Automated Logic.

Carrier's businesses enable modern life, delivering efficiency, safety, security, comfort, productivity and sustainability across a wide range of residential, commercial and industrial applications.

In 1998, Time magazine named Dr. Carrier oneof its 20 most influential builders and titans of the 20th century.

Features

- The Aquaforce liquid chillers are the premium solution for industrial and commercial applications where installers, consultants and building owners require optimal performances and maximum quality.

Benefits

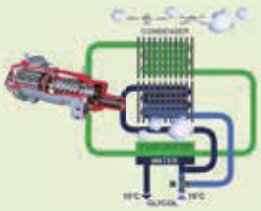
Extremely high full load and part load energy efficiency leads to extremely low operation cost.

- Low operating sound with no intrusive low-frequency noise, creates a better working/living environment.
- Environmentally sound refrigerant HFC-134a of zero ozone depletion potential.
- Easy and fast installation to reduce on-site installation time.
- Exceptional endurance tests ensure superior reliability to minimize chiller down-time.

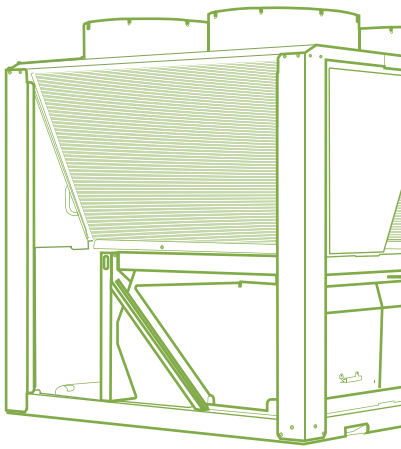
Economical operation

- Extremely high full load and part load energy efficiency:
  - New twin-rotor screw compressor equipped with a high efficiency motor and a variable capacity valve that permits exact matching of the cooling capacity to the load.
  - Flooded multi-pipe evaporator to increase the heat exchange efficiency, configured with aluminium cladding (standard) to improve thermal insulation and prevent energy loss.
  - Electronic expansion device allows operation at a lower condensing pressure and improved utilization of the evaporator heat exchange surface (superheat control).
  - Economizer system with electronic expansion device permits a considerable increase in cooling capacity and contributes to optimised energy efficiency of the chiller installation.
  - DX free cooling system developed for building that require year-round cooling and in the coldest regions increase energy efficiency and significant energy savings (EER~15 to 30).
  - Average COP of 3.2 at nominal conditions and average integrated part load value (IPLV) of 4.4.

Economizer system



DX free cooling system



Quiet operation

- Compressors
  - Discharge dampers integrated in the oil separator (Carrier patent).
  - Acoustic compressor and oil separator enclosures (option) reduce theradiated noise.
- Condenser section
  - Condenser coils in V-shape with an open angle, allows quieter air flow across the coil.
  - Low-noise Flying Bird fans (Carrier patent) enjoy quieter operation andnever generate intrusive low-frequency noise.
  - Rigid fan mounting preventing start-up noise (Carrier patent).

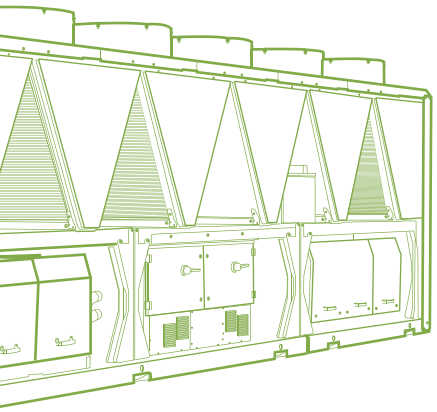
New twin screw CARRIER compressor

Flying Bird IV axial flow low noise fan

Environmental sound

- HFC-134a refrigerant
  - Refrigerant of the HFC group with zero ozone depletion potential.
- Leak-tight refrigerant circuit
  - Reduction of leaks as no capillary tubes and flare connections are used.
  - Verification of pressure transducers and temperature sensors without transferring refrigerant charge.

Easy and fast installation

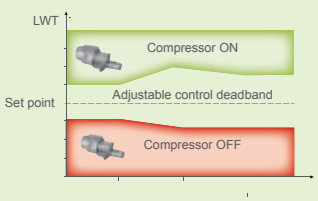


- Integrated hydronic module (option)
  - Single or dual pump (as required) with operating time balancing and automatic changeover to the back-up pump if a fault develops.
  - Water filter protecting the water pump against circulating debris.
  - High-capacity membrane expansion tank ensures pressurization of the water circuit.
  - Thermal insulation.
  - Pressure gauge to check filter pollution and measure the system water flow rate.
  - Water flow control valve.
- Simplified electrical connections
  - Main disconnect switch with high trip capacity.
  - Transformer to supply the integrated control circuit (400/24V).
- Fast commissioning
  - Systematic factory operation test before shipment.
  - Quick-test function for step-by-step verification of the instruments, expansion devices, fans and compressors.

Absolute reliability

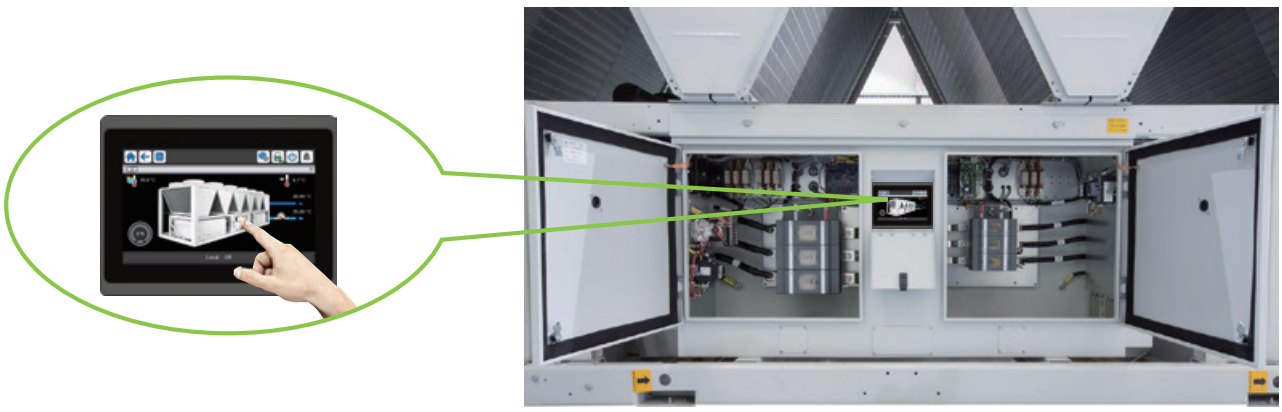
- Screw compressors
  - Industrial-type screw compressors with oversized bearings and motor cooled by suction gas.
  - All compressor components are easily accessible on site minimizing down-time.
  - Electronic motor protection against overloads and power supply faults (loss of phase, phase reversal).
- Evaporator
  - Thermal insulation with aluminium cladding for perfect resistance against outside aggression(mechanical and UV protection).
- Exceptional endurance tests
  - Partnerships with specialised laboratories and use of limit simulation tools (finite element calculation) for the design of critical components.
  - Transport simulation test in the laboratory on a vibrating table. The test is based on a military standard and equivalent to 4000 km by truck.
  - Salt mist corrosion resistance test in the laboratory for increased corrosion resistance.

Cooler aluminium protective cladding



Technical Insight

Carrier SmartView™ Control



General Features

- New innovative smart control features:
  - An intuitive and user-friendly, 4.3" colored interface (7" as option)
  - Screen-shots with concise and clear information in local languages
  - Complete menu, customized for different users (end user, service personnel and Carrier-factory technicians)
  - Easy access to the controller box with touch screen mounting to ensure legibility under any lighting conditions
  - Safe operation and unit setting: password protection ensures that unauthorized people cannot modify any advanced parameters
  - Simple and “smart” intelligence uses data collection from the constant monitoring of all machine parameters to optimise unit operation
  - Night-mode: Cooling capacity management for reduced noise level.
- Energy management:
  - Internal time schedule clock controls chiller on/off times and operation at a second set-point
  - The DCT (Data Collection Tool) records the alarms history to simplify and facilitate service operations

Remote Management (Standard)

- Units with Carrier SmartView™ control can be easily accessed from the internet, using a PC with an Ethernet connection. This makes remote control quick and easy and offers significant advantages for service operations.
- Equipped with an RS485 serial port that offers multiple remote control, monitoring and diagnostic possibilities. When networked with other Carrier equipment t hrough the CCN (Carrier Comfort Network - proprietary protocol), all components form a HVAC system fully-in-tegrated and balanced t hrough one of the Carrier’snetwork system products, like the Chiller System Manager or the Plant System Manager (optional).
  Carrier SmartView™ controller is integrated with Modbus IP, Modbus RTU & BACnet IP protocols, and also support Lon Talk, J-Bus, BACnet MSTP via optional communication gateway.
- The f ollowing commands/visualizations a re possible from remote connection:
  - Start/Stop of the machine
  - Dual set-point management: Through a dedicated contact is possible to activate a second set-point (example: unoccupied mode)
  - Demand limit setti ng: To limit the maximum chiller capacity to a predefined value
  - Water pump control: These outputs control the contactors of one/tw evaporator water pumps
  - Operation visualization: Indication if the unit is operating or if it’s in stand-by (no cooling load)
  - Alarm visualization

Remote Management (EMM option)

- The E nergy Management M odule (EMM) o ffers extended r emote control possibilities:
  - Room temperature: Permits set-point reset based on the building indoor air temperature (if Carrier thermostat are installed)
  - Set-point reset: Ensures reset of the cooling set-point based on a 4-20 mA or 0-10 V signal
  - Demand limit: Permits limitation of the maximum chiller power or current based on 0-10 V signal
  - Demand limit 1 and 2: Closing of these contacts limits the maximum chiller power or current to two predefined values
  - User safety: This contact can be used for any customer safety loop; opening the contact generates a specific alarm
  - Ice storage end: When ice storage has finished, this input permits return to the second set-point (unoccupied mode)
  - Time schedule override: Closing of this contact cancels the time schedule effects
  - Out of service: This signal indicates that the chiller is completely out of service
  - Chiller capacity: This analogue output (0-10 V) gives an immediate indication of the chiller capacity
  - Alert indication: This volt-free contact indicates the necessity to carry out a maintenance operation or the presence of a minor fault
  - Compressors running status : Set of outputs (as many as the compressors number) indicating which compressors are running.

Operating Range, 30XA

Cooling mode

Evaporator	Min.temperature	Max.temperature
Entering water temperature (at start)	-	45˚C
Entering water temperature (during operation)	6.8˚C	21˚C
Leaving water temperature (during operation)	3.3˚C	15˚C
Condenser	Min.temperature	Max.temperature
Outdoor air temperature	-10*˚C	50** (for 30XA0252~1502)**** 46*** (for 30XA0652~1392)****

* With PT028 "winter operation", outdoor air temperature may down to -20°C. A glycol/water solution or evaporator anti-freeze protection must be used if the air temperature is below 0°C

** Max 55°C during part load operation.

*** Max 50°C during part load operation

****30XA0252~1502 - 30XA0252/0302/0352/0402/0452/0502/0602/0702/0752/0852/0902/1002/1352/1502
30XA0282/0342/0442/0482
30XA0652~1392 - 30XA0652/0712/0762/1052/1152/1252/1312/1392

Operating Range, 30XQ

Cooling mode

Water heat exchanger (Evaporator)	Min.temperature	Max.temperature
Entering water temperature (at start)	-	45˚C
Entering water temperature (during operation)	6.8˚C	21˚C
Entering water temperature (during stop)	3˚C	55˚C
Leaving water temperature (during operation)	4˚C	15˚C
Air heat exchanger (Condenser)	Min.temperature	Max.temperature
Outdoor air temperature	-10˚C	46˚C

Heating mode

Water heat exchanger (Condenser)	Min.temperature	Max.temperature
Entering water temperature (at start)	3.4˚C	50˚C
Entering water temperature (during operation)	25˚C	50˚C
Entering water temperature (during stop)	3˚C	55˚C
Leaving water temperature (during operation)	30˚C	55˚C
Air heat exchanger (Evaporator)	Min.temperature	Max.temperature
Outdoor air temperature	-10˚C	21˚C

Technical Specifications

Unit with Cu/Al condenser coil

30XA		0252	0282	0302	0342	0352	0402	0442	0452	0482	0502	0602	0652	0702
Nominal cooling capacity*	kW	274	278	299	328	327	391	444	452	493	503	619	644	674
Compressor input power	kW	80.5	78.8	87.9	90.5	93.0	113.7	133.7	129.8	143.3	141.3	175.3	187	188.8
EER		3.05	3.19	3.08	3.27	3.20	3.11	3.05	3.19	3.12	3.24	3.22	3.14	3.24
Refrigerant		HFC-134a												
Circuit A	kg	60	97	64	102	70	85	113	85	119	102	102	180	100
Circuit B	kg	64	-	64	-	56	56	-	56	-	56	88	-	95
Circuit C	kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Compressor		Semi-hermetic screw compressor												
Circuit A		1	1	1	1	1	1	1	1	1	1	1	1	1
Circuit B		1	-	1	-	1	1	-	1	-	1	1	-	1
Circuit C		-	-	-	-	-	-	-	-	-	-	-	-	-
Minimum capacity	%	15	30	15	30	15	15	30	15	30	15	15	30	15
Control		Carrier SmartView™ control system, electronic expansion valve (EXV)												
Condenser		Cu/Al heat exchanger												
Fans		Axial Flying Bird with rotating shround												
Quantity		6	5	6	6	7	8	7	8	8	9	11	10	12
Total air flow	l/s	27083	22570	27083	27084	31597	36111	31598	36111	36112	40625	49653	45140	54167
Fan speed	rpm	950	950	950	950	950	950	950	950	950	950	950	950	950
Evaporator		Flooded multi-pipe												
Water content	l	58	49	61	54	61	66	76	70	77	77	79	78	94
Nominal water flow	l/s	13.1	13.3	14.2	15.6	15.6	18.6	21.2	21.5	23.5	24.0	29.5	31	32.1
Nominal water pressure drop	kPa	15	22	15	29	18	34	34	38	41	36	46	37	37
Max. water-side pressure without hydronic module	kPa	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Integrated hydronic module (option)		Pump, victaulic screen filter, safety valve, expansion tank, purge valves etc.												
Water pump		Centrifugal pump												
Water head external to chiller (single pump at nominal water flow rate)	kPa	188	198	198	169	181	196	254	247	214	213	-	-	-
Expansion tank	l	50	50	50	50	50	50	50	50	50	50	-	-	-
Max. water-side pressure with hydronic module	kPa	400	400	400	400	400	400	400	400	400	400	-	-	-
Water connection		Victaulic												
Nominal Diameter	DN	125	125	125	125	125	125	125	125	125	125	125	150	150
Electrical data														
Nominal power supply		400V-3Ph-50Hz												
Start-up method		Star-delta start												
Control power supply		24V via internal transformer												
Nominal unit current draw Circuit A+B	A	151	147	167	173	182	210	262	238	273	264	320	336	346
Circuit C	A	-	-	-	-	-	-	-	-	-	-	-	-	-
Maximum unit current draw Circuit A+B	A	208	180	226	229	243	284	314	316	367	350	423	415	457
Circuit C	A	-	-	-	-	-	-	-	-	-	-	-	-	-
Maximum start-up current Circuit A+B	A	274	275	274	308	292	407	504	510	587	510	583	629	616
Circuit C	A	-	-	-	-	-	-	-	-	-	-	-	-	-
Fan and control power	kW	9.2	8.4	9.1	9.8	9.3	12.2	11.8	11.8	14.6	14.0	16.8	18.0	19.0
Unit length	mm	3604	3604	3604	3604	4798	4798	4798	4798	4798	5992	7186	5992	7186
Unit width	mm	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253
Unit height	mm	2297	2297	2297	2297	2297	2297	2297	2297	2297	2297	2297	2297	2297
Unit weight	kg	3764	3523	3793	3820	4317	4761	4571	4823	4900	5393	6392	5250	6544
Operating weight	kg	3830	3578	3860	3875	4380	4830	4641	4900	4984	5470	6480	5328	6640

* Nominal conditions - evaporator entering/leaving water temperature 12/7°C, outdoor air temperature 35°C;
Evaporator fouling factor 0.018m²K/kW

Technical Specifications

Unit with Cu/Al condenser coil

30XA		0712	0752	0762	0852	0902	1002	1052	1152	1252	1312	1392	1352	1502
Nominal cooling capacity*	kW	697	729	737	833	906	988	1089	1134	1256	1326	1382	1449	1518
Compressor input power	kW	201	213.5	211	238.8	261.4	288.2	314	328	367	389	409	435.4	436.8
EER		3.15	3.12	3.16	3.18	3.16	3.14	3.16	3.15	3.13	3.12	3.10	3.11	3.18
Refrigerant		HFC-134a												
Circuit A	kg	185	129	195	130	129	140	180	180	190	185	185	112	140
Circuit B	kg	-	88	-	95	103	129	110	114	114	180	185	98	129
Circuit C	kg	-	-	-	-	-	-	-	-	-	-	-	117	130
Compressor		Semi-hermetic screw compressor												
Circuit A		1	1	1	1	1	1	1	1	1	1	1	1	1
Circuit B		-	1	-	1	1	1	1	1	1	1	1	1	1
Circuit C		-	-	-	-	-	-	-	-	-	-	-	1	1
Minimum capacity	%	30	15	30	15	15	15	15	15	15	15	15	10	10
Control		Carrier SmartView™ control system, electronic expansion valve (EXV)												
Condenser		Cu/Al heat exchanger												
Fans		Axial Flying Bird with rotating shround												
Quantity		11	13	12	14	15	16	17	18	19	20	20	20	24
Total air flow	l/s	49654	58681	54168	63194	67708	72222	76738	81252	85766	90280	90280	90280	108333
Fan speed	rpm	950	950	950	950	950	950	950	950	950	950	950	950	950
Evaporator		Flooded multi-pipe												
Water content	l	78	99	78	119	130	140	144	144	144	156	156	224	240
Nominal water flow	l/s	33	34.8	35	39.7	43.2	47.1	52	54	60	63	66	69.1	72.4
Nominal water pressure drop	kPa	43	38	47	39	38	36	42	45	55	53	60	45	48
Max. water-side pressure without hydronic module	kPa	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Integrated hydronic module (option)		Pump, victaulic screen filter, safety valve, expansion tank, purge valves etc.												
Water pump		Centrifugal pump												
Water head external to chiller (single pump at nominal water flow rate)	kPa	-	-	-	-	-	-	-	-	-	-	-	-	-
Expansion tank	l	-	-	-	-	-	-	-	-	-	-	-	-	-
Max. water-side pressure with hydronic module	kPa	-	-	-	-	-	-	-	-	-	-	-	-	-
Water connection		Victaulic												
Nominal Diameter	DN	150	150	150	150	150	200	150	150	150	150	150	200	200
Electrical data														
Nominal power supply		400V-3Ph-50Hz												
Start-up method		Star-delta start												
Control power supply		24V via internal transformer												
Nominal unit current draw Circuit A+B	A	363	404	383	446	516	546	565	590	658	697	730	537	546
Circuit C	A	-	-	-	-	-	-	-	-	-	-	-	275	273
Maximum unit current draw Circuit A+B	A	452	512	479	596	635	734	722	769	830	864	884	678	734
Circuit C	A	-	-	-	-	-	-	-	-	-	-	-	364	367
Maximum start-up current Circuit A+B	A	629	782	629	815	905	954	1044	1044	1111	1122	1122	901	954
Circuit C	A	-	-	-	-	-	-	-	-	-	-	-	587	587
Fan and control power	kW	20.0	20.2	22.0	23.0	24.9	26.7	29.8	32.6	34.5	36.0	36.0	30.8	40.3
Unit length	mm	7186	8380	7186	8380	9574	9574	10768	10768	11962	11962	11962	11962	14872
Unit width	mm	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253
Unit height	mm	2297	2297	2297	2297	2297	2297	2297	2297	2297	2297	2297	2297	2297
Unit weight	kg	5916	7331	6002	7749	8487	8723	9108	9188	9723	10344	10344	11831	13156
Operating weight	kg	5994	7430	6080	7870	8620	8870	9252	9332	9867	10500	10500	12060	13400

* Nominal conditions - evaporator entering/leaving water temperature 12/7°C, outdoor air temperature 35°C
Evaporator fouling factor 0.018m²K/kW

Technical Specifications

Unit with Cu/Al condenser coil

30XQ		330	430	502	625	660	670	702
Cooling Capacity	kW	315	414	490	625	647	665	700
Heating Capacity	kW	311.1	407.4	460	580	621.5	620.1	655.4
Comp power input (Cooling)	kW	90.3	117.9	138.1	173.7	186.0	187.4	197.0
Comp power input (Heatling)	kW	83.9	109.7	122.1	155.8	167.9	171.0	178.4
Cooling COP	kw/kw	3.13	3.15	3.23	3.22	3.14	3.20	3.22
Heating COP	kw/kw	3.30	3.30	3.39	3.29	3.30	3.24	3.30
Min load %	%	30	30	30	30	15	30	30
Refrigerant charge		HFC-134a						
Circuit A	kg	115	160	160	205	115	240	250
Circuit B	kg	-	-	-	-	115	-	-
Circuit C	kg	-	-	-	-	-	-	-
Circuit D	kg	-	-	-	-	-	-	-
Compressor		Semi-hermetic screw compressor						
Motor cooling		refrigeramt cooling motor						
Circuit A		1	1	1	1	1	1	1
Circuit B		-	-	-	-	-	-	-
Circuit C		-	-	-	-	-	-	-
Circuit D		-	-	-	-	-	-	-
Control		Carrier SmartView™ control system, electronic expansion valve (EXV)						
Air heat exchanger		Cu-Al heat exchanger						
Fan type		Axial Flying Bird with rotating shround						
Quantity		6	8	8	12	12	12	12
Air flow	l/s	27660	36112	36112	54168	54168	54168	54168
RPM	r/s	950	950	950	950	950	950	950
Water heat exchanger		Flooded multi-pipe						
Water content	l	70	79	94	101	119	119	119
Nominal flow rate(cooling)	l/s	15.4	20.1	23.3	29.8	30.8	31.7	33.3
Nominal flow rate(heating)	l/s	15.4	20.0	21.9	27.6	29.6	29.5	31.2
Nominal pressure drop (cooling)	kPa	21.6	24.2	24.4	34.7	25.8	27.4	29.4
Nominal pressure drop (heating	kPa	21.6	22.9	22.5	30.2	25.2	25.0	26.9
Max. water-side pressure w/o hydronic module	kPa	1000	1000	1000	1000	1000	1000	1000
Integrated hydronic module (option)		Pump, victaulic screen filter, safety valve, expansion tank, purge valves etc.						
Water Connection		Victaulic						
Nominal Diameter	DN	150	150	150	150	150	150	150
Electrical data		-	-	-	-	-	-	-
Power		380V-3Ph-50Hz						
Control power supply		24V via internal transformer						
Start-up		Star-delta start						
Nominal unit current draw, Circuit A+B	A	178	228	259	331	368	367	371
Circuit C+D		-	-	-	-	-	-	-
Maximum unit current draw, Circuit A+B	A	243	341	390	480	485	509	509
Circuit C+D		-	-	-	-	-	-	-
Maximum start-up current, Circuit A+B	A	388	587	587	629	631	629	629
Circuit C+D		-	-	-	-	-	-	-
Fan power	kW	10.3	13.7	13.6	20.4	20.3	20.4	20.4
Length	mm	3827	4798	4798	7186	7186	7186	7186
Width	mm	2253	2253	2253	2253	2253	2253	2253
Height	mm	2297	2297	2297	2297	2297	2297	2297
Shippment weight	kg	3953	5366	5383	7199	7486	7485	7706
Operation weight	kg	4023	5445	5477	7300	7605	7604	7825

* Nominal cooling mode - evaporator entering/leaving water temperature 12/7°C, outside air temperature 35°C
** Nominal heating mode - water heat exchanger entering/leaving water temperature 40/45°C, outside air temperature 7°C
*** Water heat exchanger fouling factor 0.018m²K/kW

Technical Specifications

Unit with Cu/Al condenser coil

30XQ		745	750	810	910	1002	1035	1102
Cooling Capacity	kW	740	735	810	910	980	1035	1100
Heating Capacity	kW	710	707.4	760	850.1	920	970	1030
Comp power input (Cooling)	kW	207.3	211.0	225.3	254.4	276.2	291.8	308.9
Comp power input (Heatling)	kW	195.2	190.3	206.5	230.5	244.3	264.0	282.0
Cooling COP	kw/kw	3.25	3.13	3.25	3.23	3.23	3.21	3.24
Heating COP	kw/kw	3.29	3.30	3.30	3.30	3.39	3.29	3.29
Min load %	%	30	13	12	14	15	13	14
Refrigerant charge		HFC-134a						
Circuit A	kg	255	160	115	160	160	195	195
Circuit B	kg	-	115	160	140	160	140	160
Circuit C	kg	-	-	-	-	-	-	-
Circuit D	kg	-	-	-	-	-	-	-
Compressor		Semi-hermetic screw compressor						
Motor cooling		refrigeramt cooling motor						
Circuit A		1	1	1	1	1	1	1
Circuit B		-	-	1	1	1	1	1
Circuit C		-	-	-	-	-	-	-
Circuit D		-	-	-	-	-	-	-
Control		-	-	-	-	-	-	-
Air heat exchanger		-	-	-	-	-	-	-
Fan type		-	-	-	-	-	-	-
Quantity		12	14	14	16	16	18	18
Air flow	l/s	54168	63196	63196	72224	72224	81252	81252
RPM	r/s	950	950	950	950	950	950	950
Water heat exchanger		-	-	-	-	-	-	-
Water content	l	127	127	147	175	175	175	175
Nominal flow rate(cooling)	l/s	35.2	35.3	38.6	43.3	46.7	49.3	52.4
Nominal flow rate(heating)	l/s	33.8	33.7	36.2	40.5	43.8	46.2	49.0
Nominal pressure drop (cooling)	kPa	38.7	44.1	47.3	68.4	77.6	85.5	95.0
Nominal pressure drop (heating	kPa	36.0	35.0	42.0	60.3	69.1	75.8	84.6
Max. water-side pressure w/o hydronic module	kPa	1000	1000	1000	1000	1000	1000	1000
Integrated hydronic module (option)		-	-	-	-	-	-	-
Water Connection		-	-	-	-	-	-	-
Nominal Diameter	DN	150	150	150	150	150	150	150
Electrical data		-	-	-	-	-	-	-
Power		380V-3Ph-50Hz						
Control power supply		24V via internal transformer						
Start-up		Star-delta start						
Nominal unit current draw, Circuit A+B	A	389	418	425	481	518	548	580
Circuit C+D		-	-	-	-	-	-	-
Maximum unit current draw, Circuit A+B	A	538	584	632	730	780	814	863
Circuit C+D		-	-	-	-	-	-	-
Maximum start-up current, Circuit A+B	A	629	829	829	977	977	1060	1060
Circuit C+D		-	-	-	-	-	-	-
Fan power	kW	20.4	23.9	23.9	27.3	27.2	30.6	30.6
Length	mm	7186	8380	8380	9574	9574	10768	10768
Width	mm	2253	2253	2253	2253	2253	2253	2253
Height	mm	2297	2297	2297	2297	2297	2297	2297
Shippment weight	kg	7717	8919	9051	9915	10161	10680	10919
Operation weight	kg	7844	9054	9198	10090	10336	10855	11094

* Nominal cooling mode - evaporator entering/leaving water temperature 12/7°C, outside air temperature 35°C
** Nominal heating mode - water heat exchanger entering/leaving water temperature 40/45°C, outside air temperature 7°C
*** Water heat exchanger fouling factor 0.018m²K/kW

Technical Specifications

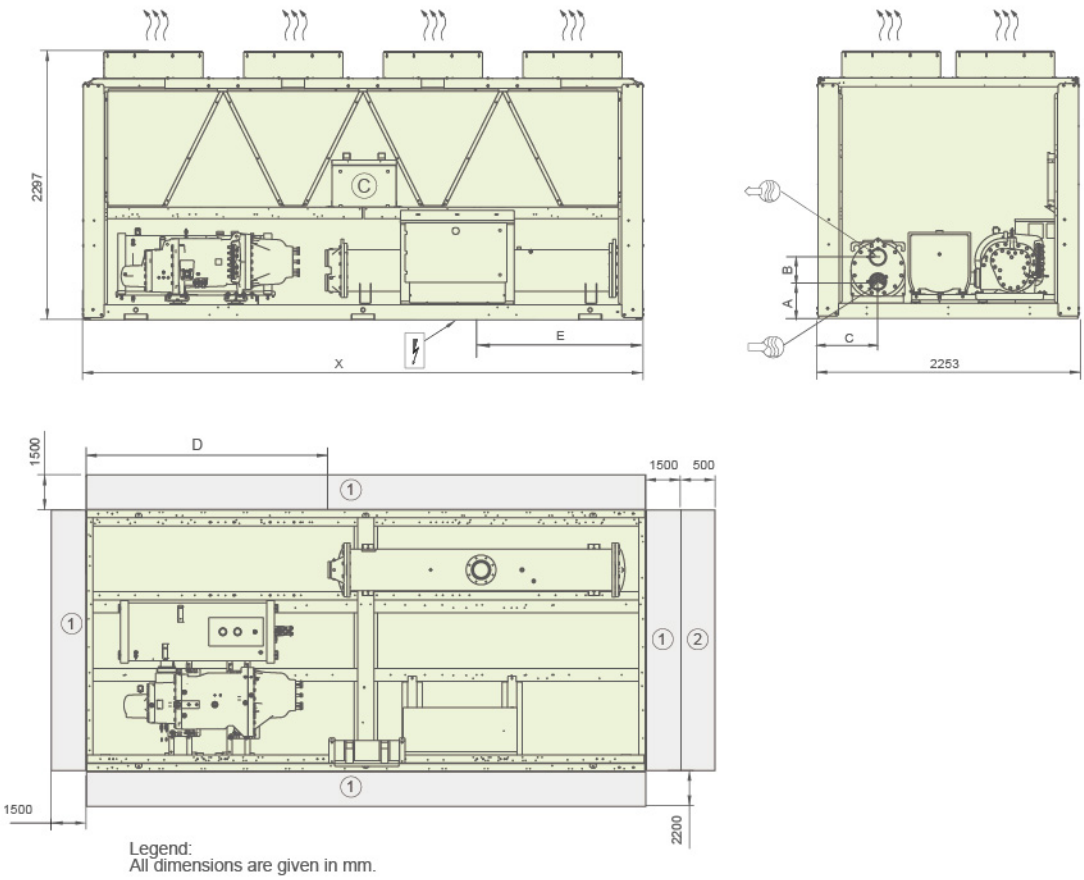
Unit with Cu/Al condenser coil

30XQ		1150	1200	1230	1300	1340	1370	1400	1450	1502
Cooling Capacity	kW	1155	1190	1230	1290	1330	1365	1405	1440	1480
Heating Capacity	kW	1080	1115	1170	1200	1240	1275	1330	1365	1420
Comp power input (Cooling)	kW	325.5	335.1	345.3	361.1	374.8	384.4	394.7	404.3	414.6
Comp power input (Heatling)	kW	294	300.2	318.8	327.1	342.3	349.7	365.2	374	390.4
Cooling COP	kw/kw	3.21	3.22	3.24	3.21	3.20	3.21	3.24	3.24	3.25
Heating COP	kw/kw	3.29	3.34	3.32	3.26	3.24	3.27	3.27	3.29	3.29
Min load %	%	13	12	12	15	15	15	14	15	15
Refrigerant charge		HFC-134a								
Circuit A	kg	240	250	255	240	240	250	255	255	255
Circuit B	kg	-	-	-	-	-	-	-	-	-
Circuit C	kg	160	160	160	205	240	240	240	250	255
Circuit D	kg	-	-	-	-	-	-	-	-	-
Compressor		Semi-hermetic screw compressor								
Motor cooling		refrigeramt cooling motor								
Circuit A		1	1	1	1	1	1	1	1	1
Circuit B		-	-	-	-	-	-	-	-	-
Circuit C		1	1	1	1	1	1	1	1	1
Circuit D		-	-	-	-	-	-	-	-	-
Control		-	-	-	-	-	-	-	-	-
Air heat exchanger		-	-	-	-	-	-	-	-	-
Fan type		-	-	-	-	-	-	-	-	-
Quantity		20	20	20	24	24	24	24	24	24
Air flow	l/s	90280	90280	90280	108336	108336	108336	108336	108336	108336
RPM	r/s	950	950	950	950	950	950	950	950	950
Water heat exchanger		-	-	-	-	-	-	-	-	-
Water content	l	213	213	221	220	238	238	246	246	254
Nominal flow rate(cooling)	l/s	23.3/31.7	23.3/33.3	23.3/35.2	29.8/31.7	31.7/31.7	31.7/33.3	31.7/35.2	33.3/35.2	35.2/35.
Nominal flow rate(heating)	l/s	21.9/29.5	21.9/31.2	21.9/33.8	27.6/29.5	29.5/29.5	29.5/31.2	29.5/33.8	31.2/33.8	33.8/33.8
Nominal pressure drop (cooling)	kPa	24.4/27.4	24.4/29.4	24.4/38.7	34.7/27.4	27.4/27.4	27.4/29.4	27.4/38.7	29.4/38.7	38.7/38.7
Nominal pressure drop (heating	kPa	22.5/25.0	22.5/26.9	22.5/36.0	30.2/25.0	25.0/25.0	25.0/26.9	25.0/36.0	26.9/36.0	36.0/36.0
Max. water-side pressure w/o hydronic module	kPa	1000	1000	1000	1000	1000	1000	1000	1000	1000
Integrated hydronic module (option)		-	-	-	-	-	-	-	-	-
Water Connection		-	-	-	-	-	-	-	-	-
Nominal Diameter	DN	150/150	150/150	150/150	150/150	150/150	150/150	150/150	150/150	150/150
Electrical data		-	-	-	-	-	-	-	-	-
Power		380V-3Ph-50Hz								
Control power supply		24V via internal transformer								
Start-up		Star-delta start								
Nominal unit current draw, Circuit A+B	A	367	371	389	367	367	371	389	389	389
Circuit C+D		259	259	259	331	367	367	367	371	389
Maximum unit current draw, Circuit A+B	A	509	509	538	509	509	509	538	538	538
Circuit C+D		390	390	390	480	509	509	509	509	538
Maximum start-up current, Circuit A+B	A	629	629	629	629	629	629	629	629	629
Circuit C+D		587	587	587	629	629	629	629	629	629
Fan power	kW	34	34	34	40.8	40.8	40.8	40.8	40.8	40.8
Length	mm	11984	11984	11984	14372	14372	14372	14372	14372	14372
Width	mm	2253	2253	2253	2253	2253	2253	2253	2253	2253
Height	mm	2297	2297	2297	2297	2297	2297	2297	2297	2297
Shippment weight	kg	12868	13089	13100	14684	14970	15191	15202	15423	15434
Operation weight	kg	13081	13302	13321	14904	15208	15429	15448	15669	15688

* Nominal cooling mode - evaporator entering/leaving water temperature 12/7°C, outside air temperature 35°C
** Nominal heating mode - water heat exchanger entering/leaving water temperature 40/45°C, outside air temperature 7°C
*** Water heat exchanger fouling factor 0.018m²K/kW
**** For duplex models (1150-1502) the listed on the left side and right side of "/"refer to module B (circuit C+D) and module A (circuit A+B) respectively

Dimensions/Clearances

30XA0282~0482 - Cu/Al Condenser coils (option 254)



Legend:
All dimensions are given in mm.

(1) Required clearances for maintenance and air flow

(2) Recommended space for evaporator

Water outlet

Water inlet

Power supply connection

Air outlet - do not obstruct

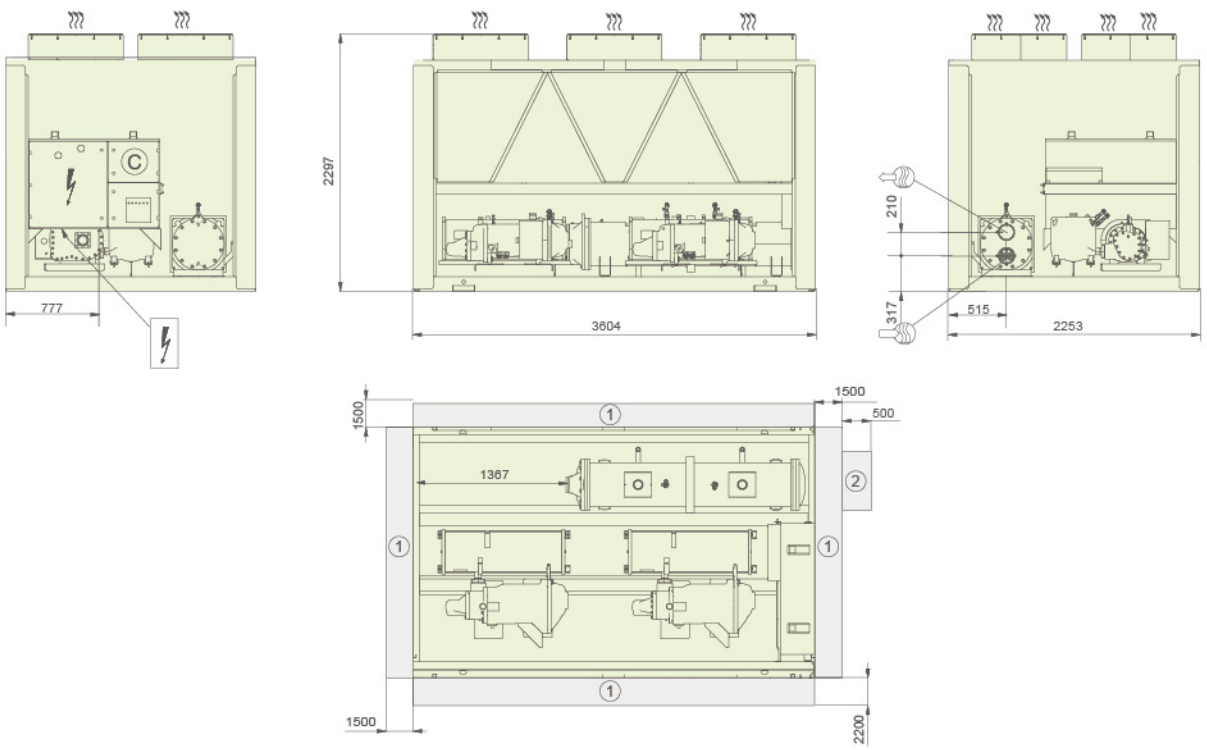
(C) Control circuit connection

30XA	A	B	C	D	E	X
0282	317	210	515	1371	734	3604
0342	317	210	515	1371	1371	3604
0442	346	272	438	2182	1371	4798
0482	346	272	438	2182	1371	4798

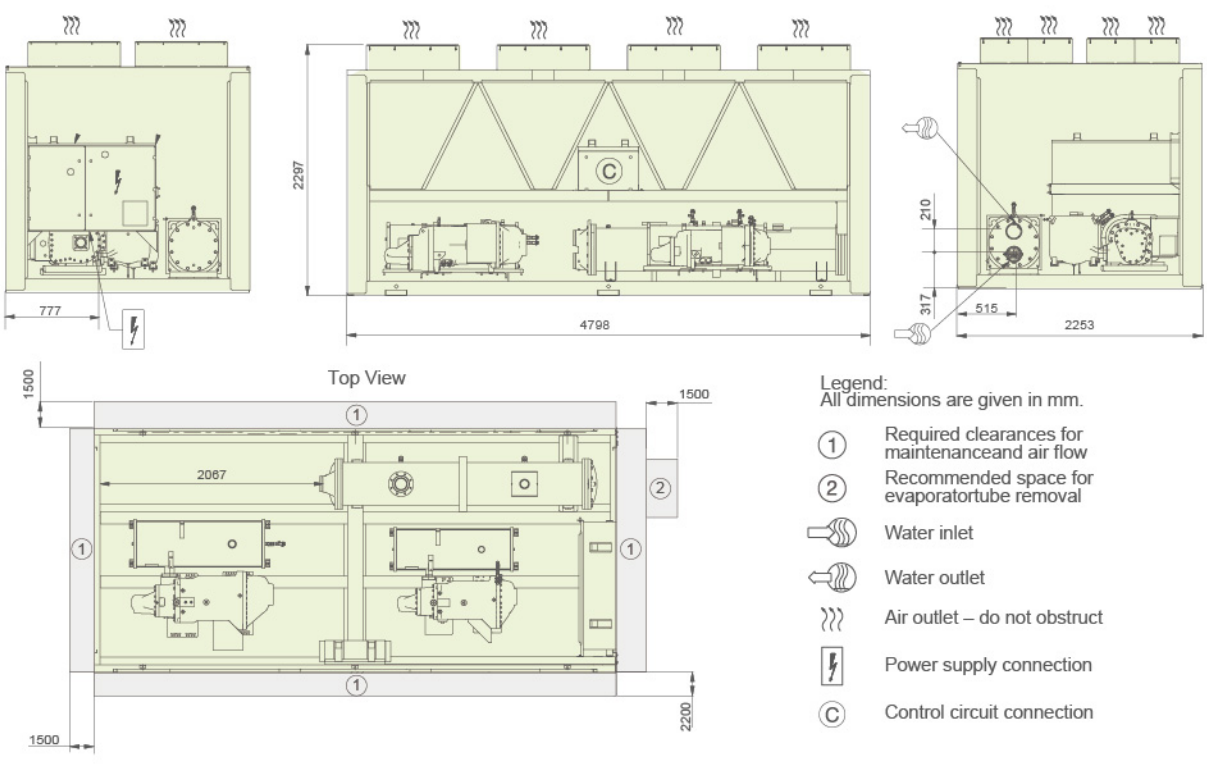
Note: Single point power connection, power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

30XA0252/0302 - Cu/Al Condenser coils (option 254)



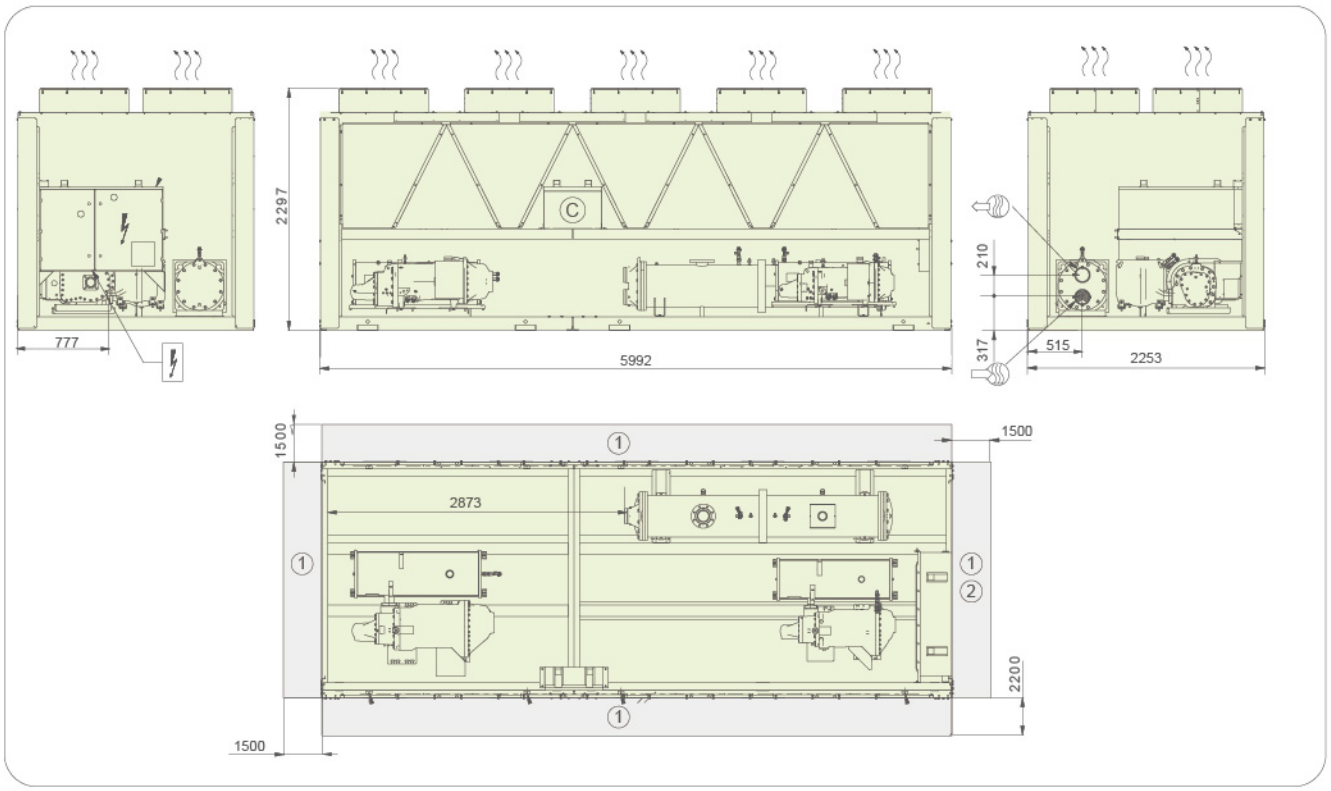
30XA0352/0402/0452 - Cu/Al Condenser coils (option 254)



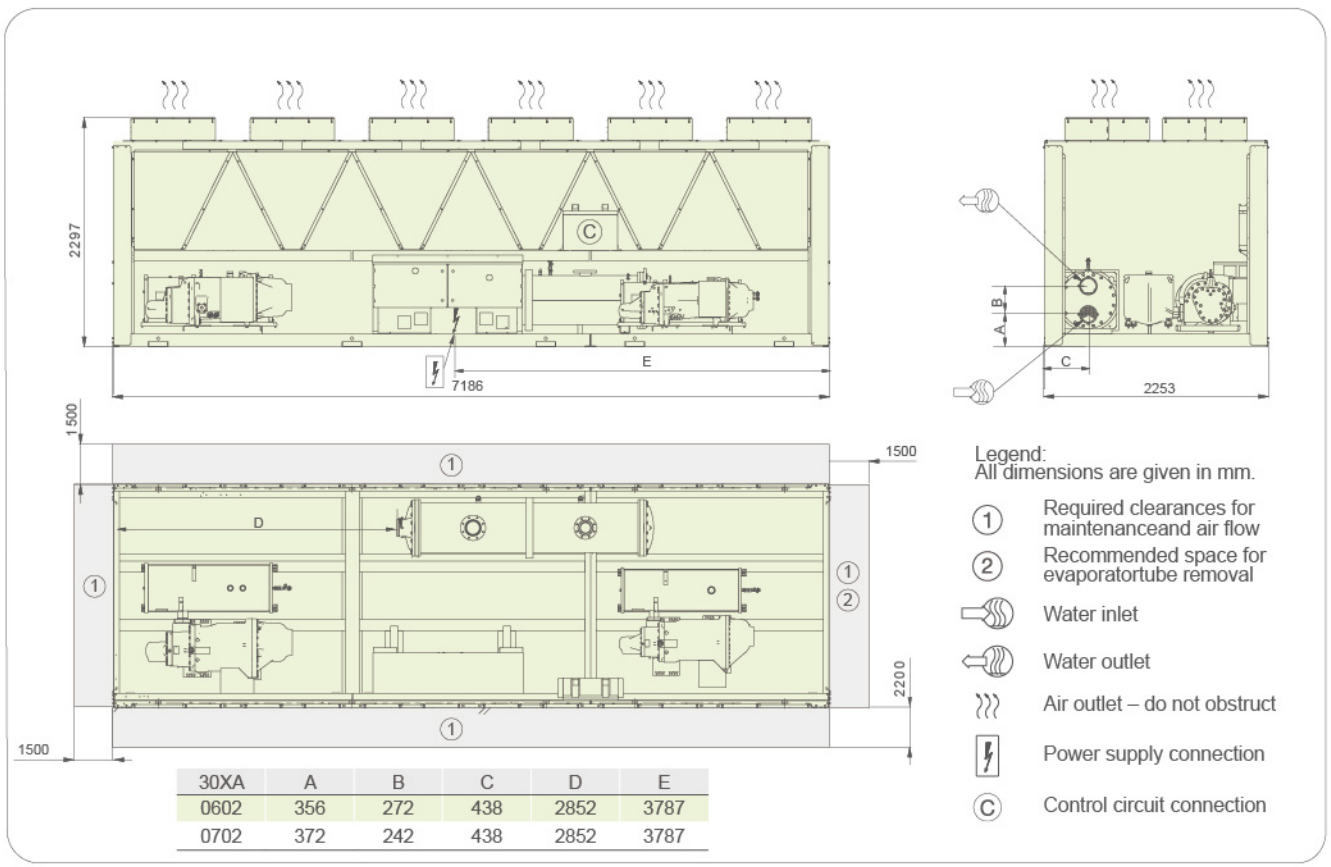
Note: Single point power connection, power cable arrive from bottom of electrical box

Dimensions/Clearances

30XA0502 - Cu/Al Condenser coils (option 254)



30XA 0602/0702 - Cu/Al Condenser coils (option 254)

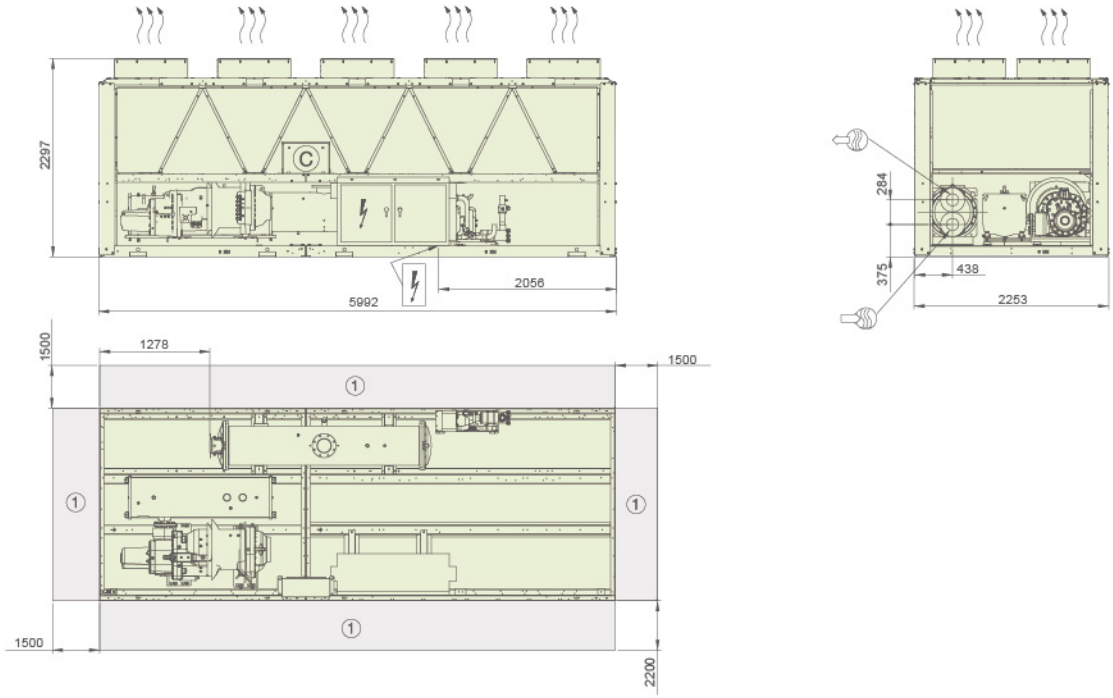


30XA	A	B	C	D	E
0602	356	272	438	2852	3787
0702	372	242	438	2852	3787

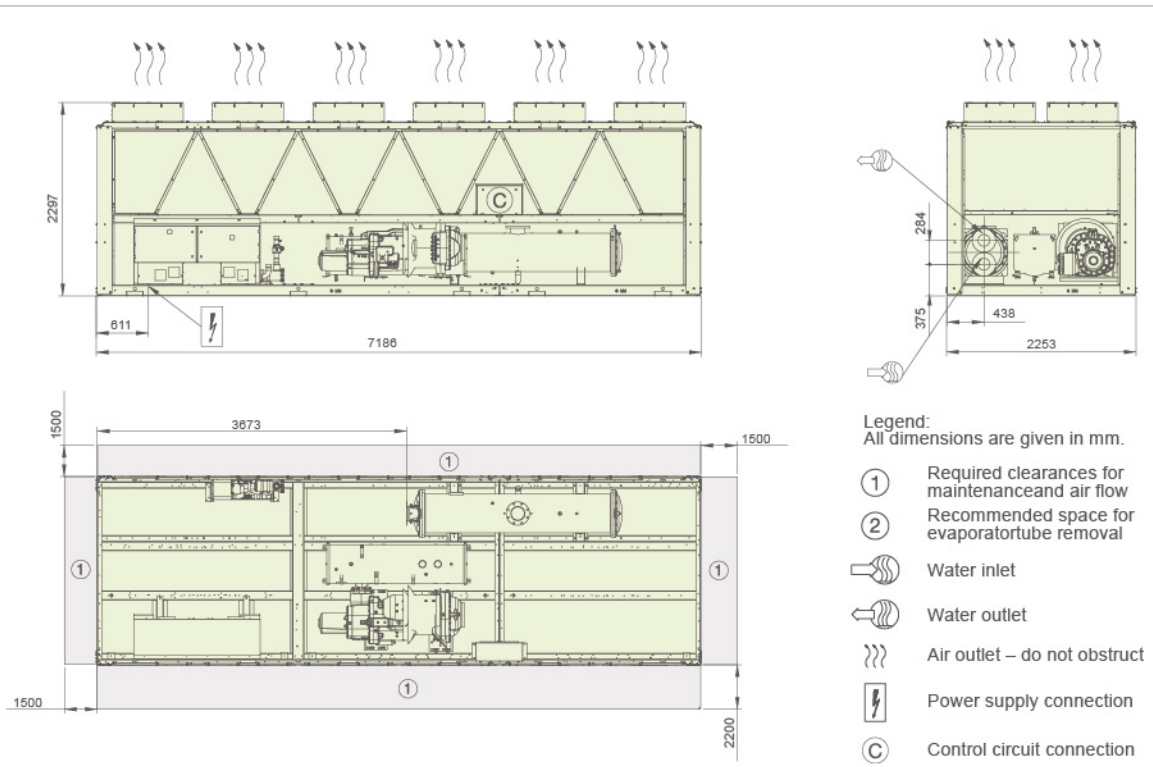
Note: Single point power connection, power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for 30XA0602~0702 power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

30XA0652 - Cu/Al Condenser coils (option 254)



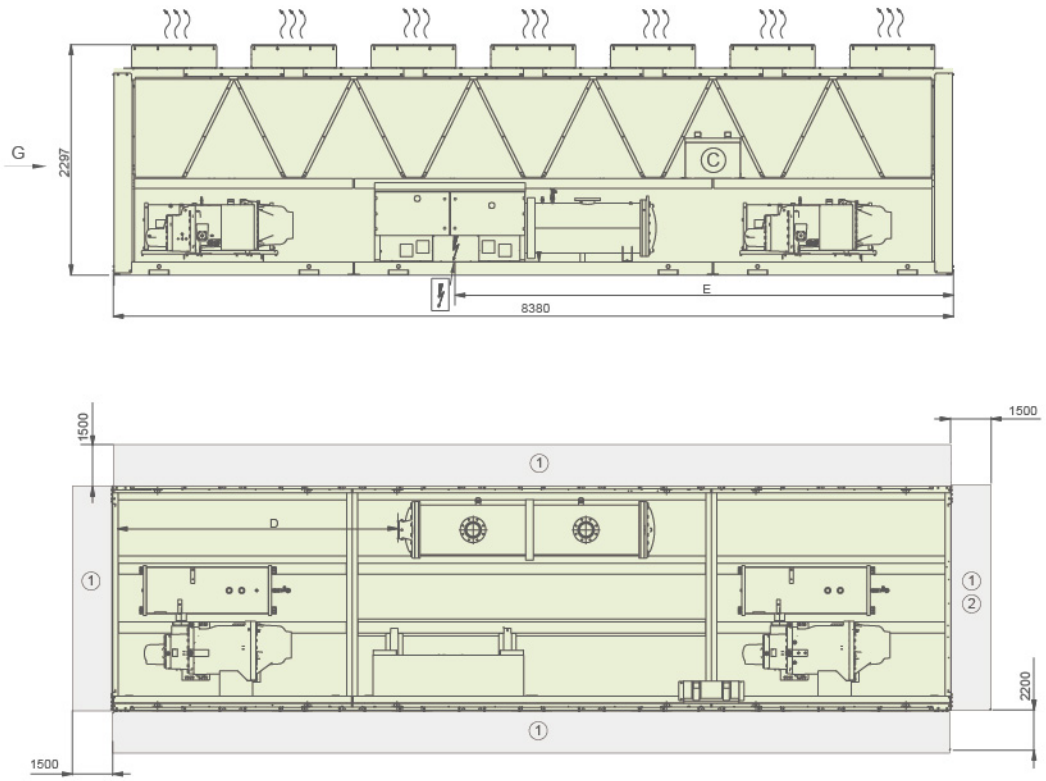
30XA0712/0762 - Cu/Al Condenser coils (option 254)

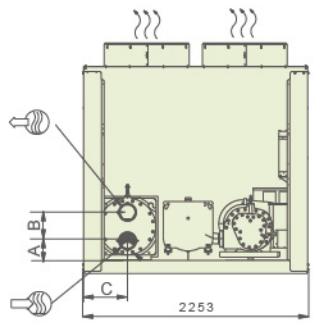


Note: Single point power connection, power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for 30XA0652~0762 power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

30XA0752/0852 - Cu/Al Condenser coils (option 254)





View G

Legend:
All dimensions are given in mm.

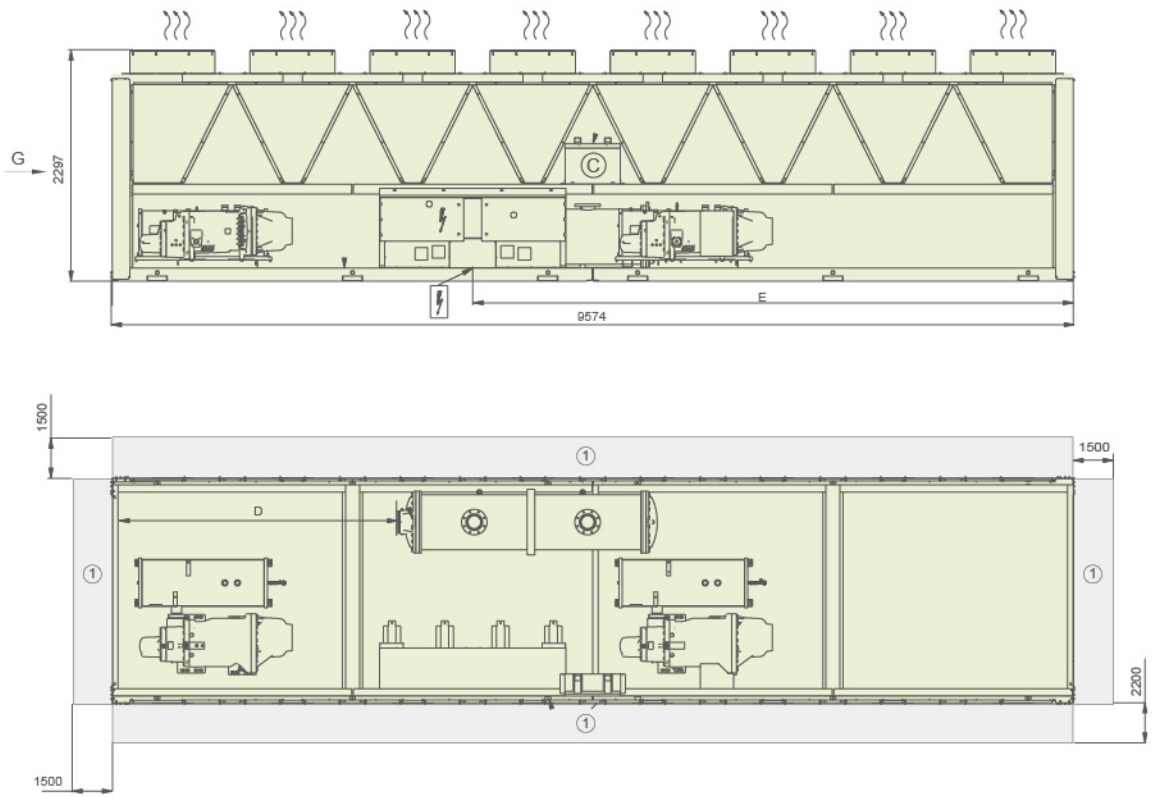
- (1) Required clearances for maintenanceand air flow
- (2) Recommended space for evaporatortube removal
- Water inlet
- Water outlet
- Air outlet – do not obstruct
- Power supply connection
- (C) Control circuit connection

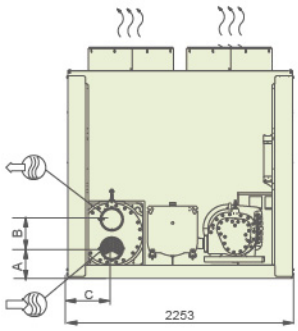
30XA	A	B	C	D	E
0752	372	242	438	2848	4965
0852	325	284	438	2836	4965

Note: Single point power connection, power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

30XA0902/1002 - Cu/Al Condenser coils (option 254)





View G

Legend:
All dimensions are given in mm.

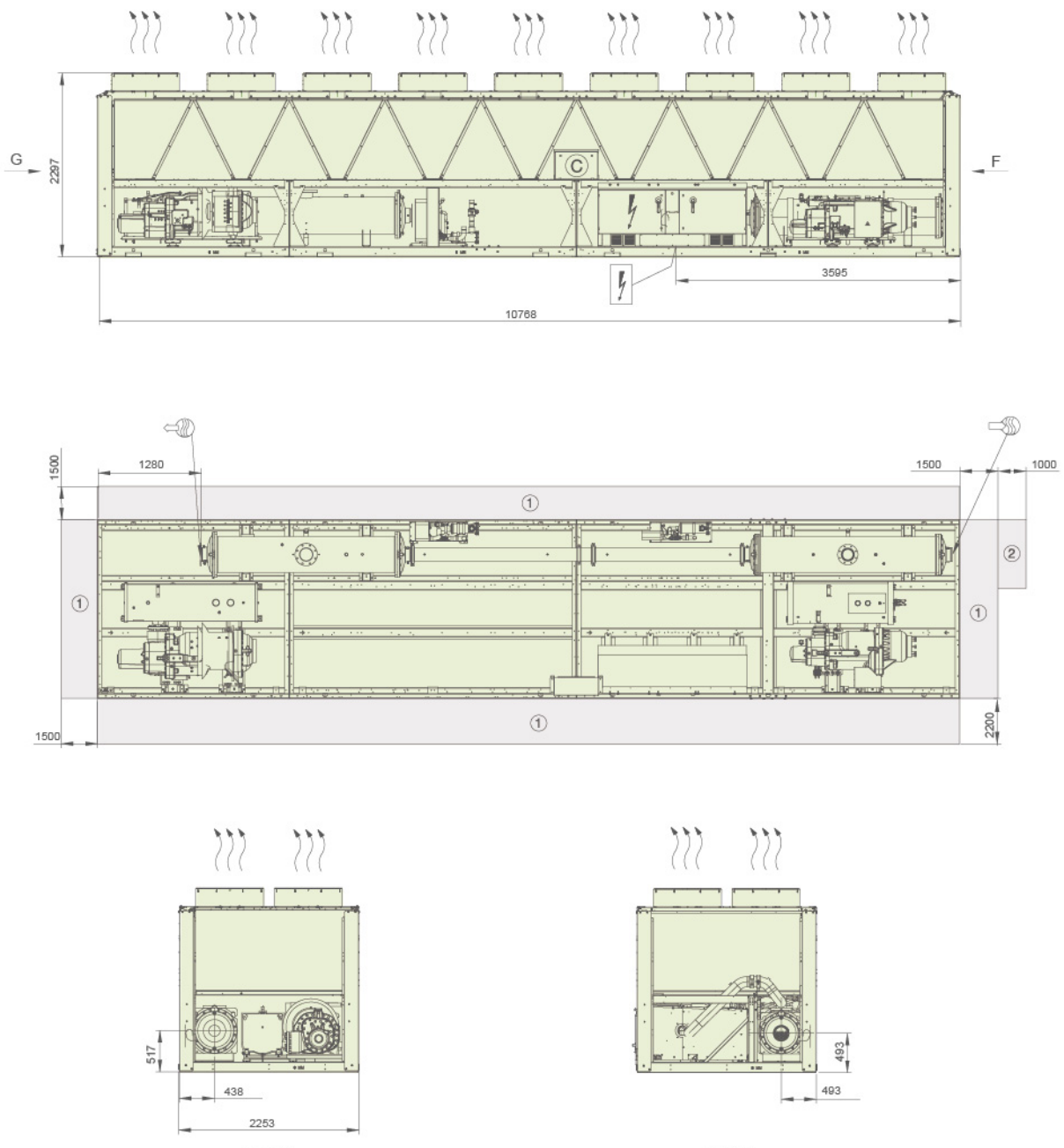
1. Required clearances for maintenanceand air flow
2. Recommended space for evaporatortube removal
- Water inlet
- Water outlet
- Air outlet – do not obstruct
- Power supply connection
- Control circuit connection

30XA	A	B	C	D	E
0902	325	284	438	2840	5924
1002	297	438	438	2832	5924

Note: Single point power connection, power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

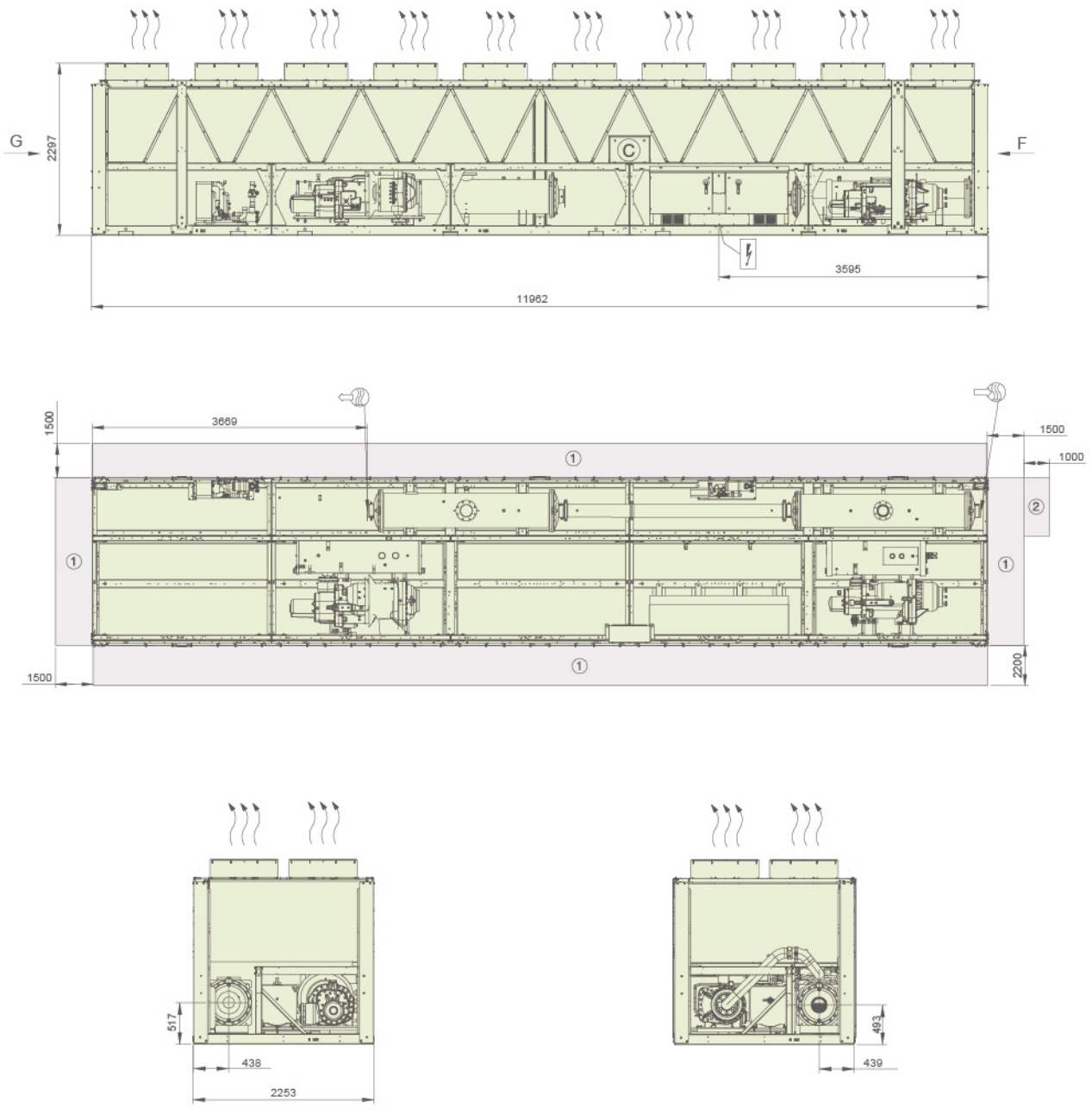
30XA1052/1152 - Cu/Al Condenser coils (option 254)



Note: Single point power connection, power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for 30XA1052/1152 power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

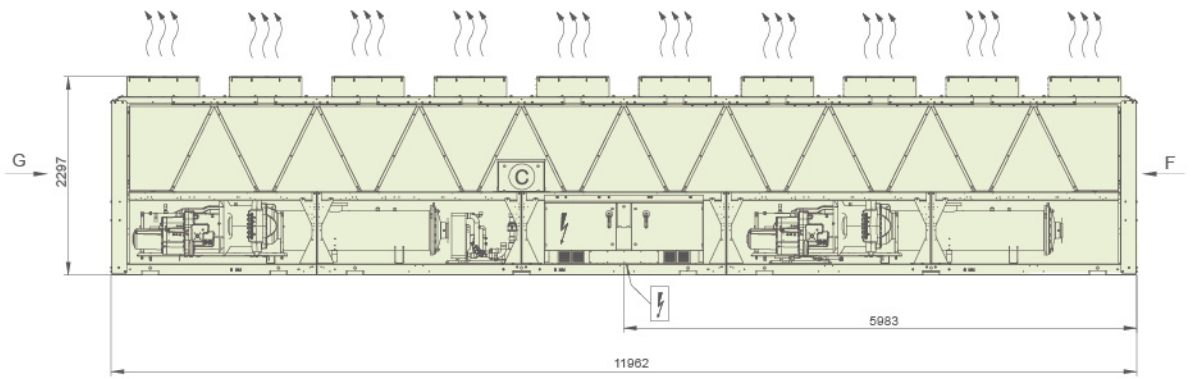
30XA1252 - Cu/Al Condenser coils (option 254)

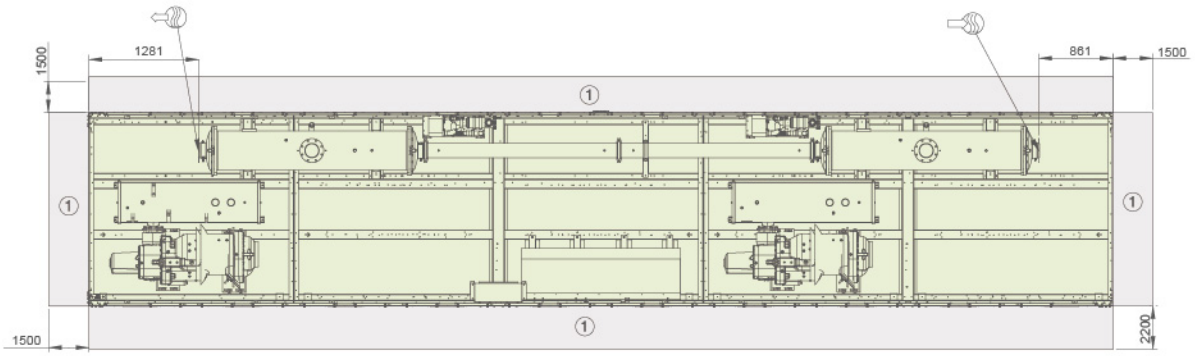


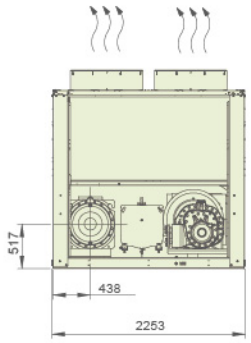
Note: Single point power connection, power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for 30XA1052/1152 power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

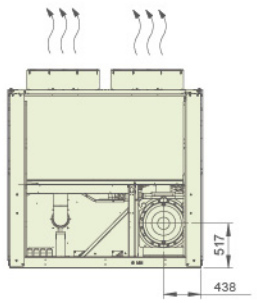
30XA1312/1392 - Cu/Al Condenser coils (option 254)







View G



View F

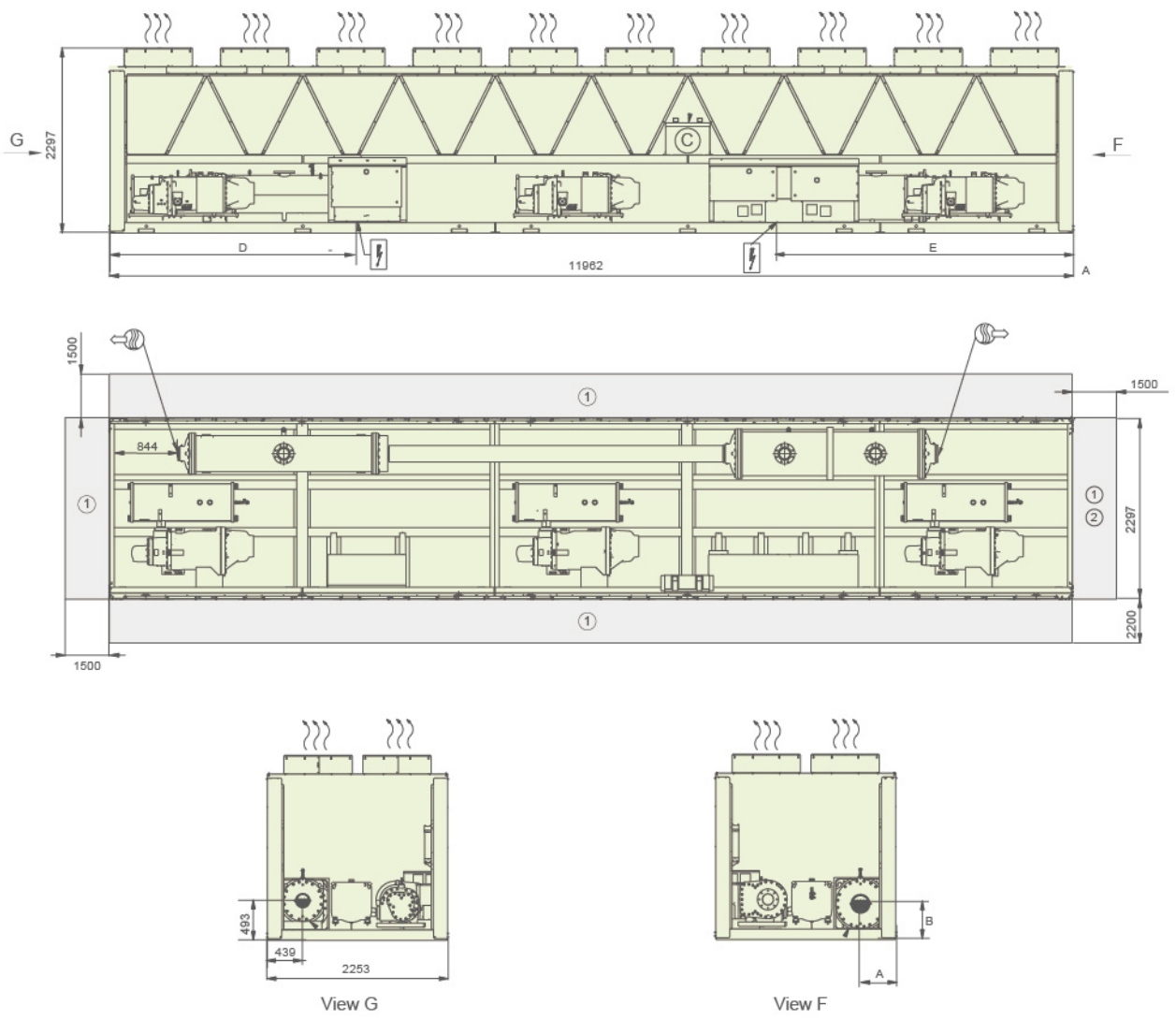
Legend:
All dimensions are given in mm.

1	Required clearances for maintenanceand air flow		Water inlet		Air outlet – do not obstruct
2	Recommended space for evaporatortube removal		Water outlet		Power supply connection
				C	Control circuit connection

Note: Single point power connection, power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for 30XA1312/1392 power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

30XA1352 - Cu/Al Condenser coils (option 254)

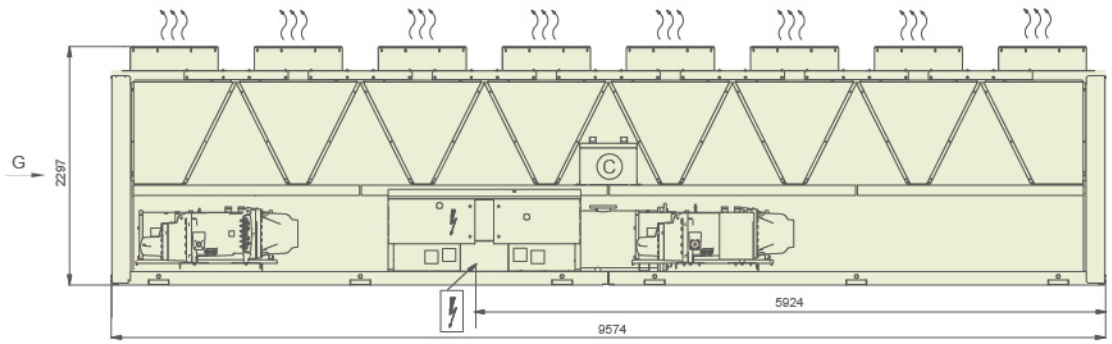


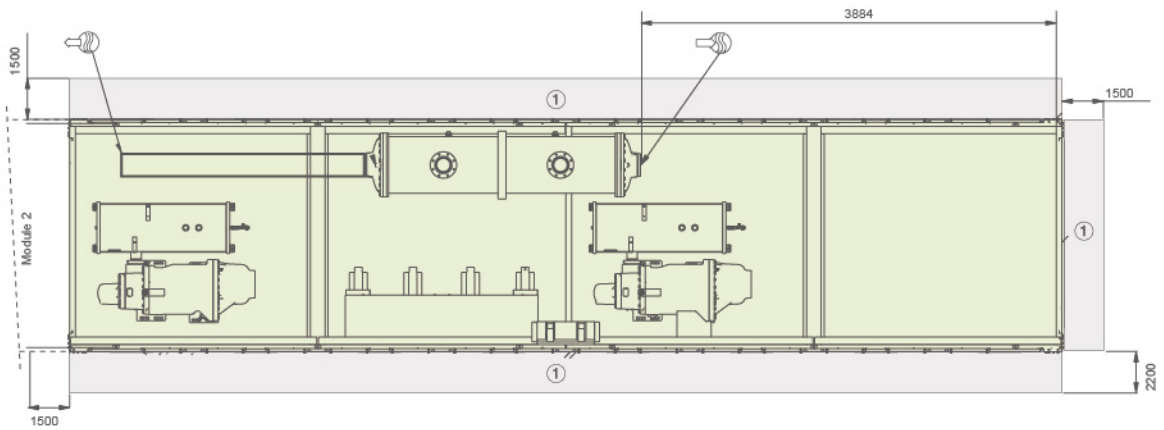
30XA	A	B	C	D	E
1352	439	442	1670	3428	3387

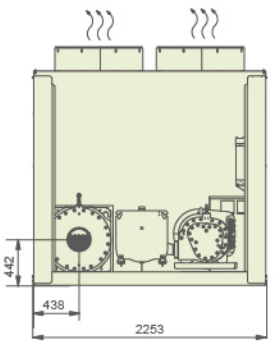
Note: Dual point power connection (Single point power connection as option), power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

30XA1502, module 1/2 - Cu/Al Condenser coils (option 254)







View G

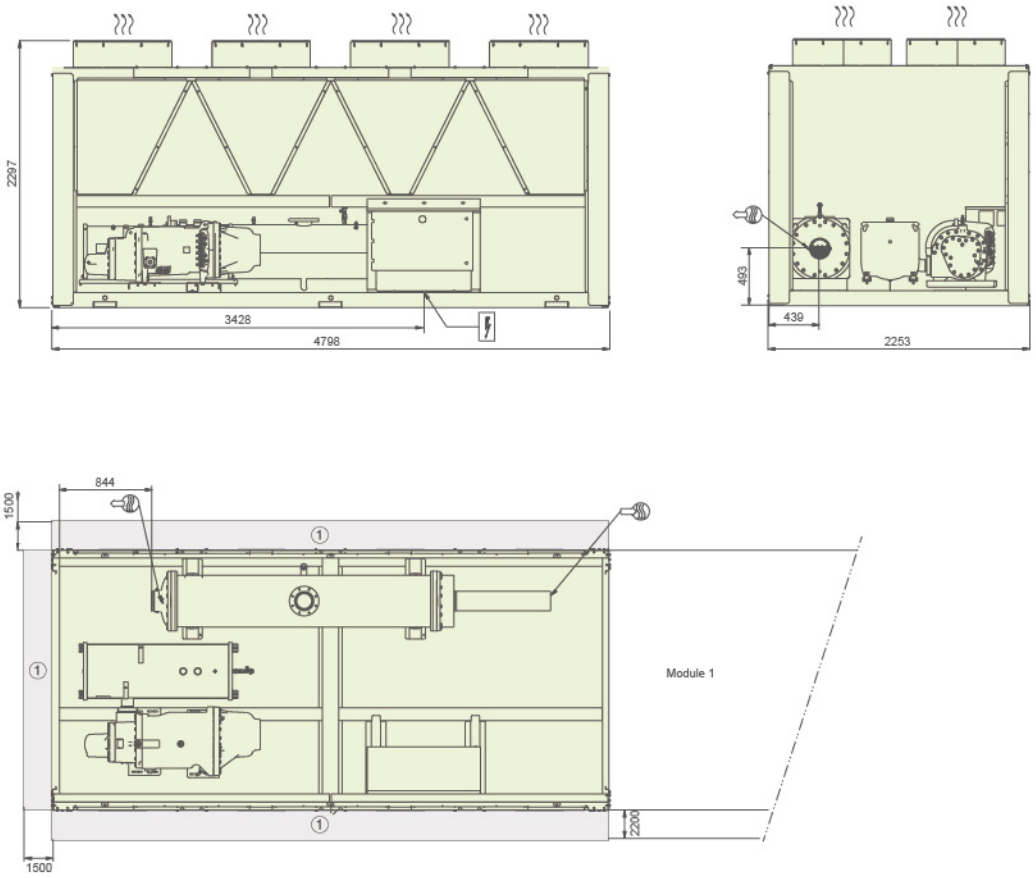
Legend:
All dimensions are given in mm.

- (1) Required clearances for maintenanceand air flow
- (2) Recommended space for evaporatortube removal
- Water inlet
- Water outlet
- Air outlet – do not obstruct
- Power supply connection
- (C) Control circuit connection

Note: Dual point power connection (Single point power connection as option), power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

30XA1502, module 2/2 - Cu/Al Condenser coils (option 254)



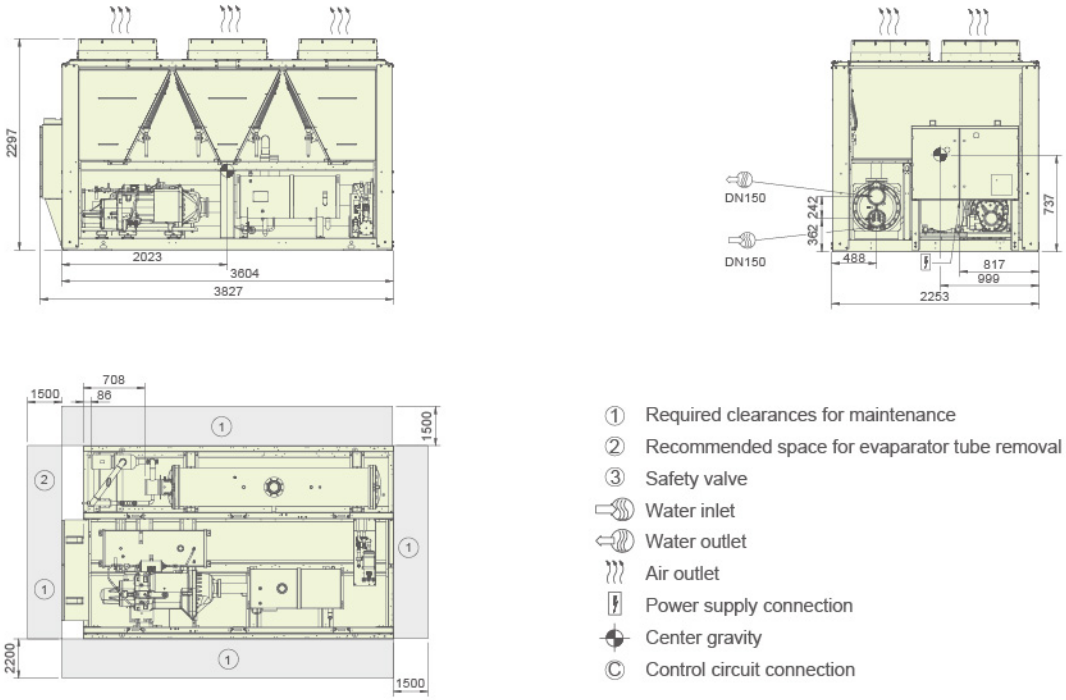
Legend:
All dimensions are given in mm.

① Required clearances for maintenanceand air flow	Water inlet	Air outlet – do not obstruct
② Recommended space for evaporatortube removal	Water outlet	Power supply connection
		Ⓒ Control circuit connection

Note: Dual point power connection (Single point power connection as option), power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for power supply connection (unit aerial installation or cable slot)

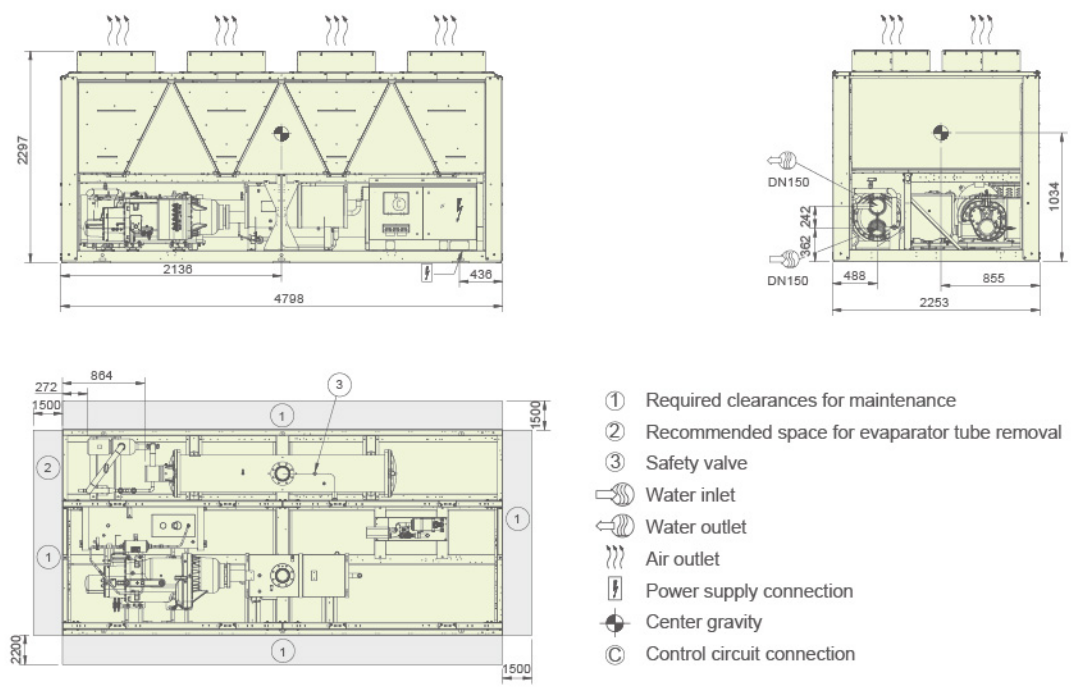
Dimensions/Clearances

30XQ330 - Cu/Al Condenser coils



Notes: Single power connection point, and arrive from the bottom. Reserve 120mm height space below the unit for power supply connection (unit aerial installation or cable slot arrangement inunit base)

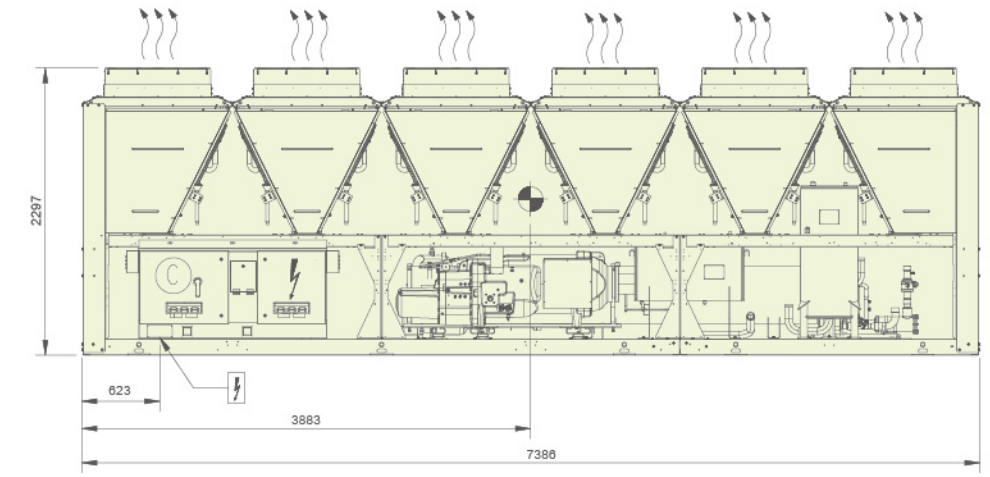
30XQ430/502 - Cu/Al Condenser coils (option 254)

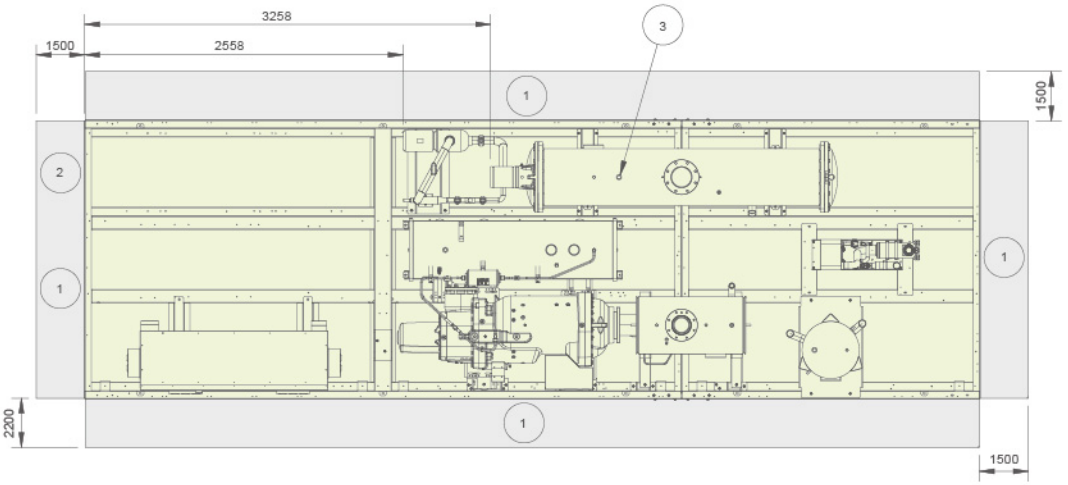


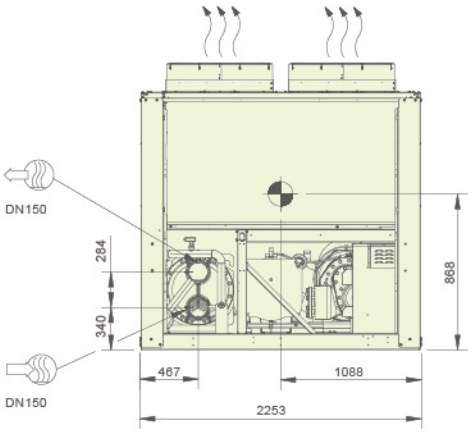
Notes: Single power connection point, and arrive from the bottom. Reserve 120mm height space below the unit for power supply connection (unit aerial installation or cable slot arrangement inunit base)

Dimensions/Clearances

30XQ625/670/702 - Cu/Al Condenser coils





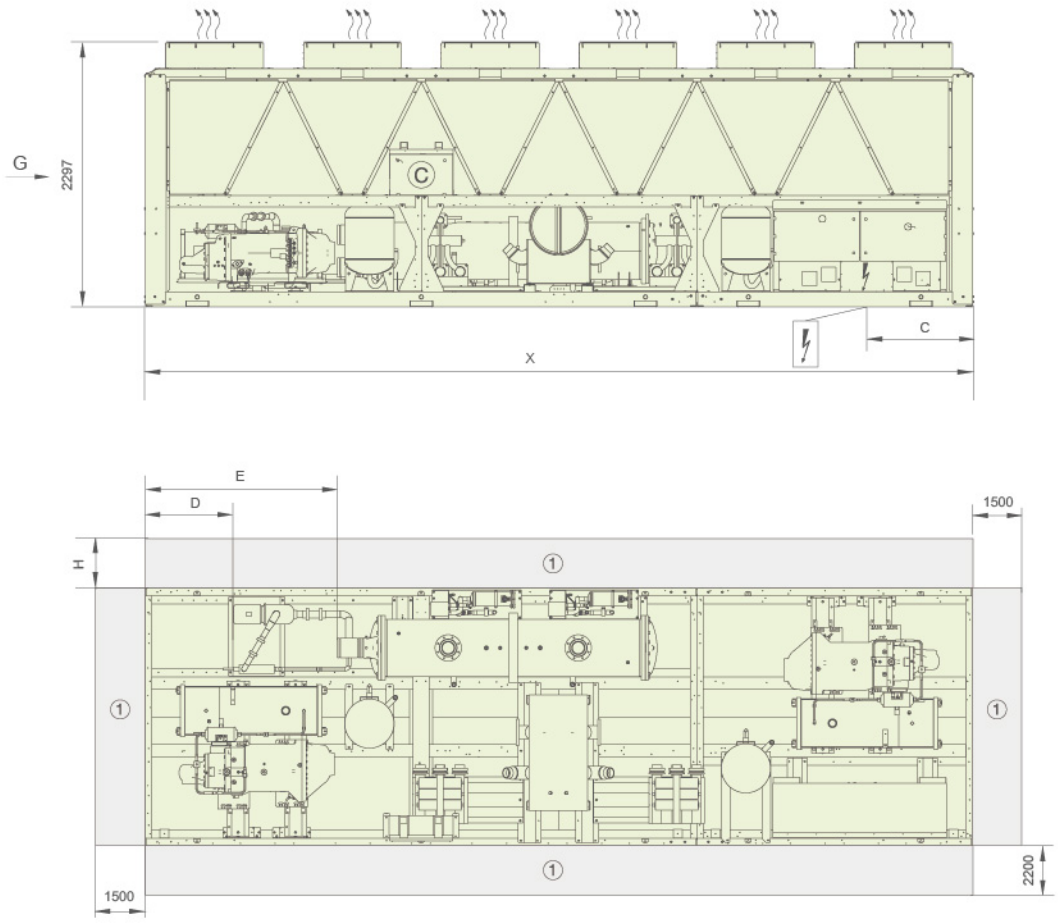


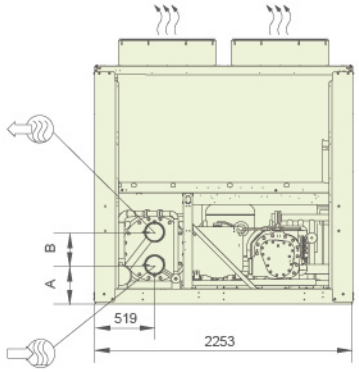
① Required clearances for maintenance
② Recommended space for evaparator tube removal
③ Safety valve
Water inlet
Water outlet
Air outlet
Power supply connection
Center gravity
Ⓒ Control circuit connection

Notes: Single power connection point, and arrive from the bottom. Reserve 120mm height space below the unit for power supply connection (unit aerial installation or cable slot arrangement inunit base)

Dimensions/Clearances

30XQ0660/0750 - Cu/Al Condenser coils





View G

Legend:
All dimensions are given in mm.

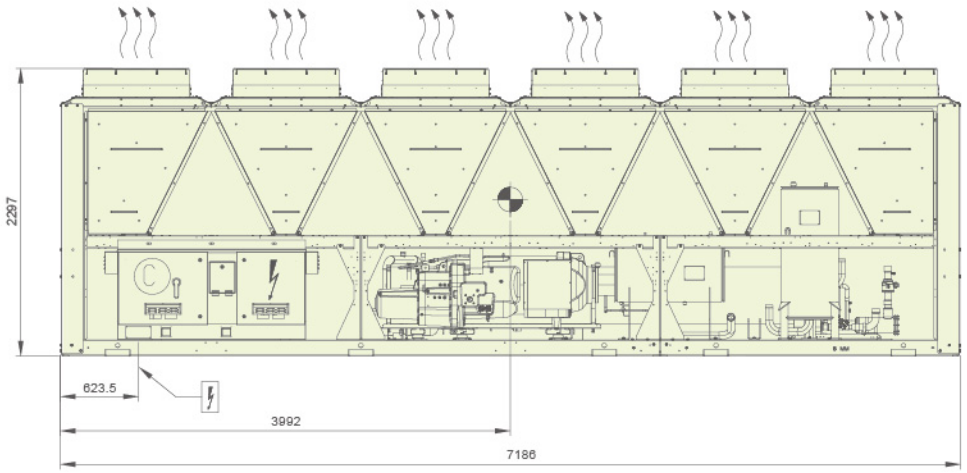
- (1) Required clearances for maintenanceand air flow
- (2) Recommended space for evaporatortube removal
- Water inlet
- Water outlet
- Air outlet – do not obstruct
- Power supply connection
- (C) Control circuit connection

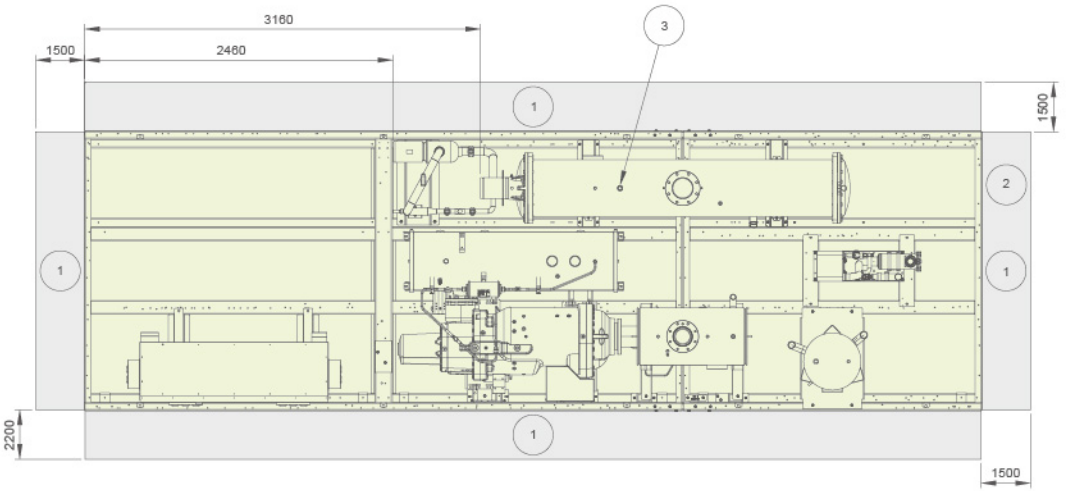
30XQ	A	B	C	D	E	H	X
0660	340	284	943	762	1663	2200	7186
0750	340	284	4730	1396	2297	1500	8380

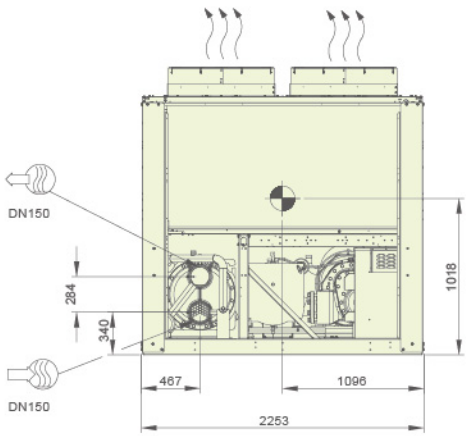
Note: Single point power connection, power cable arrive from bottom of electrical box, reserve at least 120mm height space below unit for power supply connection (unit aerial installation or cable slot)

Dimensions/Clearances

30XQ745 - Cu/Al Condenser coils





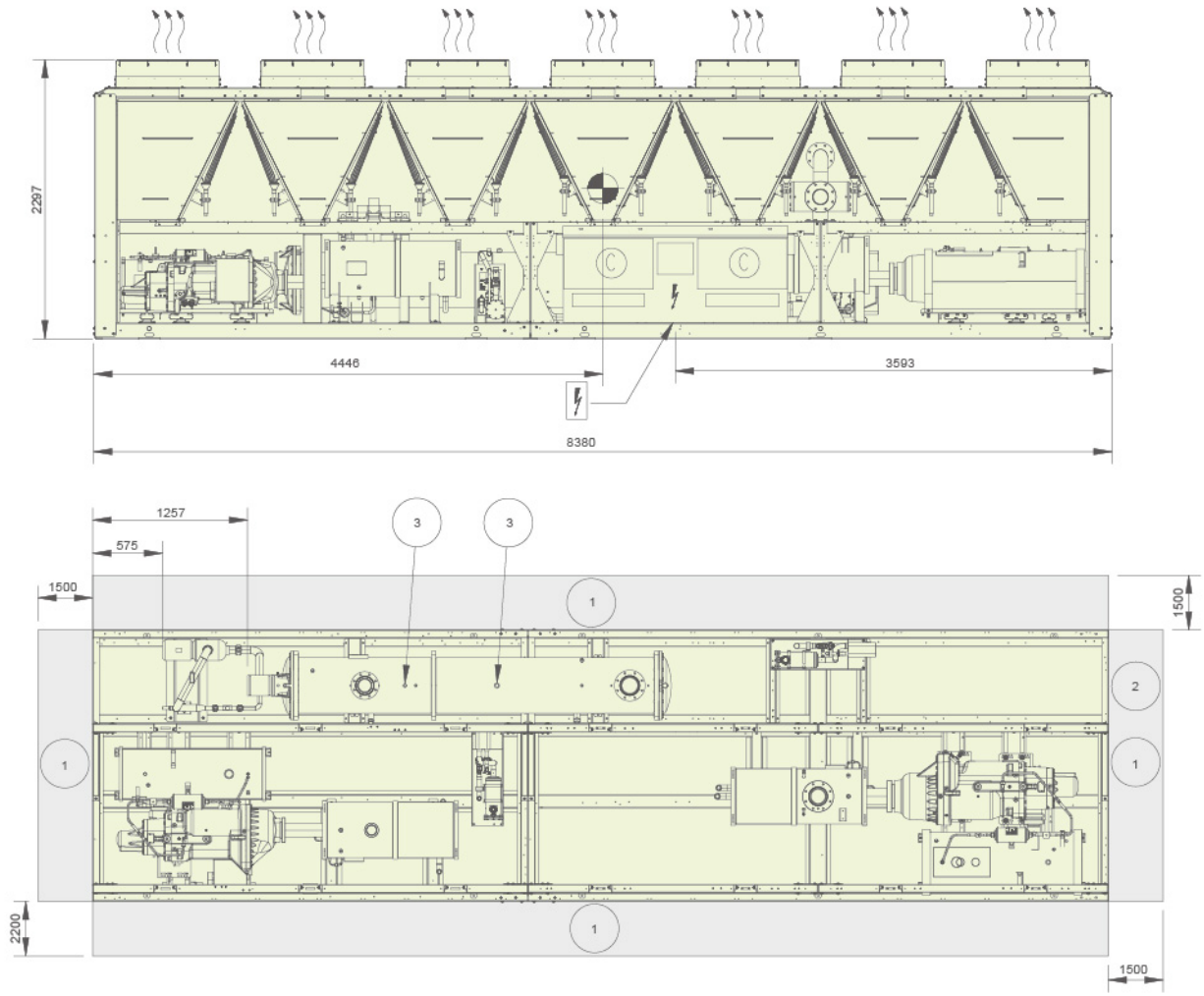


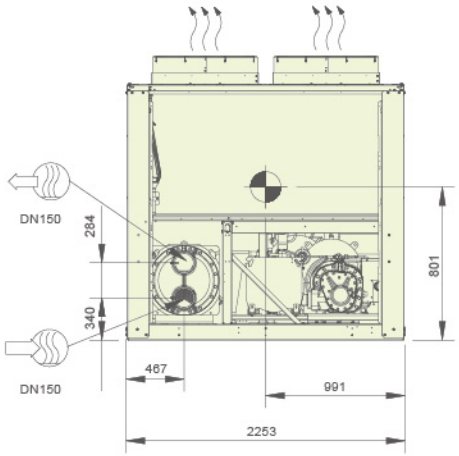
① Required clearances for maintenance
② Recommended space for evaparator tube removal
③ Safety valve
Water inlet
Water outlet
Air outlet
Power supply connection
Center gravity
Control circuit connection

Notes: Single power connection point, and arrive from the bottom. Reserve 120mm height space below the unit for power supply connection (unit aerial installation or cable slot arrangement inunit base)

Dimensions/Clearances

30XQ810 - Cu/Al Condenser coils



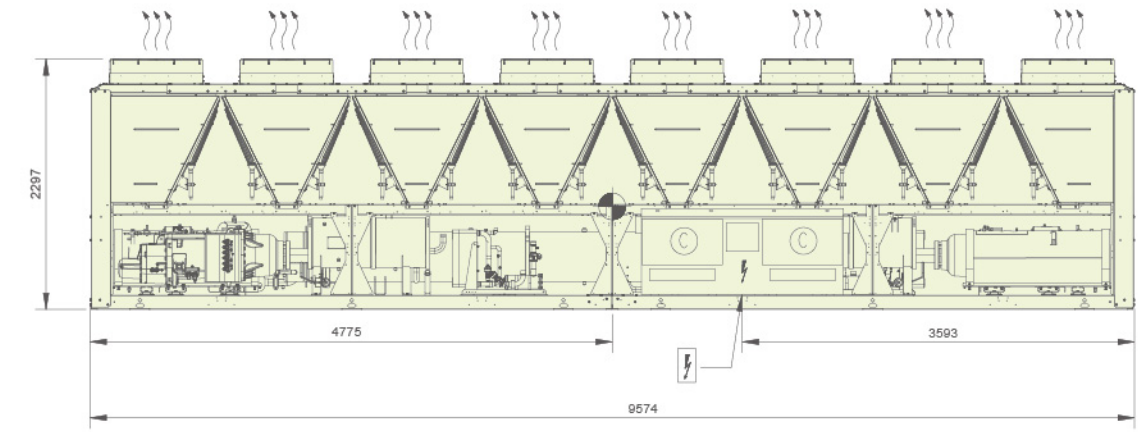


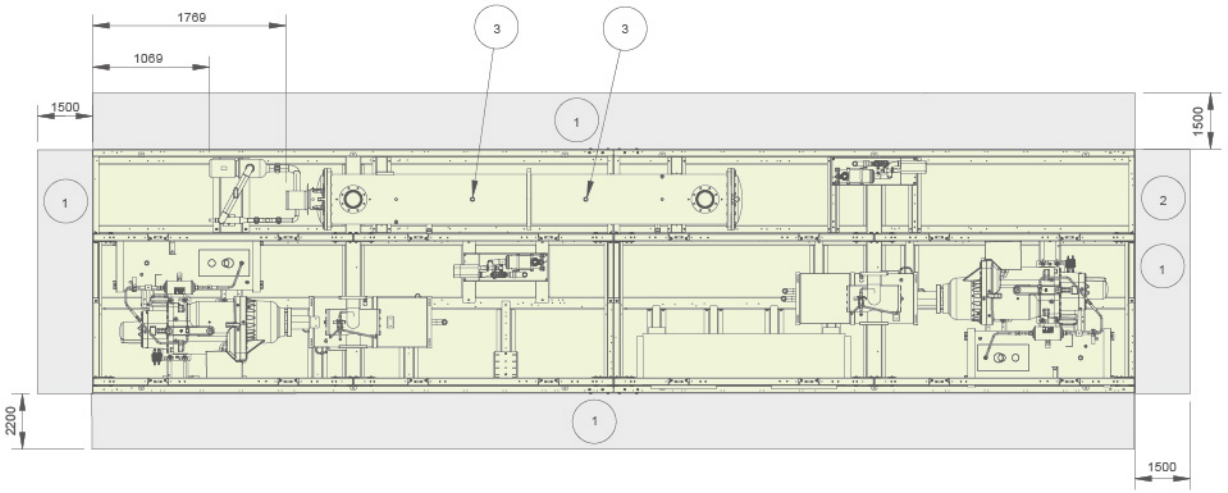
① Required clearances for maintenance
② Recommended space for evaparator tube removal
③ Safety valve
Water inlet
Water outlet
Air outlet
Power supply connection
Center gravity
Ⓒ Control circuit connection

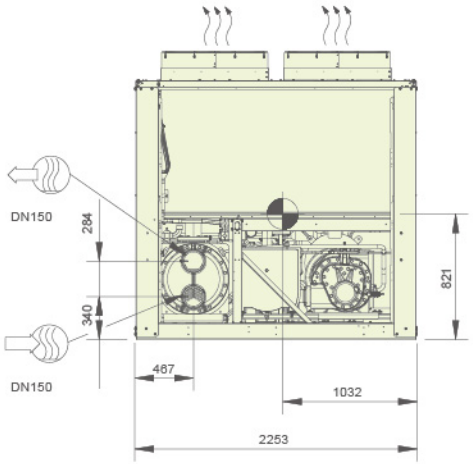
Notes: Single power connection point, and arrive from the bottom. Reserve 120mm height space below the unit for power supply connection (unit aerial installation or cable slot arrangement inunit base)

Dimensions/Clearances

30XQ910/1002 - Cu/Al Condenser coils





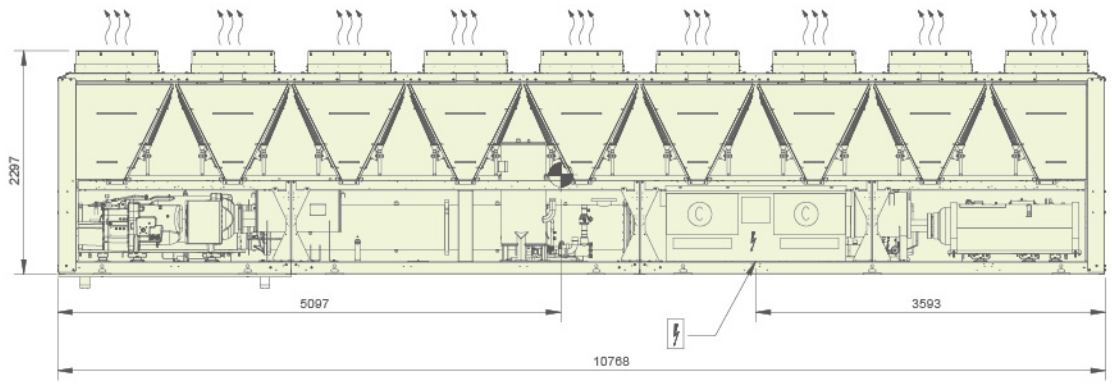


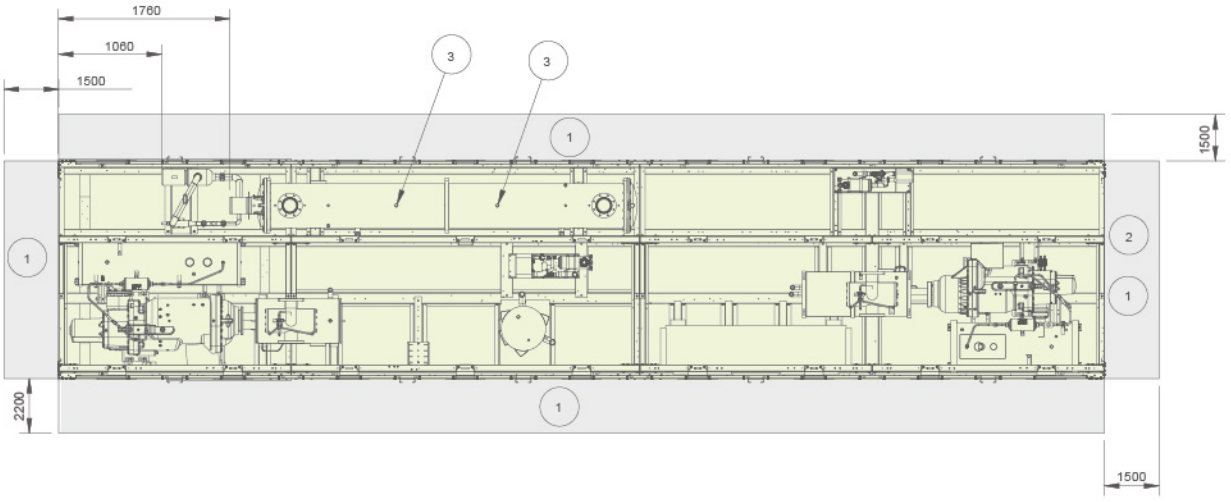
① Required clearances for maintenance
② Recommended space for evaparator tube removal
③ Safety valve
Water inlet
Water outlet
Air outlet
Power supply connection
Center gravity
Ⓒ Control circuit connection

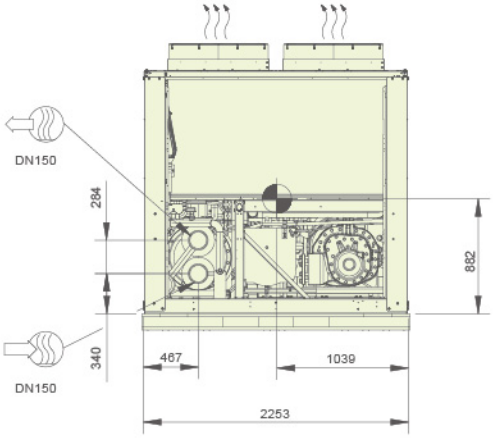
Notes: Single power connection point, and arrive from the bottom. Reserve 120mm height space below the unit for power supply connection (unit aerial installation or cable slot arrangement inunit base)

Dimensions/Clearances

30XQ1035/1102 - Cu/Al Condenser coils





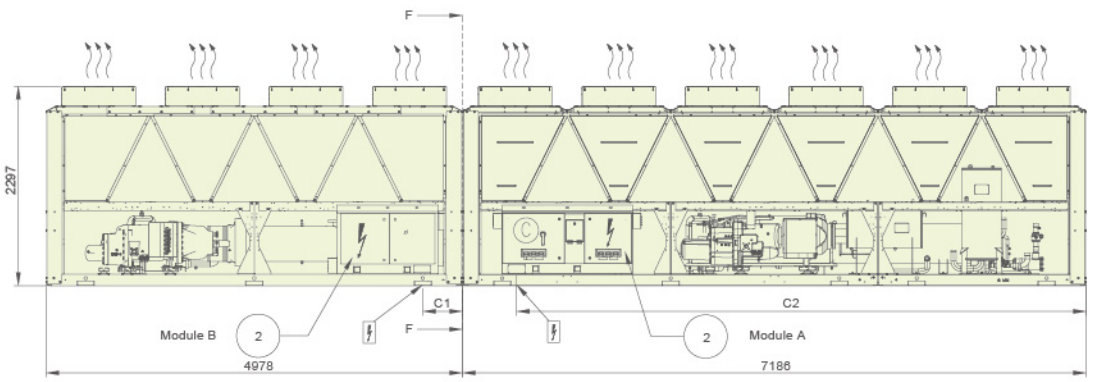


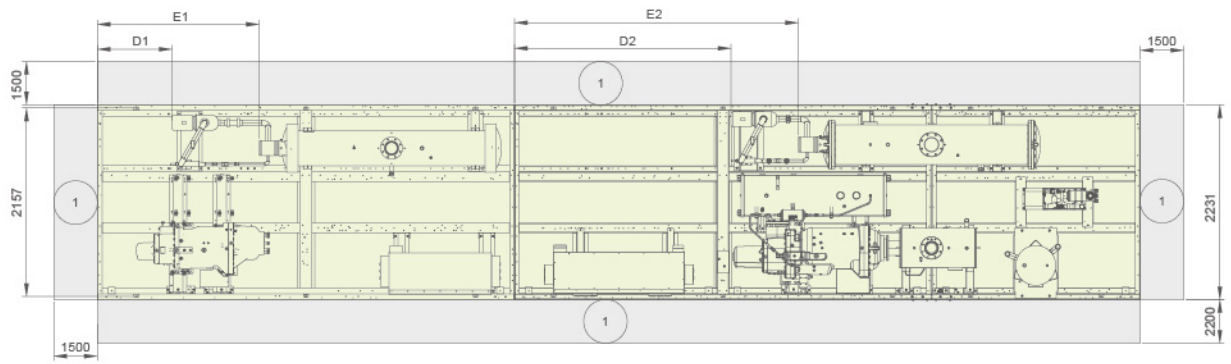
① Required clearances for maintenance
② Recommended space for evaparator tube removal
③ Safety valve
Water inlet
Water outlet
Air outlet
Power supply connection
Center gravity
Ⓒ Control circuit connection

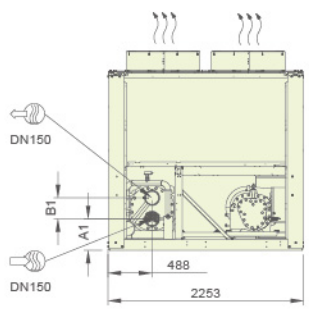
Notes: Single power connection point, and arrive from the bottom. Reserve 120mm height space below the unit for power supply connection (unit aerial installation or cable slot arrangement inunit base)

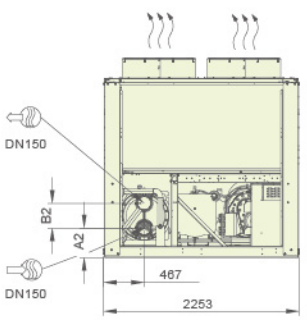
Dimensions/Clearances

30XQ1150/1200/1230 - Cu/Al Condenser coils









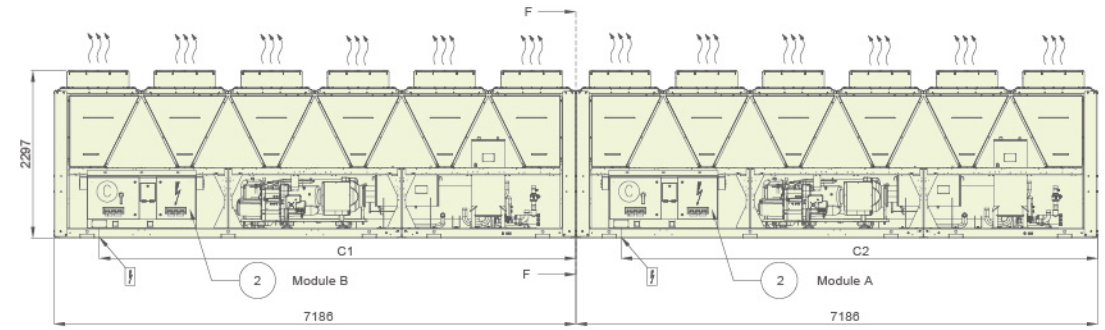
① Required clearances for maintenance
② Recommended space for evaparator tube removal
Water inlet
Water outlet

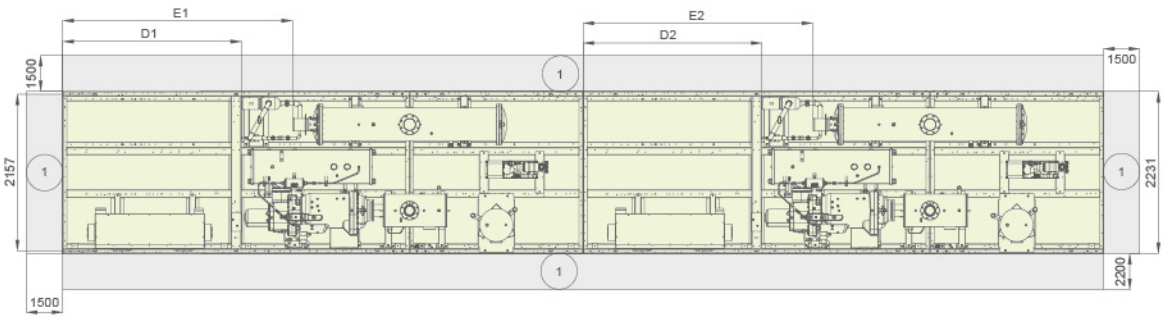
Air outlet
Power supply connection
Control circuit connection

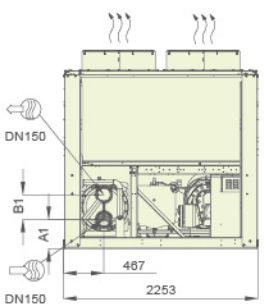
Notes: Drawing for 30XQ1150-1230 Double power connection point, and arrive from the bottom. Reserve 120mm height space below the unit for power supply connection (unit aerial installation or cable slot arrangement in unit base). Two water connection piping should be prepared.

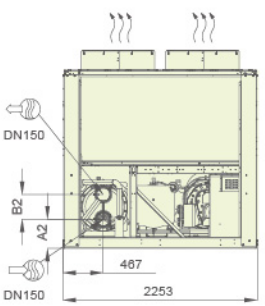
Dimensions/Clearances

30XQ1300/1340/1370/1400/1450/1502 - Cu/Al Condenser coils







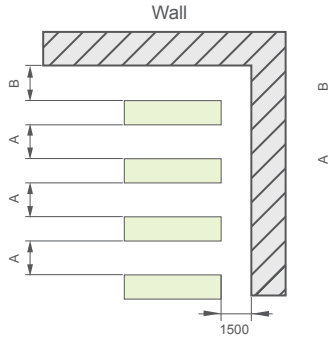


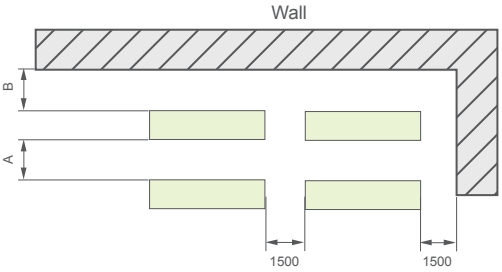
① Required clearances for maintenance
② Recommended space for evaporator tube removal
Water inlet
Water outlet

Air outlet
Power supply connection
Control circuit connection

Notes: Drawing for 30XQ1150-1230 Double power connection point, and arrive from the bottom. Reserve 120mm height space below the unit for power supply connection (unit aerial installation or cable slot arrangement in unit base). Two water connection piping should be prepared.

Multiple Chiller Installation

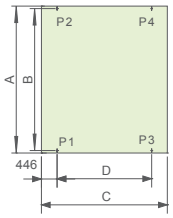




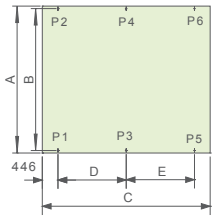
Outdoor air temperature	A	B
≤40℃	2200	2200
> 40℃	3000	1500

Note: 1. Recommended distance between chiller and walls necessary for adequate space of heat exchange.
2. If the height of wall exceeds 2m, please contact local Carrier Sales & Service Corporation.

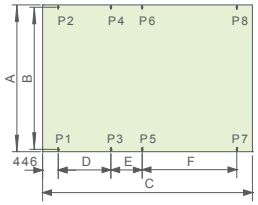
Weight Distribution, 30XA0252~1502



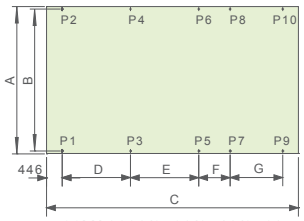
30XA0252~0342



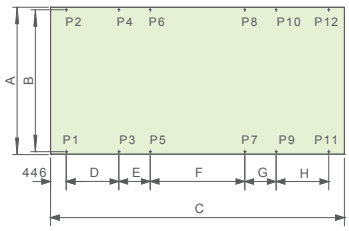
30XA0352~0482



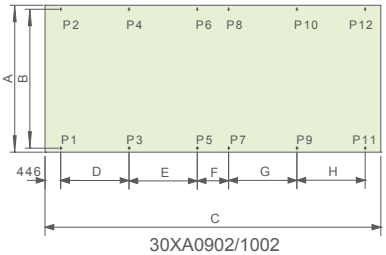
30XA0502/0652



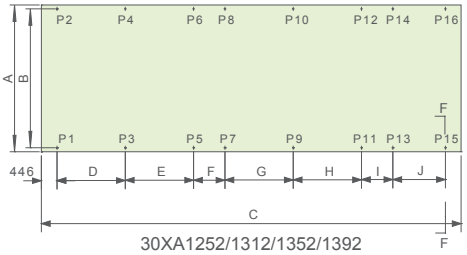
30XA0602/0702/0712/0762



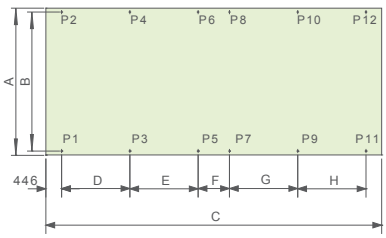
30XA0752/0852/1052/1152



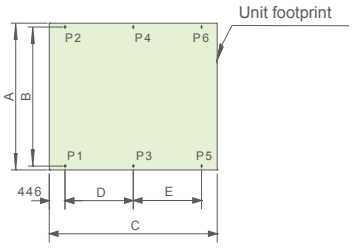
30XA0902/1002



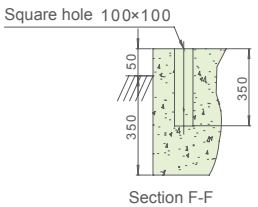
30XA1252/1312/1352/1392



30XA1502-1



30XA1502-2



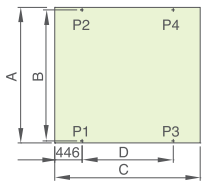
Section F-F

Weight Distribution, 30XA0252~1502

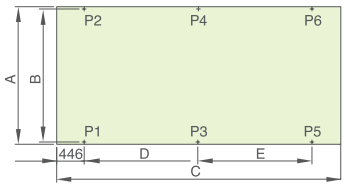
Models	Dimensions, mm										Weight distribution, kg																Operating weight kg
	A	B	C	D	E	F	G	H	I	J	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	
30XA0252	2231	2157	3582	2690							930	901	1016	983													3830
30XA0282	2231	2157	3582	2690							865	775	1015	923													3578
30XA0302	2231	2157	3582	2690							942	835	1103	980													3860
30XA0342	2231	2157	3582	2690							930	840	1100	1005													3875
30XA0352	2231	2157	4776	1942	1942						737	665	768	692	798	720											4380
30XA0402	2231	2157	4776	1942	1942						859	739	865	745	871	751											4830
30XA0442	2231	2157	4776	1942	1942						991	887	784	701	665	612											4640
30XA0452	2231	2157	4776	1942	1942						876	751	880	753	884	756											4900
30XA0482	2231	2157	4776	1942	1942						1080	976	874	790	663	601											4984
30XA0502	2231	2157	5970	1496	892	2690					716	628	724	635	730	639	744	654									5470
30XA0602	2231	2157	7164	1942	1942	892	1496				698	601	697	599	697	599	697	599	695	598							6480
30XA0652	2231	2157	5970	1496	892	2690					915	739	796	643	725	586	511	413									5328
30XA0702	2231	2157	7164	1942	1942	892	1496				709	615	709	618	710	618	711	618	713	619							6640
30XA0712	2231	2157	7164	1942	1942	892	1496				599	526	622	546	645	565	655	575	672	589							5994
30XA0752	2231	2157	8358	1496	892	2690	892	1496			704	600	691	588	682	580	656	558	647	552	633	539					7430
30XA0762	2231	2157	7164	1942	1942	892	1496				591	542	616	565	641	588	652	598	671	616							6080
30XA0852	2231	2157	8358	1496	892	2690	892	1496			739	644	724	631	716	622	687	598	678	591	662	578					7870
30XA0902	2231	2157	9552	1942	1942	892	1942	1942			865	764	820	723	773	683	752	664	707	624	661	584					8620
30XA1002	2231	2157	9552	1942	1942	892	1942	1942			899	793	847	749	796	704	772	683	722	639	671	595					8870
30XA1052	2231	2157	10746	1496	892	2690	2834	1942			846	711	844	709	842	708	837	703	831	699	827	695					9252
30XA1152	2231	2157	10746	1496	892	2690	2834	1942			862	707	858	705	857	704	853	701	848	697	845	695					9332
30XA1252	2231	2157	11940	1496	892	1942	1942	892	1942	1942	605	541	618	553	626	560	643	575	661	590	668	597	686	613	703	628	9867
30XA1312	2231	2157	11940	1496	892	1942	1942	892	1942	1942	800	626	782	612	771	601	747	585	724	566	713	558	689	539	666	521	10500
30XA1352	2231	2157	11940	1942	1942	892	1942	1942	892	1496	792	711	793	712	794	712	796	713	794	713	797	713	796	714	796	714	12060
30XA1392	2231	2157	11940	1496	892	1942	1942	892	1942	1942	800	626	782	612	771	601	747	585	724	566	713	558	689	539	666	521	10500
30XA1502/1	2231	2157	9552	1942	1942	892	1942	1942			906	802	853	754	803	709	780	688	727	642	676	599					8939
30XA1502/2	2231	2157	4776	1942	1942						981	877	785	701	590	527											4461

Note: (1) foot screw even hole number (far side) represent for evaporator side
(2) foot screw, M20X300

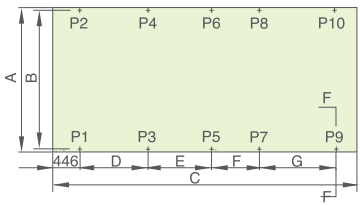
Weight Distribution, 30XQ0330~1502



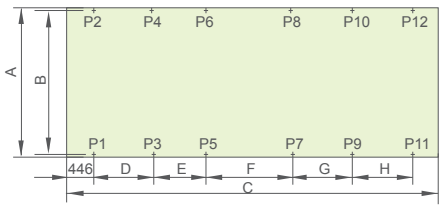
30XQ330



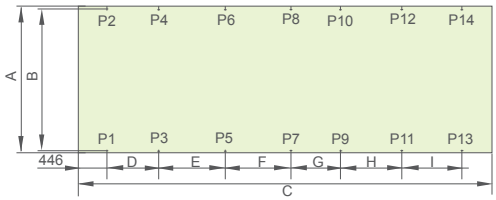
30XQ430, 30XQ502, 30XQ1150 Module B,
30XQ1200 Module B, 30XQ1230 Module B



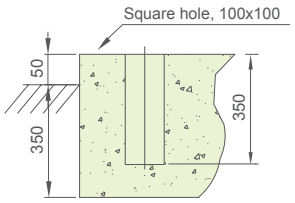
30XQ625, 30XQ660, 30XQ670, 30XQ702, 30XQ745, 30XQ750, 30XQ810,
30XQ1100 Module A, 30XQ1150 Module A, 30XQ1200 Module A, 30XQ1230 Module A,
30XQ1300 Module A/B, 30XQ1340 Module A/B, 30XQ1370 Module A/B,
30XQ1400 Module A/B, 30XQ1450 Module A/B, 30XQ1502 Module A/B



30XQ910/1002



30XQ1035/1102

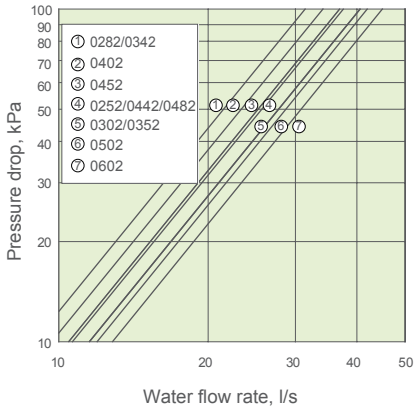


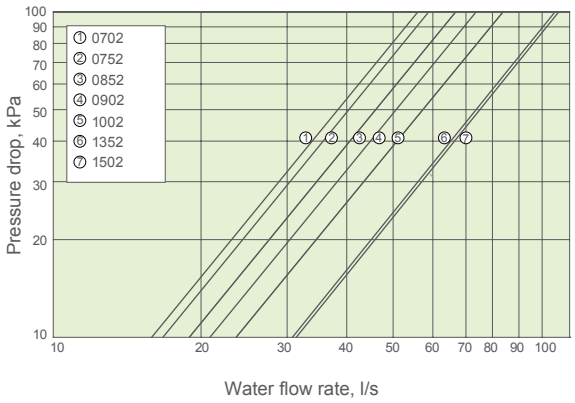
Section F-F

Models	Dimensions, mm									Weight Ditribution, kg													Operating Weight, kg
	A	B	C	D	E	F	G	H	I	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	
30XQ330	2231	2157	3582	2690						1398	1273	708	644										4023
30XQ430	2231	2157	4776	1942	1942					1318	788	1136	680	953	570								5445
30XQ502	2231	2157	4776	1942	1942					1326	793	1143	683	959	573								5477
30XQ1150 Module B	2231	2157	4776	1942	1942					1326	793	1143	683	959	573								5477
30XQ1200 Module B	2231	2157	4776	1942	1942					1326	793	1143	683	959	573								5477
30XQ1230 Module B	2231	2157	4776	1942	1942					1326	793	1143	683	959	573								5477
30XQ625	2231	2157	7164	1942	1942	892	1496			675	602	730	651	786	701	812	725	855	763				7300
30XQ1300 Module B	2231	2157	7164	1942	1942	892	1496			675	602	730	651	786	701	812	725	855	763				7300
30XQ660	2231	2157	7164	1942	1942	892	1496			739	727	755	743	771	759	778	766	790	777				7605
30XQ670	2231	2157	7164	1942	1942	892	1496			710	661	755	702	799	744	820	763	855	795				7604
30XQ1100 Module A	2231	2157	7164	1942	1942	892	1496			710	661	755	702	799	744	820	763	855	795				7604
30XQ1150 Module A	2231	2157	7164	1942	1942	892	1496			710	661	755	702	799	744	820	763	855	795				7604
30XQ1300 Module A	2231	2157	7164	1942	1942	892	1496			710	661	755	702	799	744	820	763	855	795				7604
30XQ1340 Module A/B	2231	2157	7164	1942	1942	892	1496			710	661	755	702	799	744	820	763	855	795				7604
30XQ1370 Module B	2231	2157	7164	1942	1942	892	1496			710	661	755	702	799	744	820	763	855	795				7604
30XQ1400 Module B	2231	2157	7164	1942	1942	892	1496			710	661	755	702	799	744	820	763	855	795				7604
30XQ702	2231	2157	7164	1942	1942	892	1496			715	676	766	724	818	773	842	796	882	833				7825
30XQ1200 Module A	2231	2157	7164	1942	1942	892	1496			715	676	766	724	818	773	842	796	882	833				7825
30XQ1370 Module A	2231	2157	7164	1942	1942	892	1496			715	676	766	724	818	773	842	796	882	833				7825
30XQ1450 Module B	2231	2157	7164	1942	1942	892	1496			715	676	766	724	818	773	842	796	882	833				7825
30XQ745	2231	2157	7164	1942	1942	892	1496			697	659	760	718	823	778	852	805	900	852				7844
30XQ1230 Module A	2231	2157	7164	1942	1942	892	1496			697	659	760	718	823	778	852	805	900	852				7844
30XQ1400 Module A	2231	2157	7164	1942	1942	892	1496			697	659	760	718	823	778	852	805	900	852				7844
30XQ1450 Module A	2231	2157	7164	1942	1942	892	1496			697	659	760	718	823	778	852	805	900	852				7844
30XQ1502 Module A/B	2231	2157	7164	1942	1942	892	1496			697	659	760	718	823	778	852	805	900	852				7844
30XQ750	2231	2157	8358	1942	1942	892	2690			1003	1009	949	955	895	901	870	876	796	800				9054
30XQ810	2231	2157	8358	2690	892	1942	1942			1117	810	1089	790	1062	771	1050	763	1012	734				9198
30XQ910	2231	2157	9552	1942	1942	892	1942	1942		933	781	925	775	917	768	913	765	905	758	899	751		10090
30XQ1002	2231	2157	9552	1942	1942	892	1942	1942		938	787	938	787	937	786	937	786	936	785	935	784		10336
30XQ1035	2231	2157	10746	1496	892	2690	892	1942	1942	875	759	860	746	852	739	826	717	818	710	800	694	781	678	10855
30XQ1102	2231	2157	10746	1496	892	2690	892	1942	1942	875	761	866	754	861	749	845	736	840	731	828	721	817	710	11094

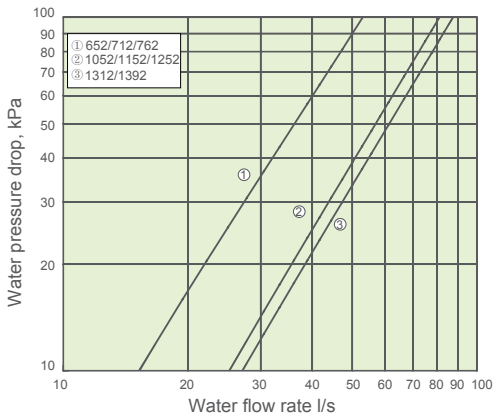
Note: (1) foot screw even hole number (far side) represent for evaporator side
(2) foot screw, M20X300

Evaporator Water Pressure Drop, 30XA0252~1502

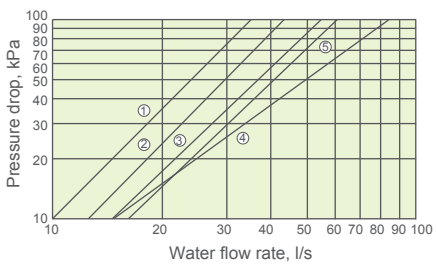


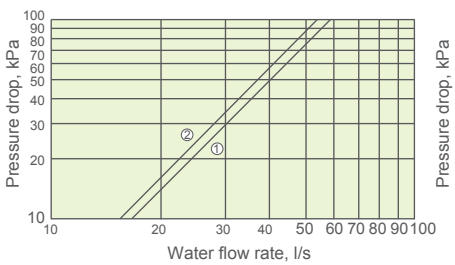


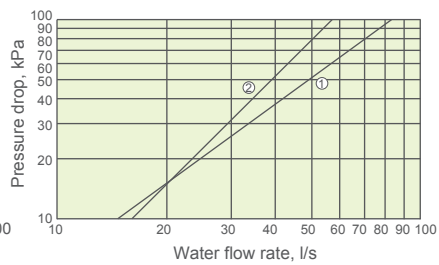
Evaporator Water Pressure Drop, 30XA0652~1392



Heat exchanger Water Pressure Drop, 30XQ0330~1500

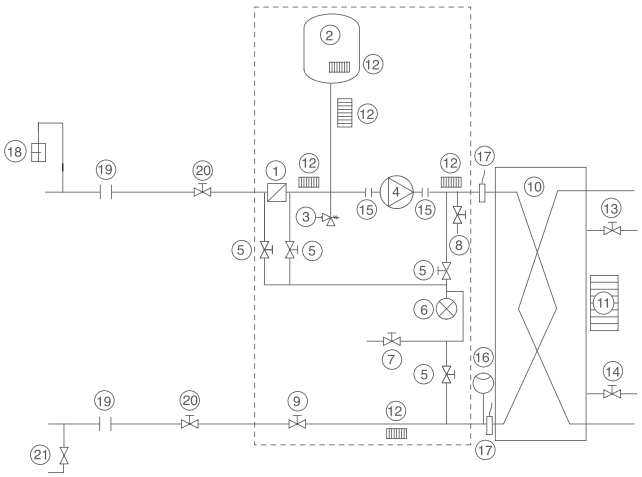






① 30XQ330 ② 30XQ430 ③ 30XQ502 , 30XQ930 module A ① 30XQ810 ② 30XQ910/1002/1035/1102 ① 30XQ660 ② 30XQ750
30XQ1150 module B, 30XQ1230 module B ④ 30XQ670/702
30XQ1150 module A, 30XQ1340 module A/B, 30XQ1420 module B
⑤ 30XQ745, 30XQ1230/1420 module A, 30XQ1502 module A/B

Hydronic Connections, 30XA



Legend:

Components of the unit and hydronic module

1 Victaulic screen filter
2 Expansion tank
3 Safety valve
4 Water pump
5 Pressure tap valve (see Installation Manual)
6 Pressure gauge to measure the component pressure loss (see Installation Manual)
7 System vent valve
8 Drain valve
9 Water flow control valve
10 Evaporator
11 Evaporator anti-freeze heater (option)
12 Hydronic module anti-freeze heater (option)
13 Air vent (evaporator)
14 Water purge (evaporator)
15 Expansion compensator (flexible connections)
16 Flow switch
17 Water temperature sensor

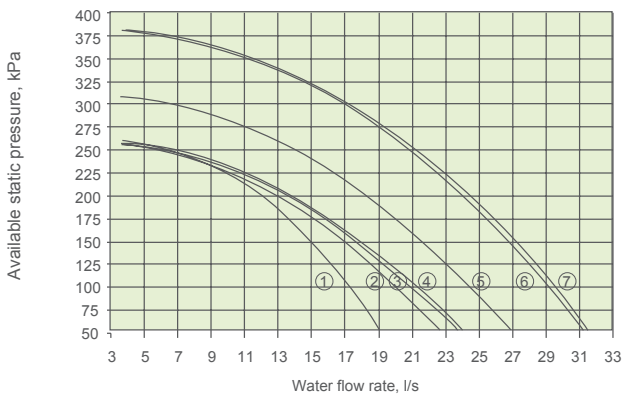
System components

18 Air vent
19 Flexible connection
20 Shut-down valves
21 Charge valve

--- Hydronic module (option)

Available Static System Pressure

High-pressure pumps



Legend
1 30XA 0252/0282
2 30XA 0342
3 30XA 0352
4 30XA 0302
5 30XA 0402/0442
6 30XA 0452/0482
7 30XA 0502

Minimum Water Loop Volume

For better control of leaving water temperature, the water loop minimum capacity is given by the formula:

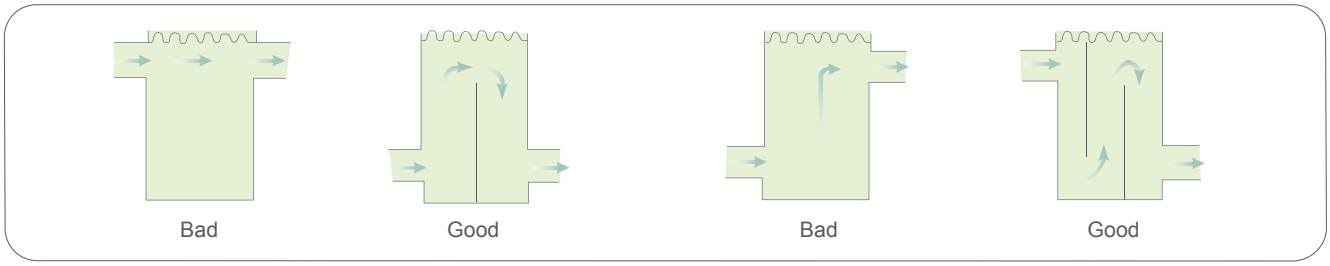
Capacity = CAP (kW) × N Liters

Application		N
Normal air conditioning	30XA0282-0482/30XA0252-1502/30XA0652-1392	3.5
	30XQ0330-1500	3.5
Process cooling	30XA0282-0482/30XA0252-1502/30XA0652-1392	6.5
	30XQ0330-1500	6.5

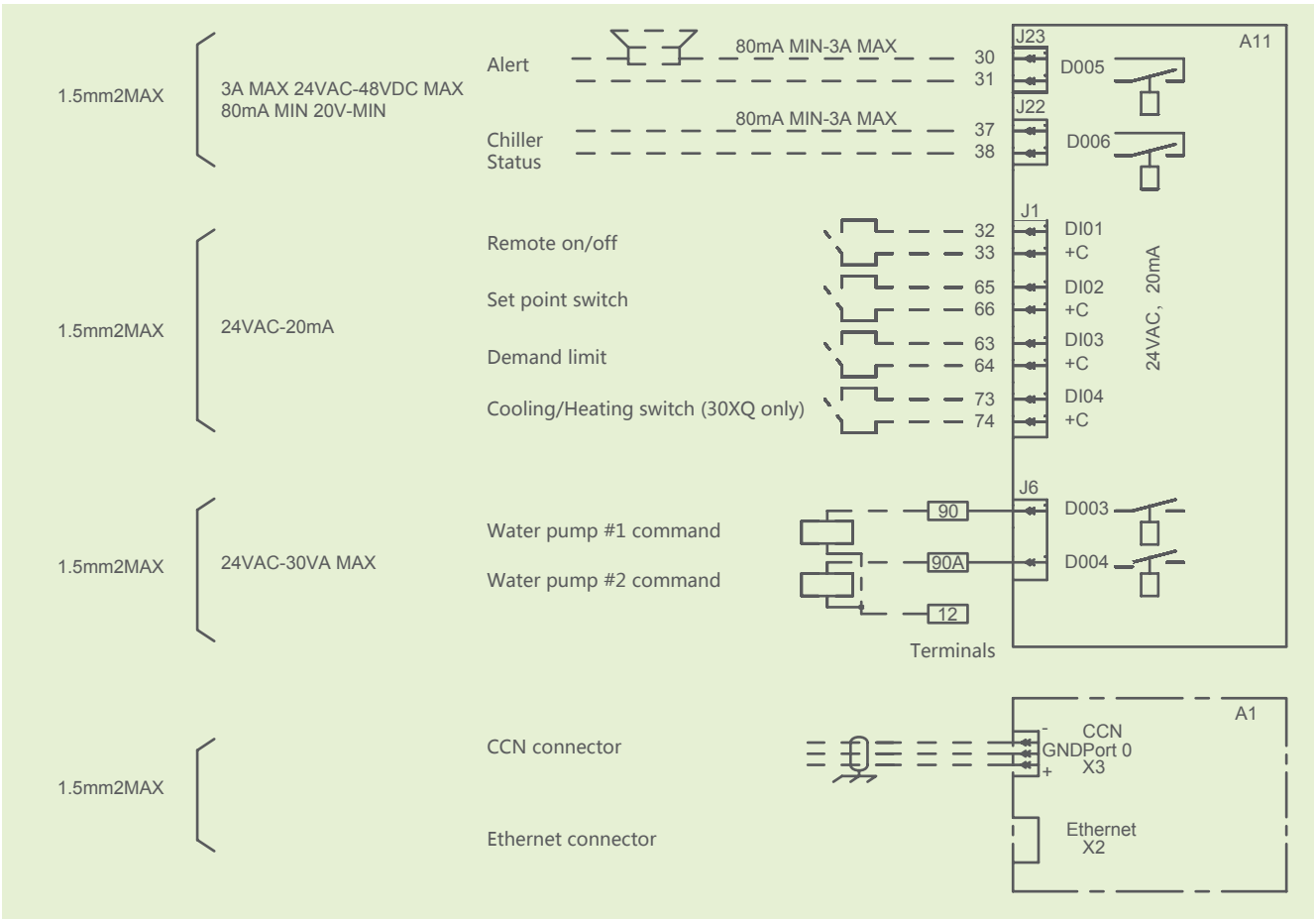
Where Cap is the nominal system cooling capacity (kW) at the nominal operating conditions of the installation.

This volume is necessary for stable operation and accurate temperature control.

It is often necessary to add a buffer water tank to the circuit in order to achieve the required volume. The tank must be internally baffled in order to ensure proper mixing of the liquid (water or brine). Refer to the examples below.



Field Control Wiring, 30XA/30XQ



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Supercede:	CAT_30XAXQ_E-1909_06
Effective date:	Nov, 2019