DYNACIAT LGN

Water chillers
Without condenser

Compact and silent

High energy efficiency
Scroll compressors
High-efficiency brazed-plate heat exchangers
Self-adjusting electronic control

Cooling capacity: 23 to 175 kW

Cooling
Hydraulic module
R-410A

USE

The latest generation of **DYNACIAT LGN** water chillers without condenser are the perfect solution for all cooling applications in the Offices, Healthcare, Industry, Administration, Shopping Centres and Collective Housing markets.

These units are designed to be installed in machine rooms that are protected against freezing temperatures and inclement weather.

For quick and easy installation, an optional hydraulic module offer is available on the evaporator side (chilled water production).

DYNACIAT is optimised to use ozone-friendly HFC R410A refrigerant.

This range guarantees compliance with the most demanding requirements for high energy efficiency and CO_2 reduction to comply with the various applicable European directives and regulations.

RANGE

DYNACIAT LGN series

Split system cooling only version without condenser.

DESCRIPTION

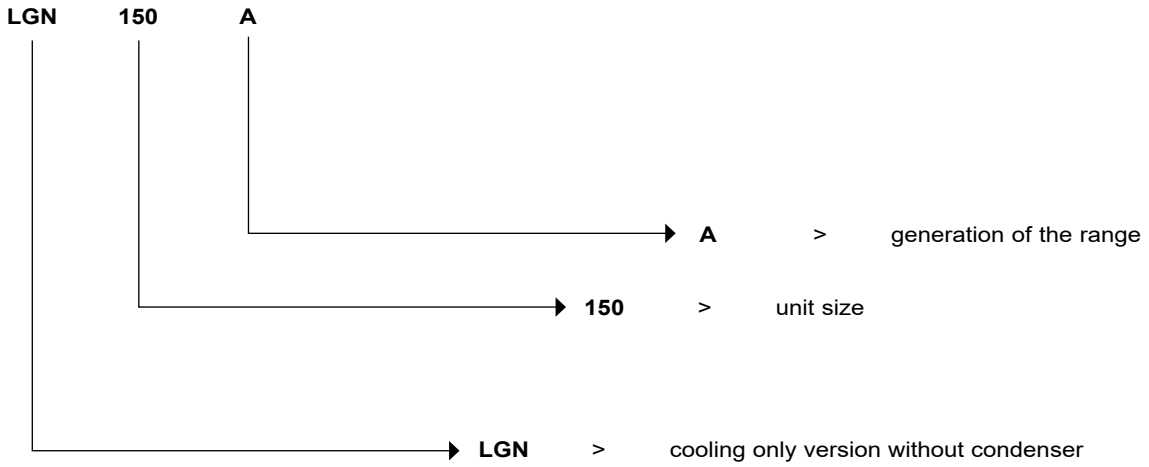
Units in the DYNACIAT LGN series are split-system type machines without condenser, supplied as standard with the following components:

- Hermetic SCROLL compressors
- Chilled-water evaporator with brazed plates
- Electrical power and remote control cabinet:
  - 400V-3ph-50Hz (+/-10%) general power supply + Earth
  - transformer fitted as standard on the machine for supplying the remote control circuit with 24V
- Connect Touch electronic control module
- Casing for indoor installation

The entire range complies with the following EC directives and standards:

- Machinery directive 2006/42/EC
- Electromagnetic compatibility directive 2014/30/EC
- EMC immunity and emissions EN 61800-3 'C3'
- Low voltage directive 2014/35/EU
- RoHS 2011/65/EU
- Pressure equipment directive (PED) 2014/68/EU
- Machinery directive EN 60-204 -1
- Refrigeration systems and heat pumps EN 378-2

DESCRIPTION



CONFIGURATION

LGN	Standard
LGN LN option	Standard Low Noise

DESCRIPTION OF THE MAIN COMPONENTS

Compressors

- Hermetic SCROLL type
- Electronic motor overheating protection
- Crankcase heater
- Mounted on anti-vibration mounts

Evaporator

- Brazed-plate exchanger
- Plate patterns optimised for high efficiency
- 19 mm armaflex thermal insulation

Refrigerating accessories

- Dehumidifier filters
- Hygroscopic sight glasses
- Electronic expansion valves
- Service valves on the liquid line

Regulation and safety instruments

- Low and high pressure sensors
- Safety valves on refrigerating circuit
- Water temperature control sensors
- Evaporator antifreeze protection sensor
- Factory-fitted evaporator water flow controller

Electrical cabinet

- Electrical cabinet with IP 23 protection rating
- A connection point without neutral
- Main safety switch with handle on front
- Control circuit transformer
- 24V control circuit
- Compressor motor circuit breaker
- Compressor motor contactors
- Connect Touch microprocessor-controlled electronic control module
- Wire numbering
- Marking of the main electrical components

Casing

Frame made from RAL7035 light grey & RAL 7024 graphite grey painted panels.

Connect Touch control module

- User interface with 4.3-inch touch screen
- Intuitive, user-friendly navigation using icons
- Clear text display of information available in 6 languages (F-GB-D-E-I-NL)

The electronic control module performs the following main functions:

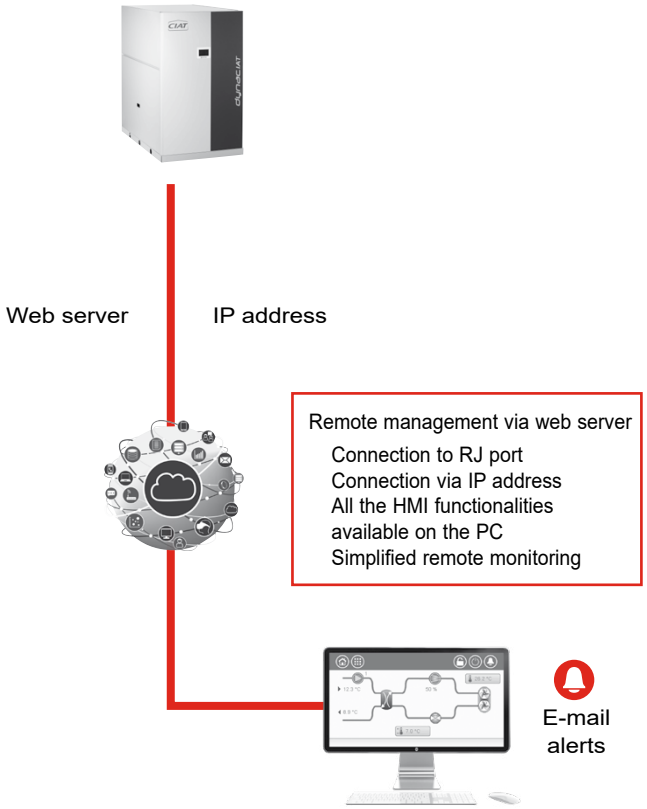
- Regulation of the water temperature (at the return or at the outlet)
- Regulation of the water temperature based on the outdoor temperature (water law)
- Regulation for low temperature energy storage
- Second setpoint management
- Complete management of compressors with start-up sequence, timer and operating time balancing
- Self-regulating and proactive functions with adjustment of the control to counter parameter drift
- Optimised defrosting with free defrost function to optimise performance at partial load and the SCOP
- In-series staged power control system on the compressors according to the thermal requirements
- Management of compressor short cycle protection
- Frost protection (exchanger heaters)
- Phase reversal protection
- Management of occupied/unoccupied modes (according to the time schedule)
- Compressor and pump runtime balancing
- Management of the machine operation limit according to outdoor temperature
- Sound level reduction device (night mode according to the user programme) with limitation of compressor capacity and fan speed
- Diagnostics of fault and operating statuses
- Management of a fault memory allowing a log of the last 50 incidents to be accessed, with operating readings taken when the fault occurs
- Blackbox memory
- Master/slave management of the two machines in parallel with operating time balancing and automatic changeover if a fault occurs on one machine
- Weekly and hourly time schedule for the machine, including 16 periods of absence
- Pump standby based on demand (energy saving)
- Calculation of the water flow rate and operating pressure (hydraulic module version)
- Electronic adjustment of the water pump speed and water flow rate (variable-speed pump option)
- Display of all machine parameters (3 access levels, User/Maintenance/Factory, password-protected): temperature, setpoints, pressures, water flow rate (hydraulic version), runtime.
- Display of trend curves for the main values
- Storage of maintenance manual, wiring diagram and spare parts list.

Remote management

Connect Touch is equipped as standard with an RS485 port and an ETHERNET (IP) connection, offering a range of options for remote management, monitoring and diagnostics.

Using the integrated Webserver, a simple internet connection uses the unit's IP address to access the Connect Touch interface on the PC, facilitating everyday management tasks and maintenance operations.

A range of communication protocols are available: MODBUS/JBUS RTU (RS485) or TC/IP as standard, LONWORKS – BACNET IP (Certified BTL) as an option, enabling most CMS/BMS to be integrated.



Several contacts are available as standard, enabling the machine to be controlled remotely by wired link:
- Automatic operation control: when this contact is open, the machine stops
- Setpoint 1/setpoint 2 selector: when this contact is closed, a second cooling setpoint is activated (energy storage or unoccupied mode, for example)
- Power limitation: closing the contact concerned allows the power or refrigerating consumption of the machine to be limited by stopping one or more compressors (this limit can be set with a parameter)
- Fault reporting: this contact indicates the presence of a major fault which has caused one or both refrigerating circuits to stop
- Operational status reporting indicates that the unit is in production mode.
- Switch control for the customer pump, external to the machine (on/off).

Contacts available as an option:
- Setpoint adjustable via 4-20 mA signal: this input is used to adjust the setpoint in COOLING mode.

Maintenance

Connect Touch has two maintenance reminder functions as standard, making users aware of the need to regularly perform maintenance operations and to guarantee the service life and performance of the unit. These two functions can be activated independently.
A reminder message appears on the unit's HMI screen, and stays there until it is acknowledged by the maintenance operator. The information and alert relating to these functions are available on the communication bus to be used on the CMS/BMS.

- The scheduled maintenance reminder: when activated, this function enables the period between two maintenance inspections to be set. This period may be set by the operator in either days, months or operating hours, depending on the application.
- The compulsory F-GAS sealing test maintenance reminder: when activated, this function, which is the default factory setting, enables the period between two sealing tests to be selected, according to the refrigerant charge, in compliance with the F-GAS regulations.

AVAILABLE OPTIONS

Options	Description	Advantages	LGN
Medium-temperature brine solution	Low-temperature chilled water production down to 0 °C with ethylene glycol and propylene glycol.	Covers specific applications such as ice storage and industrial processes	●
Soft Starter	Electronic starter on each compressor	Reduced start-up current	●
Master/slave operation	Unit equipped with supplementary water outlet temperature sensor kit (to be field installed) allowing master/slave operation of two units connected in parallel	Optimised operation of two units connected in parallel operation with operating time equalisation	●
Evap. single pump power/ control circuit	Unit equipped with an electrical power and control circuit for one pump evaporator side	Quick and easy installation: the control of fixed speed pumps is embedded in the unit control	Sizes 360 to 600
HP evap. single-pump	Evaporator hydraulic module equipped with high-pressure fixed-speed pump, drain valve, air vent and pressure sensors. For more details, refer to the dedicated chapter (expansion tank not included). Option with built-in safety hydraulic components available.)	Easy and fast installation (plug & play)	Sizes 360 to 600
LP evap. single-pump	Evaporator hydraulic module equipped with low pressure fixed-speed pump, drain valve, air vent and pressure sensors. For more details, refer to the dedicated chapter (expansion tank not included. Option with built-in safety hydraulic components available)	Easy and fast installation (plug & play)	●
HP evap. variable-speed single-pump	Evaporator hydraulic module equipped with high-pressure variable-speed pump, drain valve, air vent and pressure sensors. For more details, refer to the dedicated chapter (expansion tank not included. Option with built-in safety hydraulic components available)	Easy and fast installation (plug & play), significant pumping energy cost savings (more than two-thirds), tighter water flow control, improved system reliability.	●
LP VSD single-pump	Evaporator hydraulic module equipped with low -pressure variable-speed pump, drain valve, air vent and pressure sensors. For more details, refer to the dedicated chapter (expansion tank not included. Option with built-in safety hydraulic components available.)	Easy and fast installation (plug & play), significant pumping energy cost savings (more than two-thirds), tighter water flow control, improved system reliability	●
Dual high-pressure variable-speed pump.	Dual high-pressure water pump with variable speed drive (VSD), pressure transducers. Multiple possibilities of water flow control. For more details, refer to the dedicated chapter (expansion tank not included; option with built-in hydraulic safety components available)	Easy and fast installation (plug & play), significant pumping energy cost savings (more than two-thirds), tighter water flow control, improved system reliability	●
Lon gateway	Bi-directional communication board complying with Lon Talk protocol	Connects the unit by communication bus to a building management system	●
Bacnet over IP	Bi-directional high-speed communication using BACnet protocol over Ethernet network (IP)	Easy and high-speed connection by Ethernet line to a building management system. Allows access to multiple unit parameters	●
Condenser control	Control box for communication with the condenser via a bus. For OPERA condenser need to select the cabinet with option control cabinet manage by the chiller Connect'Touch control	Permits the use of an energy-efficient plug-and-play system	●
Compliance with Russian regulations	EAC certification	Compliance with Russian regulations	●
Insulation of the evap. in/out ref.lines	Thermal insulation of the evaporator entering/leaving refrigerant lines with flexible, UV resistant insulation	Prevents condensation on the evaporator entering/ leaving refrigerant lines	●

● ALL MODELS

Refer to the selection tool to find out which options are not compatible

Options	Description	Advantages	LGN
Low noise level	Compressor sound enclosure	Reduced sound emissions	●
Evaporator screw connection sleeves (kit)	Evaporator inlet/outlet screw connection sleeves	Allows unit connection to a screw connector	●
Replaceable filter drier	Filter drier with cartridge to replace hermetic filter	Easy filter replacement without emptying the refrigerant circuit	●
Safety hydraulic components, evap. side	Screen filter, expansion tank and relief valve integrated in the evaporator hydraulic module	Easy and fast installation (plug & play), operating safety	●
M2M supervision (accessory)	Monitoring solution which allows customers to track and monitor their equipment remotely in real time	Real-time expert technical support to improve equipment availability and reports at customer hand to monitor and optimize operating equipment.	●
Anti-vibration mounts (kit)	Elastomer antivibratils mounts to be place under the unit (Material classified B2 fire class according to DIN 4102).	Isolate unit from the building, avoid transmission of vibration and associate noise to the building. Must be used in conjunction with a flexible connection on the water side	●
Exchangers flexibles connection (kit)	Flexible connections on the exchanger water side	Easy installation. Limit transmission of vibrations on the water network	●
Flexible refrigerating sleeves	Flexibles connections on the refrigerant pipes	Easy installation. Limits the transmission of vibrations to the refrigerant network	●
Exchangers water filter (kit)	Water filter	Eliminate dust in the water network	● Without pump option
Set point adjustment by 4-20mA signal	Connections to allow a 4-20 mA signal input	Simplified energy management, enabling the setpoint to be set by a 4-20 mA external signal	●
External temperature sensor	External temperature sensor control for using weather compensation	Allow to adjust set point using weather compensation and define autorisation operation mode to external temperature	●
Free Cooling dry cooler management	Control & connections to a Free Cooling Drycooler Opera or Vextra fitted with option FC control box	Easy system management, Extended control capabilities to a drycooler used in Free Cooling mode	●

● ALL MODELS

Refer to the selection tool to find out which options are not compatible

TECHNICAL CHARACTERISTICS

DYNACIAT LGN				080	090	100	120	130	150	180	200	240	260	300
Cooling														
Standard unit		Nominal capacity	kW	22,8	27	29,1	34	39,2	42,7	54,5	59,1	67,5	78,2	87,4
Full load performances *	CS1	EER	kW/kW	3,70	3,76	3,68	3,73	3,75	3,70	3,70	3,66	3,64	3,81	3,77
	CS2	Nominal capacity	kW	31,9	37,6	40,3	47	53,2	61,3	74,5	81,2	94,9	108	121
		EER	kW/kW	5,35	5,25	5,11	5,09	4,99	5,15	5,16	5,15	5,18	5,26	5,13
Sound levels														
Standard unit														
Sound power(1)			dB(A)	67	69	69	69	70	70	72	72	72	73	73
Sound pressure at 10 m(2)			dB(A)	36	37	38	38	39	39	40	41	41	42	42
Unit with Low Noise option														
Sound power(1)			dB(A)	65	66	66	67	68	68	68	69	69	69	70
Sound pressure at 10 m(2)			dB(A)	34	35	35	35	37	37	37	37	38	38	39
Dimensions														
Length			mm	1044	1044	1044	1044	1044	1044	1474	1474	1474	1474	1474
Width			mm	600	600	600	600	600	600	880	880	880	880	880
Height			mm	901	901	901	901	901	901	901	901	901	901	901
Operating Weight (3)														
Standard unit			kg	164	171	171	177	180	185	321	324	332	339	354
Unit with evaporator with single LP pump			kg	250	258	258	263	266	271	431	435	442	449	465
Compressors				Hermetic Scroll 48.3 r/s										
Circuit A			Qty	1	1	1	1	1	1	2	2	2	2	2
Number of power stages			Qty	1	1	1	1	1	1	2	2	2	2	2
Refrigerant (3)				R410A (GWP=2088 following ARI4)										
Oil charge				160SZ										
Circuit A			L	3	3,3	3,3	3,3	3,3	3,6	3,3	3,3	3,3	3,3	3,6
Power control				Connect'Touch Control										
Minimum capacity			%	100	100	100	100	100	100	50	50	50	50	50
Water type heat exchanger				Direct expansion, plate heat exchanger										
Evaporator														
Water volume			L	3,3	3,6	3,6	4,2	4,6	5	8,4	9,2	9,6	10,4	12,5
Max. water-side operating pressure without hydraulic module			kPa	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Hydronic module (optional)														
Single pump (as required)				Pump, Victaulic screen filter, drain valves (water and air), pressure sensors										
Expansion tank volume			L	8	8	8	8	8	8	12	12	12	12	12
Expansion vessel pressure(4)			bar	3	3	3	3	3	3	3	3	3	3	3
Max. water-side operating pressure with hydraulic module			kPa	300	300	300	300	300	300	300	300	300	300	300
Water connections with or without hydronic module				Victaulic®										
Connections			inch	1,5	1,5	1,5	1,5	1,5	1,5	2	2	2	2	2
External diameter			mm	48,3	48,3	48,3	48,3	48,3	48,3	60,3	60,3	60,3	60,3	60,3
Casing paint				Colour code RAL 7035/RAL 7024										

* In accordance with standard EN14511-3:2013.

CS1 Cooling mode conditions: evaporator water inlet/outlet temperature 12 °C/7 °C, saturated condensing temperature 45 °C, subcooling 5 K, evaporator fouling factor 0 m2. k/W

CS2 Cooling mode conditions: evaporator water inlet/outlet temperature 23 °C/18 °C, saturated condensing temperature 45 °C, subcooling 5 K, evaporator fouling factor 0 m2. k/W

(1) in dB ref=10-12 W, 'A' weighted. Declared dual-number noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). Measured in accordance with ISO 9614-1.

(2) In dB ref 20µPa, 'A' weighted. Declared dual-number noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). For information, calculated from the sound power Lw(A).

(3) Values are guidelines only. Refer to the unit name plate.

(4) On delivery, the vessels are preinflated to a standard value, which may not be the optimum one for the installation. To enable the water volume to be varied as desired, adapt the inflation pressure to a value close to that which corresponds to the static height of the installation. Fill the installation with water (bleeding out any air) at a pressure more than 10 to 20 kPa higher than the vessel pressure.

TECHNICAL CHARACTERISTICS

DYNACIAT LGN				360	390	450	480	520	600
Cooling									
Standard unit		Nominal capacity	kW	106	119	132	140	159	175
Full load performances *	CS1	EER	kW/kW	3,78	3,78	3,72	3,74	3,81	3,73
	CS2	Nominal capacity	kW	146	166	185	195	218	247
		EER	kW/kW	5,24	5,17	5,12	5,32	5,17	5,26
Sound levels									
Standard unit									
Sound power(1)			dB(A)	76	77	78	76	77	78
Sound pressure at 10 m(2)			dB(A)	44	45	46	44	45	47
Dimensions									
Length			mm	1583	1583	1583	1583	1583	1583
Width			mm	880	880	880	880	880	880
Height			mm	1574	1574	1574	1574	1574	1574
Operating Weight (3)									
Standard unit			kg	630	647	665	751	774	796
Unit with evaporator with single LP pump			kg	674	691	709	797	846	868
Compressors				Hermetic scroll 48.3 rev/s					
Circuit A			Qty	3	3	3	2	2	2
Circuit B			Qty	-	-	-	2	2	2
Number of power stages			Qty	3	3	3	4	4	4
Refrigerant (3)				R410A (GWP=2088 following ARI4)					
Oil charge									
Circuit A			L	3,3	3,3	3,6	3,3	3,3	3,6
Circuit B			L	-	-	-	3,3	3,3	3,6
Power control				Connect'Touch Control					
Minimum capacity			%	33%	33%	33%	25%	25%	25%
Water type heat exchanger									
Evaporator				Direct expansion, plate heat exchanger					
Water volume			L	15,18	17,35	19,04	23,16	26,52	29,05
Max. water-side operating pressure without hydraulic module			kPa	1000	1000	1000	1000	1000	1000
Hydronic module (optional)									
Single pump (as required)				Pump, Victaulic screen filter, drain valves (water and air), pressure sensors					
Expansion tank volume			L	25	25	25	35	35	35
Expansion vessel pressure(4)			bar	4	4	4	4	4	4
Max. water-side operating pressure with hydraulic module			kPa	400	400	400	400	400	400
Water connections with or without hydronic module				Victaulic®					
Connections			inch	2,5	2,5	2,5	3	3	3
External diameter			mm	73	73	73	88,9	88,9	88,9
Casing paint				Colour code RAL 7035/RAL 7024					

* In accordance with standard EN14511-3:2013.

CS1 Cooling mode conditions: evaporator water inlet/outlet temperature 12 °C/7 °C, saturated condensing temperature 45 °C, subcooling 5 K, evaporator fouling factor 0 m2. k/W

CS2 Cooling mode conditions: evaporator water inlet/outlet temperature 23 °C/18 °C, saturated condensing temperature 45 °C, subcooling 5 K, evaporator fouling factor 0 m2. k/W

(1) in dB ref=10-12 W, 'A' weighted. Declared dual-number noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). Measured in accordance with ISO 9614-1.

(2) In dB ref 20µPa, 'A' weighted. Declared dual-number noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). For information, calculated from the sound power Lw(A).

(3) Values are guidelines only. Refer to the unit name plate.

(4) On delivery, the vessels are preinflated to a standard value, which may not be the optimum one for the installation. To enable the water volume to be varied as desired, adapt the inflation pressure to a value close to that which corresponds to the static height of the installation. Fill the installation with water (bleeding out any air) at a pressure more than 10 to 20 kPa higher than the vessel pressure.

ELECTRICAL SPECIFICATIONS

LGN- Standard unit (without hydraulic module)		080	090	100	120	130	150	180	200	240	260	300
Power circuit												
Nominal voltage	V-ph-Hz	400-3-50										
Voltage range	V	360-440										
Control circuit supply		24 V via internal transformer										
Nominal unit operating current draw(3)												
Circuit A&B	A	11,4	13,8	14,7	16,5	18,1	21,2	27,6	29,4	33,1	36,4	42,5
Maximum unit power input(2)												
Circuit A&B	kW	9,2	10,8	11,7	13,7	15,1	17,1	21,5	23,3	27,3	30,3	34,2
Unit power factor at maximum capacity (2)		0,85	0,83	0,85	0,85	0,86	0,85	0,83	0,85	0,85	0,86	0,85
Unit max. operating current draw (Un-10%) (5)												
Circuit A&B	A	17,3	20,8	22	25,8	28,2	32,2	41,6	44	51,6	56,4	64,4
Maximum unit current draw (Un) (4)												
Circuit A&B - Standard unit	A	15,6	18,7	19,8	23,2	25,4	29	37,4	39,6	46,4	50,8	58
Maximum start-up current, standard unit (Un) (1)												
Circuit A&B	A	98	142	142	147	158	197	161	162	170	183	226
Maximum start-up current, unit with a soft-starter (Un) (1)												
Circuit A&B	A	53,9	78,1	78,1	80,9	86,9	108,4	96,8	97,9	104,1	112,3	137,4

LGN- Standard unit (without hydraulic module)		360	390	450	480	520	600
Power circuit							
Nominal voltage	V-ph-Hz	400-3-50					
Voltage range	V	360-440					
Control circuit supply		24 V via internal transformer					
Nominal unit operating current draw(3)							
Circuit A&B	A	49,5	54,3	63,6	66	72,4	84,8
Maximum unit power input(2)							
Circuit A&B	kW	42	44,9	51,2	55,9	59,8	68,3
Unit power factor at maximum capacity (2)		0,87	0,85	0,85	0,87	0,85	0,85
Unit max. operating current draw (Un-10%) (5)							
Circuit A&B	A	77,3	84,7	96,7	103,1	112,9	128,9
Maximum unit current draw (Un) (4)							
Circuit A&B - Standard unit	A	69,6	76,2	87	92,8	101,6	116
Maximum start-up current, standard unit (Un) (1)							
Circuit A&B	A	193,4	208,8	255	216,6	234,2	284
Maximum start-up current, unit with a soft-starter (Un) (1)							
Circuit A&B	A	127,3	137,7	166,3	150,4	163,1	195,3

(1) Maximum instantaneous starting current (maximum operating current of the smallest compressor(s) + locked rotor current of the largest compressor).
(2) Power input, at the unit's permanent operating limits (indication given on the unit's name plate).
(3) Standardised EUROVENT conditions, water type heat exchanger inlet/outlet 12 °C/7 °C, saturated condensing temperature 45 °C and subcooling 5 K.
(4) Unit maximum current at 400 V, in non-continuous operation (indicated on the unit name plate).
(5) Unit maximum current at 360 V, in non-continuous operation.

ELECTRICAL SPECIFICATIONS

Short circuit current withstand capability (TN system(1))

DYNACIAT LGN		080	090	100	120	130	150	180	200	240	260	300
Value without upstream protection												
Short time assigned current (1s) - Icw	kA eff	3	3	3	3	3	3	3	3	3	3	3
Allowable peak assigned current - Ipk	kA pk	6	6	6	6	6	6	6	6	6	6	6
Value with upstream protection												
Conditional short circuit assigned current Icc	kA eff	40	40	40	40	40	40	40	40	40	40	40
Associated Schneider circuit breaker - Compact type range(2)		NSX 100N										

DYNACIAT LGN		360	390	450	480	520	600
Value without upstream protection							
Short time assigned current (1s) - Icw	kA eff	5,5	5,5	5,5	5,5	5,5	5,5
Allowable peak assigned current - Ipk	kA pk	20	20	20	20	20	20
Value with upstream protection							
Conditional short circuit assigned current Icc	kA eff	154	154	154	154	154	154
Associated Schneider circuit breaker - Compact type range(2)		NSX 100N					

(1) Type of system earthing
(2) If another current limiting protection device is used, its time-current trip and I^2t thermal stress characteristics must be at least equivalent to those of the recommended Schneider circuit breaker.
The short-circuit withstand values given above were determined for the TN system.

INTELLIGENTLY-DESIGNED ACOUSTICS

To comply with the various restrictions on integration, the DYNACIAT has two sound finish levels enabling it to be easily integrated into a number of zones without causing disruption to users or their neighbours.

Basic version

The distinguishing feature of the DYNACIAT range is its rigorous design incorporating "noiseless" assembly techniques to reduce vibrations and sources of noise:

- New generation scroll compressors with a continuous scrolling motion to lessen vibrations
- Compressor structure separated from the unit by anti-vibration mounts
- Pipes separated from the unit structure

Low Noise option

In this version, the compressors are housed inside noise insulating jackets.

Acoustic signature

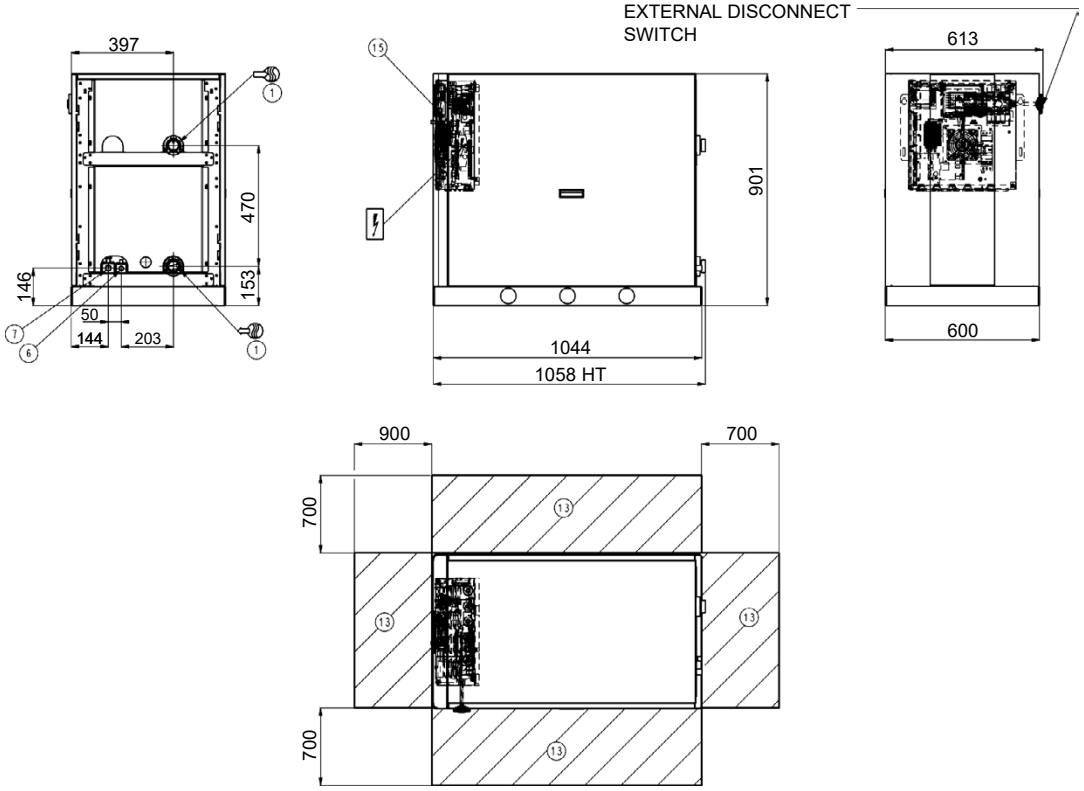
As important as the sound power level, the acoustic signature reflects the noise disturbance generated by the unit.

The installation of a variable-speed pump enables the sound level of the pump function to be reduced by adjusting the pump speed to what is strictly necessary. The soft start improves the signature and reduces nuisance noise.

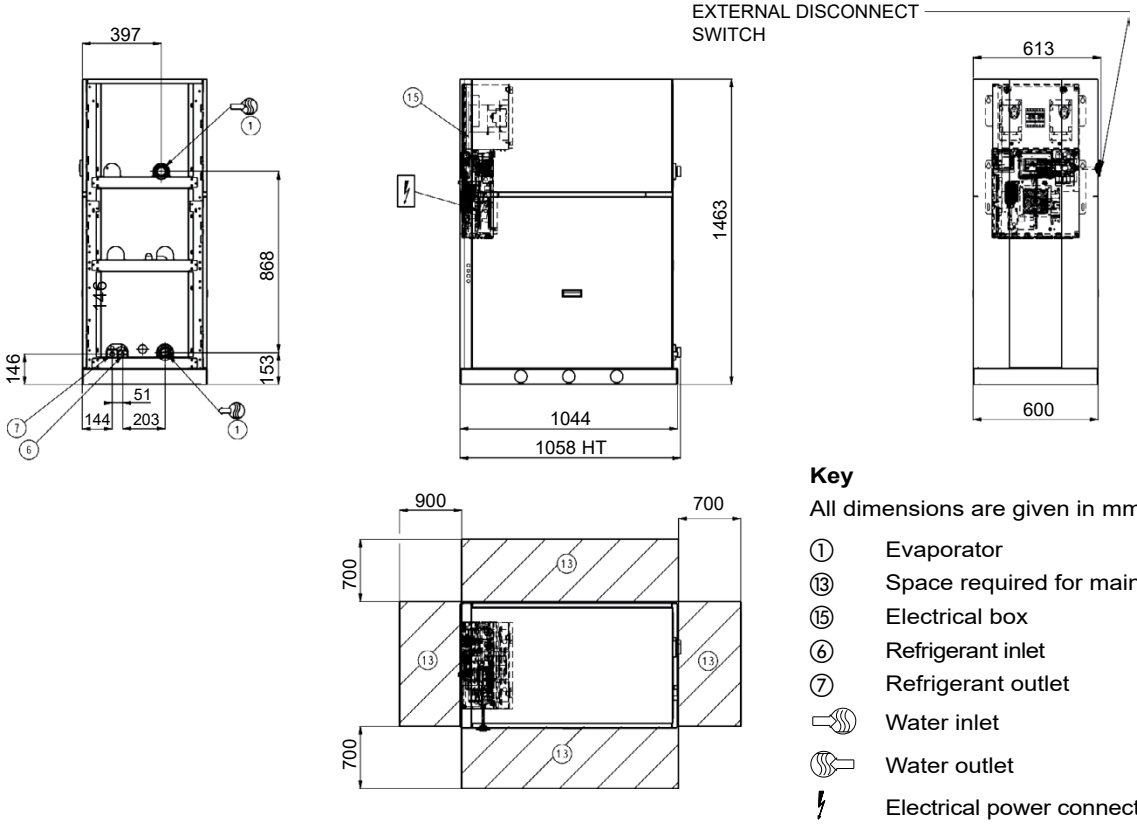
With all these benefits and its two acoustic finish levels (Standard and Xtra Low Noise), the DYNACIAT ensures any environmental noise constraints can be met.

DIMENSIONS

DYNACIAT LGN 80 to 150 without hydraulic module



DYNACIAT LGN 80 to 150 with hydraulic module



Key

All dimensions are given in mm

①	Evaporator
⑬	Space required for maintenance
⑮	Electrical box
⑥	Refrigerant inlet
⑦	Refrigerant outlet
	Water inlet
	Water outlet
	Electrical power connection

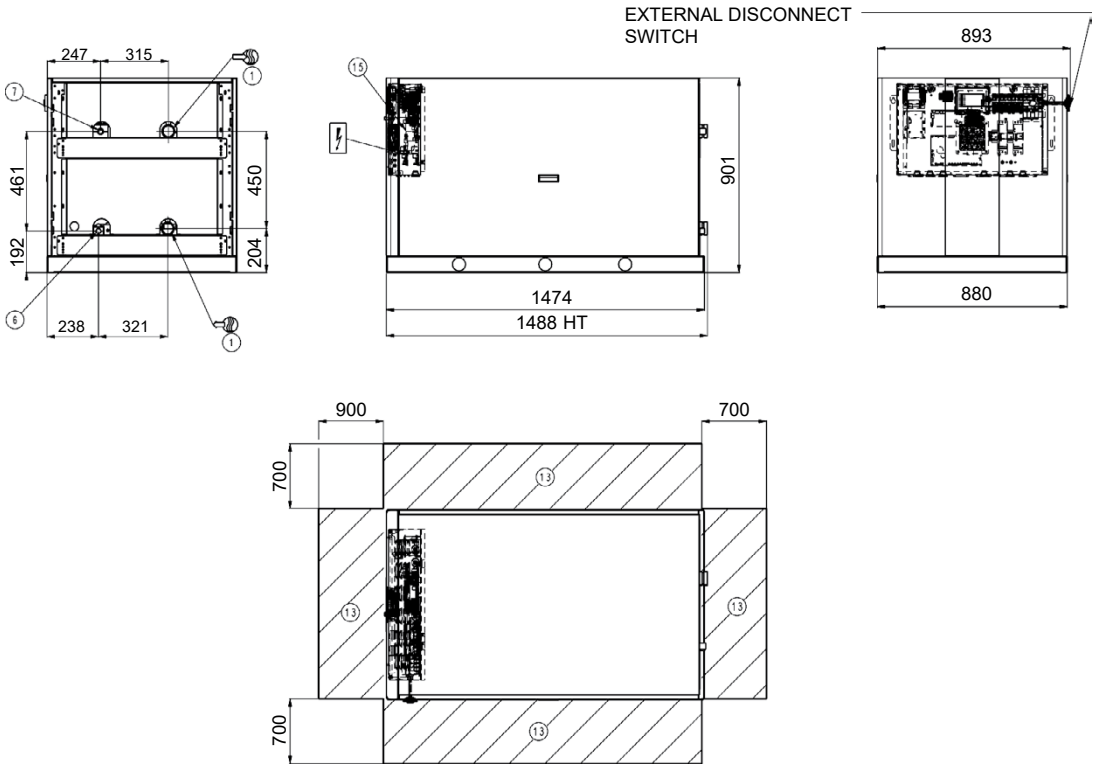
Notes:

Non-contractual drawings.

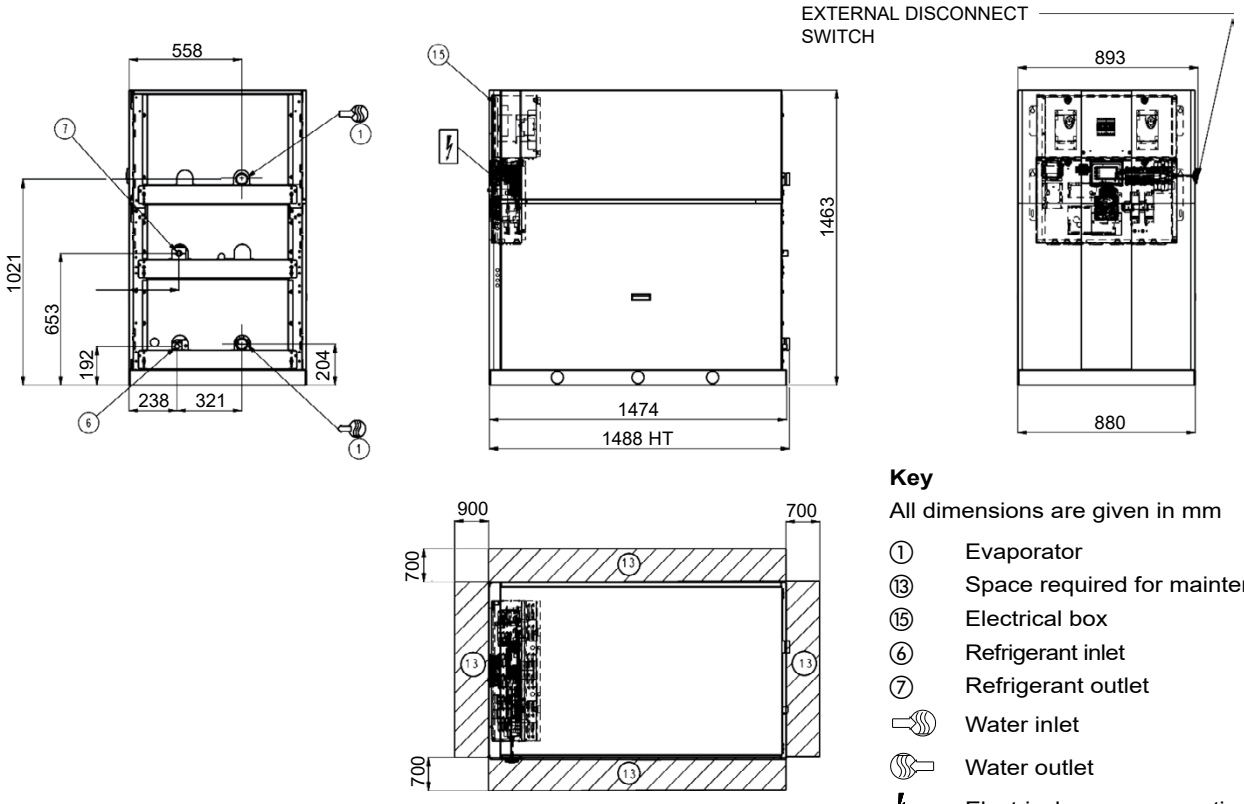
When designing a system, refer to the certified dimensional drawings provided with the unit or available on request.

DIMENSIONS

DYNACIAT LGN 180 to 300 without hydraulic module



DYNACIAT LGN 180 to 300 with hydraulic module



Key

All dimensions are given in mm

①	Evaporator
⑬	Space required for maintenance
⑮	Electrical box
⑥	Refrigerant inlet
⑦	Refrigerant outlet
	Water inlet
	Water outlet
	Electrical power connection

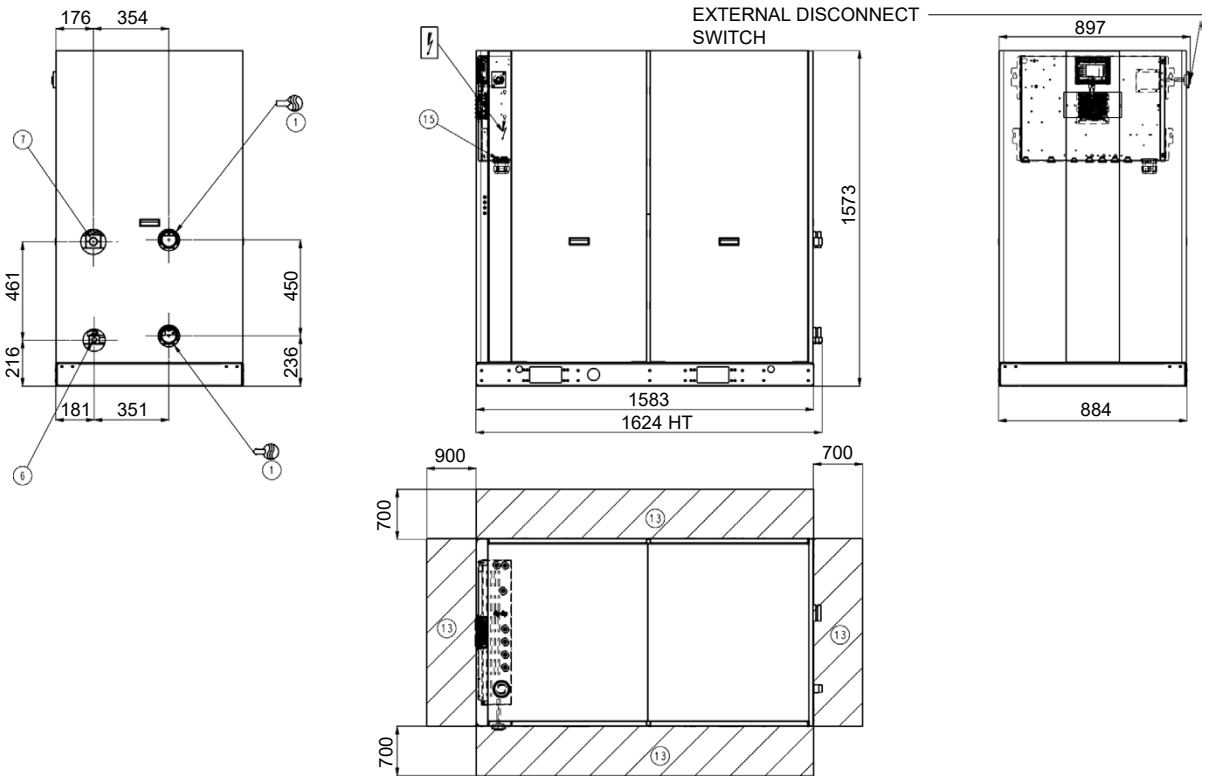
Notes:

Non-contractual drawings.

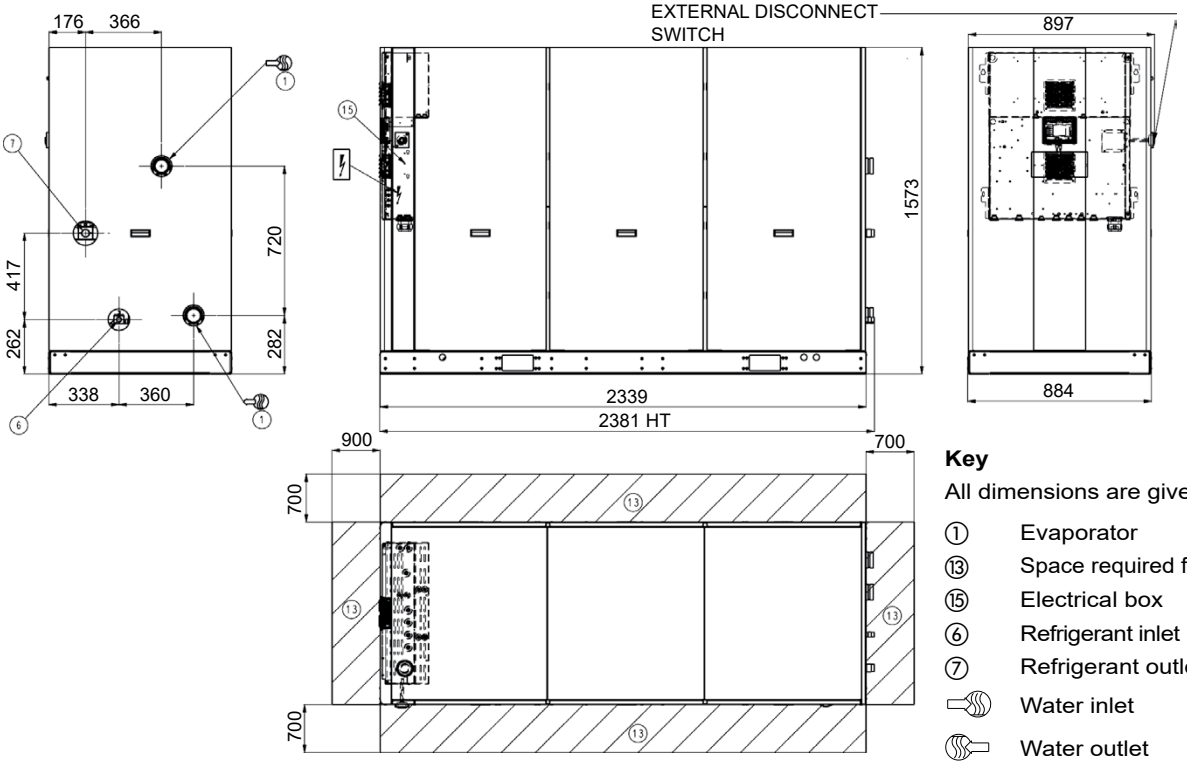
When designing a system, refer to the certified dimensional drawings provided with the unit or available on request.

DIMENSIONS

DYNACIAT LGN 360 to 450 without hydraulic module



DYNACIAT LGN 360 to 450 with hydraulic module



Key

All dimensions are given in mm

①	Evaporator
⑬	Space required for maintenance
⑮	Electrical box
⑥	Refrigerant inlet
⑦	Refrigerant outlet
	Water inlet
	Water outlet
	Electrical power connection

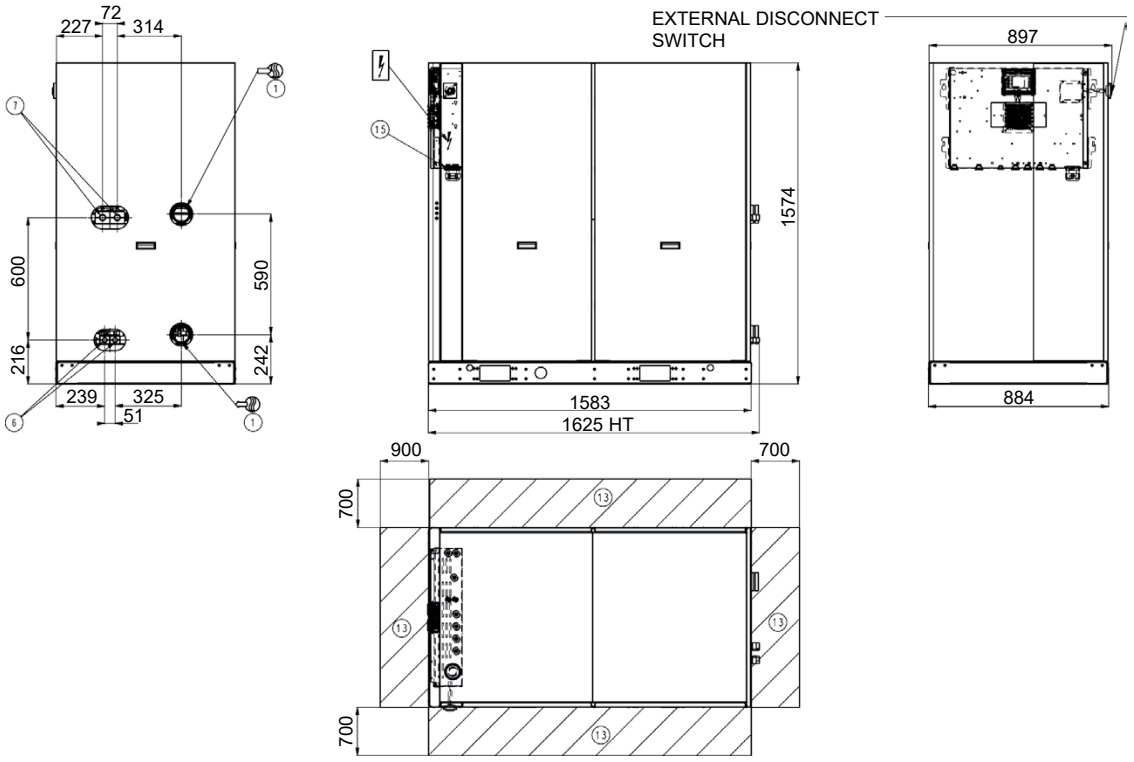
Notes:

Non-contractual drawings.

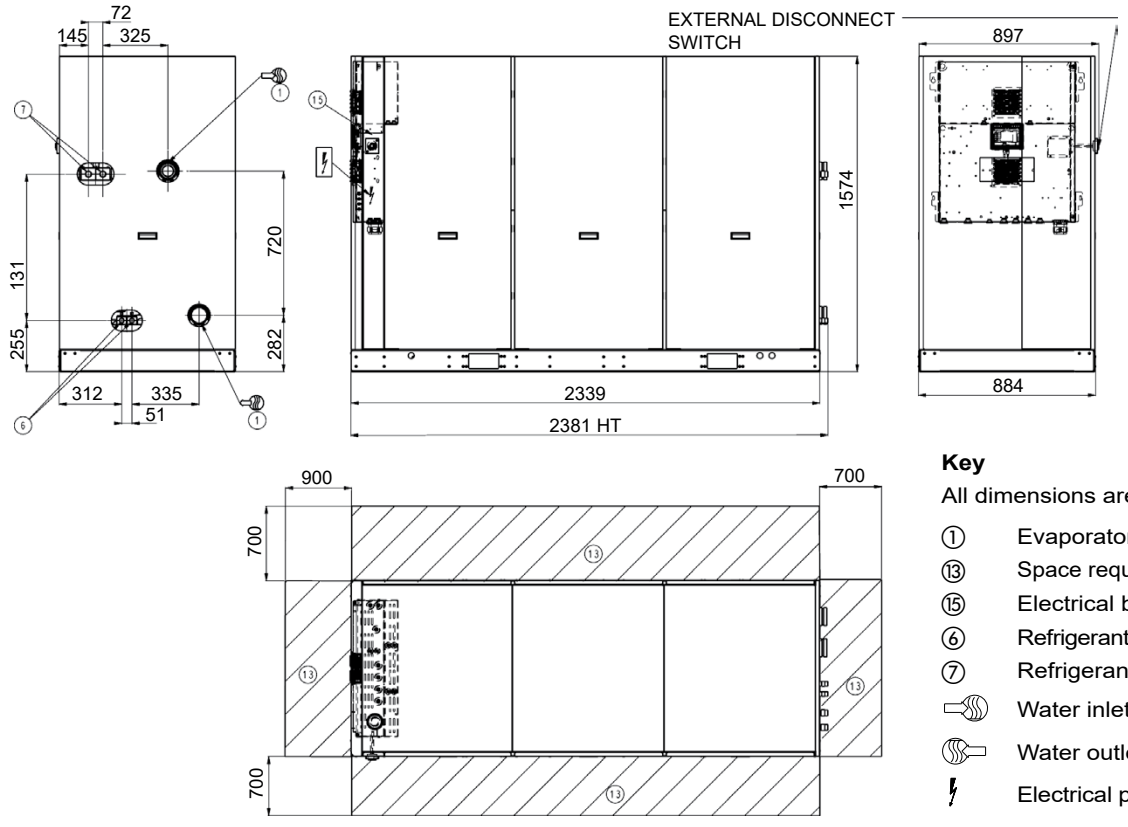
When designing a system, refer to the certified dimensional drawings provided with the unit or available on request.

DIMENSIONS

DYNACIAT LGN 480 to 600 without hydraulic module



DYNACIAT LGN 480 to 600 with hydraulic module



Key

All dimensions are given in mm

①	Evaporator
⑬	Space required for maintenance
⑮	Electrical box
⑥	Refrigerant inlet
⑦	Refrigerant outlet
	Water inlet
	Water outlet
	Electrical power connection

Notes:

Non-contractual drawings.

When designing a system, refer to the certified dimensional drawings provided with the unit or available on request.