

Outdoor packaged unit

GLE 680 - 1080 kW



R-454B
refrigerant



A2L gas leak
detection



Scroll
compressor



Cooling only



Heating/
Cooling

PLUS

- » High efficiency when operating at partial load
- » Electronically controlled electric expansion valve
- » Incorporable hydronic kit
- » High configurability and wide availability of accessories
- » Compact dimensions
- » Use of low GWP refrigerant
- » 3 different acoustic configurations

The "W" configuration of the finned block heat exchangers makes it possible to have a large amount of exchange surface with a small footprint, thereby resulting in machines with high power density.

Multi-scroll solutions for reliability and high efficiency at partial loads with low GWP refrigerant

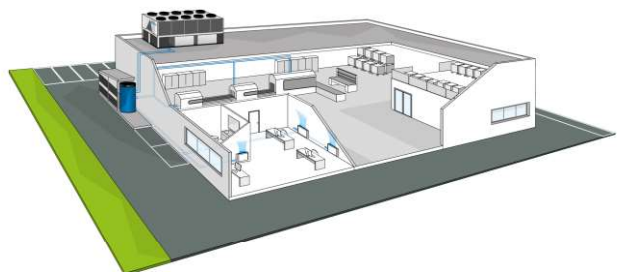
GLE is Galletti's new range of air-cooled big capacity packaged chillers and heat pumps for outdoor installation featuring R454B refrigerant. R454B is a next generation A2L refrigerant with a GWP of only 467, one of the lowest on the market. This GWP value ensures that the GLE range complies with the gradual reduction of greenhouse gas emissions required by the F-GAS regulation, down to the stricter limits foreseen for 2030.

The range consists of 6 models with cooling capacities from 680 to 1080 kW, available in cooling only or reversible heat pump versions. The sizing and choice of individual components is intended to reduce energy consumption with a view to saving energy not only on each individual chiller but on the entire system. The high number of capacity control steps allows the unit to adapt its power to the actual needs of the system, with particular gains in efficiency under partial load conditions compared to traditional screw compressors.

The unit is suitable for being installed in environments where noise abatement is fundamentally important, thanks to the possibility of choosing from three sound-proofing set-ups.

The use of top quality components at the cutting edge of technology in the cooling, hydraulic, and electrical systems makes GLE chillers state of the art in terms of efficiency, reliability, and operating limits.

In fact, the ability to produce water from -10°C to 55°C, and full load operation with external air from -10°C to 45°C.



MAIN COMPONENTS

Structure

Painted galvanised sheet steel structure for an effective resistance to corrosive agents. Compressor compartment located below the finned heat exchangers to reduce the dimensions without compromising performance.

Compressors

Hermetic scroll compressors driven by electric motors and connected in tandem or trio version to maximize efficiency at partial loads.

Electronically controlled electric expansion valve

It represents, together with the compressor, the key component for the proper functioning of the unit. It optimizes the machines' operation at partial loads and increases the average seasonal energy efficiency.

Heat exchangers

Finned heat exchangers with copper pipes and aluminum fins in a "W"

Very low GWP refrigerant

Use of R454B refrigerant with low environmental impact. R454B is a next-generation A2L refrigerant with a GWP of only 467, one of the lowest on the market. This GWP value ensures the range complies with the gradual reduction of quotas of greenhouse refrigerants in the European market required by the F-GAS regulation, down to the stricter limits foreseen for 2030

Hydraulic kit

Option of choosing one or two pumps at standard or high head to meet system requirements, suitable for operation with glycol up to 30% and can be combined with a heat buffer tank.

CONFIGURATOR

The models are completely configurable by selecting the version and the options. To the right is shown an example of configuration.

Version	Field	1	2	3	4	5	6	7	8	9	10	11	12
GLE658CL		0	B	4	S	0	C	0	2	0	0	M	3

To verify the compatibility of the options, use the selection software or the price list.

AVAILABLE VERSIONS

Only cooling versions

GLE...CS	Standard execution
GLE...CL	Low noise execution
GLE...CQ	Super low noise execution

Heat pump versions

GLE...HS	Reversible, standard execution
GLE...HL	Reversible, low noise execution
GLE...HQ	Reversible, quite execution

CONFIGURATION OPTIONS

1 Power supply	0 Absent	0 Absent
1 400V-3-50Hz + transformer	1 400V-3-50Hz + N	1 RS485 serial card (Modbus or Carel protocol)
2 400V-3-50Hz + N + Circuit breakers	2 400V-3-50Hz + N + Circuit breakers	2 Lonworks serial card
3 400V-3-50Hz + circuit breakers	3 400V-3-50Hz + circuit breakers	4 Ethernet card (SNMP or BACNET protocol) + clock card
2 Refrigerant	3 400V-3-50Hz + circuit breakers	5 Ethernet card + clock card + monitoring software
B R454B		9 Special coils / Protective treatments
3 User side water pump		0 Standard
0 Absent		B Epoxy pre-painted fin and overall painting
1 Single pump		C Cataphoresis
2 Oversize single pump		H Hydrophilic treatment
5 Double pump in timed rotation		R Copper / copper
6 Oversize double pump in timed rotation		10 Packing
7 Single modulating pump (electr. Flow switch included)		0 Standard
8 Single HP modulating pump (electr. Flow switch included)		1 Wooden cage
9 Double modulating pump (standby rotation) (electr. Flow switch included)		2 Wooden crate
A Double HP modulating pump (standby rotation) (electr. Flow switch included)		11 Anti vibration shock mounts
4 Water buffer tank		0 Absent
0 Absent		G Rubber vibration dampers at the base of the unit
S Inertial tank on user side		M Spring vibration dampers at the base of the unit
5 Partial heat recovery (condensation control mandatory)		12 Maintenance kit
0 Absent		0 Absent
D Desuperheater (recovery of 40% of Pf in rated conditions)		S Shut-off valves on compressor tandem / trio
6 Air flow modulation		13 Documentation language
C Condensation control by phase-cut fans		D German
E Condensation control with "EC brushless" electronic control fans		F French
7 Antifreezing kit		G English
0 Absent		I Italian
E Protecting the water exchanger (standard machine)		N Dutch
P Protecting the water exchanger and pump		P Polish
S Protecting the water exchanger, pump and tank		R Russian
8 Remote communication		S Spanish

ACCESSORIES

A Power factor capacitors	L Filter shut-off kit (solenoid and tap on liquid line)
B Soft starter	M Special cable according to VDE regulation
C Service kit (advanced controller required)	N Remote control panel for programmable microprocessor
D Pair of couplings Victaulic	P Outdoor finned coil heat exchanger protection grille
E ON/OFF status of the compressors	Q Finned battery metal filters
F Remote control for step capacity limit (advanced controller required)	R Y-shaped water filter (loose delivered)
G Configurable digital alarm board (advanced controller required)	S Unit without refrigerant
H Set point compensation outdoor temperature probe	T Measurement and limitation of the absorbed current
I Refrigerant pressure gauges	

Chillers and HP with Low GWP refrigerant GLE

GLE C WATER CHILLERS RATED TECHNICAL DATA

GLE			658	748	818	900	942	1072
Power supply		V-ph-Hz	400 / 3+N / 50					
Cooling capacity	(1)	kW	677	739	815	927	1037	1078
Total power input	(1)	kW	232	243	280	298	338	370
EER	(1)		2,92	3,04	2,92	3,11	3,06	2,91
SEER	(2)		4,98	5,10	4,93	5,14	5,40	5,30
Water flow	(1)	l/h	116360	126965	140077	159254	178111	185264
Water pressure drop	(1)	kPa	16	26	32	34	42	45
Available pressure head - LP pumps	(1)	kPa	228	192	151	203	175	162
Available pressure head - HP pumps	(1)	kPa	263	285	268	298	272	260
Maximum current absorption		A	479	568	588	706	715	839
Start up current		A	753	667	743	834	1013	1095
Compressors / circuits			8/4	8/4	8/4	10/4	12/4	12/4
Buffer tank volume		dm ³	1040	1040	1040	1040	1040	1040
Sound power level Lw (base unit)	(3)	dB(A)	93	93	95	93	95	94
Sound power level Lw (Low noise unit)	(3)	dB(A)	91	90	92	91	93	92
Sound power level Lw (Super Low noise unit)	(3)	dB(A)	89	89	90	89	90	90
Weight without options		kg	4662	4996	5116	5682	5980	8350

(1) Outdoor air temperature 35°C, water temperature 12°C / 7°C (EN14511:2018)

(2) η efficiency values for heating and cooling are respectively calculated by the following formulas: $[\eta = SCOP / 2,5 - F(1) - F(2)]$ e $[\eta = SEER / 2,5 - F(1) - F(2)]$. For further information, please refer to the technical document "ErP 2009/125/EC DIRECTIVE" in the catalogue introducing pages, or to the EN14825:2017 regulation.

(3) Sound power level measured according to ISO 9614

GLE H HEAT PUMPS RATED TECHNICAL DATA

GLE			658	748	818	900	942	1072
Power supply		V-ph-Hz	400 / 3+N / 50					
Cooling capacity	(1)	kW	677	734	811	906	1012	1118
Total power input	(1)	kW	232	246	283	311	352	356
EER	(1)		2,92	2,99	2,87	2,92	2,87	3,14
SEER	(2)		4,92	4,96	4,80	4,84	5,04	5,30
Water flow	(1)	l/h	116360	126052	139346	155644	173844	192154
Water pressure drop	(1)	kPa	16	26	31	33	40	48
Available pressure head - LP pumps	(1)	kPa	228	195	154	208	182	150
Available pressure head - HP pumps	(1)	kPa	263	286	269	304	279	248
Heating capacity	(3)	kW	692	717	791	957	1073	1145
Total power input	(3)	kW	219	237	262	301	334	368
COP	(3)		3,16	3,02	3,02	3,18	3,21	3,12
SCOP	(2)		4,07	4,00	4,08	3,91	4,09	3,90
Heating energy efficiency class	(4)		A++					
Water flow	(3)	l/h	120232	124497	137389	166137	186368	198928
Water pressure drop	(3)	kPa	16	24	28	34	42	47
Available pressure head - LP pumps	(3)	kPa	217	199	161	193	159	136
Available pressure head - HP pumps	(3)	kPa	258	287	272	288	256	234
Maximum current absorption		A	479	568	588	706	715	839
Start up current		A	753	667	743	834	1013	1095
Compressors / circuits			8/4	8/4	8/4	10/4	12/4	12/4
Buffer tank volume		dm ³	1040	1040	1040	1040	1040	1040
Sound power level Lw (base unit)	(5)	dB(A)	93	93	95	94	95	94
Sound power level Lw (Low noise unit)	(5)	dB(A)	91	90	92	91	93	92
Sound power level Lw (Super Low noise unit)	(5)	dB(A)	89	89	90	90	91	91
Weight without options		kg	4662	5116	4996	5980	5682	8350
Height		mm	2650	2650	2650	2650	2650	2650
Depth		mm	2256	2256	2256	2256	2256	2256
Length		mm	5060	6635	6635	8635	8635	10635

(1) Outdoor air temperature 35°C, water temperature 12°C / 7°C (EN14511:2018)

(2) η efficiency values for heating and cooling are respectively calculated by the following formulas: [$\eta = SCOP / 2,5 - F(1) - F(2)$] e [$\eta = SEER / 2,5 - F(1) - F(2)$]. For further information, please refer to the technical document "ErP 2009/125/EC DIRECTIVE" in the catalogue introducing pages, or to the EN14825:2017 regulation.

(3) Outdoor air temperature dry bulb 7°C / wet bulb 6°C, water temperature 30°C / 35°C (EN14511:2018)

(4) Seasonal energy efficiency class for LOW TEMPERATURE room heating under AVERAGE climatic conditions [EUROPEAN REGULATION No 811/2013]

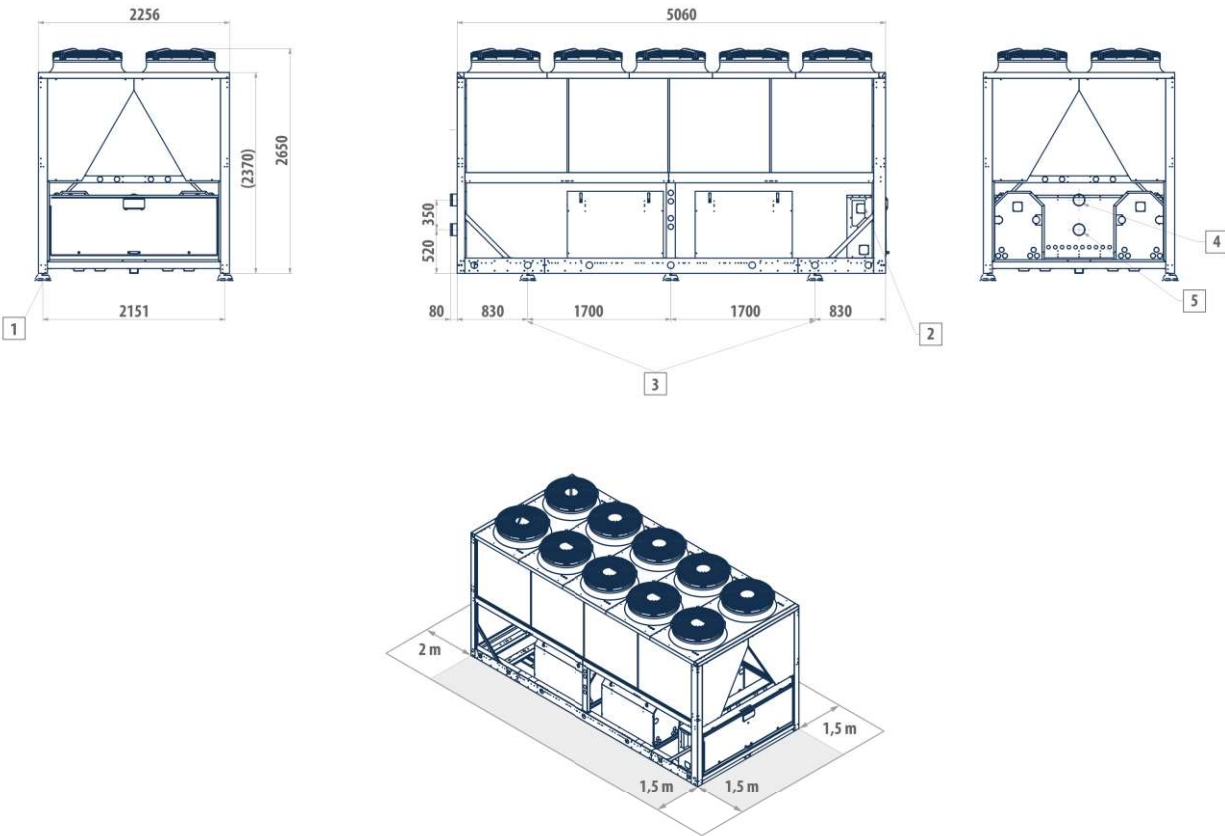
(5) Sound power level measured according to ISO 9614

Note: For dimensional drawing of heat pump models, contact the manufacturer.

Chillers and HP with Low GWP refrigerant GLE

DIMENSIONAL DRAWINGS

GLE 658 C

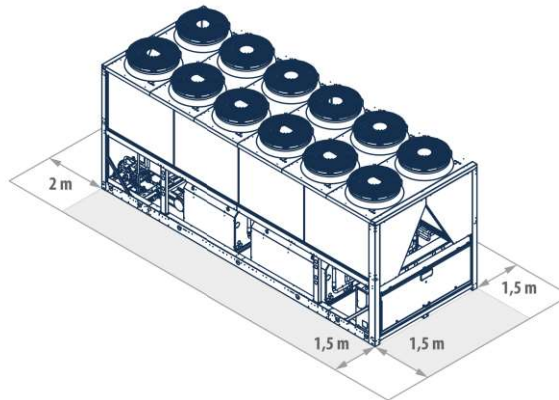
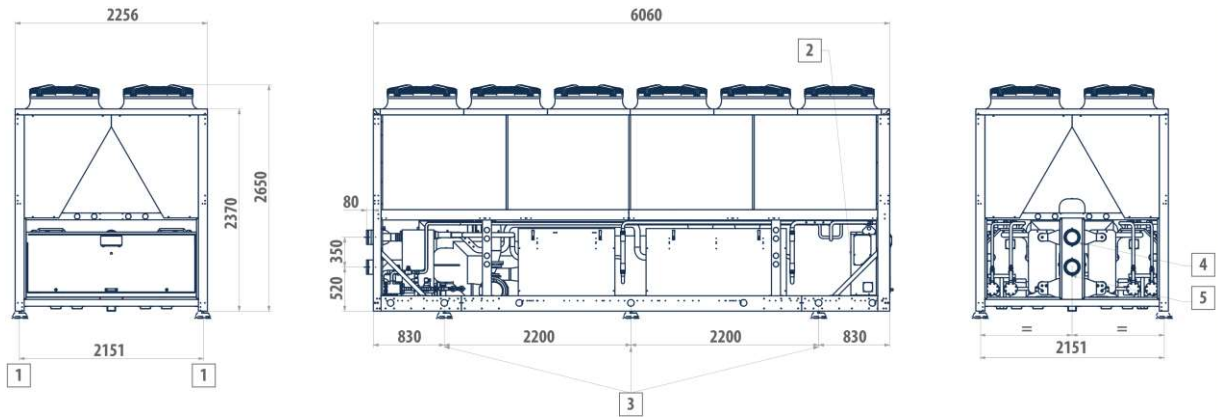


LEGEND

- | | |
|---|-----------------------------|
| 1 | Vibration dampers |
| 2 | Power supply input |
| 3 | Lifting points |
| 4 | Water inlet (5" Victaulic) |
| 5 | Water outlet (5" Victaulic) |

DIMENSIONAL DRAWINGS

GLE 748 - 818 C



LEGEND

- | | |
|---|-----------------------------|
| 1 | Vibration dampers |
| 2 | Power supply input |
| 3 | Lifting points |
| 4 | Water inlet (6" Victaulic) |
| 5 | Water outlet (6" Victaulic) |

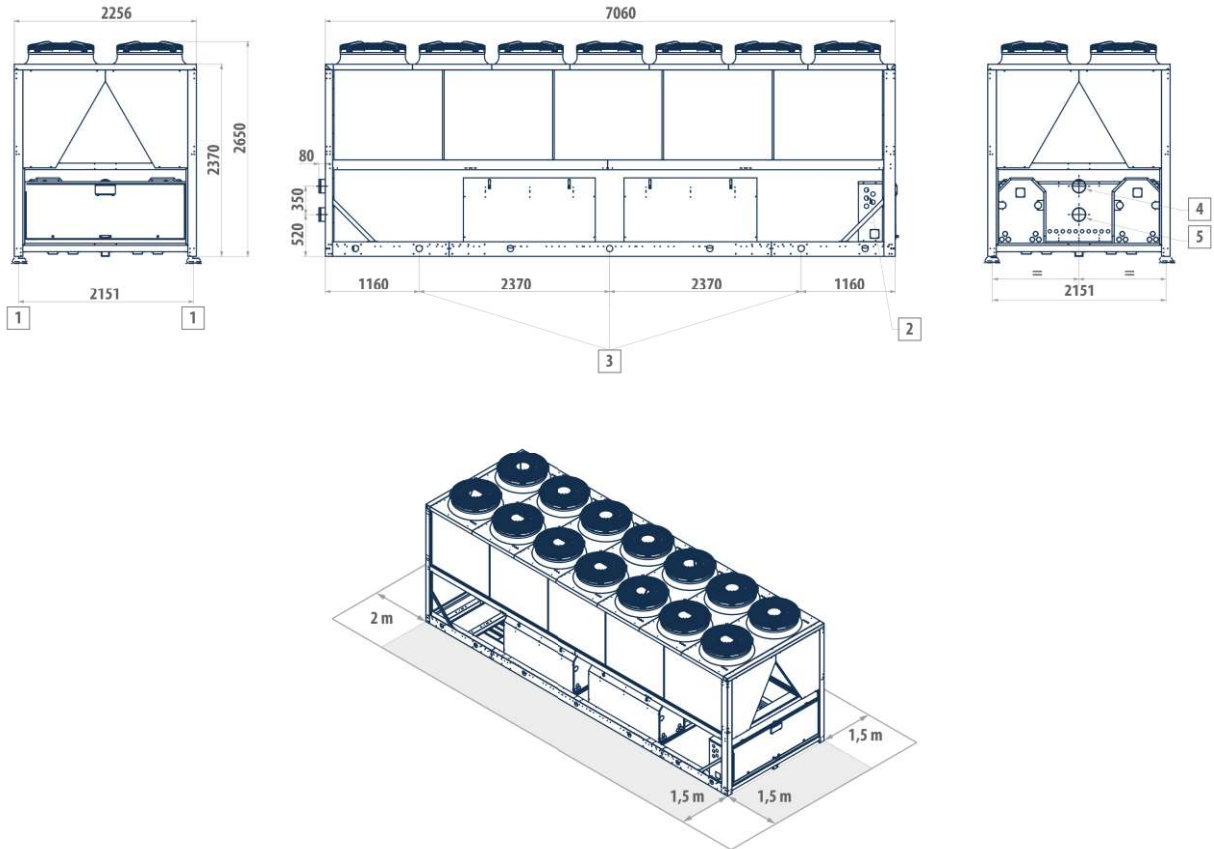


Chillers and HP with Low GWP refrigerant - GLE

Chillers and HP with Low GWP refrigerant GLE

DIMENSIONAL DRAWINGS

GLE 900 - 942 C

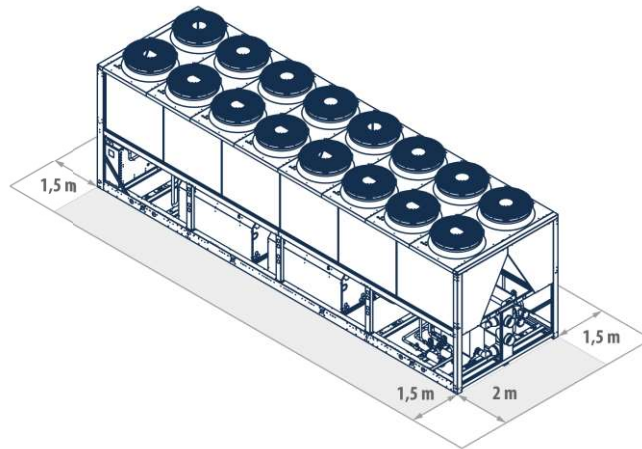
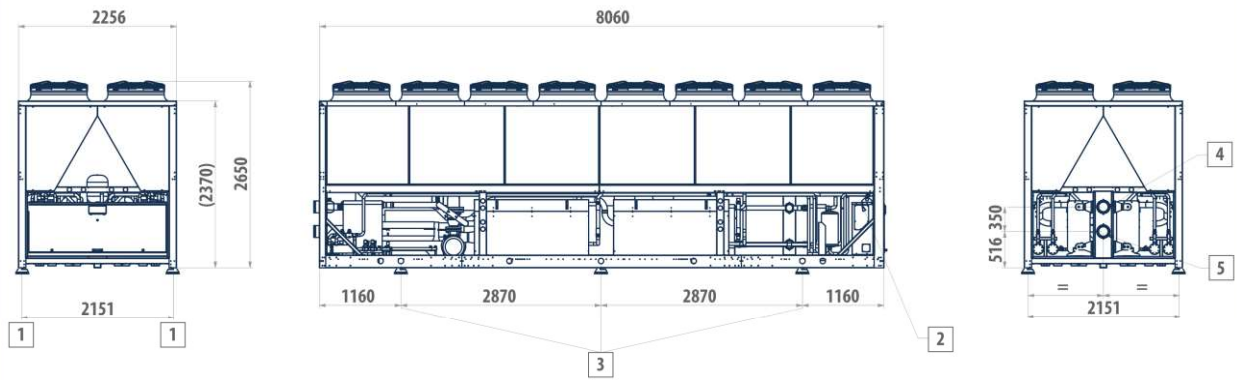


LEGEND

- | | |
|---|-----------------------------|
| 1 | Vibration dampers |
| 2 | Power supply input |
| 3 | Lifting points |
| 4 | Water inlet (6" Victaulic) |
| 5 | Water outlet (6" Victaulic) |

DIMENSIONAL DRAWINGS

GLE 1072 C



LEGEND

1	Vibration dampers
2	Power supply input
3	Lifting points
4	Water inlet (6" Victaulic)
5	Water outlet (6" Victaulic)
6	Optional heat recovery water outlet (Victaulic 4")
7	Optional heat recovery water inlet (Victaulic 4")



Chillers and HP with Low GWP refrigerant - GLE