

Subtype LIA 1316BWCF

Certificate Holder	Glen Dimplex Deutschland GmbH
Address	Am Goldenen Feld 18
ZIP	D-95326
City	Kulmbach
Country	DE
Certification Body	BRE Global Limited
Subtype title	LIA 1316BWCF
Registration number	041-K029-08
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.84 kg
Certification Date	09.08.2024
Testing basis	Heat Pump Keymark Scheme Rules Rev 12
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

Model LIA 1316 M + LIA BW

Model name	LIA 1316 M + LIA BW
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	105 %
COP	2.53
Heating up time	1:39 h:min
Standby power input	14.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	250 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	68 %
COP	1.65
Heating up time	1:49 h:min
Standby power input	14.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	250 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	119 %
COP	2.88
Heating up time	1:34 h:min
Standby power input	14.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	250 l

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed	
Starting and operating test	passed	
EN 14511-2 Heating		
	Low temperature	Medium temperature
Heat output	14.50 kW	13.80 kW
El input	3.09 kW	4.60 kW
COP	4.70	3.00
EN 12102-1 Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)
EN 14825 Average Climate		
	Low temperature	Medium temperature
η_s	186 %	136 %
Prated	13.73 kW	12.08 kW
SCOP	4.72	3.47
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.14 kW	10.69 kW
COP Tj = -7°C	2.79	2.01
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	7.95 kW	6.86 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.20 kW	4.64 kW
COP Tj = +7°C	6.68	4.66
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.76 kW	3.32 kW
COP Tj = 12°C	8.52	6.13
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.14 kW	10.69 kW
COP Tj = Tbiv	2.79	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.48 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.76
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity

Supplementary Heater: PSUP	2.23 kW	2.91 kW
Annual energy consumption Q _{he}	6012 kWh	7202 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	160 %	119 %
Prated	12.64 kW	10.97 kW
SCOP	4.07	3.05
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	7.97 kW	6.89 kW
COP T _j = -7°C	3.44	2.66
C _{dh} T _j = -7 °C	0.90	0.90
P _{dh} T _j = +2°C	5.05 kW	4.32 kW
COP T _j = +2°C	4.92	3.66
C _{dh} T _j = +2 °C	0.90	0.90
P _{dh} T _j = +7°C	3.16 kW	3.06 kW
COP T _j = +7°C	6.11	4.72
C _{dh} T _j = +7 °C	0.90	0.90
P _{dh} T _j = 12°C	3.58 kW	3.33 kW
COP T _j = 12°C	7.82	6.25
C _{dh} T _j = +12 °C	0.90	0.90
P _{dh} T _j = T _{biv}	10.31 kW	8.95 kW
COP T _j = T _{biv}	2.53	1.79
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.57 kW	4.20 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	1.92	1.13
WTOL	65 °C	65 °C
P _{off}	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.07 kW	6.77 kW
Annual energy consumption Q _{he}	7667 kWh	8866 kWh
P _{dh} T _j = -15°C (if TOL	10.31	8.95
COP T _j = -15°C (if TOL	2.53	1.79
C _{dh} T _j = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	260 %	177 %
Prated	12.11 kW	13.74 kW
SCOP	6.63	4.49
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.04 kW	13.05 kW
COP Tj = +2°C	3.44	2.20
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	7.78 kW	8.83 kW
COP Tj = +7°C	5.84	3.91
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.75 kW	4.09 kW
COP Tj = 12°C	8.25	5.90
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	7.78 kW	8.83 kW
COP Tj = Tbiv	5.84	3.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.04 kW	13.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.44	2.20
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.07 kW	0.69 kW
Annual energy consumption Qhe	2457 kWh	4088 kWh

Model LIA 1316 + LIA BW

Model name	LIA 1316 + LIA BW
Application	Heating + DHW + low temp
Units	Indoor, Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	105 %
COP	2.53
Heating up time	1:39 h:min
Standby power input	14.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	250 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	68 %
COP	1.65
Heating up time	1:49 h:min
Standby power input	14.0 W
Reference hot water temperature	47.0 °C
Mixed water at 40°C	250 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	119 %
COP	2.88
Heating up time	1:34 h:min
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Reference hot water temperature	47.0 °C
Mixed water at 40°C	250 l

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	14.50 kW	13.80 kW
El input	3.09 kW	4.60 kW
COP	4.70	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	65 dB(A)	65.00 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	186.00 %	136 %
Prated	13.73 kW	12.08 kW
SCOP	4.72	3.47
Tbiv	-7 °C	-7 °C
TOL	-10.00 °C	-10.00 °C
Pdh Tj = -7°C	12.14 kW	10.69 kW
COP Tj = -7°C	2.79	2.01
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	7.95 kW	6.86 kW
COP Tj = +2°C	4.52	3.43
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	5.20 kW	4.64 kW
COP Tj = +7°C	6.68	4.66
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.76 kW	3.32 kW
COP Tj = 12°C	8.52	6.13
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	12.14 kW	10.69 kW
COP Tj = Tbiv	2.79	2.01
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.48 kW	9.19 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.76
WTOL	65 °C	65 °C
Poff	20 W	20 W
PTO	30 W	30 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity

Supplementary Heater: PSUP	2.23 kW	2.91 kW
Annual energy consumption Q _{he}	6013.00 kWh	7203 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	160 %	119 %
Prated	12.64 kW	10.97 kW
SCOP	4.06	3.05
T _{biv}	-15 °C	-15 °C
TOL	-22 °C	-22.00 °C
P _{dh} T _j = -7°C	7.97 kW	6.89 kW
COP T _j = -7°C	3.44	2.66
C _{dh} T _j = -7 °C	0.90	0.90
P _{dh} T _j = +2°C	5.05 kW	4.32 kW
COP T _j = +2°C	4.92	3.66
C _{dh} T _j = +2 °C	0.90	0.90
P _{dh} T _j = +7°C	3.16 kW	3.06 kW
COP T _j = +7°C	6.11	4.72
C _{dh} T _j = +7 °C	0.90	0.90
P _{dh} T _j = 12°C	3.58 kW	3.33 kW
COP T _j = 12°C	7.82	6.25
C _{dh} T _j = +12 °C	0.90	0.90
P _{dh} T _j = T _{biv}	10.31 kW	8.95 kW
COP T _j = T _{biv}	2.53	1.79
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	7.57 kW	4.20 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	1.92	1.13
WTOL	65 °C	65 °C
P _{off}	20 W	20 W
PTO	30 W	30 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.07 kW	6.77 kW
Annual energy consumption Q _{he}	7667.00 kWh	8867.00 kWh
P _{dh} T _j = -15°C (if TOL	10.31	8.95
COP T _j = -15°C (if TOL	2.53	1.79
C _{dh} T _j = -15 °C	0.90	0.90

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	260 %	176 %
Prated	12.11 kW	13.74 kW
SCOP	6.63	4.48
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.04 kW	13.05 kW
COP Tj = +2°C	3.44	2.20
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	7.78 kW	8.83 kW
COP Tj = +7°C	5.84	3.91
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.75 kW	4.09 kW
COP Tj = 12°C	8.25	5.90
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.78 kW	8.83 kW
COP Tj = Tbiv	5.84	3.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.04 kW	13.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.44	2.20
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	20 W	20 W
PTO	30 W	30 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.07 kW	0.69 kW
Annual energy consumption Qhe	2462 kWh	4092 kWh