Subtype Thunder 18.1 - 20.1

Certificate Holder	Clivet s.p.a.
Address	Via camp lonc 25 c.ap.
ZIP	I-32032
City	z.i. Villapaiera - Feltre (BL)
Country	IT
Certification Body	ICIM S.p.A.
Subtype title	Thunder 18.1 - 20.1
Registration number	ICIM-PDC-000336
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	4.5 kg
Certification Date	04.06.2025
Testing laboratory	IMQ S.p.A., IT

Model WiSAN-P 18.1

Model name	WiSAN-P 18.1
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	50.40 kW	47.40 kW
El input	13.23 kW	17.69 kW
COP	3.81	2.68

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	77 dB(A)	77 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	169 %	133 %
Prated	39.23 kW	35.83 kW
SCOP	4.29	3.39
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	34.70 kW	31.70 kW
COP Tj = -7°C	2.53	1.96
Cdh Tj = -7 °C		
Pdh Tj = +2°C	21.50 kW	19.80 kW
COP Tj = +2°C	4.28	3.39
Cdh Tj = +2 °C		
Pdh Tj = +7°C	19.70 kW	18.90 kW
COP Tj = +7°C	6.09	4.81
Cdh Tj = +7 °C		
Pdh Tj = 12°C	21.80 kW	21.10 kW
COP Tj = 12°C	7.46	6.46
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	34.70 kW	31.70 kW
COP Tj = Tbiv	2.53	1.96

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	37.50 kW	35.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.09	1.53
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	35 °C	55 °C
Poff	130 W	130 W
PTO	200 W	200 W
PSB	130 W	130 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	1.73 kW	0.43 kW
Annual energy consumption Qhe	18926 kWh	21875 kWh

Model WiSAN-P 19.1

Model name	WiSAN-P 19.1
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	55.80 kW	51.20 kW
El input	14.76 kW	19.62 kW
COP	3.78	2.61

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	77 dB(A)	77 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	166 %	132 %
Prated	43.86 kW	39.90 kW
SCOP	4.23	3.38
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	38.80 kW	35.30 kW
COP Tj = -7°C	2.47	1.92
Cdh Tj = -7 °C		
Pdh Tj = +2°C	24.40 kW	22.20 kW
COP Tj = +2°C	4.15	3.38
Cdh Tj = +2 °C		
Pdh Tj = +7°C	19.70 kW	18.90 kW
COP Tj = +7°C	6.09	4.81
Cdh Tj = +7 °C		
Pdh Tj = 12°C	21.80 kW	21.10 kW
COP Tj = 12°C	7.46	6.46
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	38.80 kW	35.30 kW
COP Tj = Tbiv	2.47	1.92

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	40.00 kW	35.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.53
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	35 °C	55 °C
Poff	130 W	130 W
PTO	220 W	220 W
PSB	130 W	130 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	3.86 kW	4.50 kW
Annual energy consumption Qhe	21462 kWh	24430 kWh

Model WiSAN-P 20.1

Model name	WiSAN-P 20.1
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	61.00 kW	55.70 kW
El input	16.35 kW	21.76 kW
COP	3.73	2.56

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	78 dB(A)	78 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	163 %	131 %
Prated	48.16 kW	43.75 kW
SCOP	4.15	3.36
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	42.60 kW	38.70 kW
COP Tj = -7°C	2.41	1.85
Cdh Tj = -7 °C		
Pdh Tj = +2°C	27.20 kW	24.60 kW
COP Tj = +2°C	4.04	3.35
Cdh Tj = +2 °C		
Pdh Tj = +7°C	19.70 kW	18.90 kW
COP Tj = +7°C	6.09	4.81
Cdh Tj = +7 °C		
Pdh Tj = 12°C	21.80 kW	21.10 kW
COP Tj = 12°C	7.46	6.46
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	42.60 kW	38.70 kW
COP Tj = Tbiv	2.41	1.85

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	40.00 kW	35.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.53
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	35 °C	55 °C
Poff	130 W	130 W
PTO	230 W	230 W
PSB	130 W	130 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	8.16 kW	8.35 kW
Annual energy consumption Qhe	24015 kWh	26941 kWh