

## Subtype Edge F 4.1 – 5.1

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	Edge F 4.1 – 5.1
Registration number	ICIM-PDC-000214
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	1.1 kg
Certification Date	27.10.2023
Testing basis	V12

## Model WiSAN-PME 1 S 4.1

Model name	WiSAN-PME 1 S 4.1
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer
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 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	204 %	149 %
Prated	8.00 kW	6.80 kW
SCOP	5.19	3.82
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.09 kW	5.97 kW
COP Tj = -7°C	3.06	2.37
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.53 kW	3.71 kW
COP Tj = +2°C	5.10	3.85
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.96 kW	3.62 kW
COP Tj = +7°C	7.47	5.12
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	4.51 kW	4.31 kW
COP Tj = 12°C	9.66	6.77
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.09 kW	5.97 kW
COP Tj = Tbiv	3.06	2.37

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.97 kW	6.46 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.56	2.08
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	75 °C	75 °C
Poff	9 W	9 W
PTO	14 W	14 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.03 kW	0.34 kW
Annual energy consumption Qhe	3184 kWh	3676 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	174 %	135 %
Prated	6.8 kW	7.0 kW
SCOP	4.44	3.46
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	4.11 kW	4.49 kW
COP Tj = -7°C	3.97	2.87
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	3.18 kW	3.07 kW
COP Tj = +2°C	5.60	4.38
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.90 kW	3.67 kW
COP Tj = +7°C	6.46	5.58
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.43 kW	4.36 kW
COP Tj = 12°C	8.67	7.22
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	5.48 kW	5.69 kW
COP Tj = Tbiv	2.73	2.09
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.64 kW	5.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.09	1.54
WTOL	75.00 °C	75.00 °C
Poff	9.00 W	9.00 W

PTO	14 W	14 W
PSB	9.00 W	9.00 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.15 kW	1.92 kW
Annual energy consumption Q <sub>he</sub>	3772.00 kWh	4992.00 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	5.48	5.69
COP T <sub>j</sub> = -15°C (if TOL	2.73	2.09
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.9	0.9

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	259.00 %	184.00 %
Prated	8.2 kW	8.3 kW
SCOP	6.56	4.68
T <sub>biv</sub>	7.00 °C	7.00 °C
TOL	2.00 °C	2.00 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	8.20 kW	7.99 kW
COP T <sub>j</sub> = +2°C	3.59	2.54
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.27 kW	5.36 kW
COP T <sub>j</sub> = +7°C	6.03	4.15
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.46 kW	4.21 kW
COP T <sub>j</sub> = 12°C	8.58	6.35
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.27 kW	5.36 kW
COP T <sub>j</sub> = T <sub>biv</sub>	6.03	4.15
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.27 kW	7.99 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.59	2.54
WTOL	75.00 °C	75.00 °C
P <sub>off</sub>	9.00 W	9.00 W
PTO	14.00 W	14.00 W
PSB	9 W	9 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.30 kW
Annual energy consumption Q <sub>he</sub>	1669.00 kWh	2368.00 kWh

## Model WiSAN-PME 1 S 5.1

Model name	WiSAN-PME 1 S 5.1
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer
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 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	199 %	149 %
Prated	9.2 kW	7.8 kW
SCOP	5.07	3.82
Tbiv	-7 °C	-7 °C
TOL	-10.00 °C	-10.00 °C
Pdh Tj = -7°C	8.11 kW	6.88 kW
COP Tj = -7°C	2.84	2.31
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.10 kW	4.23 kW
COP Tj = +2°C	4.96	3.80
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.96 kW	3.62 kW
COP Tj = +7°C	7.47	5.21
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.48 kW	4.31 kW
COP Tj = 12°C	9.56	6.86
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	8.11 kW	6.88 kW
COP Tj = Tbiv	2.84	2.31

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.50 kW	7.42 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.52	1.99
WTOL	75.00 °C	75.00 °C
Poff	9.00 W	9.00 W
PTO	14.00 W	14.00 W
PSB	9.00 W	9.00 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.66 kW	0.35 kW
Annual energy consumption Qhe	3744 kWh	4215 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	178 %	136 %
Prated	7.9 kW	8.0 kW
SCOP	4.54	3.49
Tbiv	-15.00 °C	-15.00 °C
TOL	-22.00 °C	-22.00 °C
Pdh Tj = -7°C	4.89 kW	4.86 kW
COP Tj = -7°C	3.74	2.90
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	3.07 kW	3.09 kW
COP Tj = +2°C	5.66	4.38
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.83 kW	3.76 kW
COP Tj = +7°C	7.63	5.64
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.46 kW	4.32 kW
COP Tj = 12°C	9.24	6.92
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	6.42 kW	6.55 kW
COP Tj = Tbiv	2.69	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.39 kW	5.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.08	1.57
WTOL	75.00 °C	75.00 °C
Poff	9.00 W	9.00 W
PTO	14 W	14 W
PSB	9.00 W	9.00 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.48 kW	2.20 kW
Annual energy consumption Q <sub>he</sub>	4269.00 kWh	5659.00 kWh
P <sub>dh</sub> T <sub>j</sub> = -15°C (if TOL	6.42	6.55
COP T <sub>j</sub> = -15°C (if TOL	2.69	1.99
C <sub>dh</sub> T <sub>j</sub> = -15 °C	0.9	0.9

#### EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

#### EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η <sub>s</sub>	281.00 %	188.00 %
Prated	8.6 kW	8.8 kW
SCOP	7.11	4.79
T <sub>biv</sub>	7.00 °C	7.00 °C
TOL	2.00 °C	2.00 °C
P <sub>dh</sub> T <sub>j</sub> = +2°C	8.60 kW	8.54 kW
COP T <sub>j</sub> = +2°C	3.62	2.50
C <sub>dh</sub> T <sub>j</sub> = +2 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = +7°C	5.52 kW	5.68 kW
COP T <sub>j</sub> = +7°C	6.26	4.20
C <sub>dh</sub> T <sub>j</sub> = +7 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = 12°C	4.61 kW	4.29 kW
COP T <sub>j</sub> = 12°C	9.84	6.53
C <sub>dh</sub> T <sub>j</sub> = +12 °C	0.90	0.90
P <sub>dh</sub> T <sub>j</sub> = T <sub>biv</sub>	5.52 kW	5.68 kW
COP T <sub>j</sub> = T <sub>biv</sub>	6.26	4.20
P <sub>dh</sub> T <sub>j</sub> = TOL or P <sub>dh</sub> T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	8.61 kW	8.54 kW
COP T <sub>j</sub> = TOL or COP T <sub>j</sub> = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.62	2.50
WTOL	75.00 °C	75.00 °C
P <sub>off</sub>	9.00 W	9.00 W
PTO	14.00 W	14.00 W
PSB	9 W	9 W
PCK	0.00 W	0.00 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.26 kW
Annual energy consumption Q <sub>he</sub>	1614.00 kWh	2456.00 kWh