Subtype iTec Eco 12 400V & iTec Eco 16 400V

Certificate Holder	Thermia
Address	Snickaregatan 1
ZIP	
City	Arvika
Country	SE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	iTec Eco 12 400V & iTec Eco 16 400V
Registration number	011-1W1046
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	2.2 kg
Certification Date	22.04.2025
Testing basis	European KEYMARK Scheme for Heat Pumps rev.14 (as of 2024-04)

Model iTec Eco 12 400V	
Model name	iTec Eco 12 400V
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 14511-4 | 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	12.00 kW	11.30 kW
El input	2.65 kW	3.73 kW
COP	4.53	3.03

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	185 %	138 %
Prated	13.00 kW	12.00 kW
SCOP	4.69	3.51
Tbiv	-7 °C	-7 °C
TOL	°C	°C
Pdh Tj = -7°C	kW	kW
COP Tj = -7°C		
Cdh Tj = -7 °C		
Pdh Tj = +2°C	kW	kW
COP Tj = +2°C		
Cdh Tj = +2 °C		
Pdh Tj = +7°C	kW	kW

COP Tj = +7°C		
Cdh Tj = +7 °C		
Pdh Tj = 12°C	kW	kW
COP Tj = 12°C		
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	kW	kW
COP Tj = Tbiv		
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	kW	kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh		
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	°C	°C
Poff	W	W
PTO	W	W
PSB	W	W
PCK	W	W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	kW	kW
Annual energy consumption Qhe	kWh	kWh

Model iTec Eco 16 400V	
Model name	iTec Eco 16 400V
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 14511-4 | 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	16.00 kW	15.00 kW
El input	3.62 kW	5.18 kW
COP	4.42	2.90

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	176 %	138 %
Prated	16.00 kW	16.00 kW
SCOP	4.48	3.53
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.15 kW	14.15 kW
COP Tj = -7°C	2.65	2.06
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	8.62 kW	8.62 kW
COP Tj = +2°C	4.11	3.31
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.54 kW	5.54 kW

COP Tj = +7°C	6.86	5.23
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.49 kW
COP Tj = 12°C	8.81	6.57
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.15 kW	14.15 kW
COP Tj = Tbiv	2.65	2.06
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.80 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	22 W	22 W
PTO	22 W	22 W
PSB	22 W	22 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.20 kW	2.00 kW
Annual energy consumption Qhe	7385 kWh	9379 kWh