Subtype Hi-Therma Integra 14 16	
Certificate Holder	Qingdao Hisense Hitachi Air-conditioning Systems Co.,Ltd.
Address	Qianwangang Road
ZIP	266555
City	Qingdao, Shandong
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Hi-Therma Integra 14 16
Registration number	011-1W0664
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	2.7 kg
Certification Date	29.11.2023
Testing basis	European KEYMARK Scheme for Heat Pumps Version 12 (2023-03)

Model AHW-140HCDS1/AHS-140HCDSAA-23	
Model name	AHW-140HCDS1/AHS-140HCDSAA-23
Application	Heating + DHW + low temp
Units	Indoor, 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	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	124 %
COP	3.00
Heating up time	1:44 h:min
Standby power input	40.1 W
Reference hot water temperature	48.7 °C
Mixed water at 40°C	260 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	14.00 kW	13.00 kW
El input	2.92 kW	4.26 kW
COP	4.80	3.05

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	181 %	128 %

Prated	11.90 kW	11.70 kW
SCOP	4.61	3.29
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.50 kW	10.33 kW
COP Tj = -7°C	2.97	2.22
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.39 kW	6.35 kW
COP Tj = +2°C	4.40	3.04
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.21 kW	4.31 kW
COP Tj = +7°C	6.21	4.36
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.90 kW	3.76 kW
COP Tj = 12°C	7.42	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.50 kW	10.33 kW
COP Tj = Tbiv	2.97	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.82 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	9 W	9 W
PSB	5 W	5 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.08 kW	0.20 kW
Annual energy consumption Qhe	5320 kWh	7340 kWh

Model AHW-140HEDS1/AHS-140HEDSAA-23	
Model name	AHW-140HEDS1/AHS-140HEDSAA-23
Application	Heating + DHW + low temp
Units	Indoor, 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 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	117 %
COP	2.80
Heating up time	1:45 h:min
Standby power input	53.5 W
Reference hot water temperature	48.7 °C
Mixed water at 40°C	260 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	14.00 kW	13.00 kW
El input	2.92 kW	4.26 kW
COP	4.80	3.05

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	181 %	128 %

Prated	11.90 kW	11.70 kW
SCOP	4.61	3.29
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.50 kW	10.33 kW
COP Tj = -7°C	2.97	2.22
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.39 kW	6.35 kW
COP Tj = +2°C	4.40	3.04
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.21 kW	4.31 kW
COP Tj = +7°C	6.21	4.36
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.90 kW	3.76 kW
COP Tj = 12°C	7.42	6.25
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.50 kW	10.33 kW
COP Tj = Tbiv	2.97	2.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.82 kW	11.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	9 W	9 W
PSB	5 W	5 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.08 kW	0.20 kW
Annual energy consumption Qhe	5320 kWh	7340 kWh

Model AHW-160HCDS1/AHS-160HCDSAA-23	
Model name	AHW-160HCDS1/AHS-160HCDSAA-23
Application	Heating + DHW + low temp
Units	Indoor, 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	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	124 %
COP	3.00
Heating up time	1:44 h:min
Standby power input	40.1 W
Reference hot water temperature	48.7 °C
Mixed water at 40°C	260 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	16.00 kW	15.00 kW
El input	3.48 kW	5.08 kW
COP	4.60	2.95

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	177 %	128 %

Prated	13.00 kW	12.50 kW
SCOP	4.49	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.53 kW	11.10 kW
COP Tj = -7°C	2.86	2.24
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.98 kW	6.57 kW
COP Tj = +2°C	4.23	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.67 kW	4.30 kW
COP Tj = +7°C	6.21	4.33
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.90 kW	3.76 kW
COP Tj = 12°C	7.45	5.75
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.53 kW	11.10 kW
COP Tj = Tbiv	2.86	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.75 kW	12.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	1.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	9 W	9 W
PSB	5 W	5 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.25 kW	0.47 kW
Annual energy consumption Qhe	5999 kWh	7900 kWh

Model AHW-160HEDS1/AHS-160HEDSAA-23	
Model name	AHW-160HEDS1/AHS-160HEDSAA-23
Application	Heating + DHW + low temp
Units	Indoor, 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 16147 | Average Climate	
Declared load profile	XL
Efficiency ηDHW	117 %
COP	2.80
Heating up time	1:45 h:min
Standby power input	53.5 W
Reference hot water temperature	48.7 °C
Mixed water at 40°C	260 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	16.00 kW	15.00 kW
El input	3.48 kW	5.08 kW
COP	4.60	2.95

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	177 %	128 %

Prated	13.00 kW	12.50 kW
SCOP	4.49	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.53 kW	11.10 kW
COP Tj = -7°C	2.86	2.24
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.98 kW	6.57 kW
COP Tj = +2°C	4.23	3.06
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.67 kW	4.30 kW
COP Tj = +7°C	6.21	4.33
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.90 kW	3.76 kW
COP Tj = 12°C	7.45	5.75
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.53 kW	11.10 kW
COP Tj = Tbiv	2.86	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.75 kW	12.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	1.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	9 W	9 W
PSB	5 W	5 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.25 kW	0.47 kW
Annual energy consumption Qhe	5999 kWh	7900 kWh