

This information was generated by the HP KEYMARK database on 1 Jun 2023

| | | | |
|---------------------|---|----------|------------|
| Summary of | Hi-Therma Split 14 16 | Reg. No. | 011-1W0634 |
| Certificate Holder | | | |
| Name | Qingdao Hisense Hitachi Air-conditioning Systems Co.,Ltd. | | |
| Address | Qianwangang Road | ZIP | 266555 |
| City | Qingdao, Shandong | Country | China |
| Certification Body | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH | | |
| Subtype title | Hi-Therma Split 14 16 | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | R32 | | |
| Mass of Refrigerant | 2.7 kg | | |
| Certification Date | 01.06.2023 | | |
| Testing basis | HP KEYMARK certification scheme rules V11 | | |

Model: AHW-140HCDS1/AHM-140HCDSAA

| Configure model | |
|-------------------------------------|----------------------------|
| Model name | AHW-140HCDS1/AHM-140HCDSAA |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | n/a |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 1x230V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 14.06 kW | 13.11 kW |
| El input | 2.95 kW | 4.30 kW |
| COP | 4.77 | 3.05 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 1 Jun 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 44 dB(A) | 44 dB(A) |
| Sound power level outdoor | 66 dB(A) | 66 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 181 % | 129 % |
| Prated | 11.86 kW | 11.67 kW |
| SCOP | 4.61 | 3.29 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.49 kW | 10.33 kW |
| COP Tj = -7°C | 2.97 | 2.22 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 6.38 kW | 6.35 kW |
| COP Tj = +2°C | 4.40 | 3.04 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 4.20 kW | 4.30 kW |
| COP Tj = +7°C | 6.21 | 4.36 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |

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| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 3.90 kW | 3.75 kW |
| COP Tj = 12°C | 7.42 | 6.25 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 10.49 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 | 0.04 kW | 0.17 kW |
| Annual energy consumption Qhe | 5322 kWh | 7342 kWh |

Model: AHW-140HEDS1/AHM-140HEDSAA

| Configure model | |
|-------------------------------------|----------------------------|
| Model name | AHW-140HEDS1/AHM-140HEDSAA |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | n/a |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|---------------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Heat output | 14.06 kW | 13.11 kW |
| El input | 2.94 kW | 4.30 kW |
| COP | 4.77 | 3.05 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 1 Jun 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 44 dB(A) | 44 dB(A) |
| Sound power level outdoor | 66 dB(A) | 66 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 181 % | 129 % |
| Prated | 11.86 kW | 11.67 kW |
| SCOP | 4.61 | 3.29 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.49 kW | 10.33 kW |
| COP Tj = -7°C | 2.96 | 2.23 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 6.38 kW | 6.35 kW |
| COP Tj = +2°C | 4.40 | 3.04 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 4.20 kW | 4.30 kW |
| COP Tj = +7°C | 6.22 | 4.36 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |

This information was generated by the HP KEYMARK database on 1 Jun 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 3.90 kW | 3.75 kW |
| COP Tj = 12°C | 7.42 | 6.25 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 10.49 kW | 10.33 kW |
| COP Tj = Tbiv | 2.96 | 2.23 |
| 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 | 0.04 kW | 0.17 kW |
| Annual energy consumption Qhe | 5320 kWh | 7332 kWh |

Model: AHW-160HCDS1/AHM-160HCDSAA

| Configure model | |
|-------------------------------------|----------------------------|
| Model name | AHW-160HCDS1/AHM-160HCDSAA |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | n/a |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|---------------------|-------------|
| Power supply | 1x230V 50Hz |

Heating

| EN 14511-2 | | |
|-------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Heat output | 16.14 kW | 15.16 kW |
| El input | 3.51 kW | 5.10 kW |
| COP | 4.59 | 2.97 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 1 Jun 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 44 dB(A) | 44 dB(A) |
| Sound power level outdoor | 67 dB(A) | 67 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 177 % | 128 % |
| Prated | 13.16 kW | 12.54 kW |
| SCOP | 4.49 | 3.28 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 11.64 kW | 11.09 kW |
| COP Tj = -7°C | 2.86 | 2.24 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 6.97 kW | 6.56 kW |
| COP Tj = +2°C | 4.23 | 3.06 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 4.66 kW | 4.29 kW |
| COP Tj = +7°C | 6.21 | 4.33 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |

This information was generated by the HP KEYMARK database on 1 Jun 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 3.90 kW | 3.75 kW |
| COP Tj = 12°C | 7.45 | 5.75 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 11.64 kW | 11.09 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 | 0.42 kW | 0.51 kW |
| Annual energy consumption Qhe | 6061 kWh | 7898 kWh |

Model: AHW-160HEDS1/AHM-160HEDSAA

| Configure model | |
|-------------------------------------|----------------------------|
| Model name | AHW-160HEDS1/AHM-160HEDSAA |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | n/a |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 16.15 kW | 15.16 kW |
| El input | 3.51 kW | 5.10 kW |
| COP | 4.60 | 2.97 |

| EN 14511-4 | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

Average Climate

This information was generated by the HP KEYMARK database on 1 Jun 2023

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 44 dB(A) | 44 dB(A) |
| Sound power level outdoor | 67 dB(A) | 67 dB(A) |

| EN 14825 | | |
|-----------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 177 % | 128 % |
| Prated | 13.03 kW | 12.54 kW |
| SCOP | 4.49 | 3.28 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 11.53 kW | 11.09 kW |
| COP Tj = -7°C | 2.86 | 2.24 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 6.97 kW | 6.56 kW |
| COP Tj = +2°C | 4.23 | 3.07 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 4.66 kW | 4.29 kW |
| COP Tj = +7°C | 6.22 | 4.33 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |

This information was generated by the HP KEYMARK database on 1 Jun 2023

| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 3.90 kW | 3.75 kW |
| COP Tj = 12°C | 7.45 | 5.75 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 11.53 kW | 11.09 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 | 1.89 |
| 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 | 0.29 kW | 0.51 kW |
| Annual energy consumption Qhe | 5994 kWh | 7889 kWh |