

This information was generated by the HP KEYMARK database on 22 Jun 2022

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Summary of	split mid temperature 12 14 16 kW 1 phase and 3 phases	Reg. No.	011-1W0253
Certificate Holder			
Name	LG Electronics Inc.		
Address	84, Wanam-ro, seongsan-gu	Zip	51554
City	Changwon-si	Country	South Korea
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	split mid temperature 12 14 16 kW 1 phase and 3 phases		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	2.3 kg		
Certification Date	31.07.2019		
Testing basis	HP KEYMARK certification scheme rules V8		

Model: HU161 U33/ HN1616 NK3

Configure model

Model name	HU161 U33/ HN1616 NK3
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	1x230V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00 kW	12.50 kW
El input	3.76 kW	4.94 kW
COP	4.26	2.53

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 22 Jun 2022

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	169 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.30	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	2.55	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.40 kW	5.30 kW
COP Tj = +2°C	4.15	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.10 kW	3.60 kW
COP Tj = +7°C	6.10	4.79
Cdh Tj = +7 °C	0.900	0.900

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Pdh Tj = 12°C	4.60 kW	4.10 kW
COP Tj = 12°C	8.30	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	9.90 kW
COP Tj = Tbiv	2.30	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	5 W	5 W
PTO	60 W	60 W
PSB	5 W	5 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4802 kWh	6154 kWh

Model: HU141 U33/ HN1616 NK3

Configure model	
Model name	HU141 U33/ HN1616 NK3
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	14.00 kW	12.50 kW
El input	3.17 kW	4.94 kW
COP	4.41	2.53

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 22 Jun 2022

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	175 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.45	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.40 kW	8.80 kW
COP Tj = -7°C	2.67	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.10 kW	5.30 kW
COP Tj = +2°C	4.25	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.80 kW	3.60 kW
COP Tj = +7°C	6.30	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.20	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.50 kW	9.90 kW
COP Tj = Tbiv	2.25	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.50 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	5 W	5 W
PTO	60 W	60 W
PSB	5 W	5 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	4408 kWh	6154 kWh

Model: HU121 U33/ HN1616 NK3

Configure model	
Model name	HU121 U33/ HN1616 NK3
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	12.00 kW	12.50 kW
El input	2.64 kW	4.94 kW
COP	4.55	2.53

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

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	175 %	130 %
Prated	9.00 kW	10.00 kW
SCOP	4.45	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	8.80 kW
COP Tj = -7°C	2.67	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.90 kW	5.30 kW
COP Tj = +2°C	4.27	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.70 kW	3.60 kW
COP Tj = +7°C	6.30	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.50 kW	4.10 kW
COP Tj = 12°C	9.20	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.00 kW	9.90 kW
COP Tj = Tbiv	2.25	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	5 W	5 W
PTO	60 W	60 W
PSB	5 W	5 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4177 kWh	6154 kWh

Model: HU163 U33 / HN1639 NK3

Configure model

Model name	HU163 U33 / HN1639 NK3
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x400V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00 kW	12.50 kW
El input	3.76 kW	4.94 kW
COP	4.26	2.53

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

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	169 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.30	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	2.55	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.40 kW	5.30 kW
COP Tj = +2°C	4.15	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.10 kW	3.60 kW
COP Tj = +7°C	6.10	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.60 kW	4.10 kW
COP Tj = 12°C	8.30	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	9.90 kW
COP Tj = Tbiv	2.30	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4804 kWh	6156 kWh

Model: HU143 U33 / HN1639 NK3

Configure model

Model name	HU143 U33 / HN1639 NK3
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x400V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	14.00 kW	12.50 kW
El input	3.17 kW	4.94 kW
COP	4.41	2.53

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

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	175 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.45	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.40 kW	8.80 kW
COP Tj = -7°C	2.67	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.10 kW	5.30 kW
COP Tj = +2°C	4.25	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.80 kW	3.60 kW
COP Tj = +7°C	6.30	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.20	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.50 kW	9.90 kW
COP Tj = Tbiv	2.25	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.50 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	4410 kWh	6156 kWh

Model: HU123 U33 / HN1639 NK3

Configure model

Model name	HU123 U33 / HN1639 NK3
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x400V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	12.00 kW	12.50 kW
El input	2.64 kW	4.94 kW
COP	4.55	2.53

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

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	175 %	130 %
Prated	9.00 kW	10.00 kW
SCOP	4.45	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	8.80 kW
COP Tj = -7°C	2.67	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.90 kW	5.30 kW
COP Tj = +2°C	4.27	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.70 kW	3.60 kW
COP Tj = +7°C	6.30	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.50 kW	4.10 kW
COP Tj = 12°C	9.20	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.00 kW	9.90 kW
COP Tj = Tbiv	2.25	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4179 kWh	6156 kWh

Model: HU161 U33 / HN1616M NK5

Configure model	
Model name	HU161 U33 / HN1616M NK5
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	16.00 kW	12.50 kW
El input	3.76 kW	4.94 kW
COP	4.26	2.53

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

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	169 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.30	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	2.55	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.40 kW	5.30 kW
COP Tj = +2°C	4.15	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.10 kW	3.60 kW
COP Tj = +7°C	6.10	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.60 kW	4.10 kW
COP Tj = 12°C	8.30	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	9.90 kW
COP Tj = Tbiv	2.30	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	5 W	5 W
PTO	60 W	60 W
PSB	5 W	5 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4802 kWh	6154 kWh

Model: HU141 U33 / HN1616M NK5

Configure model

Model name	HU141 U33 / HN1616M NK5
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	1x230V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	14.00 kW	12.50 kW
El input	3.17 kW	4.94 kW
COP	4.41	2.53

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

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	175 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.45	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.40 kW	8.80 kW
COP Tj = -7°C	2.67	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.10 kW	5.30 kW
COP Tj = +2°C	4.25	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.80 kW	3.60 kW
COP Tj = +7°C	6.30	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.20	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.50 kW	9.90 kW
COP Tj = Tbiv	2.25	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.50 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	5 W	5 W
PTO	60 W	60 W
PSB	5 W	5 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	4408 kWh	6154 kWh

Model: HU121 U33 / HN1616M NK5

Configure model

Model name	HU121 U33 / HN1616M NK5
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	1x230V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	12.00 kW	12.50 kW
El input	2.64 kW	4.94 kW
COP	4.55	2.53

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

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	175 %	130 %
Prated	9.00 kW	10.00 kW
SCOP	4.45	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	8.80 kW
COP Tj = -7°C	2.67	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.90 kW	5.30 kW
COP Tj = +2°C	4.27	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.70 kW	3.60 kW
COP Tj = +7°C	6.30	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.50 kW	4.10 kW
COP Tj = 12°C	9.20	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.00 kW	9.90 kW
COP Tj = Tbiv	2.25	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	5 W	5 W
PTO	60 W	60 W
PSB	5 W	5 W
PCK	39 W	39 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4177 kWh	6154 kWh

Model: HU163 U33 / HN1636M NK5

Configure model

Model name	HU163 U33 / HN1636M NK5
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x400V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00 kW	12.50 kW
El input	3.76 kW	4.94 kW
COP	4.26	2.53

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

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	169 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.30	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.80 kW	8.80 kW
COP Tj = -7°C	2.55	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.40 kW	5.30 kW
COP Tj = +2°C	4.15	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.10 kW	3.60 kW
COP Tj = +7°C	6.10	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.60 kW	4.10 kW
COP Tj = 12°C	8.30	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	9.90 kW
COP Tj = Tbiv	2.30	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.00 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4804 kWh	6156 kWh

Model: HU143 U33 / HN1636M NK5

Configure model

Model name	HU143 U33 / HN1636M NK5
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x400V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	14.00 kW	12.50 kW
El input	3.17 kW	4.94 kW
COP	4.41	2.53

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

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	175 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.45	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.40 kW	8.80 kW
COP Tj = -7°C	2.67	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.10 kW	5.30 kW
COP Tj = +2°C	4.25	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.80 kW	3.60 kW
COP Tj = +7°C	6.30	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	9.20	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.50 kW	9.90 kW
COP Tj = Tbiv	2.25	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.50 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	0.10 kW
Annual energy consumption Qhe	4410 kWh	6156 kWh

Model: HU123 U33 / HN1636M NK5

Configure model

Model name	HU123 U33 / HN1636M NK5
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data

Power supply	3x400V 50Hz
Phase-out Date	03.02.2024

Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	12.00 kW	12.50 kW
El input	2.64 kW	4.94 kW
COP	4.55	2.53

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

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	175 %	130 %
Prated	9.00 kW	10.00 kW
SCOP	4.45	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	8.80 kW
COP Tj = -7°C	2.67	1.93
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.90 kW	5.30 kW
COP Tj = +2°C	4.27	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.70 kW	3.60 kW
COP Tj = +7°C	6.30	4.79
Cdh Tj = +7 °C	0.900	0.900

This information was generated by the HP KEYMARK database on 22 Jun 2022

Pdh Tj = 12°C	4.50 kW	4.10 kW
COP Tj = 12°C	9.20	7.00
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	9.00 kW	9.90 kW
COP Tj = Tbiv	2.25	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4179 kWh	6156 kWh