

This information was generated by the HP KEYMARK database on 1 Mar 2021

Summary of	Scroll Split mid temperature 12 14 16 kW _1&3ph	Reg. No.	011-1W0190
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	Scroll Split mid temperature 12 14 16 kW _1&3ph		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	2.5 kg		
Certification Date	07.01.2020		
Testing basis	HP KEYMARK certification scheme rules V8		

Model: HU161MA U33 / HN1616 NK3

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00 kW	12.00 kW
El input	3.76 kW	4.71 kW
COP	4.26	2.55

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 Mar 2021

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	65 dB(A)	65 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	179 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.56	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	8.80 kW
COP Tj = -7°C	3.00	1.93
Cdh	0.900	0.900
Pdh Tj = +2°C	5.40 kW	5.30 kW
COP Tj = +2°C	4.55	3.32
Cdh	0.900	0.900
Pdh Tj = +7°C	3.60 kW	3.40 kW
COP Tj = +7°C	5.50	4.30
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.20 kW	4.30 kW
COP Tj = 12°C	8.00	6.40
Cdh	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	9.90 kW
COP Tj = Tbiv	2.60	1.70
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	2.60	1.70
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	N/A	electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4531 kWh	6157 kWh

Model: HU141MA U33 / HN1616 NK3

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	14.00 kW	11.50 kW
El input	3.15 kW	4.51 kW
COP	4.45	2.55

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 Mar 2021

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	182 %	132 %
Prated	10.00 kW	9.00 kW
SCOP	4.61	3.37
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.40 kW	8.00 kW
COP Tj = -7°C	3.00	1.98
Cdh	0.900	0.900
Pdh Tj = +2°C	5.10 kW	4.90 kW
COP Tj = +2°C	4.60	3.35
Cdh	0.900	0.900
Pdh Tj = +7°C	3.60 kW	3.20 kW
COP Tj = +7°C	5.60	4.36
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	8.40	6.60
Cdh	0.900	0.900
Pdh Tj = Tbiv	9.50 kW	9.00 kW
COP Tj = Tbiv	2.65	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.50 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.72
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	N/A
Supplementary Heater: PSUP	0.50 kW	0.00 kW
Annual energy consumption Qhe	4254 kWh	5524 kWh

Model: HU121MA U33 / HN1616 NK3

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	12.00 kW	11.00 kW
El input	2.64 kW	4.31 kW
COP	4.55	2.55

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 Mar 2021

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	183 %	131 %
Prated	9.00 kW	9.00 kW
SCOP	4.65	3.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	7.60 kW
COP Tj = -7°C	3.00	1.98
Cdh	0.900	0.900
Pdh Tj = +2°C	4.80 kW	4.70 kW
COP Tj = +2°C	4.65	3.35
Cdh	0.900	0.900
Pdh Tj = +7°C	3.70 kW	3.20 kW
COP Tj = +7°C	5.70	4.37
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.50 kW	4.10 kW
COP Tj = 12°C	8.80	6.70
Cdh	0.900	0.900
Pdh Tj = Tbiv	9.00 kW	8.50 kW
COP Tj = Tbiv	2.70	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	8.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.70	1.74
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	N/A	electricity
Supplementary Heater: PSUP	0.00 kW	0.50 kW
Annual energy consumption Qhe	4000 kWh	5229 kWh

Model: HU163MA U33 / HN1639 NK3

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00 kW	12.00 kW
El input	3.76 kW	4.71 kW
COP	4.26	2.55

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	65 dB(A)	65 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	179 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.56	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	8.80 kW
COP Tj = -7°C	3.00	1.93
Cdh	0.900	0.900
Pdh Tj = +2°C	5.40 kW	5.30 kW
COP Tj = +2°C	4.55	3.32
Cdh	0.900	0.900
Pdh Tj = +7°C	3.60 kW	3.40 kW
COP Tj = +7°C	5.50	4.30
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.20 kW	4.30 kW
COP Tj = 12°C	8.00	6.40
Cdh	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	9.90 kW
COP Tj = Tbiv	2.60	1.70
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	2.60	1.70
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	N/A	electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4531 kWh	6157 kWh

Model: HU143MA U33 / HN1639 NK3

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	14.00 kW	11.50 kW
El input	3.15 kW	4.51 kW
COP	4.45	2.55

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	64 dB(A)	64 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	182 %	132 %
Prated	10.00 kW	9.00 kW
SCOP	4.61	3.37
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.40 kW	8.00 kW
COP Tj = -7°C	3.00	1.98
Cdh	0.900	0.900
Pdh Tj = +2°C	5.10 kW	4.90 kW
COP Tj = +2°C	4.60	3.35
Cdh	0.900	0.900
Pdh Tj = +7°C	3.60 kW	3.20 kW
COP Tj = +7°C	5.60	4.36
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	8.40	6.60
Cdh	0.900	0.900
Pdh Tj = Tbiv	9.50 kW	9.00 kW
COP Tj = Tbiv	2.65	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.50 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.72
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	N/A
Supplementary Heater: PSUP	0.50 kW	0.00 kW
Annual energy consumption Qhe	4254 kWh	5524 kWh

Model: HU123MA U33 / HN1639 NK3

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	12.00 kW	11.00 kW
El input	2.64 kW	4.31 kW
COP	4.55	2.55

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	63 dB(A)	63 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	183 %	131 %
Prated	9.00 kW	9.00 kW
SCOP	4.65	3.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	7.60 kW
COP Tj = -7°C	3.00	1.98
Cdh	0.900	0.900
Pdh Tj = +2°C	4.80 kW	4.70 kW
COP Tj = +2°C	4.65	3.35
Cdh	0.900	0.900
Pdh Tj = +7°C	3.70 kW	3.20 kW
COP Tj = +7°C	5.70	4.37
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.50 kW	4.10 kW
COP Tj = 12°C	8.80	6.70
Cdh	0.900	0.900
Pdh Tj = Tbiv	9.00 kW	8.50 kW
COP Tj = Tbiv	2.70	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	8.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.70	1.74
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	N/A	electricity
Supplementary Heater: PSUP	0.00 kW	0.50 kW
Annual energy consumption Qhe	4000 kWh	5229 kWh

Model: HU161MA U33 / HN1616M NK5

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00 kW	12.00 kW
El input	3.76 kW	4.71 kW
COP	4.26	2.55

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	65 dB(A)	65 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	179 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.56	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	8.80 kW
COP Tj = -7°C	3.00	1.93
Cdh	0.900	0.900
Pdh Tj = +2°C	5.40 kW	5.30 kW
COP Tj = +2°C	4.55	3.32
Cdh	0.900	0.900
Pdh Tj = +7°C	3.60 kW	3.40 kW
COP Tj = +7°C	5.50	4.30
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.20 kW	4.30 kW
COP Tj = 12°C	8.00	6.40
Cdh	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	9.90 kW
COP Tj = Tbiv	2.60	1.70
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	2.60	1.70
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	N/A	electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4531 kWh	6157 kWh

Model: HU141MA U33 / HN1616M NK5

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	14.00 kW	11.50 kW
El input	3.15 kW	4.51 kW
COP	4.45	2.55

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	64 dB(A)	64 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	182 %	132 %
Prated	10.00 kW	9.00 kW
SCOP	4.61	3.37
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.40 kW	8.00 kW
COP Tj = -7°C	3.00	1.98
Cdh	0.900	0.900
Pdh Tj = +2°C	5.10 kW	4.90 kW
COP Tj = +2°C	4.60	3.35
Cdh	0.900	0.900
Pdh Tj = +7°C	3.60 kW	3.20 kW
COP Tj = +7°C	5.60	4.36
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	8.40	6.60
Cdh	0.900	0.900
Pdh Tj = Tbiv	9.50 kW	9.00 kW
COP Tj = Tbiv	2.65	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.50 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.72
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	N/A
Supplementary Heater: PSUP	0.50 kW	0.00 kW
Annual energy consumption Qhe	4254 kWh	5524 kWh

Model: HU121MA U33 / HN1616M NK5

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	12.00 kW	11.00 kW
El input	2.64 kW	4.31 kW
COP	4.55	2.55

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 Mar 2021

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	183 %	131 %
Prated	9.00 kW	9.00 kW
SCOP	4.65	3.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	7.60 kW
COP Tj = -7°C	3.00	1.98
Cdh	0.900	0.900
Pdh Tj = +2°C	4.80 kW	4.70 kW
COP Tj = +2°C	4.65	3.35
Cdh	0.900	0.900
Pdh Tj = +7°C	3.70 kW	3.20 kW
COP Tj = +7°C	5.70	4.37
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.50 kW	4.10 kW
COP Tj = 12°C	8.80	6.70
Cdh	0.900	0.900
Pdh Tj = Tbiv	9.00 kW	8.50 kW
COP Tj = Tbiv	2.70	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	8.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.70	1.74
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	N/A	electricity
Supplementary Heater: PSUP	0.00 kW	0.50 kW
Annual energy consumption Qhe	4000 kWh	5229 kWh

Model: HU163MA U33 / HN1636M NK5

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	16.00 kW	12.00 kW
El input	3.76 kW	4.71 kW
COP	4.26	2.55

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	65 dB(A)	65 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	179 %	130 %
Prated	10.00 kW	10.00 kW
SCOP	4.56	3.32
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.90 kW	8.80 kW
COP Tj = -7°C	3.00	1.93
Cdh	0.900	0.900
Pdh Tj = +2°C	5.40 kW	5.30 kW
COP Tj = +2°C	4.55	3.32
Cdh	0.900	0.900
Pdh Tj = +7°C	3.60 kW	3.40 kW
COP Tj = +7°C	5.50	4.30
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.20 kW	4.30 kW
COP Tj = 12°C	8.00	6.40
Cdh	0.900	0.900
Pdh Tj = Tbiv	10.00 kW	9.90 kW
COP Tj = Tbiv	2.60	1.70
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	2.60	1.70
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	N/A	electricity
Supplementary Heater: PSUP	0.00 kW	0.10 kW
Annual energy consumption Qhe	4531 kWh	6157 kWh

Model: HU143MA U33 / HN1636M NK5

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	14.00 kW	11.50 kW
El input	3.15 kW	4.51 kW
COP	4.45	2.55

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	64 dB(A)	64 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	182 %	132 %
Prated	10.00 kW	9.00 kW
SCOP	4.61	3.37
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.40 kW	8.00 kW
COP Tj = -7°C	3.00	1.98
Cdh	0.900	0.900
Pdh Tj = +2°C	5.10 kW	4.90 kW
COP Tj = +2°C	4.60	3.35
Cdh	0.900	0.900
Pdh Tj = +7°C	3.60 kW	3.20 kW
COP Tj = +7°C	5.60	4.36
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.40 kW	4.10 kW
COP Tj = 12°C	8.40	6.60
Cdh	0.900	0.900
Pdh Tj = Tbiv	9.50 kW	9.00 kW
COP Tj = Tbiv	2.65	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.50 kW	9.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.65	1.72
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	N/A
Supplementary Heater: PSUP	0.50 kW	0.00 kW
Annual energy consumption Qhe	4254 kWh	5524 kWh

Model: HU123MA U33 / HN1636M NK5

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	12.00 kW	11.00 kW
El input	2.64 kW	4.31 kW
COP	4.55	2.55

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	63 dB(A)	63 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	183 %	131 %
Prated	9.00 kW	9.00 kW
SCOP	4.65	3.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.00 kW	7.60 kW
COP Tj = -7°C	3.00	1.98
Cdh	0.900	0.900
Pdh Tj = +2°C	4.80 kW	4.70 kW
COP Tj = +2°C	4.65	3.35
Cdh	0.900	0.900
Pdh Tj = +7°C	3.70 kW	3.20 kW
COP Tj = +7°C	5.70	4.37
Cdh	0.900	0.900

This information was generated by the HP KEYMARK database on 1 Mar 2021

Pdh Tj = 12°C	4.50 kW	4.10 kW
COP Tj = 12°C	8.80	6.70
Cdh	0.900	0.900
Pdh Tj = Tbiv	9.00 kW	8.50 kW
COP Tj = Tbiv	2.70	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.00 kW	8.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.70	1.74
WTOL	57 °C	57 °C
Poff	60 W	60 W
PTO	60 W	60 W
PSB	60 W	60 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	N/A	electricity
Supplementary Heater: PSUP	0.00 kW	0.50 kW
Annual energy consumption Qhe	4000 kWh	5229 kWh