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| | | | |
|---------------------|---|----------|-------------|
| Summary of | R32 Hydrosplit 12 14 16 kW 1 phase & 3 phases | Reg. No. | 011-1W0382 |
| 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 | R32 Hydrosplit 12 14 16 kW 1 phase & 3 phases | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | R32 | | |
| Mass of Refrigerant | 2.1 kg | | |
| Certification Date | 06.07.2020 | | |
| Testing basis | European KEYMARK Scheme for Heat Pumps Rev. 8 (as of 2020-09) | | |

Model: HU121MRB U30 / HN1600MB NK0

| Configure model | |
|-------------------------------------|-----------------------------|
| Model name | HU121MRB U30 / HN1600MB NK0 |
| 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 |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 12.00 kW | 11.00 kW |
| El input | 2.38 kW | 3.79 kW |
| COP | 5.04 | 2.90 |

| 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 | 61 dB(A) | 61 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 181 % | 137 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.60 | 3.50 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.20 kW | 10.20 kW |
| COP Tj = -7°C | 3.01 | 2.20 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.20 kW | 6.30 kW |
| COP Tj = +2°C | 4.42 | 3.38 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 4.50 kW | 4.60 kW |
| COP Tj = +7°C | 6.04 | 4.67 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

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| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 5.00 kW | 4.60 kW |
| COP Tj = 12°C | 8.44 | 6.66 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 11.50 kW | 10.20 kW |
| COP Tj = Tbiv | 2.65 | 2.20 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.50 kW | 10.80 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.65 | 1.92 |
| WTOL | 65 °C | 65 °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 | Electricity |
| Supplementary Heater: PSUP | 0.50 kW | 1.20 kW |
| Annual energy consumption Qhe | 5165 kWh | 6788 kWh |

Model: HU123MRB U30 / HN1600MB NK0

| Configure model | |
|-------------------------------------|-----------------------------|
| Model name | HU123MRB U30 / HN1600MB NK0 |
| 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 |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 12.00 kW | 11.00 kW |
| El input | 2.38 kW | 3.79 kW |
| COP | 5.04 | 2.90 |

| 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 | 61 dB(A) | 61 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 181 % | 137 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.60 | 3.50 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.20 kW | 10.20 kW |
| COP Tj = -7°C | 3.01 | 2.20 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.20 kW | 6.30 kW |
| COP Tj = +2°C | 4.42 | 3.38 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 4.50 kW | 4.60 kW |
| COP Tj = +7°C | 6.04 | 4.67 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

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| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 5.00 kW | 4.60 kW |
| COP Tj = 12°C | 8.44 | 6.66 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 11.50 kW | 10.20 kW |
| COP Tj = Tbiv | 2.65 | 2.20 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.50 kW | 10.80 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.65 | 1.92 |
| WTOL | 65 °C | 65 °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 | Electricity |
| Supplementary Heater: PSUP | 0.50 kW | 1.20 kW |
| Annual energy consumption Qhe | 5165 kWh | 6788 kWh |

Model: HU141MRB U30 / HN1600MB NK0

Configure model

| | |
|-------------------------------------|-----------------------------|
| Model name | HU141MRB U30 / HN1600MB NK0 |
| 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 |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 14.00 kW | 11.50 kW |
| El input | 2.86 kW | 4.04 kW |
| COP | 4.89 | 2.85 |

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 | 62 dB(A) | 62 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 180 % | 136 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.57 | 3.47 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.60 kW | 10.40 kW |
| COP Tj = -7°C | 2.94 | 2.16 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.50 kW | 6.30 kW |
| COP Tj = +2°C | 4.45 | 3.35 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 4.70 kW | 4.70 kW |
| COP Tj = +7°C | 5.95 | 4.66 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

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| | | |
|---|----------|-------------|
| Pdh Tj = 12°C | 5.00 kW | 4.60 kW |
| COP Tj = 12°C | 8.12 | 6.62 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 12.00 kW | 10.40 kW |
| COP Tj = Tbiv | 2.60 | 2.16 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.00 kW | 10.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60 | 1.86 |
| WTOL | 65 °C | 65 °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 | 1.10 kW |
| Annual energy consumption Qhe | 5425 kWh | 6992 kWh |

Model: HU143MRB U30 / HN1600MB NK0

| Configure model | |
|-------------------------------------|-----------------------------|
| Model name | HU143MRB U30 / HN1600MB NK0 |
| 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 |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 14.00 kW | 11.50 kW |
| El input | 2.86 kW | 4.04 kW |
| COP | 4.89 | 2.85 |

| 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 | 62 dB(A) | 62 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 180 % | 136 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.57 | 3.47 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.60 kW | 10.40 kW |
| COP Tj = -7°C | 2.94 | 2.16 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.50 kW | 6.30 kW |
| COP Tj = +2°C | 4.45 | 3.35 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 4.70 kW | 4.70 kW |
| COP Tj = +7°C | 5.95 | 4.66 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

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| | | |
|---|----------|-------------|
| Pdh Tj = 12°C | 5.00 kW | 4.60 kW |
| COP Tj = 12°C | 8.12 | 6.62 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 12.00 kW | 10.40 kW |
| COP Tj = Tbiv | 2.60 | 2.16 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.00 kW | 10.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60 | 1.86 |
| WTOL | 65 °C | 65 °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 | 1.10 kW |
| Annual energy consumption Qhe | 5425 kWh | 6992 kWh |

Model: HU161MRB U30 / HN1600MB NK0

| Configure model | |
|-------------------------------------|-----------------------------|
| Model name | HU161MRB U30 / HN1600MB NK0 |
| 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 |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 16.00 kW | 12.00 kW |
| El input | 3.33 kW | 4.29 kW |
| COP | 4.80 | 2.80 |

| 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 | 179 % | 135 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.55 | 3.45 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.90 kW | 10.60 kW |
| COP Tj = -7°C | 2.88 | 2.15 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.70 kW | 6.50 kW |
| COP Tj = +2°C | 4.45 | 3.34 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 5.00 kW | 5.20 kW |
| COP Tj = +7°C | 5.97 | 4.65 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

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| | | |
|---|----------|-------------|
| Pdh Tj = 12°C | 5.30 kW | 4.60 kW |
| COP Tj = 12°C | 8.11 | 6.58 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 12.30 kW | 10.60 kW |
| COP Tj = Tbiv | 2.56 | 2.15 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.30 kW | 11.10 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 1.85 |
| WTOL | 65 °C | 65 °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 | 0.90 kW |
| Annual energy consumption Qhe | 5586 kWh | 7187 kWh |

Model: HU163MRB U30 / HN1600MB NK0

| Configure model | |
|-------------------------------------|-----------------------------|
| Model name | HU163MRB U30 / HN1600MB NK0 |
| 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 |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 16.00 kW | 12.00 kW |
| El input | 3.33 kW | 4.29 kW |
| COP | 4.80 | 2.80 |

| 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 | 179 % | 135 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.55 | 3.45 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.90 kW | 10.60 kW |
| COP Tj = -7°C | 2.88 | 2.15 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.70 kW | 6.50 kW |
| COP Tj = +2°C | 4.45 | 3.34 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 5.00 kW | 5.20 kW |
| COP Tj = +7°C | 5.97 | 4.65 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

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| | | |
|---|----------|-------------|
| Pdh Tj = 12°C | 5.30 kW | 4.60 kW |
| COP Tj = 12°C | 8.11 | 6.58 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 12.30 kW | 10.60 kW |
| COP Tj = Tbiv | 2.56 | 2.15 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.30 kW | 11.10 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 1.85 |
| WTOL | 65 °C | 65 °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 | 0.90 kW |
| Annual energy consumption Qhe | 5586 kWh | 7187 kWh |

Model: HU121MRB U30 / HN1600MC NK1

| Configure model | |
|-------------------------------------|-----------------------------|
| Model name | HU121MRB U30 / HN1600MC NK1 |
| 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 |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 12.00 kW | 11.00 kW |
| El input | 2.38 kW | 3.79 kW |
| COP | 5.04 | 2.90 |

| 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 | 61 dB(A) | 61 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 181 % | 137 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.60 | 3.50 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.20 kW | 10.20 kW |
| COP Tj = -7°C | 3.01 | 2.20 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.20 kW | 6.30 kW |
| COP Tj = +2°C | 4.42 | 3.38 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 4.50 kW | 4.60 kW |
| COP Tj = +7°C | 6.04 | 4.67 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

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|---|-------------|-------------|
| Pdh Tj = 12°C | 5.00 kW | 4.60 kW |
| COP Tj = 12°C | 8.44 | 6.66 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 11.50 kW | 10.20 kW |
| COP Tj = Tbiv | 2.65 | 2.20 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.50 kW | 10.80 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.65 | 1.92 |
| WTOL | 65 °C | 65 °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 | Electricity |
| Supplementary Heater: PSUP | 0.50 kW | 1.20 kW |
| Annual energy consumption Qhe | 5165 kWh | 6788 kWh |

Model: HU123MRB U30 / HN1600MC NK1

| Configure model | |
|-------------------------------------|-----------------------------|
| Model name | HU123MRB U30 / HN1600MC NK1 |
| 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 |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 12.00 kW | 11.00 kW |
| El input | 2.38 kW | 3.79 kW |
| COP | 5.04 | 2.90 |

| 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 | 61 dB(A) | 61 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 181 % | 137 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.60 | 3.50 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.20 kW | 10.20 kW |
| COP Tj = -7°C | 3.01 | 2.20 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.20 kW | 6.30 kW |
| COP Tj = +2°C | 4.42 | 3.38 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 4.50 kW | 4.60 kW |
| COP Tj = +7°C | 6.04 | 4.67 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

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| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 5.00 kW | 4.60 kW |
| COP Tj = 12°C | 8.44 | 6.66 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 11.50 kW | 10.20 kW |
| COP Tj = Tbiv | 2.65 | 2.20 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.50 kW | 10.80 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.65 | 1.92 |
| WTOL | 65 °C | 65 °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 | Electricity |
| Supplementary Heater: PSUP | 0.50 kW | 1.20 kW |
| Annual energy consumption Qhe | 5165 kWh | 6788 kWh |

Model: HU141MRB U30 / HN1600MC NK1

Configure model

| | |
|-------------------------------------|-----------------------------|
| Model name | HU141MRB U30 / HN1600MC NK1 |
| 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 |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 14.00 kW | 11.50 kW |
| El input | 2.86 kW | 4.04 kW |
| COP | 4.89 | 2.85 |

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 | 62 dB(A) | 62 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 180 % | 136 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.57 | 3.47 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.60 kW | 10.40 kW |
| COP Tj = -7°C | 2.94 | 2.16 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.50 kW | 6.30 kW |
| COP Tj = +2°C | 4.45 | 3.35 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 4.70 kW | 4.70 kW |
| COP Tj = +7°C | 5.95 | 4.66 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

This information was generated by the HP KEYMARK database on 18 Mar 2022

| | | |
|---|----------|-------------|
| Pdh Tj = 12°C | 5.00 kW | 4.60 kW |
| COP Tj = 12°C | 8.12 | 6.62 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 12.00 kW | 10.40 kW |
| COP Tj = Tbiv | 2.60 | 2.16 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.00 kW | 10.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60 | 1.86 |
| WTOL | 65 °C | 65 °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 | 1.10 kW |
| Annual energy consumption Qhe | 5425 kWh | 6992 kWh |

Model: HU143MRB U30 / HN1600MC NK1

Configure model

| | |
|-------------------------------------|-----------------------------|
| Model name | HU143MRB U30 / HN1600MC NK1 |
| 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 |
|--------------|-------------|

Heating

EN 14511-2

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 14.00 kW | 11.50 kW |
| El input | 2.86 kW | 4.04 kW |
| COP | 4.89 | 2.85 |

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 | 62 dB(A) | 62 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 180 % | 136 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.57 | 3.47 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.60 kW | 10.40 kW |
| COP Tj = -7°C | 2.94 | 2.16 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.50 kW | 6.30 kW |
| COP Tj = +2°C | 4.45 | 3.35 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 4.70 kW | 4.70 kW |
| COP Tj = +7°C | 5.95 | 4.66 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

This information was generated by the HP KEYMARK database on 18 Mar 2022

| | | |
|---|----------|-------------|
| Pdh Tj = 12°C | 5.00 kW | 4.60 kW |
| COP Tj = 12°C | 8.12 | 6.62 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 12.00 kW | 10.40 kW |
| COP Tj = Tbiv | 2.60 | 2.16 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.00 kW | 10.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60 | 1.86 |
| WTOL | 65 °C | 65 °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 | 1.10 kW |
| Annual energy consumption Qhe | 5425 kWh | 6992 kWh |

Model: HU161MRB U30 / HN1600MC NK1

| Configure model | |
|-------------------------------------|-----------------------------|
| Model name | HU161MRB U30 / HN1600MC NK1 |
| 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 |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 16.00 kW | 12.00 kW |
| El input | 3.33 kW | 4.29 kW |
| COP | 4.80 | 2.80 |

| 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 | 179 % | 135 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.55 | 3.45 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.90 kW | 10.60 kW |
| COP Tj = -7°C | 2.88 | 2.15 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.70 kW | 6.50 kW |
| COP Tj = +2°C | 4.45 | 3.34 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 5.00 kW | 5.20 kW |
| COP Tj = +7°C | 5.97 | 4.65 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

This information was generated by the HP KEYMARK database on 18 Mar 2022

| | | |
|---|----------|-------------|
| Pdh Tj = 12°C | 5.30 kW | 4.60 kW |
| COP Tj = 12°C | 8.11 | 6.58 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 12.30 kW | 10.60 kW |
| COP Tj = Tbiv | 2.56 | 2.15 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.30 kW | 11.10 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 1.85 |
| WTOL | 65 °C | 65 °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 | 0.90 kW |
| Annual energy consumption Qhe | 5586 kWh | 7187 kWh |

Model: HU163MRB U30 / HN1600MC NK1

| Configure model | |
|-------------------------------------|-----------------------------|
| Model name | HU163MRB U30 / HN1600MC NK1 |
| 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 |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 16.00 kW | 12.00 kW |
| El input | 3.33 kW | 4.29 kW |
| COP | 4.80 | 2.80 |

| 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 | 179 % | 135 % |
| Prated | 12.00 kW | 12.00 kW |
| SCOP | 4.55 | 3.45 |
| Tbiv | -10 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 10.90 kW | 10.60 kW |
| COP Tj = -7°C | 2.88 | 2.15 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 6.70 kW | 6.50 kW |
| COP Tj = +2°C | 4.45 | 3.34 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 5.00 kW | 5.20 kW |
| COP Tj = +7°C | 5.97 | 4.65 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

This information was generated by the HP KEYMARK database on 18 Mar 2022

| | | |
|---|----------|-------------|
| Pdh Tj = 12°C | 5.30 kW | 4.60 kW |
| COP Tj = 12°C | 8.11 | 6.58 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 12.30 kW | 10.60 kW |
| COP Tj = Tbiv | 2.56 | 2.15 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.30 kW | 11.10 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 1.85 |
| WTOL | 65 °C | 65 °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 | 0.90 kW |
| Annual energy consumption Qhe | 5586 kWh | 7187 kWh |