

## Subtype THERMA V\_R32 Split 5 7 9 kW

|                     |                                                       |
|---------------------|-------------------------------------------------------|
| Certificate Holder  | LG Electronics Inc.                                   |
| Address             | 84, Wanam-ro, seongsan-gu                             |
| ZIP                 | 51554                                                 |
| City                | Changwon-si                                           |
| Country             | KR                                                    |
| Certification Body  | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH |
| Subtype title       | THERMA V_R32 Split 5 7 9 kW                           |
| Registration number | 011-1W0315                                            |
| Heat Pump Type      | Outdoor Air/Water                                     |
| Refrigerant         | R32                                                   |
| Mass of Refrigerant | 1.5 kg                                                |
| Certification Date  | 05.03.2019                                            |
| Testing basis       | HP KEYMARK certification scheme rules rev. 7          |

## Model HU091MR U44, HN0916M NK4

|                                     |                          |
|-------------------------------------|--------------------------|
| Model name                          | HU091MR U44, HN0916M NK4 |
| Application                         | Heating (medium temp)    |
| Units                               | Indoor, Outdoor          |
| Climate zone (for heating)          | n/a                      |
| 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 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 | 9.00 kW         | 5.50 kW            |
| El input    | 1.94 kW         | 2.04 kW            |
| COP         | 4.65            | 2.70               |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 44 dB(A)        | 44 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

## EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 183 %           | 126 %              |
| Prated         | 6.00 kW         | 6.00 kW            |
| SCOP           | 4.65            | 3.23               |
| Tbiv           | -10 °C          | -7 °C              |
| TOL            | -15 °C          | -15 °C             |
| Pdh Tj = -7°C  | 5.30 kW         | 5.30 kW            |
| COP Tj = -7°C  | 2.75            | 2.05               |
| Cdh Tj = -7 °C | 0.90            | 0.90               |
| Pdh Tj = +2°C  | 3.20 kW         | 3.20 kW            |
| COP Tj = +2°C  | 4.50            | 3.10               |
| Cdh Tj = +2 °C | 0.90            | 0.90               |
| Pdh Tj = +7°C  | 2.30 kW         | 3.00 kW            |

|                                                     |          |             |
|-----------------------------------------------------|----------|-------------|
| COP Tj = +7°C                                       | 6.50     | 4.50        |
| Cdh Tj = +7 °C                                      | 0.90     | 0.90        |
| Pdh Tj = 12°C                                       | 2.80 kW  | 3.60 kW     |
| COP Tj = 12°C                                       | 9.00     | 6.80        |
| Cdh Tj = +12 °C                                     | 0.90     | 0.90        |
| Pdh Tj = Tbiv                                       | 6.00 kW  | 5.30 kW     |
| COP Tj = Tbiv                                       | 2.45     | 2.05        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6.00 kW  | 5.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.45     | 1.65        |
| WTOL                                                | 65 °C    | 65 °C       |
| Poff                                                | 20 W     | 20 W        |
| PTO                                                 | 20 W     | 20 W        |
| PSB                                                 | 20 W     | 20 W        |
| PCK                                                 | 30 W     | 30 W        |
| Supplementary Heater: Type of energy input          |          | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.90 kW     |
| Annual energy consumption Qhe                       | 2666 kWh | 3837 kWh    |

## Model HU071MR U44, HN0916M NK4

|                                     |                          |
|-------------------------------------|--------------------------|
| Model name                          | HU071MR U44, HN0916M NK4 |
| Application                         | Heating (medium temp)    |
| Units                               | Indoor, Outdoor          |
| Climate zone (for heating)          | n/a                      |
| 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 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 | 7.00 kW         | 5.50 kW            |
| El input    | 1.43 kW         | 2.04 kW            |
| COP         | 4.90            | 2.70               |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 44 dB(A)        | 44 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

## EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 183 %           | 126 %              |
| Prated         | 6.00 kW         | 6.00 kW            |
| SCOP           | 4.65            | 3.23               |
| Tbiv           | -10 °C          | -7 °C              |
| TOL            | -15 °C          | -15 °C             |
| Pdh Tj = -7°C  | 5.10 kW         | 5.30 kW            |
| COP Tj = -7°C  | 2.80            | 2.05               |
| Cdh Tj = -7 °C | 0.90            | 0.90               |
| Pdh Tj = +2°C  | 3.10 kW         | 3.20 kW            |
| COP Tj = +2°C  | 4.50            | 3.10               |
| Cdh Tj = +2 °C | 0.90            | 0.90               |
| Pdh Tj = +7°C  | 2.40 kW         | 3.00 kW            |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = +7°C                                       | 6.50        | 4.50        |
| Cdh Tj = +7 °C                                      | 0.90        | 0.90        |
| Pdh Tj = 12°C                                       | 2.80 kW     | 3.60 kW     |
| COP Tj = 12°C                                       | 9.00        | 6.80        |
| Cdh Tj = +12 °C                                     | 0.90        | 0.90        |
| Pdh Tj = Tbiv                                       | 5.80 kW     | 5.30 kW     |
| COP Tj = Tbiv                                       | 2.50        | 2.05        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.80 kW     | 5.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.65        |
| WTOL                                                | 65 °C       | 65 °C       |
| Poff                                                | 20 W        | 20 W        |
| PTO                                                 | 20 W        | 20 W        |
| PSB                                                 | 20 W        | 20 W        |
| PCK                                                 | 30 W        | 30 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.20 kW     | 0.90 kW     |
| Annual energy consumption Qhe                       | 2575 kWh    | 3837 kWh    |

## Model HU051MR U44, HN0916M NK4

|                                     |                          |
|-------------------------------------|--------------------------|
| Model name                          | HU051MR U44, HN0916M NK4 |
| Application                         | Heating (medium temp)    |
| Units                               | Indoor, Outdoor          |
| Climate zone (for heating)          | n/a                      |
| 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 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 | 5.50 kW         | 5.50 kW            |
| El input    | 1.12 kW         | 2.04 kW            |
| COP         | 4.90            | 2.70               |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 44 dB(A)        | 44 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

## EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 183 %           | 126 %              |
| Prated         | 6.00 kW         | 6.00 kW            |
| SCOP           | 4.65            | 3.23               |
| Tbiv           | -10 °C          | -7 °C              |
| TOL            | -15 °C          | -15 °C             |
| Pdh Tj = -7°C  | 4.90 kW         | 5.30 kW            |
| COP Tj = -7°C  | 2.80            | 2.05               |
| Cdh Tj = -7 °C | 0.90            | 0.90               |
| Pdh Tj = +2°C  | 3.00 kW         | 3.20 kW            |
| COP Tj = +2°C  | 4.50            | 3.10               |
| Cdh Tj = +2 °C | 0.90            | 0.90               |
| Pdh Tj = +7°C  | 2.20 kW         | 3.00 kW            |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = +7°C                                       | 6.40        | 4.50        |
| Cdh Tj = +7 °C                                      | 0.90        | 0.90        |
| Pdh Tj = 12°C                                       | 2.60 kW     | 3.60 kW     |
| COP Tj = 12°C                                       | 9.20        | 6.80        |
| Cdh Tj = +12 °C                                     | 0.90        | 0.90        |
| Pdh Tj = Tbiv                                       | 5.50 kW     | 5.30 kW     |
| COP Tj = Tbiv                                       | 2.50        | 2.05        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.50 kW     | 5.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.65        |
| WTOL                                                | 65 °C       | 65 °C       |
| Poff                                                | 20 W        | 20 W        |
| PTO                                                 | 20 W        | 20 W        |
| PSB                                                 | 20 W        | 20 W        |
| PCK                                                 | 30 W        | 30 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.50 kW     | 0.90 kW     |
| Annual energy consumption Qhe                       | 2444 kWh    | 3837 kWh    |

## Model HU091MR U44 , HN091MR NK5

|                                     |                           |
|-------------------------------------|---------------------------|
| Model name                          | HU091MR U44 , HN091MR NK5 |
| Application                         | Heating (medium temp)     |
| Units                               | Indoor, Outdoor           |
| Climate zone (for heating)          | n/a                       |
| 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 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 | 9.00 kW         | 5.50 kW            |
| El input    | 1.94 kW         | 2.04 kW            |
| COP         | 4.65            | 2.70               |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 44 dB(A)        | 44 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

## EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 183 %           | 126 %              |
| Prated         | 6.00 kW         | 6.00 kW            |
| SCOP           | 4.65            | 3.23               |
| Tbiv           | -10 °C          | -7 °C              |
| TOL            | -15 °C          | -15 °C             |
| Pdh Tj = -7°C  | 5.30 kW         | 5.30 kW            |
| COP Tj = -7°C  | 2.75            | 2.05               |
| Cdh Tj = -7 °C | 0.90            | 0.90               |
| Pdh Tj = +2°C  | 3.20 kW         | 3.20 kW            |
| COP Tj = +2°C  | 4.50            | 3.10               |
| Cdh Tj = +2 °C | 0.90            | 0.90               |
| Pdh Tj = +7°C  | 2.30 kW         | 3.00 kW            |

|                                                     |          |             |
|-----------------------------------------------------|----------|-------------|
| COP Tj = +7°C                                       | 6.50     | 4.50        |
| Cdh Tj = +7 °C                                      | 0.90     | 0.90        |
| Pdh Tj = 12°C                                       | 2.80 kW  | 3.60 kW     |
| COP Tj = 12°C                                       | 9.00     | 6.80        |
| Cdh Tj = +12 °C                                     | 0.90     | 0.90        |
| Pdh Tj = Tbiv                                       | 6.00 kW  | 5.30 kW     |
| COP Tj = Tbiv                                       | 2.45     | 2.05        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6.00 kW  | 5.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.45     | 1.65        |
| WTOL                                                | 65 °C    | 65 °C       |
| Poff                                                | 20 W     | 20 W        |
| PTO                                                 | 20 W     | 20 W        |
| PSB                                                 | 20 W     | 20 W        |
| PCK                                                 | 30 W     | 30 W        |
| Supplementary Heater: Type of energy input          |          | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.90 kW     |
| Annual energy consumption Qhe                       | 2666 kWh | 3837 kWh    |

## Model HU071MR U44, HN091MR NK5

|                                     |                          |
|-------------------------------------|--------------------------|
| Model name                          | HU071MR U44, HN091MR NK5 |
| Application                         | Heating (medium temp)    |
| Units                               | Indoor, Outdoor          |
| Climate zone (for heating)          | n/a                      |
| 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 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 | 7.00 kW         | 5.50 kW            |
| El input    | 1.43 kW         | 2.04 kW            |
| COP         | 4.90            | 2.70               |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 44 dB(A)        | 44 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

## EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 183 %           | 126 %              |
| Prated         | 6.00 kW         | 6.00 kW            |
| SCOP           | 4.65            | 3.23               |
| Tbiv           | -10 °C          | -7 °C              |
| TOL            | -15 °C          | -15 °C             |
| Pdh Tj = -7°C  | 5.10 kW         | 5.30 kW            |
| COP Tj = -7°C  | 2.80            | 2.05               |
| Cdh Tj = -7 °C | 0.90            | 0.90               |
| Pdh Tj = +2°C  | 3.10 kW         | 3.20 kW            |
| COP Tj = +2°C  | 4.50            | 3.10               |
| Cdh Tj = +2 °C | 0.90            | 0.90               |
| Pdh Tj = +7°C  | 2.40 kW         | 3.00 kW            |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = +7°C                                       | 6.50        | 4.50        |
| Cdh Tj = +7 °C                                      | 0.90        | 0.90        |
| Pdh Tj = 12°C                                       | 2.80 kW     | 3.60 kW     |
| COP Tj = 12°C                                       | 9.00        | 6.80        |
| Cdh Tj = +12 °C                                     | 0.90        | 0.90        |
| Pdh Tj = Tbiv                                       | 5.80 kW     | 5.30 kW     |
| COP Tj = Tbiv                                       | 2.50        | 2.05        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.80 kW     | 5.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.65        |
| WTOL                                                | 65 °C       | 65 °C       |
| Poff                                                | 20 W        | 20 W        |
| PTO                                                 | 20 W        | 20 W        |
| PSB                                                 | 20 W        | 20 W        |
| PCK                                                 | 30 W        | 30 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.20 kW     | 0.90 kW     |
| Annual energy consumption Qhe                       | 2575 kWh    | 3837 kWh    |

## Model HU051MR U44, HN091MR NK5

|                                     |                          |
|-------------------------------------|--------------------------|
| Model name                          | HU051MR U44, HN091MR NK5 |
| Application                         | Heating (medium temp)    |
| Units                               | Indoor, Outdoor          |
| Climate zone (for heating)          | n/a                      |
| 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 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 | 5.50 kW         | 5.50 kW            |
| El input    | 1.12 kW         | 2.04 kW            |
| COP         | 4.90            | 2.70               |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 44 dB(A)        | 44 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

## EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 183 %           | 126 %              |
| Prated         | 6.00 kW         | 6.00 kW            |
| SCOP           | 4.65            | 3.23               |
| Tbiv           | -10 °C          | -7 °C              |
| TOL            | -15 °C          | -15 °C             |
| Pdh Tj = -7°C  | 4.90 kW         | 5.30 kW            |
| COP Tj = -7°C  | 2.80            | 2.05               |
| Cdh Tj = -7 °C | 0.90            | 0.90               |
| Pdh Tj = +2°C  | 3.00 kW         | 3.20 kW            |
| COP Tj = +2°C  | 4.50            | 3.10               |
| Cdh Tj = +2 °C | 0.90            | 0.90               |
| Pdh Tj = +7°C  | 2.20 kW         | 3.00 kW            |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = +7°C                                       | 6.40        | 4.50        |
| Cdh Tj = +7 °C                                      | 0.90        | 0.90        |
| Pdh Tj = 12°C                                       | 2.60 kW     | 3.60 kW     |
| COP Tj = 12°C                                       | 9.20        | 6.80        |
| Cdh Tj = +12 °C                                     | 0.90        | 0.90        |
| Pdh Tj = Tbiv                                       | 5.50 kW     | 5.30 kW     |
| COP Tj = Tbiv                                       | 2.50        | 2.05        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.50 kW     | 5.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.65        |
| WTOL                                                | 65 °C       | 65 °C       |
| Poff                                                | 20 W        | 20 W        |
| PTO                                                 | 20 W        | 20 W        |
| PSB                                                 | 20 W        | 20 W        |
| PCK                                                 | 30 W        | 30 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.50 kW     | 0.90 kW     |
| Annual energy consumption Qhe                       | 2444 kWh    | 3837 kWh    |