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#### **Login**

Summary of	R32 monobloc(2nd) 12 14 16 kW 1&3 phase	Reg. No.	011-1W0470	
Certificate Holder				
Name	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 monobloc(2nd) 12 14 16 kW 1&3 phase			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R32			
Mass of Refrigerant	2 kg			
Certification Date	05.07.2021			
Testing basis	ing basis European KEYMARK Scheme for Heat Pumps Rev. 9 (as of 2021-03)			

## Model: HM121MR U34

Configure model		
Model name	HM121MR U34	
Application	Heating (medium temp)	
Units	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	2.45 kW	3.79 kW
СОР	4.90	2.90

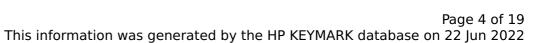
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed



EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

CEN heat pump KEYMARK

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	184 %	136 %
Prated	12.00 kW	12.00 kW
SCOP	4.67	3.47
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.20 kW	10.20 kW
COP Tj = -7°C	3.10	2.07
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.20 kW	6.30 kW
COP Tj = +2°C	4.39	3.38
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.50 kW	4.60 kW
COP Tj = +7°C	6.40	4.64
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.60 kW





COP Tj = 12°C	8.50	6.79
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.50 kW	10.20 kW
COP Tj = Tbiv	2.55	2.07
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	2.55	1.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	30 W	30 W
PSB	10 W	10 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	5086 kWh	6882 kWh



## Model: HM123MR U34

Configure model		
Model name	HM123MR U34	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

### Heating

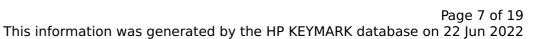
EN 14511-2		
	Low temperature	Medium temperature
Heat output	12.00 kW	11.00 kW
El input	2.45 kW	3.79 kW
СОР	4.90	2.90

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	184 %	136 %
Prated	12.00 kW	12.00 kW
SCOP	4.67	3.47
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.20 kW	10.20 kW
COP Tj = -7°C	3.10	2.07
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.20 kW	6.30 kW
COP Tj = +2°C	4.39	3.38
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.50 kW	4.60 kW
COP Tj = +7°C	6.40	4.64
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.20 kW	4.60 kW





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COP Tj = 12°C	8.50	6.79
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	11.50 kW	10.20 kW
COP Tj = Tbiv	2.55	2.07
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	2.55	1.92
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	30 W	30 W
PSB	10 W	10 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.50 kW	1.20 kW
Annual energy consumption Qhe	5086 kWh	6882 kWh



## Model: HM141MR U34

Configure model		
Model name	HM141MR U34	
Application	Heating (medium temp)	
Units	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	2.92 kW	4.04 kW
СОР	4.80	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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	182 %	135 %
Prated	12.00 kW	12.00 kW
SCOP	4.62	3.46
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.40 kW
COP Tj = -7°C	3.10	2.11
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.30 kW
COP Tj = +2°C	4.40	3.35
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.60 kW	4.70 kW
COP Tj = +7°C	6.10	4.66
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.30 kW	4.60 kW



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COP Tj = 12°C	8.40	6.62
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.00 kW	10.40 kW
COP Tj = Tbiv	2.50	2.11
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	2.50	1.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	30 W	30 W
PSB	10 W	10 W
PCK	o w	o w
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	1.10 kW
Annual energy consumption Qhe	5362 kWh	7016 kWh

## Model: HM143MR U34

Configure model		
Model name	HM143MR U34	
Application	Heating (medium temp)	
Units	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	2.92 kW	4.04 kW		
СОР	4.80	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	



EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	182 %	135 %
Prated	12.00 kW	12.00 kW
SCOP	4.62	3.46
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.60 kW	10.40 kW
COP Tj = -7°C	3.10	2.11
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.50 kW	6.30 kW
COP Tj = +2°C	4.40	3.35
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	4.60 kW	4.70 kW
COP Tj = +7°C	6.10	4.66
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.30 kW	4.60 kW



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COP Tj = 12°C	8.40	6.62
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.00 kW	10.40 kW
COP Tj = Tbiv	2.50	2.11
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	2.50	1.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	30 W	30 W
PSB	10 W	10 W
PCK	o w	o w
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	1.10 kW
Annual energy consumption Qhe	5362 kWh	7016 kWh

## Model: HM163MR U34

Configure model		
Model name HM163MR U34		
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	n/a	
Reversibility		
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	3.40 kW	4.29 kW		
СОР	4.70	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	



EN 12102-1				
	Low temperature	Medium temperature		
Sound power level outdoor	61 dB(A)	61 dB(A)		

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EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	178 %	135 %
Prated	12.00 kW	12.00 kW
SCOP	4.53	3.45
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.90 kW	10.70 kW
COP Tj = -7°C	3.09	2.13
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.60 kW	6.50 kW
COP Tj = +2°C	4.33	3.34
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	5.90	4.65
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.30 kW	4.60 kW



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COP Tj = 12°C	8.15	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.30 kW	10.60 kW
COP Tj = Tbiv	2.50	2.13
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	2.50	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	30 W	30 W
PSB	10 W	10 W
PCK	o w	o w
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.90 kW
Annual energy consumption Qhe	5604 kWh	7213 kWh



## Model: HM161MR U34

Configure model			
Model name	HM161MR U34		
Application	Heating (medium temp)		
Units	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	3.40 kW	4.29 kW
СОР	4.70	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	





EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	178 %	135 %
Prated	12.00 kW	12.00 kW
SCOP	4.53	3.45
Tbiv	-10 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.90 kW	10.70 kW
COP Tj = -7°C	3.09	2.13
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	6.60 kW	6.50 kW
COP Tj = +2°C	4.33	3.34
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.00 kW	5.20 kW
COP Tj = +7°C	5.90	4.65
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	5.30 kW	4.60 kW



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COP Tj = 12°C	8.15	6.58
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	12.30 kW	10.60 kW
COP Tj = Tbiv	2.50	2.13
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	2.50	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	30 W	30 W
PSB	10 W	10 W
PCK	o w	o w
Supplementary Heater: Type of energy input	n/a	Electricity
Supplementary Heater: PSUP	0.00 kW	0.90 kW
Annual energy consumption Qhe	5604 kWh	7213 kWh