

Summary of	R32 monobloc 12 14 16 kW 1 phase & 3 phases	Reg. No.	011-1W0244
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		
Name of testing laboratory	TÜV Rheinland Energy GmbH		
Subtype title	R32 monobloc 12 14 16 kW 1 phase & 3 phases		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R32		
Mass Of Refrigerant	2.4 kg		
Certification Date	04.04.2018		

### Model: HM163M U33

General Data	
Power supply	3x400V 50Hz

#### Heating

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 14511-2		
	Low temperature	Medium temperature
Heat output	16.00 kW	12.00 kW
El input	3.64 kW	4.29 kW
СОР	4.40	2.80
Indoor water flow rate	2.76 m³/h	1.30 m³/h



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	dB(A)	dB(A)
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	175 %	124 %
Prated	11.00 kW	12.00 kW
SCOP	4.45	3.18
Tbiv	-10 °C	-7 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	9.70 kW	10.60 kW
COP Tj = -7°C	2.90	1.93
Cdh	0.90	0.90
Pdh Tj = +2°C	5.90 kW	6.50 kW
COP Tj = +2°C	4.38	3.00
Cdh	0.90	0.90
Pdh Tj = +7°C	6.70 kW	6.30 kW
COP Tj = +7°C	6.24	4.80
Cdh	0.90	0.90



Pdh Tj = 12°C	8.10 kW	7.70 kW
COP Tj = 12°C	8.30	7.00
Cdh	0.90	0.90
Pdh Tj = Tbiv	11.00 kW	10.60 kW
COP Tj = Tbiv	2.50	1.93
Pdh Tj = TOL	11.00 kW	10.00 kW
COP Tj = TOL	2.50	1.65
Cdh	0.90	0.90
WTOL	65 °C	65 °C
Poff	60 W	60 W
РТО	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	No	electric
Supplementary Heater: PSUP	0.00 kW	2.00 kW
Annual energy consumption Qhe	5103 kWh	7795 kWh



## Model: HM143M U33

General Data	
Power supply	3x400V 50Hz

#### Heating

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 14511-2		
	Low temperature	Medium temperature
Heat output	14.00 kW	12.00 kW
El input	3.11 kW	4.29 kW
СОР	4.50	2.80
Indoor water flow rate	2.42 m³/h	1.30 m³/h



EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	175 %	124 %
Prated	11.00 kW	12.00 kW
SCOP	4.45	3.18
Tbiv	-10 °C	-7 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	9.30 kW	10.60 kW
COP Tj = -7°C	2.90	1.93
Cdh	0.90	0.90
Pdh Tj = +2°C	5.70 kW	6.50 kW
COP Tj = +2°C	4.38	3.00
Cdh	0.90	0.90
Pdh Tj = +7°C	6.50 kW	6.30 kW
COP Tj = +7°C	6.24	4.80
Cdh	0.90	0.90
Pdh Tj = 12°C	7.70 kW	7.70 kW



# $$\operatorname{\textit{Page}}\ 7$$ of 19 This information was generated by the HP KEYMARK database on 17 Dec 2020

8.30	7.00
0.90	0.90
10.50 kW	10.60 kW
2.50	1.93
10.50 kW	10.00 kW
2.50	1.65
0.90	0.90
65 °C	65 °C
60 W	60 W
60 W	60 W
60 W	60 W
50 W	50 W
electric	electric
0.50 kW	2.00 kW
4875 kWh	7795 kWh
	0.90  10.50 kW  2.50  10.50 kW  2.50  0.90  65 °C  60 W  60 W  50 W  electric  0.50 kW



### Model: HM123M U33

General Data	
Power supply	3x400V 50Hz

#### Heating

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 14511-2		
	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.61 kW	4.29 kW
СОР	4.60	2.80
Indoor water flow rate	2.07 m³/h	1.30 m³/h



EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	175 %	124 %
Prated	10.00 kW	12.00 kW
SCOP	4.45	3.18
Tbiv	-10 °C	-7 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.80 kW	10.60 kW
COP Tj = -7°C	2.90	1.93
Cdh	0.90	0.90
Pdh Tj = +2°C	5.40 kW	6.50 kW
COP Tj = +2°C	4.38	3.00
Cdh	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	6.10 kW	6.30 kW
COP Tj = +7°C	6.24	4.80
Cdh	0.90	0.90
Pdh Tj = 12°C	7.40 kW	7.70 kW



# $$\operatorname{\textit{Page}}\ 10$$ of 19 This information was generated by the HP KEYMARK database on 17 Dec 2020

COP Tj = 12°C	8.30	7.00
Cdh	0.90	0.90
Pdh Tj = Tbiv	10.00 kW	10.60 kW
COP Tj = Tbiv	2.50	1.93
Pdh Tj = TOL	10.00 kW	10.00 kW
COP Tj = TOL	2.50	1.65
Cdh	0.90	0.90
WTOL	65 °C	65 °C
Poff	60 W	60 W
РТО	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	NO	electric
Supplementary Heater: PSUP	0.00 kW	2.00 kW
Annual energy consumption Qhe	4642 kWh	7795 kWh



### Model: HM161M U33

General Data	
Power supply	1x230V 50Hz

#### Heating

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 14511-2		
	Low temperature	Medium temperature
Heat output	16.00 kW	12.00 kW
El input	3.64 kW	4.29 kW
СОР	4.40	2.80
Indoor water flow rate	2.76 m³/h	1.30 m³/h



EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	175 %	124 %
Prated	11.00 kW	12.00 kW
SCOP	4.45	3.18
Tbiv	-10 °C	-7 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	9.70 kW	10.60 kW
COP Tj = -7°C	2.90	1.93
Cdh	0.90	0.90
Pdh Tj = +2°C	5.90 kW	6.50 kW
COP Tj = +2°C	4.38	3.00
Cdh	0.90	0.90
Pdh Tj = +7°C	6.70 kW	6.30 kW
COP Tj = +7°C	6.24	4.80
Cdh	0.90	0.90
Pdh Tj = 12°C	8.10 kW	7.70 kW



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COP Tj = 12°C	8.30	7.00
Cdh	0.90	0.90
Pdh Tj = Tbiv	11.00 kW	10.60 kW
COP Tj = Tbiv	2.50	1.93
Pdh Tj = TOL	11.00 kW	10.00 kW
COP Tj = TOL	2.50	1.65
Cdh	0.90	0.90
WTOL	65 °C	65 °C
Poff	60 W	60 W
РТО	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	no	electric
Supplementary Heater: PSUP	0.00 kW	2.00 kW
Annual energy consumption Qhe	5103 kWh	7795 kWh



### Model: HM141M U33

General Data	
Power supply	1x230V 50Hz

#### Heating

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 14511-2		
	Low temperature	Medium temperature
Heat output	14.00 kW	12.00 kW
El input	3.11 kW	4.29 kW
СОР	4.50	2.80
Indoor water flow rate	2.42 m³/h	1.30 m³/h



EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	175 %	124 %
Prated	11.00 kW	12.00 kW
SCOP	4.45	3.18
Tbiv	-10 °C	-7 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	9.30 kW	10.60 kW
COP Tj = -7°C	2.90	1.93
Cdh	0.90	0.90
Pdh Tj = +2°C	5.70 kW	6.50 kW
COP Tj = +2°C	4.38	3.00
Cdh	0.90	0.90
Pdh Tj = +7°C	6.50 kW	6.30 kW
COP Tj = +7°C	6.24	4.80
Cdh	0.90	0.90
Pdh Tj = 12°C	7.70 kW	7.70 kW



# $$\operatorname{\textit{Page}}\ 16$$ of 19 This information was generated by the HP KEYMARK database on 17 Dec 2020

COP Tj = 12°C	8.30	7.00
Cdh	0.90	0.90
Pdh Tj = Tbiv	10.50 kW	10.60 kW
COP Tj = Tbiv	2.50	1.93
Pdh Tj = TOL	10.50 kW	10.00 kW
COP Tj = TOL	2.50	1.65
Cdh	0.90	0.90
WTOL	65 °C	65 °C
Poff	60 W	60 W
РТО	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.50 kW	2.00 kW
Annual energy consumption Qhe	4875 kWh	7795 kWh



### Model: HM121M U33

General Data		
Power supply	1x230V 50Hz	

#### Heating

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 14511-2		
	Low temperature	Medium temperature
Heat output	12.00 kW	12.00 kW
El input	2.61 kW	4.29 kW
СОР	4.60	2.80
Indoor water flow rate	2.07 m³/h	1.30 m³/h





EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	175 %	124 %
Prated	10.00 kW	12.00 kW
SCOP	4.45	3.18
Tbiv	-10 °C	-7 °C
TOL	-15 °C	-15 °C
Pdh Tj = -7°C	8.80 kW	10.60 kW
COP Tj = -7°C	2.90	1.93
Cdh	0.90	0.90
Pdh Tj = +2°C	5.40 kW	6.50 kW
COP Tj = +2°C	4.38	3.00
Cdh	0.90	0.90
Pdh Tj = +7°C	6.10 kW	6.30 kW
COP Tj = +7°C	6.24	4.80
Cdh	0.90	0.90
Pdh Tj = 12°C	7.40 kW	7.70 kW



# $$\operatorname{Page}\ 19$$ of 19 This information was generated by the HP KEYMARK database on 17 Dec 2020

COP Tj = 12°C	8.30	7.00
Cdh	0.90	0.90
Pdh Tj = Tbiv	10.00 kW	10.60 kW
COP Tj = Tbiv	2.50	1.93
Pdh Tj = TOL	10.00 kW	10.00 kW
COP Tj = TOL	2.50	1.65
Cdh	0.90	0.90
WTOL	65 °C	65 °C
Poff	60 W	60 W
РТО	60 W	60 W
PSB	60 W	60 W
PCK	50 W	50 W
Supplementary Heater: Type of energy input	N/A	electric
Supplementary Heater: PSUP	0.00 kW	2.00 kW
Annual energy consumption Qhe	4642 kWh	7795 kWh