Summary of	Vitocal 3xx-G C12	Reg. No.	011-1W0292
Certificate Holder			
Name	Viessmann Wärmepumpen GmbH		
Address	Viessmannstr. 1	Zip	35107
City	Allendorf/Eder	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	Heat Pump Test Center WPZ		
Subtype title	Vitocal 3xx-G C12		
Heat Pump Type	Brine/Water		
Refrigerant	R410a		
Mass Of Refrigerant	2.3 kg		
Certification Date	11.07.2019		

Model: VITOCAL 300-G BWC 301.C12

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	5.31 kW	4.74 kW
El input	1.11 kW	1.68 kW
COP	4.72	2.82
Indoor water flow rate	0.92 m³/h	0.70 m³/h

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	41 dB(A)	41 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	12.00 kW		
η_s	205 %	151 %	
Prated	12.00 kW	12.00 kW	
SCOP	5.32	3.97	
Tbiv	-10 °C	-10 °C	
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	11.07 kW	10.86 kW	
COP Tj = -7°C	4.26	3.05	
Cdh	0.99	0.99	
Pdh Tj = +2°C	6.75 kW	6.66 kW	
COP Tj = +2°C	5.28	3.91	
Cdh	0.99	0.99	
Pdh Tj = +7°C	4.56 kW	4.41 kW	
COP Tj = +7°C	6.03	4.57	
Cdh	0.98	0.98	

Pdh Tj = 12°C	2.46 kW	2.37 kW
COP Tj = 12°C	6.03	4.93
Cdh	0.96	0.97
Pdh Tj = Tbiv	11.49 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92
Pdh Tj = TOL	11.49 kW	10.86 kW
COP Tj = TOL	4.09	2.92
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.51 kW	1.14 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	4661 kWh	6242 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	201 %	154 %
Prated	12.00 kW	12.00 kW
SCOP	5.09	4.06
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.48 kW	10.83 kW
COP Tj = +2°C	4.08	2.91
Cdh	0.99	0.99
Pdh Tj = +7°C	10.97 kW	7.97 kW
COP Tj = +7°C	4.51	3.53
Cdh	0.99	0.99
Pdh Tj = 12°C	6.74 kW	3.50 kW
COP Tj = 12°C	5.89	4.80
Cdh	0.99	0.98
Pdh Tj = Tbiv	11.48 kW	10.83 kW
COP Tj = Tbiv	4.08	2.91
Pdh Tj = TOL	11.48 kW	10.83 kW
COP Tj = TOL	4.08	2.91
Cdh	0.99	0.99

WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.52 kW	0.00 kW
Annual energy consumption Qhe	3150 kWh	3951 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	211 %	157 %
Prated	12.00 kW	12.00 kW
SCOP	5.48	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C

Pdh Tj = -7°C	7.70 kW	7.62 kW
COP Tj = -7°C	5.18	3.71
Cdh	0.99	0.99
Pdh Tj = +2°C	4.56 kW	4.52 kW
COP Tj = +2°C	6.03	4.47
Cdh	0.98	0.99
Pdh Tj = +7°C	3.02 kW	3.02 kW
COP Tj = +7°C	6.17	4.90
Cdh	0.97	0.98
Pdh Tj = 12°C	2.43 kW	2.40 kW
COP Tj = 12°C	5.78	5.16
Cdh	0.95	0.97
Pdh Tj = Tbiv	11.45 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92
Pdh Tj = TOL	11.45 kW	10.86 kW
COP Tj = TOL	4.09	2.92
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.55 kW	0.14 kW
Annual energy consumption Qhe	5324 kWh	7182 kWh
Pdh Tj = -15°C (if TOL<-20°C)	9.70	9.35
COP Tj = -15°C (if TOL<-20°C)	4.60	3.29
Cdh	0.99	0.99

Model: VITOCAL 300-G BWC 301.C12 SC

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	5.31 kW	4.74 kW
El input	1.11 kW	1.68 kW
COP	4.72	2.82
Indoor water flow rate	0.92 m³/h	0.70 m³/h

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	41 dB(A)	41 dB(A)

EN 14825

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COP Tj = +2°C	5.28	3.91	
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Pdh Tj = +7°C	4.56 kW	4.41 kW	
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COP Tj = 12°C	6.03	4.93
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Pdh Tj = Tbiv	11.49 kW	10.86 kW
COP Tj = Tbiv	4.09	2.92
Pdh Tj = TOL	11.49 kW	10.86 kW
COP Tj = TOL	4.09	2.92
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.51 kW	1.14 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	4661 kWh	6242 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	201 %	154 %
Prated	12.00 kW	12.00 kW
SCOP	5.09	4.06
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.48 kW	10.83 kW
COP Tj = +2°C	4.08	2.91
Cdh	0.99	0.99
Pdh Tj = +7°C	10.97 kW	7.97 kW
COP Tj = +7°C	4.51	3.53
Cdh	0.99	0.99
Pdh Tj = 12°C	6.74 kW	3.50 kW
COP Tj = 12°C	5.89	4.80
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Pdh Tj = Tbiv	11.48 kW	10.83 kW
COP Tj = Tbiv	4.08	2.91
Pdh Tj = TOL	11.48 kW	10.83 kW
COP Tj = TOL	4.08	2.91
Cdh	0.99	0.99

WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.52 kW	0.00 kW
Annual energy consumption Qhe	3150 kWh	3951 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	211 %	157 %
Prated	12.00 kW	12.00 kW
SCOP	5.48	4.12
Tbiv	-22 °C	-22 °C
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Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.55 kW	0.14 kW
Annual energy consumption Qhe	5324 kWh	7182 kWh
Pdh Tj = -15°C (if TOL<-20°C)	9.70	9.35
COP Tj = -15°C (if TOL<-20°C)	4.60	3.29
Cdh	0.99	0.99

Model: VITOCAL 333-G BWT 331.C12

General Data	
Power supply	3x400V 50Hz
Off-peak product	Yes

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	5.31 kW	4.74 kW
El input	1.11 kW	1.68 kW
COP	4.72	2.82
Indoor water flow rate	0.92 m³/h	0.70 m³/h

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	41 dB(A)	41 dB(A)

EN 14825

		Low temperature	Medium temperature
Pdesignh	12.00 kW		
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Cdh	0.99	0.99	
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COP Tj = +2°C	5.28	3.91	
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Pdh Tj = +7°C	4.56 kW	4.41 kW	
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Pdh Tj = 12°C	2.46 kW	2.37 kW
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Pdh Tj = TOL	11.49 kW	10.86 kW
COP Tj = TOL	4.09	2.92
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.51 kW	1.14 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	4661 kWh	6242 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	201 %	154 %
Prated	12.00 kW	12.00 kW
SCOP	5.09	4.06
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.48 kW	10.83 kW
COP Tj = +2°C	4.08	2.91
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Pdh Tj = TOL	11.48 kW	10.83 kW
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Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.52 kW	0.00 kW
Annual energy consumption Qhe	3150 kWh	3951 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	211 %	157 %

Prated	12.00 kW	12.00 kW
SCOP	5.48	4.12
Tbiv	-22 °C	-22 °C
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WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.55 kW	0.14 kW
Annual energy consumption Qhe	5324 kWh	7182 kWh
Pdh Tj = -15°C (if TOL<-20°C)	9.70	9.35
COP Tj = -15°C (if TOL<-20°C)	4.60	3.29
Cdh	0.99	0.99

Domestic Hot Water (DHW)

Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	131 %
COP	3.16
Heating up time	1:17 h:min
Standby power input	51.0 W
Reference hot water temperature	54.9 °C
Mixed water at 40°C	315 l

Warmer Climate

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Model: VITOCAL 333-G BWT 331.C12 SC

General Data	
Power supply	3x400V 50Hz
Off-peak product	Yes

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
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El input	1.11 kW	1.68 kW
COP	4.72	2.82
Indoor water flow rate	0.92 m³/h	0.70 m³/h

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	41 dB(A)	41 dB(A)

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Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	0 W	0 W
PTO	0 W	0 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.51 kW	1.14 kW
Backup Heater	0.00 kW	
Annual energy consumption Qhe	4661 kWh	6242 kWh

Warmer Climate

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Pdh Tj = 12°C	6.74 kW	3.50 kW
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Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.52 kW	0.00 kW
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COP Tj = +2°C	6.03	4.47
Cdh	0.98	0.99
Pdh Tj = +7°C	3.02 kW	3.02 kW
COP Tj = +7°C	6.17	4.90
Cdh	0.97	0.98
Pdh Tj = 12°C	2.43 kW	2.40 kW
COP Tj = 12°C	5.78	5.16
Cdh	0.95	0.97
Pdh Tj = Tbiv	11.45 kW	10.86 kW
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