Summary of	AEROTOP T32 / T32R	Reg. No.	011-1W0302
Certificate Holder			
Name	ELCO GmbH		
Address	Hohenzollernstrasse 31	Zip	72379
City	Hechingen	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	Wärmepumpen-Testzentrum WPZ		
Subtype title	AEROTOP T32 / T32R		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R407c		
Mass Of Refrigerant	9.2 kg		
Certification Date	04.05.2019		

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Model: AEROTOP T32

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	38.00 kW	37.00 kW
El input	8.84 kW	13.70 kW
COP	4.30	2.70
Indoor water flow rate	6.53 m³/h	5.30 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

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EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	63 dB(A)	63 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	152 %	114 %
Prated	23.00 kW	23.00 kW
SCOP	3.89	2.93
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	24.49 kW	22.95 kW
COP Tj = -7°C	2.86	2.01
Cdh	1.00	1.00
Pdh Tj = +2°C	27.51 kW	27.22 kW
COP Tj = +2°C	3.69	2.69
Cdh	1.00	1.00
Pdh Tj = +7°C	38.40 kW	37.95 kW
COP Tj = +7°C	5.17	4.19
Cdh	1.00	1.00

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Pdh Tj = 12°C	43.63 kW	42.96 kW
COP Tj = 12°C	5.90	5.20
Cdh	1.00	1.00
Pdh Tj = Tbiv	43.41 kW	21.00 kW
COP Tj = Tbiv	2.60	1.80
Pdh Tj = TOL	22.50 kW	21.00 kW
COP Tj = TOL	2.60	1.80
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	ElektrizitÃÂ¤t	ElektrizitÃÂ¤t
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11960 kWh	16478 kWh

Warmer Climate

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EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	63 dB(A)	63 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	187 %	122 %
Prated	24.00 kW	33.00 kW
SCOP	4.74	3.13
Tbiv	2 °C	2 °C
TOL	-20 °C	-10 °C
Pdh Tj = +2°C	27.39 kW	26.90 kW
COP Tj = +2°C	3.26	2.40
Cdh	1.00	1.00
Pdh Tj = +7°C	38.20 kW	37.45 kW
COP Tj = +7°C	4.74	3.26
Cdh	1.00	1.00
Pdh Tj = 12°C	43.41 kW	42.51 kW
COP Tj = 12°C	5.67	2.22
Cdh	1.00	1.00

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Pdh Tj = Tbiv	27.39 kW	43.41 kW
COP Tj = Tbiv	3.26	2.40
Pdh Tj = TOL	27.39 kW	43.41 kW
COP Tj = TOL	3.26	2.40
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	ElektrizitÃÂ¤t	ElektrizitÃÂ¤t
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6876 kWh	13864 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	63 dB(A)	63 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

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η_s	139 %	94 %
Prated	24.00 kW	34.00 kW
SCOP	3.54	2.44
Tbiv	-15 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	24.83 kW	23.63 kW
COP Tj = -7°C	3.08	2.33
Cdh	1.00	1.00
Pdh Tj = +2°C	27.59 kW	27.34 kW
COP Tj = +2°C	3.95	3.09
Cdh	1.00	1.00
Pdh Tj = +7°C	38.50 kW	38.15 kW
COP Tj = +7°C	5.39	4.63
Cdh	1.00	1.00
Pdh Tj = 12°C	43.63 kW	43.18 kW
COP Tj = 12°C	5.90	5.44
Cdh	1.00	1.00
Pdh Tj = Tbiv	19.30 kW	21.68 kW
COP Tj = Tbiv	2.25	2.15
Pdh Tj = TOL	19.30 kW	21.68 kW

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COP Tj = TOL	2.22	2.15
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	ElektrizitÃÂ¤t	ElektrizitÃÂ¤t
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	16470 kWh	34596 kWh
Pdh Tj = -15°C (if TOL<-20°C)	0.01	0.01
COP Tj = -15°C (if TOL<-20°C)	0.01	0.01
Cdh	0.90	0.90

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Model: AEROTOP T32R

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	38.00 kW	37.00 kW
El input	8.84 kW	13.70 kW
COP	4.30	2.70
Indoor water flow rate	6.53 m³/h	5.30 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

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EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	63 dB(A)	63 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	156 %	116 %
Prated	23.00 kW	23.00 kW
SCOP	3.98	2.99
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	24.49 kW	22.95 kW
COP Tj = -7°C	2.86	2.01
Cdh	1.00	1.00
Pdh Tj = +2°C	27.51 kW	27.22 kW
COP Tj = +2°C	3.69	2.69
Cdh	1.00	1.00
Pdh Tj = +7°C	38.40 kW	37.95 kW
COP Tj = +7°C	5.17	4.19
Cdh	1.00	1.00

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Pdh Tj = 12°C	43.63 kW	42.96 kW
COP Tj = 12°C	5.90	5.20
Cdh	1.00	1.00
Pdh Tj = Tbiv	43.41 kW	21.00 kW
COP Tj = Tbiv	2.60	1.80
Pdh Tj = TOL	22.50 kW	21.00 kW
COP Tj = TOL	2.60	1.80
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	ElektrizitÃ¤t	ElektrizitÃ¤t
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11666 kWh	16185 kWh

Warmer Climate

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EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	63 dB(A)	63 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	197 %	126 %
Prated	24.00 kW	33.00 kW
SCOP	5.00	3.21
Tbiv	2 °C	2 °C
TOL	-20 °C	-10 °C
Pdh Tj = +2°C	27.39 kW	26.90 kW
COP Tj = +2°C	3.26	2.40
Cdh	1.00	1.00
Pdh Tj = +7°C	38.20 kW	37.45 kW
COP Tj = +7°C	4.74	3.26
Cdh	1.00	1.00
Pdh Tj = 12°C	43.41 kW	42.51 kW
COP Tj = 12°C	5.67	2.22
Cdh	1.00	1.00

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Pdh Tj = Tbiv	27.39 kW	26.90 kW
COP Tj = Tbiv	3.26	2.40
Pdh Tj = TOL	27.39 kW	26.90 kW
COP Tj = TOL	3.26	2.40
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	ElektrizitÃ¤t	ElektrizitÃ¤t
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6523 kWh	13511 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	63 dB(A)	63 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

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η_s	140 %	95 %
Prated	24.00 kW	34.00 kW
SCOP	3.58	2.45
Tbiv	-15 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	24.83 kW	23.63 kW
COP Tj = -7°C	3.08	2.33
Cdh	1.00	1.00
Pdh Tj = +2°C	27.59 kW	27.34 kW
COP Tj = +2°C	3.95	3.09
Cdh	1.00	1.00
Pdh Tj = +7°C	38.50 kW	38.15 kW
COP Tj = +7°C	5.39	4.63
Cdh	1.00	1.00
Pdh Tj = 12°C	43.63 kW	43.18 kW
COP Tj = 12°C	5.90	5.44
Cdh	1.00	1.00
Pdh Tj = Tbiv	19.30 kW	21.68 kW
COP Tj = Tbiv	2.25	2.15
Pdh Tj = TOL	19.30 kW	21.68 kW

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COP Tj = TOL	2.22	2.15
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	ElektrizitÃÂÃÂ¤t	ElektrizitÃÂÃÂ¤t
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	16294 kWh	34419 kWh
Pdh Tj = -15°C (if TOL<-20°C)	0.01	0.01
COP Tj = -15°C (if TOL<-20°C)	0.01	0.01
Cdh	0.90	0.90

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