

Summary of	AEROTOP T35 / T35R	Reg. No.	011-1W0303	
Certificate Holder				
Name	ELCO GmbH			
Address	Hohenzollernstrasse 31	Zip	72379	
City	Hechingen	Country	Germany	
Certification Body	DIN CERTCO Gesellschaft für k	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	Wärmepumpen-Testzentrum WPZ			
Subtype title	AEROTOP T35 / T35R			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R407c			
Mass Of Refrigerant	9.2 kg			
Certification Date	04.05.2019			



Model: AFROTOR T35

Model: AEROTOP T	35
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General Data		
Power supply	3x230V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	39.60 kW	37.20 kW	
El input	9.66 kW	12.80 kW	
СОР	4.10	2.90	
Indoor water flow rate	6.81 m³/h	5.33 m³/h	

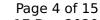
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

## **Average Climate**



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	68 dB(A)	68 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	153 %	121 %
Prated	25.00 kW	24.00 kW
SCOP	3.90	3.11
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	26.19 kW	24.63 kW
COP Tj = -7°C	3.06	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	30.85 kW	29.58 kW
COP Tj = +2°C	3.84	2.95
Cdh	1.00	1.00
Pdh Tj = +7°C	40.56 kW	39.48 kW
COP Tj = +7°C	4.69	4.03
Cdh	1.00	1.00





Pdh Tj = 12°C	44.63 kW	44.07 kW
COP Tj = 12°C	5.23	4.77
Cdh	1.00	1.00
Pdh Tj = Tbiv	44.45 kW	23.40 kW
COP Tj = Tbiv	2.90	2.10
Pdh Tj = TOL	24.50 kW	23.40 kW
COP Tj = TOL	2.90	2.10
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12964 kWh	15691 kWh

#### Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	68 dB(A)	68 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	175 %	123 %
Prated	33.00 kW	34.00 kW
SCOP	4.45	3.15
Tbiv	2 °C	2 °C
TOL	-20 °C	-10 °C
Pdh Tj = +2°C	30.32 kW	28.20 kW
COP Tj = +2°C	3.46	2.70
Cdh	1.00	1.00
Pdh Tj = +7°C	40.08 kW	38.28 kW
COP Tj = +7°C	4.39	3.36
Cdh	1.00	1.00
Pdh Tj = 12°C	44.45 kW	43.69 kW
COP Tj = 12°C	5.08	2.35
Cdh	1.00	1.00





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Pdh Tj = Tbiv	30.32 kW	28.20 kW
COP Tj = Tbiv	3.46	2.70
Pdh Tj = TOL	30.32 kW	28.20 kW
COP Tj = TOL	3.46	2.70
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	o w
РТО	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10017 kWh	14192 kWh

#### Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	68 dB(A)	68 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature





$\eta_{s}$	145 %	98 %
Prated	26.00 kW	34.00 kW
SCOP	3.69	2.53
Tbiv	-15 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	26.53 kW	25.32 kW
COP Tj = -7°C	3.32	2.47
Cdh	1.00	1.00
Pdh Tj = +2°C	31.17 kW	30.11 kW
COP Tj = +2°C	4.07	3.31
Cdh	1.00	1.00
Pdh Tj = +7°C	40.80 kW	39.96 kW
COP Tj = +7°C	4.83	4.32
Cdh	1.00	1.00
Pdh Tj = 12°C	44.63 kW	44.26 kW
COP Tj = 12°C	5.23	4.92
Cdh	1.00	1.00
Pdh Tj = Tbiv	21.09 kW	23.90 kW
COP Tj = Tbiv	2.67	2.43
Pdh Tj = TOL	21.05 kW	23.90 kW



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#### This information was generated by the HP KEYMARK database on 17 Dec 2020

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COP Tj = TOL	2.64	2.43
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	o w	o w
РТО	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	17170 kWh	33619 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

## **Model: AEROTOP T35R**

General Data	
Power supply 3x230V 50Hz	

### Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	39.60 kW	37.20 kW	
El input	9.66 kW	12.80 kW	
СОР	4.10	2.90	
Indoor water flow rate	6.81 m³/h	5.33 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	

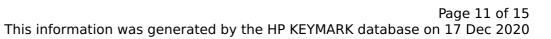
### **Average Climate**



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	68 dB(A)	68 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	157 %	124 %
Prated	25.00 kW	24.00 kW
SCOP	3.99	3.17
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	26.19 kW	24.63 kW
COP Tj = -7°C	3.06	2.12
Cdh	1.00	1.00
Pdh Tj = +2°C	30.85 kW	29.58 kW
COP Tj = +2°C	3.84	2.95
Cdh	1.00	1.00
Pdh Tj = +7°C	40.56 kW	39.48 kW
COP Tj = +7°C	4.69	4.03
Cdh	1.00	1.00





Pdh Tj = 12°C	44.63 kW	44.07 kW
COP Tj = 12°C	5.23	4.77
Cdh	1.00	1.00
Pdh Tj = Tbiv	44.45 kW	23.40 kW
COP Tj = Tbiv	2.90	2.10
Pdh Tj = TOL	24.50 kW	23.40 kW
COP Tj = TOL	2.90	2.10
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	o w	0 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12670 kWh	15397 kWh

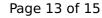
#### Warmer Climate



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	68 dB(A)	68 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	182 %	126 %
Prated	33.00 kW	34.00 kW
SCOP	4.62	3.23
Tbiv	2 °C	2 °C
TOL	-20 °C	-10 °C
Pdh Tj = +2°C	30.32 kW	28.20 kW
COP Tj = +2°C	3.46	2.70
Cdh	1.00	1.00
Pdh Tj = +7°C	40.08 kW	38.28 kW
COP Tj = +7°C	4.39	3.36
Cdh	1.00	1.00
Pdh Tj = 12°C	44.45 kW	43.69 kW
COP Tj = 12°C	5.08	2.35
Cdh	1.00	1.00



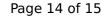


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Pdh Tj = Tbiv	30.32 kW	28.20 kW
COP Tj = Tbiv	3.46	2.70
Pdh Tj = TOL	30.32 kW	28.20 kW
COP Tj = TOL	3.46	2.70
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	o w
РТО	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	9664 kWh	13839 kWh

#### Colder Climate

EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	68 dB(A)	68 dB(A)		
Sound power level outdoor	70 dB(A)	70 dB(A)		

EN 14825				
	Low temperature	Medium temperature		





$\eta_{s}$	146 %	99 %
Prated	26.00 kW	34.00 kW
SCOP	7.73	2.54
Tbiv	-15 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	26.53 kW	25.32 kW
COP Tj = -7°C	3.32	2.47
Cdh	1.00	1.00
Pdh Tj = +2°C	31.17 kW	30.11 kW
COP Tj = +2°C	4.07	3.31
Cdh	1.00	1.00
Pdh Tj = +7°C	40.80 kW	39.96 kW
COP Tj = +7°C	4.83	4.32
Cdh	1.00	1.00
Pdh Tj = 12°C	44.63 kW	44.26 kW
COP Tj = 12°C	5.23	4.92
Cdh	1.00	1.00
Pdh Tj = Tbiv	21.09 kW	23.90 kW
COP Tj = Tbiv	2.67	2.43
Pdh Tj = TOL	21.05 kW	23.90 kW



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COP Tj = TOL	2.64	2.43
Cdh	1.00	1.00
WTOL	57 °C	57 °C
Poff	o w	o w
РТО	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	16994 kWh	33442 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