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### This information was generated by the HP KEYMARK database on 7 Jul 2022

#### **Login**

Summary of	AEROTOP T35 / T35R	Reg. No.	011-1W0303	
Certificate Holder	Certificate Holder			
Name	ELCO GmbH	ELCO GmbH		
Address	Hohenzollernstrasse 31	Zip	72379	
City	Hechingen	Country	Germany	
Certification Body	DIN CERTCO Gesellschaft für Konf	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
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: AEROTOP T35**

Configure model		
Model name	AEROTOP T35	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional) n/a		

General Data		
Power supply 3x230V 50Hz		

## Heating

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	

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	

## 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 Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	40.08 kW	38.28 kW
COP Tj = +7°C	4.39	3.36
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	44.45 kW	43.69 kW
COP Tj = 12°C	5.08	2.35
Cdh Tj = +12 °C	1.00	1.00

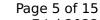




Pdh Tj = Tbiv	30.32 kW	28.20 kW
COP Tj = Tbiv	3.46	2.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.32 kW	28.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.46	2.70
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	o w	0 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
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)	





	Low temperature	Medium temperature
ης	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 = $-7^{\circ}$ C	26.53 kW	25.32 kW
$COP Tj = -7^{\circ}C$	3.32	2.47
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2$ °C	31.17 kW	30.11 kW
COP Tj = +2°C	4.07	3.31
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = $+7^{\circ}$ C	40.80 kW	39.96 kW
$COP Tj = +7^{\circ}C$	4.83	4.32
Cdh Tj = $+7$ °C	1.00	1.00
Pdh Tj = 12°C	44.63 kW	44.26 kW
COP Tj = 12°C	5.23	4.92
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	21.09 kW	23.90 kW
COP Tj = Tbiv	2.67	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	21.05 kW	23.90 kW





COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	2.43
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
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 Tj = -15 °C	0.90	0.90

## **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)	





	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 = $-7^{\circ}$ C	3.06	2.12
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	30.85 kW	29.58 kW
COP Tj = +2°C	3.84	2.95
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	40.56 kW	39.48 kW
$COP Tj = +7^{\circ}C$	4.69	4.03
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	44.63 kW	44.07 kW
COP Tj = 12°C	5.23	4.77
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	44.45 kW	23.40 kW
COP Tj = Tbiv	2.90	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.50 kW	23.40 kW



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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.10
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12964 kWh	15691 kWh



## **Model: AEROTOP T35R**

Configure model		
Model name	AEROTOP T35R	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x230V 50Hz	

## Heating

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	

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

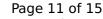
## Warmer Climate





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
$\eta_{s}$	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 Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	40.08 kW	38.28 kW
COP Tj = +7°C	4.39	3.36
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	44.45 kW	43.69 kW
COP Tj = 12°C	5.08	2.35
Cdh Tj = +12 °C	1.00	1.00
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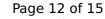




Pdh Tj = Tbiv	30.32 kW	28.20 kW
COP Tj = Tbiv	3.46	2.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.32 kW	28.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.46	2.70
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	o w
РТО	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
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)	





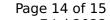
	Low temperature	Medium temperature
$\eta_{s}$	146 %	99 %
Prated	26.00 kW	34.00 kW
SCOP	7.73	2.54
Tbiv	-15 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	26.53 kW	25.32 kW
COP Tj = $-7^{\circ}$ C	3.32	2.47
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	31.17 kW	30.11 kW
$COPTj = +2^{\circ}C$	4.07	3.31
Cdh Tj = +2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



COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	2.43
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
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 Tj = -15 °C	0.90	0.90

## **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)		





	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
$COP Tj = -7^{\circ}C$	3.06	2.12
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	30.85 kW	29.58 kW
COP Tj = +2°C	3.84	2.95
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	40.56 kW	39.48 kW
$COP Tj = +7^{\circ}C$	4.69	4.03
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	44.63 kW	44.07 kW
COP Tj = 12°C	5.23	4.77
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	44.45 kW	23.40 kW
COP Tj = Tbiv	2.90	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.50 kW	23.40 kW



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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.10
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12670 kWh	15397 kWh