



**TRANE®**

*Cooling and Heating  
Systems and Services*

# Air-Cooled Series R® Helical-rotary Chiller

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**Model RTAD 85-100-115-125-145-150-  
165-180**

**250 to 650 kW (50 Hz)**

**Built For the Industrial and  
Commercial Markets**



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**RLC-PRC015-E4**

# General Data

**Table G-2 - General Data RTAD High Efficiency**

Size		85	100	115	125	145	150
Cooling capacity (5) (6)	kW	297.5	360.4	418.1	489.8	524.6	562.9
Power input (7)	kW	95.9	122.2	144.2	176.1	182.9	201.6
Energy Efficiency Ratio (5) (6) (as Eurovent)	kW/kW	3.10	2.95	2.90	2.78	2.87	2.79
ESEER (as Eurovent)	kW/kW	3.92	3.63	3.59	3.45	3.59	3.41
IPLV (According to ARI conditions 44°F leaving water temperature, 95°C entering air temperature)	kW/kW	4.40	4.08	4.04	3.91	4.00	3.82
<b>Compressor</b>							
Quantity		2	2	2	2	2	2
Nominal Size (1)	tons	40/40	50/50	60/60	70/70	85/70	85/85
<b>Evaporator</b>							
Evaporator Model		EG140	EG170	EG200	EG200	EG250	EG250
Water Storage	l	270	222	204	204	415	415
Minimum Flow	l/s	6.0	7.3	8.8	8.8	11.6	11.6
Maximum Flow	l/s	20.8	24.6	30.7	30.7	38	38
<b>Condenser</b>							
Qty of Coils		2	2	2	2	2	2
Coil Length	mm	3658	3658	4572	4572	5486	5486
Coil Height	mm	1626	1626	1626	1626	1626	1626
Fin series	fins/ft	192	192	192	192	192	192
Number of Rows		3/3	3/3	3/3	3/3	3/3	3/3
<b>Condenser Fans</b>							
Quantity (1)		3/3	4/4	4/4	5/5	6/5	6/6
Diameter	mm	762	762	762	762	762	762
Total Air Flow	m <sup>3</sup> /s	26,67	31,35	34,71	39,21	44,85	47,04
Nominal RPM		915	915	915	915	915	915
Tip Speed	m/s	37.1	37.1	37.1	37.1	37.1	37.1
Motor kW	kW	2.05	2.05	2.05	2.05	2.05	2.05
<b>Minimum Starting/Oper Ambient(2)</b>							
Standard Unit	°C	0	0	0	0	0	0
Low Ambient Unit	°C	-18	-18	-18	-18	-18	-18
<b>General Unit</b>							
Refrigerant		HFC 134a	HFC 134a	HFC 134a	HFC 134a	HFC 134a	HFC 134a
Refrigerant Circuits		2	2	2	2	2	2
% Minimum Load (3)		17	17	17	17	17	17
Operating Weight (4)	kg	3340	3470	4005	4100	5390	5445
Shipping Weight (4)	kg	3075	3145	3800	3900	4980	5035

**Notes:**

- (1) Data containing information on two circuits shown as follows: ckt1/ckt2
- (2) Minimum start-up/operation ambient based on a 2.22 m/s (5mph) wind across the condenser.
- (3) Percent minimum load is for total machine at 10°C (50°F) ambient and 7°C (44°F) leaving chilled water temperature, not each individual circuit.
- (4) With aluminium fins.
- (5) At Eurovent conditions, 7°C leaving water temperature and 35°C entering condenser air temperature.
- (6) Ratings based on sea level altitude and evaporator fouling factor of 0.017615 m<sup>2</sup>K/kW
- (7) Unit kW input, including fans