



# HRO 420-7C 03.50 Scr

## COOLING AND HEATING PERFORMANCES

EWT (°C)	Water Flow l/s	COOLING						HEATING			
		Cooling (W)		COMP (W)	THR (W)	Sensible / total	EF	Entering air : 19°C			
		Total	Sensible					HEATING (W)	COMP (W)	THA (W)	COP
13	0.072	5085	4310	900	6100	0.85	4.94				
15	0.072	4905	4260	940	5960	0.87	4.58				
16	0.28							5505	1050	4340	4.67
	0.19							5280	1035	4130	4.53
	0.14							4980	995	3870	4.43
18	0.28							5735	1085	4535	4.72
	0.19							5580	1075	4390	4.63
	0.14							5340	1045	4180	4.54
20	0.28	5300	4400	850	6265	0.83	5.41	5970	1120	4735	4.78
	0.19	5250	4380	895	6260	0.83	5.12	5775	1110	4550	4.66
	0.14	5185	4350	930	6230	0.84	4.89	5575	1090	4370	4.57
25	0.28	5100	4320	980	6195	0.85	4.59	6495	1180	5200	4.96
	0.19	5030	4290	995	6140	0.85	4.47	6385	1160	5110	4.95
	0.14	4925	4250	1045	6085	0.86	4.19	6250	1135	5000	4.94
27	0.28	5035	4290	1035	6185	0.85	4.32	6705	1190	5400	5.08
	0.19	4940	4260	1075	6130	0.86	4.10	6600	1175	5310	5.06
	0.14	4760	4190	1155	6030	0.88	3.70	6430	1145	5170	5.04
31	0.28	4970	4270	1085	6170	0.86	4.09	7120	1205	5800	5.33
	0.19	4900	4240	1105	6120	0.87	3.97	7025	1200	5710	5.28
	0.14	4665	4150	1175	5955	0.89	3.57	6880	1175	5590	5.27
35	0.28	4620	4140	1215	5950	0.90	3.43				
	0.19	4540	4110	1260	5915	0.91	3.27				
	0.14	4265	4005	1315	5695	0.94	2.95				
38	0.28	4275	4015	1355	5745	0.94	2.88				
	0.19	4170	3980	1390	5675	0.95	2.74				
	0.14	3960	3960	1465	5540	1.00	2.48				
40	0.28	4115	3910	1420	5650	0.95	2.65				
	0.19	3905	3905	1470	5490	1.00	2.44				
	0.14	3835	3835	1520	5470	1.00	2.32				
43	0.28	3895	3895	1500	5510	1.00	2.39				
	0.19	3765	3765	1545	5425	1.00	2.25				
	0.14	3605	3605	1640	5360	1.00	2.04				
46	0.28	3695	3695	1630	5440	1.00	2.10				
	0.19	3555	3555	1650	5320	1.00	2.00				
	0.14	3450	3450	1725	5290	1.00	1.86				
48	0.28	3560	3560	1700	5375	1.00	1.95				
	0.19	3330	3330	1745	5190	1.00	1.78				
	0.14	3200	3200	1810	5125	1.00	1.65				

All performances quoted at nominal airflow [Medium]

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**COOLING CORRECTION FACTORS \***

07-janv-03 DT 0229

EWT °C	EAT %RH	TOTAL COOLING EAT : 25°C	SENSIBLE COOLING					COMP W	THR EAT : 25°C
			22°C	23°C	24°C	25°C	26°C		
20	40	0.950	0.939	0.974	0.995	1.000	1.079	0.905	0.940
to	50	1.000	0.939	0.942	0.970	1.000	1.026	1.000	1.000
38	60	1.100	0.864	0.892	0.918	0.946	0.970	1.034	1.082
39	40	1.000	0.885	0.923	0.962	1.000	1.038	1.000	1.000
to	50	1.000	0.885	0.923	0.962	1.000	1.038	1.000	1.000
48	60	1.095	0.837	0.867	0.898	0.926	0.957	1.050	1.078

**HEATING CORRECTION FACTORS \***

EAT (°C)	18	19	20	21
Total Heating	1.028	1.000	0.973	0.946

**Water Pressure Drop [Nominal in Bold]**

Flow Rate (l/s)	0.14	0.19	0.28
ΔD (kPa)	1.47	2.84	5.49

**AIRFLOW [m3/h] against EXTERNAL RESISTANCE \*\***

Speed	External Static Pressure (Pa)							Nominal		
	0	19.6	39.2	58.8	78.4	98	117.6	68.6	98	98
Low	1150	1140	1125	1075	1000	900		1050		
Medium	1700	1650	1575	1500	1400	1250	1050		1250	
High	1700	1650	1575	1500	1400	1250	1050			1250

Nominal Flow in Bold

**AIR FLOW CORRECTION FACTORS\***

Air Flow %	80	90	100	110	120	130	low	medium	high
Heating	0.899	0.954	1.000	1.039	1.070	1.094	0.954	1.000	1.000
Total Cooling	0.893	0.948	1.000	1.046	1.087	1.133	0.948	1.000	1.000
Sensible Cooling	0.791	0.891	1.000	1.063	1.120	1.177	0.891	1.000	1.000

**ELECTRICAL**

Voltage	Phase	Fan Amps			Compressor Amps		Fan Abs Pwr			Max Absorb Pwr	Fuse Rating (A)
		low	medium	high	F/L	Start	low	medium	high		
220/230 V	1	0.95	1.20	1.20	5	35	195	245	245	2300	12

**INSTALLATION REQUIREMENTS**

Supply Cable Size	Mains Connection
3 Core 2.5mm	Fused Switched Spur

\* Based on Nominal Water Flow

\*\* With Clean Filter