

**Climats**  
a schunk company

EXCAL<sup>2</sup>



— 2018/2019

# PERFORMANCES

## Excal<sup>2</sup> 140

► Cabinet volume : 151l

EXCAL <sup>2</sup>	Minimum temperature	T1 Reference temperature for calculating speed	Cooling down rate on blowing temperature sensor* from 180°C to T1	Heating up rate* from T1 to 180°C	Power consumption	Net weight	Maximum thermal dissipation	Sound level	Exterior dimensions	Interior dimensions	Maximum load on each shelf	Maximum load on shelf supports	Flow rate (water at 18°C) Delta T = 10°C	Input condenser connection	Output condenser connection	Input humidity generator connection	Output humidity generator connection
	°C	°C	°C/min	°C/min													
<b>EXCAL<sup>2</sup> 140</b>																	
1411-T/H-E	-40	-40	6	5	6	390	0,7	63	W=785 D=1480 H=1840	W=540 D=400 H=700	30	90	339	20x27	20x27	1/4	3/8
1413-T/H-E	-40	-40	10	15	9,6	430	0,9	64									
1421-T/H-E	-70	-70	5	5	7,9	440	1	64									
1423-T/H-E	-80	-70	12	15	12,6	490	1,3	65									
1411-T/H-A	-40	-40	6	5	6	390	4,4	63									
1413-T/H-A	-40	-40	10	15	9,6	430	8,3	64									
1421-T/H-A	-70	-70	5	5	7,9	440	5,8	64									
1423-T/H-A	-80	-70	12	15	12,6	490	11,3	65									

Conditions for achieving performance :

Air condenser: air temperature +25°C

Water condenser: water temperature +18°C

Two stages and one-stage water : temperature water +22°C max

Air two stages : air temperature +28°C max

One stage air : air temperature +25°C max

If ambient air T +25°C, so cabinet T mini -40°C

If ambient air T +30°C, so cabinet T mini -35°C

If ambient air T +35°C, so cabinet T mini -30°C

# PERFORMANCES

## Excal<sup>2</sup> 220

► Cabinet volume : 227l

EXCAL <sup>2</sup>	Minimum temperature	T1 Reference temperature for calculating speed	Cooling down rate on blowing temperature sensor* from 180°C to T1	Heating up rate* from T1 to 180°C	Power consumption	Net weight	Maximum thermal dissipation	Sound level	Exterior dimensions	Interior dimensions	Maximum load on each shelf	Maximum load on shelf supports	Flow rate (water at 18°C) Delta T = 10°C	Input condenser connection	Output condenser connection	Input humidity generator connection	Output humidity generator connection						
	°C	°C	°C/min	°C/min														kW	kg	kW	dB(A)	mm	mm
<b>EXCAL<sup>2</sup> 220</b>																							
2211-T/H-E	-30	-30	5	4,5	6	425	0,7	63	W=785 D=1680 H=1840	W=540 D=600 H=700	30	90	339	20x27	20x27	1/4	3/8						
2213-T/H-E	-40	-40	9	14	9,6	460	0,9	64					700										
2214-T/H-E	-40	-40	13	15	13,4	500	1,2	64					1078										
2221-T/H-E	-70	-70	5	5	7,9	470	1	64					339										
2223-T/H-E	-80	-70	10	14	12,6	520	1,3	65					700										
2224-T/H-E	-80	-70	15	15	17,1	610	1,8	66					1078										
2211-T/H-A	-30	-30	5	4,5	6	425	4,4	63															
2213-T/H-A	-40	-40	9	14	9,6	460	8,3	64															
2214-T/H-A	-40	-40	13	15	13,4	500	12,5	64															
2221-T/H-A	-70	-70	5	5	7,9	470	5,8	64															
2223-T/H-A	-80	-70	10	14	12,6	520	11,3	65															
2224-T/H-A	-80	-70	13	15	17,1	610	16,5	66															

### Conditions for achieving performance :

Air condenser: air temperature +25°C  
 Water condenser: water temperature +18°C  
 Two stages and one-stage water : temperature water +22°C max  
 Air two stages : air temperature +28°C max

One stage air : air temperature +25°C max  
 If ambient air T +25°C, so cabinet T mini -40°C  
 If ambient air T +30°C, so cabinet T mini -35°C  
 If ambient air T +35°C, so cabinet T mini -30°C

# PERFORMANCES

## Excal<sup>2</sup> 400

► Cabinet volume : 410l

EXCAL <sup>2</sup>	Minimum temperature	T1 Reference temperature for calculating speed	Cooling down rate on blowing temperature sensor* from 180°C to T1	Heating up rate * from T1 to 180°C	Power consumption	Net weight	Maximum thermal dissipation	Sound level	Exterior dimensions	Interior dimensions	Maximum load on each shelf	Maximum load on shelf supports	Flow rate (water at 18°C) Delta T = 10°C	Input condenser connection	Output condenser connection	Input humidity generator connection	Output humidity generator connection
	°C	°C	°C/min	°C/min									kW	kg	kW	dB(A)	mm
<b>EXCAL<sup>2</sup> 400</b>																	
4011-T/H-E	-30	-30	4	8	9,1	490	0,7	63	W=980 D=1800 H=2060	D=700 P=650 H=900	30	90	339	20x27	20x27	1/4	3/8
4013-T/H-E	-40	-40	6	8	10,6	530	0,9	64					700				
4014-T/H-E	-40	-40	10	10	14	570	1,2	64					1078				
4015-T/H-E	-40	-40	15	17	17,1	670	1,7	65					1596				
4021-T/H-E	-70	-70	3,5	8	11,1	535	1	64					339				
4023-T/H-E	-75	-70	7	8	13,4	590	1,3	65					700				
4024-T/H-E	-80	-70	10	10	16,9	680	1,8	66					1078				
4025-T/H-E	-85	-70	15	17	22	820	2,6	66					1596				
4011-T/H-A	-30	-30	4	8	9,1	490	4,4	63									
4013-T/H-A	-40	-40	6	8	10,6	530	8,3	64									
4014-T/H-A	-40	-40	10	10	14	570	12,5	64									
4021-T/H-A	-70	-70	3,5	8	11,1	535	5,8	64									
4023-T/H-A	-75	-70	7	8	13,4	590	11,3	65									
4024-T/H-A	-80	-70	8,5	10	16,9	680	16,5	66									

### Conditions for achieving performance :

Air condenser: air temperature +25°C

Water condenser: water temperature +18°C

Two stages and one-stage water : temperature water +22°C max

Air two stages : air temperature +28°C max

One stage air : air temperature +25°C max

If ambient air T +25°C, so cabinet T mini -40°C

If ambient air T +30°C, so cabinet T mini -35°C

If ambient air T +35°C, so cabinet T mini -30°C

# PERFORMANCES

## Excal<sup>2</sup> 540

► Cabinet volume : 536l

EXCAL <sup>2</sup>	Minimum temperature	T1 Reference temperature for calculating speed	Cooling down rate on blowing temperature sensor* from 180°C to T1	Heating up rate* from T1 to 180°C	Power consumption	Net weight	Maximum thermal dissipation	Sound level	Exterior dimensions	Interior dimensions	Maximum load on each shelf	Maximum load on shelf supports	Flow rate (water at 18°C) Delta T = 10°C	Input condenser connection	Output condenser connection	Input humidity generator connection	Output humidity generator connection			
	°C	°C	°C/min	°C/min														kW	kg	kW
<b>EXCAL<sup>2</sup> 540</b>																				
5411-T/H-E	-30	-30	3	8	9,1	530	0,7	63	W=980 D=2000 H=2060	W=700 D=850 H=900	50	90	339	20x27	20x27	1/4	3/8			
5413-T/H-E	-40	-40	6	8	10,6	570	0,9	64					700							
5414-T/H-E	-40	-40	10	10	14	610	1,2	64					1078							
5415-T/H-E	-40	-40	15	16	17,1	710	1,7	65					1596							
5417-T/H-E	-40	-40	16	16	20,3	730	1,9	67					2155							
5418-T/H-E	-40	-40	19	20	25,3	750	2,4	68					2646							
5421-T/H-E	-65	-65	2,5	8	11,1	575	1	64					339							
5423-T/H-E	-75	-70	5	8	13,4	625	1,3	65					700							
5424-T/H-E	-80	-70	8	10	16,9	715	1,8	66					1078							
5425-T/H-E	-85	-70	15	16	22	860	2,6	66					1596							
5427-T/H-E	-85	-70	20	18	24,7	890	3,1	67					2155							
5428-T/H-E	-90	-70	25	20	35,5	920	4	68					2646							
5411-T/H-A	-30	-30	3	8	9,1	530	4,4	63												
5413-T/H-A	-40	-40	6	8	10,6	570	8,3	64												
5414-T/H-A	-40	-40	10	10	14	610	12,5	64												
5421-T/H-A	-65	-65	2,5	8	11,1	575	5,8	64												
5423-T/H-A	-75	-70	5	8	13,4	625	11,3	65												
5424-T/H-A	-80	-70	8	10	16,9	715	16,5	66												

**Conditions for achieving performance :**

Air condenser: air temperature +25°C

Water condenser: water temperature +18°C

Two stages and one-stage water : temperature water +22°C max

Air two stages : air temperature +28°C max

One stage air : air temperature +25°C max

If ambient air T +25°C, so cabinet T mini -40°C

If ambient air T +30°C, so cabinet T mini -35°C

If ambient air T +35°C, so cabinet T mini -30°C

# PERFORMANCES

## Excal<sup>2</sup> 770

### ► Cabinet volume : 770l

EXCAL <sup>2</sup>	Minimum temperature	T1 Reference temperature for calculating speed	Cooling down rate on blowing temperature sensor* from 180°C to T1	Heating up rate * from T1 to 180°C	Power consumption	Net weight	Maximum thermal dissipation	Sound level	Exterior dimensions	Interior dimensions	Maximum load on each shelf	Maximum load on shelf supports	Flow rate (water at 18°C) Delta T = 10°C	Input condenser connection	Output condenser connection	Input humidity generator connection	Output humidity generator connection
	°C	°C	°C/min	°C/min													
<b>EXCAL<sup>2</sup> 770</b>																	
7713-T/H-E	-40	-40	4	5	10,8	650	0,9	64	W=1185 D=2120 H=2060	W=900 D=950 H=900	50	90	700	20x27	20x27	1/4	3/8
7714-T/H-E	-40	-40	8	7	14,7	690	1,2	64					1078				
7715-T/H-E	-40	-40	10	14	17,4	800	1,7	65					1596				
7717-T/H-E	-40	-40	14	14	20,9	810	1,9	65					2155				
7718-T/H-E	-40	-40	17	18	26,1	830	2,4	67					2646				
7723-T/H-E	-70	-70	4	5	13,2	705	1,3	65					700				
7724-T/H-E	-75	-70	7	7	18,2	795	1,8	66					1078				
7725-T/H-E	-80	-70	13	14	23,1	940	2,6	66					1596				
7727-T/H-E	-85	-70	14	14	23,7	970	3,1	67					2155				
7728-T/H-E	-90	-70	18	18	33,3	1000	4	68					2646				
7713-T/H-A	-40	-40	4	5	10,8	650	8,3	64									
7714-T/H-A	-40	-40	8	7	14,7	690	12,5	64									
7723-T/H-A	-70	-70	4	5	13,2	705	11,3	65									
7724-T/H-A	-75	-70	7	7	18,2	795	16,5	66									

#### Conditions for achieving performance :

Air condenser: air temperature +25°C  
 Water condenser: water temperature +18°C  
 Two stages and one-stage water : temperature water +22°C max  
 Air two stages : air temperature +28°C max

One stage air : air temperature +25°C max

If ambient air T +25°C, so cabinet T mini -40°C  
 If ambient air T +30°C, so cabinet T mini -35°C  
 If ambient air T +35°C, so cabinet T mini -30°C

# PERFORMANCES

## Excal<sup>2</sup> 1000

► Cabinet volume : 1000l

EXCAL <sup>2</sup>	Minimum temperature	T1 Reference temperature for calculating speed	Cooling down rate on blowing temperature sensor* from 180°C to T1	Heating up rate* from T1 to 180°C	Power consumption	Net weight	Maximum thermal dissipation	Sound level	Exterior dimensions	Interior dimensions	Maximum load on each shelf	Maximum load on shelf supports	Flow rate (water at 18°C) Delta T = 10°C	Input condenser connection	Output condenser connection	Input humidity generator connection	Output humidity generator connection
	°C	°C	°C/min	°C/min													
<b>EXCAL<sup>2</sup> 1000</b>																	
10013-T/H-E	-35	-30	3	4,5	10,8	810	0,9	64	W=1285 D=2170 H=2170	W=1000 D=1000 H=1000	80	300	700	20x27	20x27	1/4	3/8
10014-T/H-E	-40	-40	7,5	7	14,7	850	1,2	65					1078				
10015-T/H-E	-40	-40	8	10,5	17,4	950	1,7	65					1596				
10017-T/H-E	-40	-40	10,5	11	21,1	970	1,9	65					2155				
10018-T/H-E	-40	-40	13,5	15	26,1	990	2,4	67					2646				
10019-T/H-E	-40	-40	15	15	37,5	1030	2,6	69					3404				
10023-T/H-E	-70	-70	2	4,5	13,2	870	1,3	65					700				
10024-T/H-E	-75	-70	4,5	6,5	18,2	960	1,8	66					1078				
10025-T/H-E	-75	-70	7	10,5	23,1	1105	2,6	66					1596				
10027-T/H-E	-85	-70	8	11	23,6	1135	3,1	67					2155				
10028-T/H-E	-85	-70	12	15	33,3	1165	4	68					2646				
10029-T/H-E	-85	-70	18	20	44,9	1225	4,3	70					3404				
10013-T/H-A	-30	-30	3	4,5	10,8	810	8,3	64					33x42	33x42			
10014-T/H-A	-35	-35	7,5	7	14,7	850	12,5	64									
10023-T/H-A	-70	-70	2	4,5	13,2	870	11,3	65									
10024-T/H-A	-75	-70	4,5	6,5	18,2	960	16,5	66									

Conditions for achieving performance :

Air condenser: air temperature +25°C

Water condenser: water temperature +18°C

Two stages and one-stage water : temperature water +22°C max

Air two stages : air temperature +28°C max

One stage air : air temperature +25°C max

If ambient air T +25°C, so cabinet T mini -40°C

If ambient air T +30°C, so cabinet T mini -35°C

If ambient air T +35°C, so cabinet T mini -30°C

# PERFORMANCES

## Excal<sup>2</sup> 1400

► Cabinet volume : 1417l

EXCAL <sup>2</sup>	Minimum temperature		T1 Reference temperature for calculating speed	Cooling down rate on blowing temperature sensor* from 180°C to T1	Heating up rate* from T1 to 180°C	Power consumption	Net weight	Maximum thermal dissipation	Sound level	Exterior dimensions	Interior dimensions	Maximum load on each shelf	Maximum load on shelf supports	Flow rate (water at 18°C) Delta T = 10°C	Input condenser connection	Output condenser connection	Input humidity generator connection	Output humidity generator connection
	°C	°C	°C	°C/min	°C/min	kW	kg	kW	dB(A)	mm	mm	kg	kg	l/h	mm	mm	"	"
<b>EXCAL<sup>2</sup> 1400</b>																		
14013-T/H-E	-30	-30	2	3	10,8	910	0,9	64	W=1485 D=2250 H=2275	W=1150 D=1100 H=1120	80	300	700	20x27	20x27	1/4	3/8	
14014-T/H-E	-35	-35	4	4	14,7	950	1,2	64										
14015-T/H-E	-40	-40	6	6	17,4	1050	1,7	65										
14017-T/H-E	-40	-40	7	7	21,1	1070	1,9	65										
14018-T/H-E	-40	-40	10	10	26,1	1090	2,4	67										
14019-T/H-E	-40	-40	13	15	37,5	1130	2,6	69										
14023-T/H-E	-70	-70	2	3	13,2	970	1,3	65										
14024-T/H-E	-75	-70	4	5	18,2	1060	1,8	66										
14025-T/H-E	-75	-70	6	6	23,1	1205	2,6	66										
14027-T/H-E	-85	-70	7	7	23,6	1235	3,1	67										
14028-T/H-E	-85	-70	10	10	33,3	1265	4	68										
14029-T/H-E	-85	-70	12,5	17	44,9	1285	4,3	70										
14013-T/H-A	-35	-35	2	3	10,8	910	8,3	64										
14014-T/H-A	-35	-35	4	4	14,7	950	12,5	64										
14023-T/H-A	-70	-70	2	3	13,2	970	11,3	65										
14024-T/H-A	-75	-70	4	5	18,2	1060	16,5	66										

Conditions for achieving performance :

Air condenser: air temperature +25°C

Water condenser: water temperature +18°C

Two stages and one-stage water : temperature water +22°C max

Air two stages : air temperature +28°C max

One stage air : air temperature +25°C max

If ambient air T +25°C, so cabinet T mini -40°C

If ambient air T +30°C, so cabinet T mini -35°C

If ambient air T +35°C, so cabinet T mini -30°C



# PERFORMANCES

## Excal<sup>2</sup> 1800

► Cabinet volume : 1932l

EXCAL <sup>2</sup>	Minimum temperature	T1 Reference temperature for calculating speed	Cooling down rate on blowing temperature sensor* from 180°C to T1	Heating up rate* from T1 to 180°C	Power consumption	Net weight	Maximum thermal dissipation	Sound level	Exterior dimensions	Interior dimensions	Maximum load on each shelf	Maximum load on shelf supports	Flow rate (water at 18°C) Delta T = 10°C	Input condenser connection	Output condenser connection	Input humidity generator connection	Output humidity generator connection
	°C	°C	°C/min	°C/min	kW	kg	kW	dB(A)	mm	mm	kg	kg	l/h	mm	mm	"	"
<b>EXCAL<sup>2</sup> 1800</b>																	
18014-T/H-E	-30	-30	3	3	14,7	1240	1,2	64	W=1485 D=2670 H=2275	W=1150 D=1500 H=1120	80	300	1078	20x27	20x27	1/4	3/8
18015-T/H-E	-40	-40	4	4	17,4	1340	1,7	65									
18017-T/H-E	-40	-40	5	5	21,1	1360	1,9	65									
18018-T/H-E	-40	-40	8	8	26,1	1380	2,4	67									
18019-T/H-E	-40	-40	10	10	37,5	1420	2,6	69									
18023-T/H-E	-70	-70	1,5	1,5	13,2	1260	1,3	65									
18024-T/H-E	-75	-70	3	3	18,2	1350	1,8	66									
18025-T/H-E	-75	-70	4	4	23,1	1495	2,6	66									
18027-T/H-E	-85	-70	5	5	23,6	1525	3,1	67									
18028-T/H-E	-85	-70	8	8	33,3	1555	4	68									
18029-T/H-E	-85	-70	10	10	44,9	1615	4,3	70									
18014-T/H-A	-30	-30	3	3	14,7	1240	12,5	64									
18023-T/H-A	-70	-70	1,5	1,5	13,2	1260	11,3	65									
18024-T/H-A	-75	-70	3	3	18,2	1350	16,5	66									

Conditions for achieving performance :

Air condenser: air temperature +25°C

Water condenser: water temperature +18°C

Two stages and one-stage water : temperature water +22°C max

Air two stages : air temperature +28°C max

One stage air : air temperature +25°C max

If ambient air T +25°C, so cabinet T mini -40°C

If ambient air T +30°C, so cabinet T mini -35°C

If ambient air T +35°C, so cabinet T mini -30°C