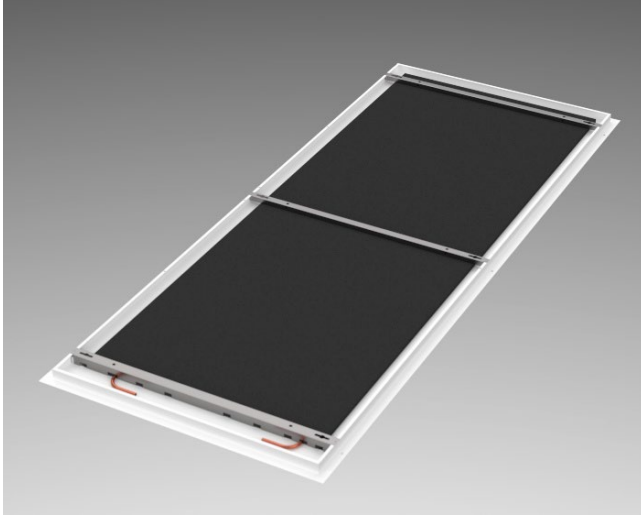


ItuGraf Flanged Modula Panels



The ceiling-recessed model of ItuGraf is particularly well suited for plasterboard and wood panel ceilings. The 30mm wide installation frame around the panel makes installation easy. The panel is attached directly to the wooden frame with washer head screws.

Models

IGFM - 655 - 2950 - 1 - V - I2

Ceiling panel model

Panel width

Panel length

Circuit

Color

Insulation

Width 655 mm		Width 955 mm	
IGFM-655-2950-1-V-I2	IGFM-655-2950-1-V	IGFM-955-2950-1-V-I2	IGFM-955-2950-1-V
IGFM-655-2950-2-V-I2	IGFM-655-2950-2-V	IGFM-955-2350-2-V-I2	IGFM-955-2950-2-V
IGFM-655-2350-1-V-I2	IGFM-655-2350-1-V	IGFM-955-2350-1-V-I2	IGFM-955-2350-1-V
IGFM-655-2350-2-V-I2	IGFM-655-2350-2-V	IGFM-955-2350-2-V-I2	IGFM-955-2350-2-V
IGFM-655-1850-1-V-I2	IGFM-655-1850-1-V	IGFM-955-1850-1-V-I2	IGFM-955-1850-1-V
IGFM-655-1850-2-V-I2	IGFM-655-1850-2-V	IGFM-955-1850-2-V-I2	IGFM-955-1850-2-V
IGFM-655-1250-1-V-I2	IGFM-655-1250-1-V	IGFM-955-1250-1-V-I2	IGFM-955-1250-1-V
IGFM-655-1250-2-V-I2	IGFM-655-1250-2-V	IGFM-955-1250-2-V-I2	IGFM-955-1250-2-V

Technical data

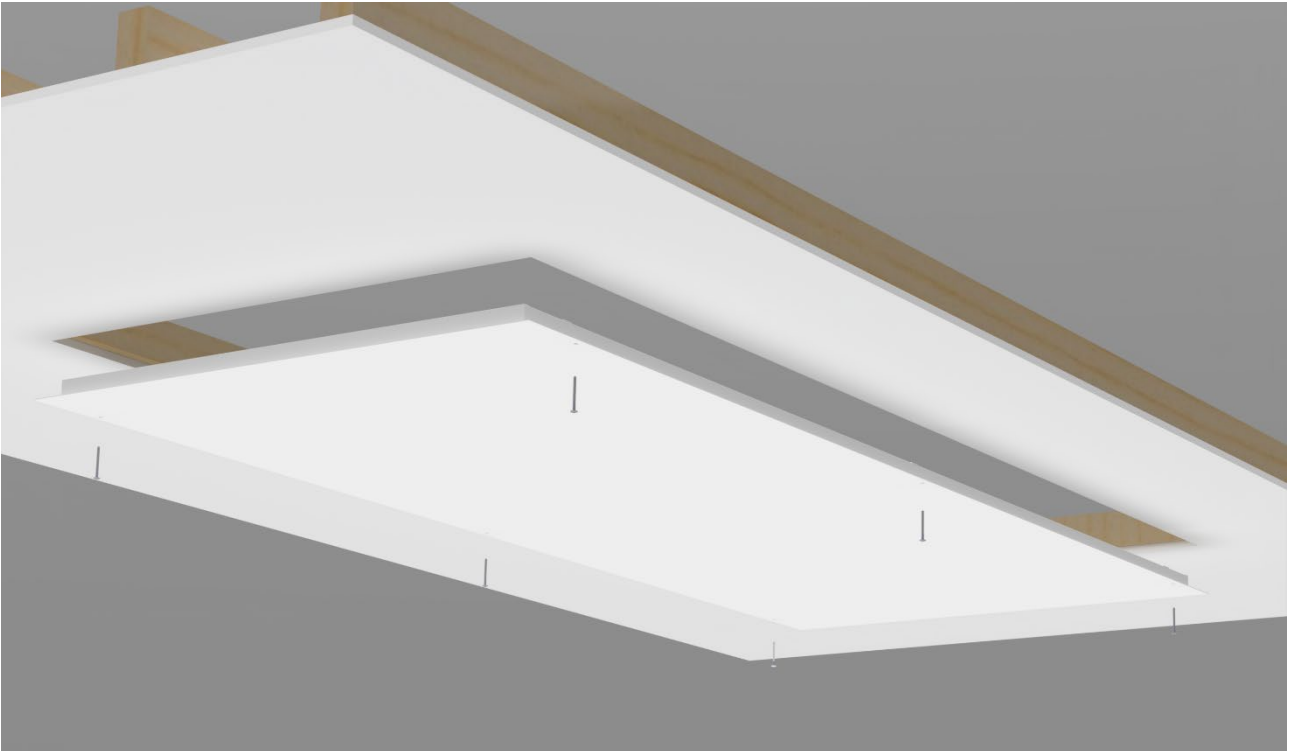
Cassette material	Steel 0,7 mm
Pipe material	Copper Ø10 mm
Panel height	36 mm
Maximum operating temperature	83 °C
Maximum operating pressure	8 bar

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Installation on a plasterboard ceiling

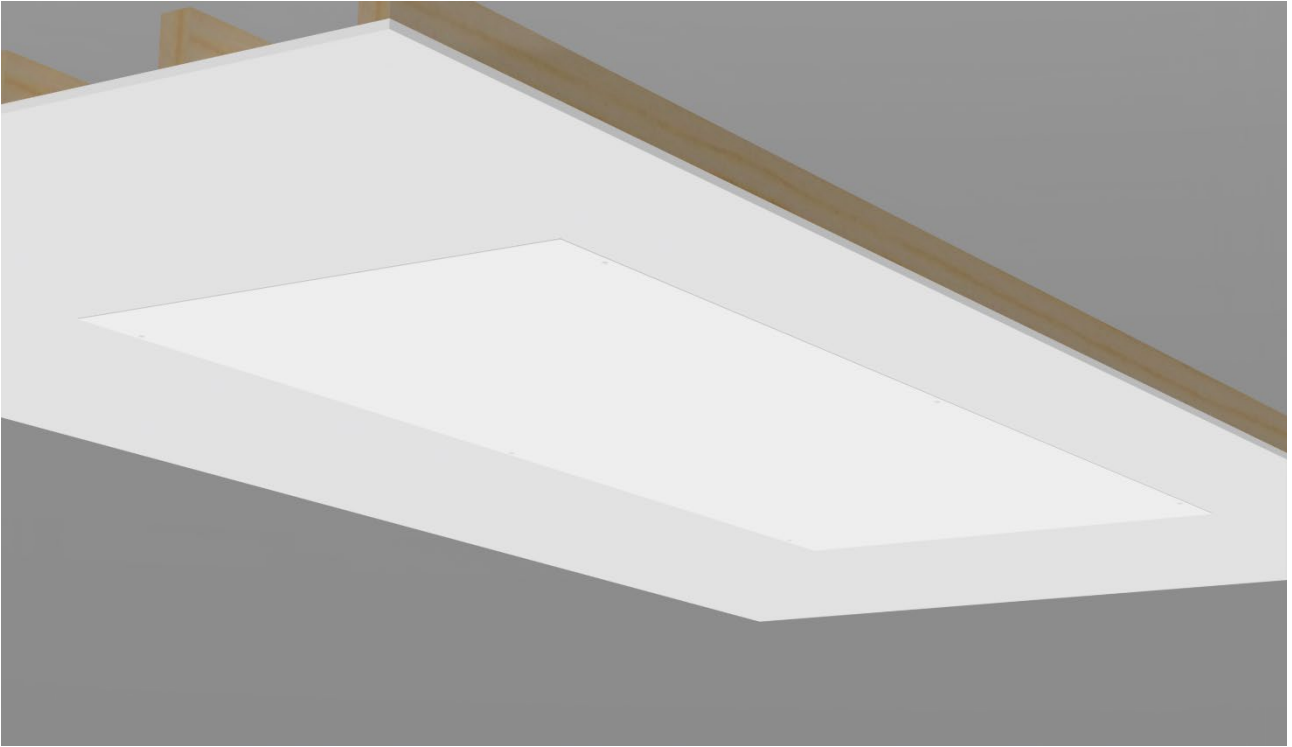


Panel installation illustrative image 1 (model in picture: IGFM-955-2350-1-V-I2)



Panel installation illustrative image 2 (model in picture: IGFM-955-2350-1-V-I2)

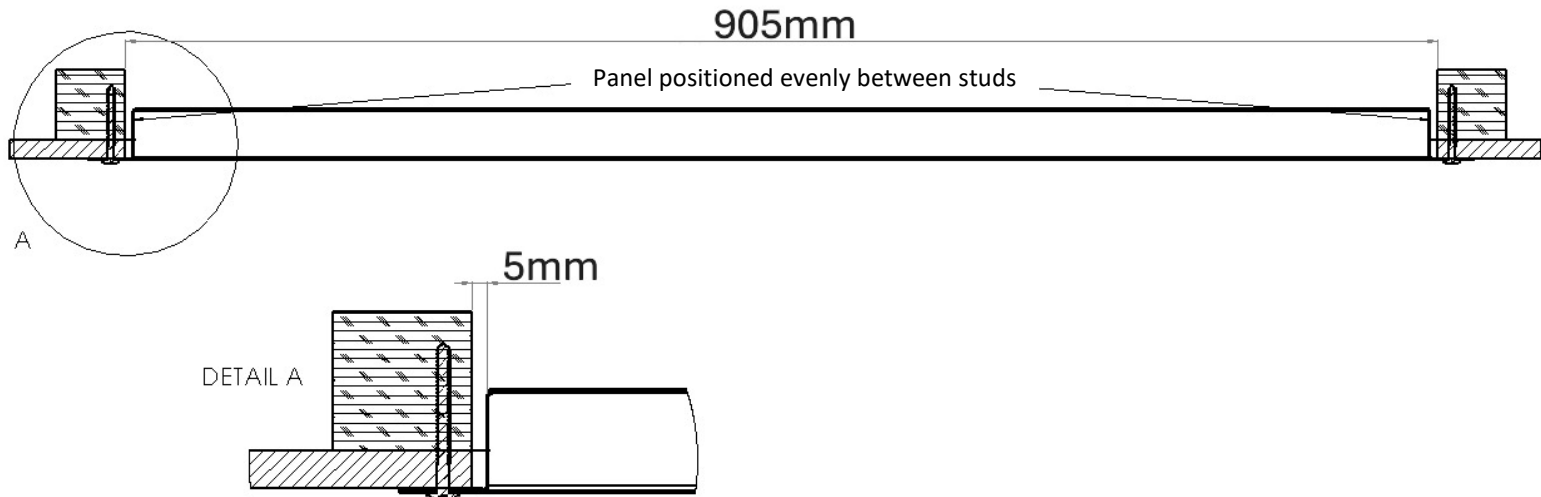
Screws used in installation are WOOD SCREW CONSTRUCTION-W 6,0X60 EZP + WHITE (7317761903154) or similar.



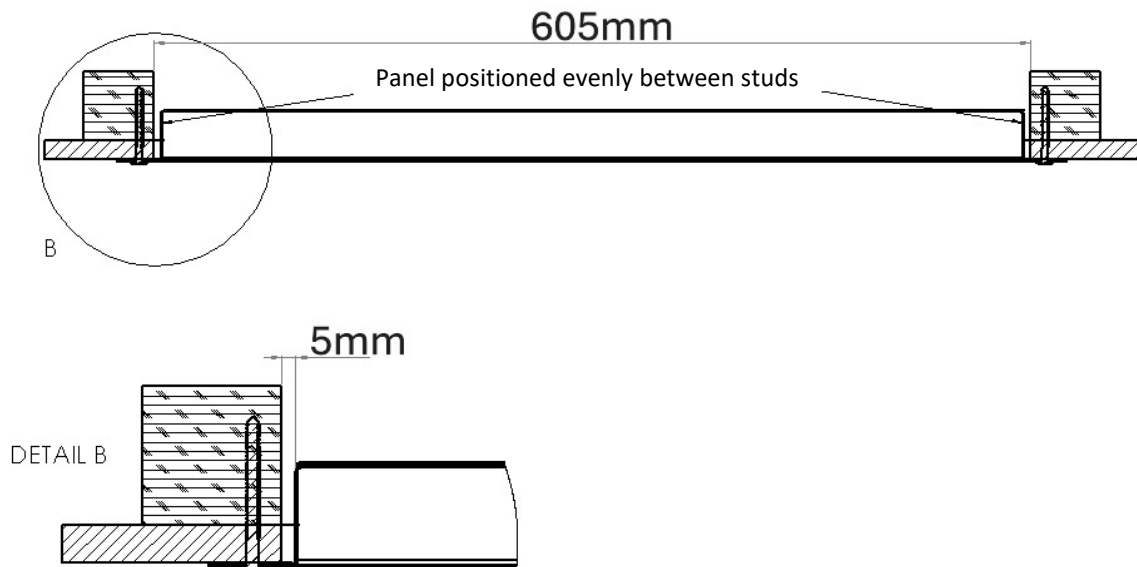
Panel installation illustrative image 3 (model in picture: IGFM-955-2350-1-V-I2)

Largest possible space between studs:

955mm wide panels
48x48 O.C.315

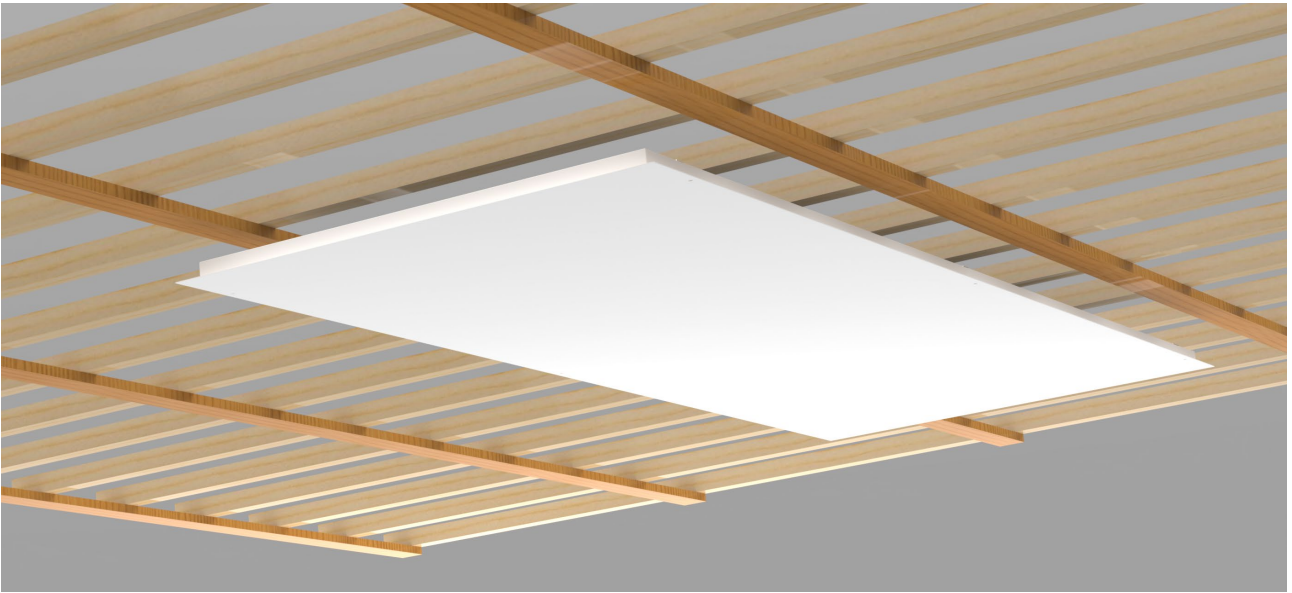


655mm wide panels
48x48 O.C.325

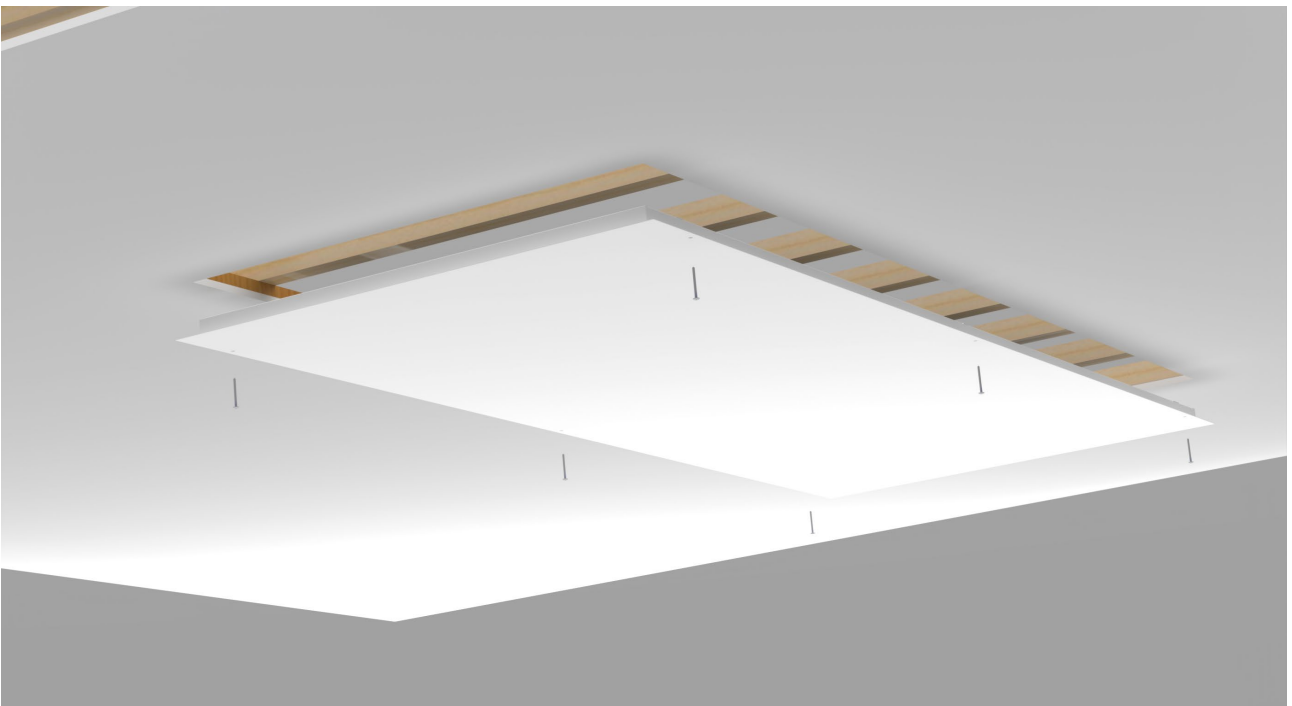


frame spacing

Installation on a plasterboard ceiling (sparse framing)

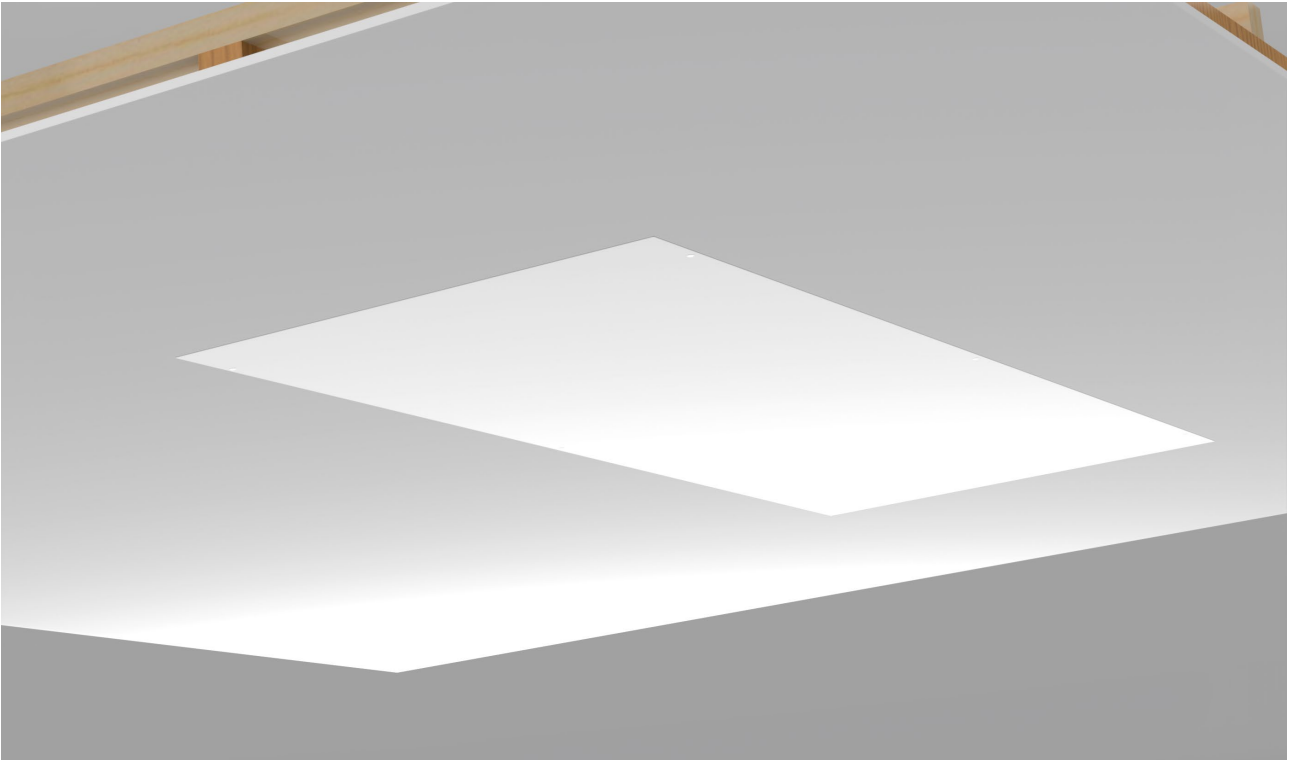


Panel installation illustrative image 4 (model in picture: IGFM-955-2350-1-V-I2)



Panel installation illustrative image 5 (model in picture: IGFM-955-2350-1-V-I2)

Screws used in installation are WOOD SCREW CONSTRUCTION-W 6,0X60 EZP + WHITE (7317761903154) or similar.

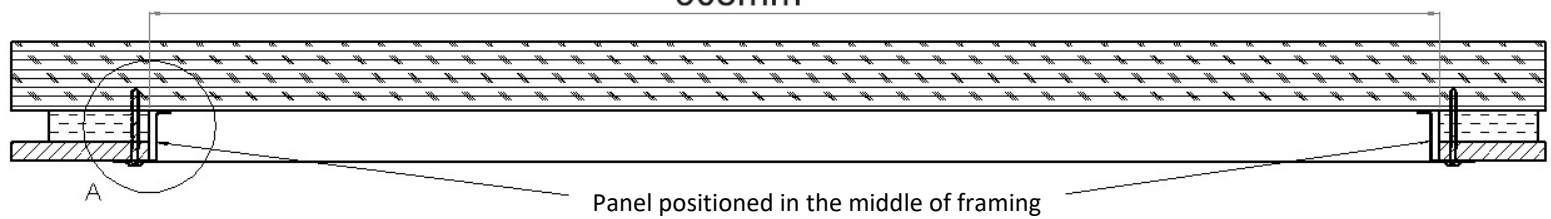


Panel installation illustrative image 5 (model in picture: IGFM-955-2350-1-V-I2)

Largest possible space between framing:

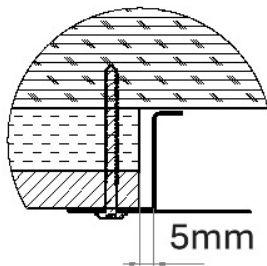
955mm wide panels

905mm



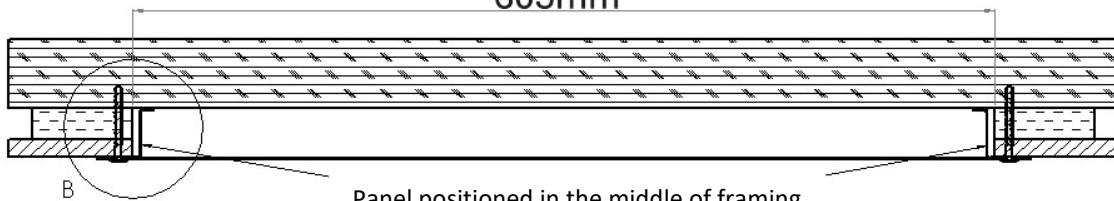
Panel positioned in the middle of framing

DETAIL A



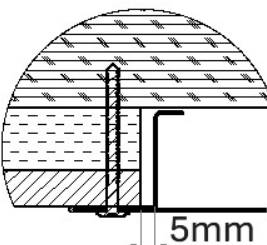
655mm wide panels

605mm



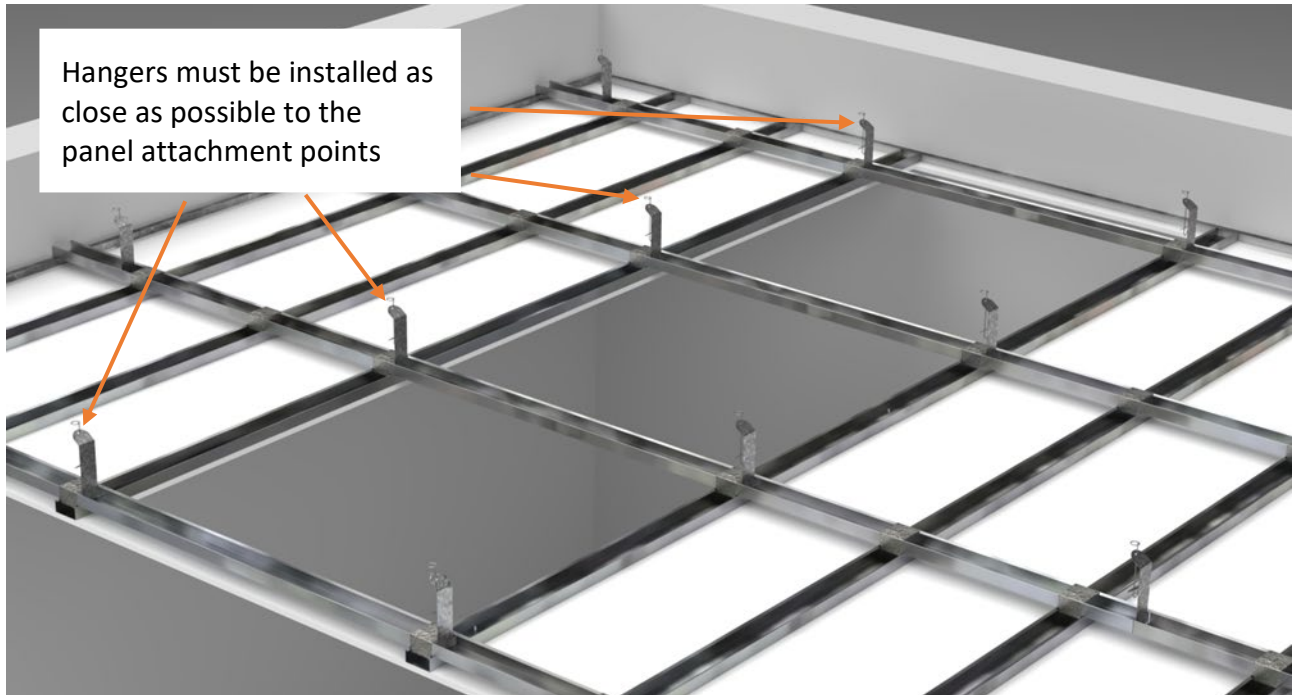
Panel positioned in the middle of framing

DETAIL B



frame spacing

Installation on a plasterboard ceiling (suspended ceiling system, 2-level installation)



On center spacing for bearers around the panels is 665mm when installing a 655mm wide panel, and 965mm when installing a 955mm wide panel.



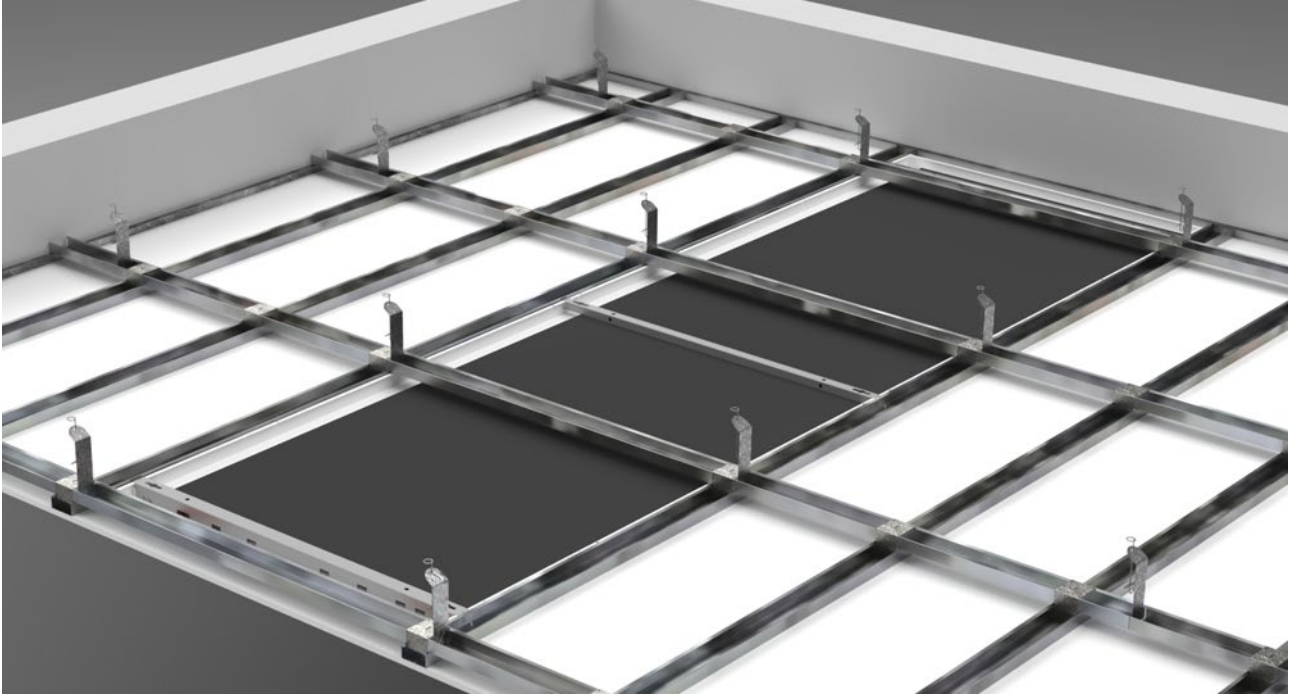
Panel installation illustrative image 7 (model in picture: IGFM-955-2950-1-V)



Panel installation illustrative image 8 (model in picture: IGFM-955-2950-1-V)



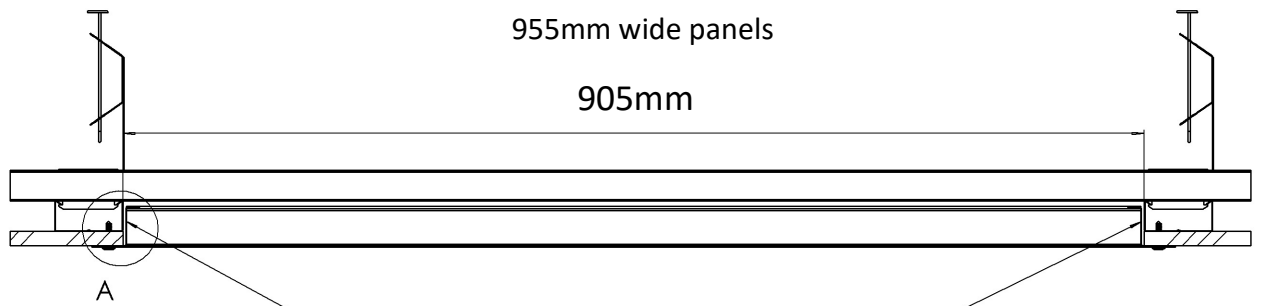
Panel installation illustrative image 9 (model in picture: IGFM-955-2950-1-V)



Installed panel.

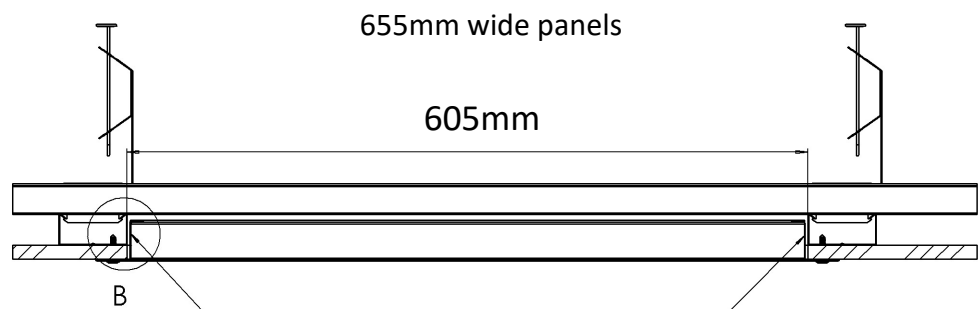
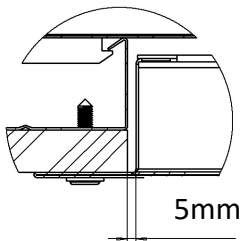
Screws used in the installation must penetrate at least 10mm through the bearer profile. In an assembly with one layer of plasterboard, this equals to 30mm long screws. The screws used in the installation are WAFER HEAD SCREW SHARP POINT 4,2X32 WHITE.(7317761121923) or similar.

Largest possible space between framing:



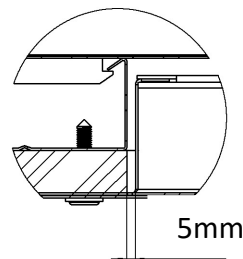
Panel positioned in the middle of framing

DETAIL A



Panel positioned in the middle of framing

DETAIL B





Heating Outputs

Heating output for 6-pipe activation Plasterboard ceiling with insulation				
	655x1250	655x1850	655x2350	655x2950
K	3,654	5,702	7,410	9,458
n	1,1199			
Δt (K)	W	W	W	W
70	426	664	863	1102
68	412	643	836	1067
66	399	622	808	1032
64	385	601	781	997
62	372	580	754	962
60	358	559	726	927
58	345	538	699	893
56	332	517	672	858
55	325	507	659	841
54	318	497	646	824
52	305	476	619	790
50	292	456	592	756
48	279	435	566	722
46	266	415	539	689
44	253	395	513	655
42	240	375	487	622
40	227	355	461	589
38	215	335	436	556
36	202	315	410	523
34	190	296	385	491
32	177	276	359	459
30	165	257	334	427
28	153	238	309	395
26	140	219	285	363
24	128	200	260	332
22	116	182	236	301
20	105	163	212	271
18	93	145	189	241
16	82	127	165	211
14	70	110	142	182
12	59	92	120	153
10	48	75	98	125

Heating output for 8-pipe activation Plasterboard ceiling with insulation				
	955x1250	955x1850	955x2350	955x2950
K	5,314	8,294	10,778	13,758
n	1,1199			
Δt (K)	W	W	W	W
70	619	966	1256	1603
68	599	935	1215	1552
66	580	905	1176	1501
64	560	874	1136	1450
62	540	843	1096	1399
60	521	813	1057	1349
58	502	783	1017	1298
56	482	753	978	1248
55	473	738	958	1223
54	463	723	939	1199
52	444	693	900	1149
50	425	663	861	1100
48	406	633	823	1050
46	387	604	785	1002
44	368	574	746	953
42	349	545	709	905
40	331	516	671	856
38	312	488	633	809
36	294	459	596	761
34	276	430	559	714
32	258	402	523	667
30	240	374	486	621
28	222	346	450	574
26	204	319	414	529
24	187	291	379	483
22	169	264	343	438
20	152	238	309	394
18	135	211	274	350
16	119	185	240	307
14	102	159	207	264
12	86	134	174	222
10	70	109	142	181



Heating Outputs

Heating output for 6-pipe activation Plasterboard ceiling without insulation				
	655x1250	655x1850	655x2350	655x2950
K	3,886	6,065	7,880	10,059
n	1,1534			
Δt (K)	W	W	W	W
70	522	815	1058	1351
68	505	788	1024	1307
66	488	761	989	1262
64	471	735	955	1218
62	454	708	920	1175
60	437	682	886	1131
58	420	656	852	1088
56	403	630	818	1045
55	395	617	801	1023
54	387	604	785	1002
52	370	578	751	959
50	354	553	718	917
48	338	527	685	874
46	322	502	652	833
44	306	477	620	791
42	290	452	587	750
40	274	427	555	709
38	258	403	523	668
36	242	378	492	627
34	227	354	460	587
32	212	330	429	548
30	196	307	398	508
28	181	283	368	470
26	167	260	338	431
24	152	237	308	393
22	137	214	279	356
20	123	192	250	319
18	109	170	221	282
16	95	148	193	246
14	82	127	165	211
12	68	107	138	177
10	55	86	112	143

Heating output for 8-pipe activation Plasterboard ceiling without insulation				
	955x1250	955x1850	955x2350	955x2950
K	5,652	8,821	11,462	14,632
n	1,1534			
Δt (K)	W	W	W	W
70	759	1185	1540	1965
68	734	1146	1489	1901
66	709	1107	1439	1836
64	685	1069	1388	1772
62	660	1030	1338	1709
60	635	992	1289	1645
58	611	954	1239	1582
56	587	916	1190	1519
55	575	897	1166	1488
54	563	878	1141	1457
52	539	841	1093	1395
50	515	804	1044	1333
48	491	767	996	1272
46	468	730	949	1211
44	444	694	901	1150
42	421	657	854	1090
40	398	621	807	1031
38	375	586	761	971
36	353	550	715	913
34	330	515	669	854
32	308	480	624	797
30	286	446	579	740
28	264	412	535	683
26	242	378	491	627
24	221	345	448	572
22	200	312	405	517
20	179	279	363	463
18	158	247	321	410
16	138	216	281	358
14	119	185	241	307
12	99	155	201	257
10	80	126	163	208



Cooling Outputs

Cooling capacities for 6-pipe activation Plasterboard ceiling with insulation				
	655x1250	655x1850	655x2350	655x2950
K	4,962	7,744	10,063	12,845
n	1,1367			
Δt (K)	W	W	W	W
15	108	168	219	279
14	100	156	202	258
13	92	143	186	237
12	84	131	170	216
11	76	118	154	196
10	68	106	138	176
9	60	94	122	156
8	53	82	107	137
7	45	71	92	117
6	38	59	77	98
5	31	48	63	80
4	24	37	49	62
3	17	27	35	45
2	11	17	22	28
1	5	8	10	13

Cooling capacities for 8-pipe activation Plasterboard ceiling with insulation				
	955x1250	955x1850	955x2350	955x2950
K	7,217	11,264	14,636	18,683
n	1,1367			
Δt (K)	W	W	W	W
15	157	245	318	406
14	145	226	294	375
13	133	208	270	345
12	122	190	247	315
11	110	172	223	285
10	99	154	201	256
9	88	137	178	227
8	77	120	156	199
7	66	103	134	171
6	55	86	112	143
5	45	70	91	116
4	35	54	71	90
3	25	39	51	65
2	16	25	32	41
1	7	11	15	19



Cooling Outputs

Cooling capacities for 6-pipe activation Plasterboard ceiling without insulation				
	655x1250	655x1850	655x2350	655x2950
K	5,886	9,187	11,937	15,238
n	1,1296			
Δt (K)	W	W	W	W
15	125	196	254	325
14	116	181	235	300
13	107	167	216	276
12	97	152	198	252
11	88	138	179	229
10	79	124	161	205
9	70	110	143	182
8	62	96	125	160
7	53	83	108	137
6	45	70	90	115
5	36	57	74	94
4	28	44	57	73
3	20	32	41	53
2	13	20	26	33
1	6	9	12	15

Cooling capacities for 8-pipe activation Plasterboard ceiling without insulation				
	955x1250	955x1850	955x2350	955x2950
K	8,562	13,363	17,363	22,164
n	1,1296			
Δt (K)	W	W	W	W
15	182	285	370	472
14	169	263	342	437
13	155	242	315	402
12	142	221	288	367
11	129	201	261	333
10	115	180	234	299
9	102	160	208	265
8	90	140	182	232
7	77	120	156	200
6	65	101	131	168
5	53	82	107	137
4	41	64	83	106
3	30	46	60	77
2	19	29	38	48
1	9	13	17	22