



“АЕЦ КОЗЛОДУЙ” ЕАД, гр. Козлодуй

България, тел. 0973 7 35 30, факс 0973 7 60 27

ИНФОРМАЦИОННО СЪОБЩЕНИЕ

ОТНОСНО: Покана за пазарна консултация №40897 по реда на чл.44 от ЗОП с предмет „Доставка на 14 броя вентилатори с постоянен режим на работа в КЗ на цех ХОГ”

Уважаеми дами и господа,

Във връзка с постъпили въпроси, “АЕЦ Козлодуй” ЕАД информира всички заинтересовани лица, че прави следните уточнения по техническата спецификация на обществена поръчка с предмет „Доставка на 14 броя вентилатори с постоянен режим на работа в КЗ на цех ХОГ”, публикувана в профила на купувача на Интернет - страницата на “АЕЦ Козлодуй” ЕАД на адрес: www.kznpp.org/ **Актуално/ Обществени поръчки / Пазарни консултации / 40897:**

I. Въпрос:

1. Необходимо е да бъде предоставена информация за размерите на меките връзки упоменати в допълнителните изисквания към вентилаторите. Какъв е размера на въздуховода към който съответно трябва да бъде монтиран вентилатора?

2. Посочените размери за вход и изход на въздуховодите са – светло сечение или външни размери или вътрешни?

I. Отговор:

1. За вентилатори с технологични обозначения LK11LA01/02, LK13LA01/02, LK14LA01/02 (общо 6 броя) са използвани следните меки връзки:

- на вход - L=480 мм., Д=850мм/Д=900мм. (от страната на въздуховода);
- на изход - L=300 мм., 600x600 мм./Д=900 мм. (от страната на въздуховода)

2. За вентилатори с технологични обозначения LK21LC01/02 (общо 2 броя) са използвани следните меки връзки:

- на вход - L=300 мм., Д=850мм/Д=800мм. (от страната на въздуховода);
- на изход - L=300 мм., 600x600 мм./Д=800 мм. (от страната на въздуховода)

3. За вентилатори с технологични обозначения LK23LC01/02 и LK24LC01/02 (общо 4 броя) са използвани следните меки връзки:

- на вход - L=300 мм., Д=660мм/Д=800мм. (от страната на въздуховода);
- на изход - L=300 мм., 470x470 мм./Д=800 мм. (от страната на въздуховода)

4. За вентилатори с технологично обозначение LK31LC01/02 (общо 2 броя) са използвани следните меки връзки:

- на вход - L=300 мм., Д=670мм/Д=630мм. (от страната на въздуховода);
- на изход - L=300 мм., 570x476 мм./Д=630 мм. (от страната на въздуховода)

Посочените диаметри на въздуховодите са за светъл отвор.

II. Въпрос:

1. Необходимо е да бъде предоставена информация относно класификацията на вентилаторите за работа при земетресение

II. Отговор:

1. Работоспособността на вентилаторите при земетресения може да бъде доказана или чрез аналитични изчисления или чрез реални изпитания в лицензирана лаборатория към университета по архитектура, строителство и геодезия в София или комбинация от двете за конкретните спектри на реагиране дадени, които предоставяме като приложение № 1. В случай на аналитични изчисления да се използват следните НТД приложими в АЕЦ "Козлодуй":

- ГОСТ 17516.1-90 - Общи изисквания в частта за устойчивост на механични външни въздействащи фактори

- ГОСТ 30546 -Общи изисквания към машини, уреди и други технически изделия и методи за изчисляване на техните сложни конструкции в частта за сеизмоустойчивост.

При използване на изчисленията да се докаже, че спектъра на реагиране покрива приложения спектър приложим за АЕЦ "Козлодуй".

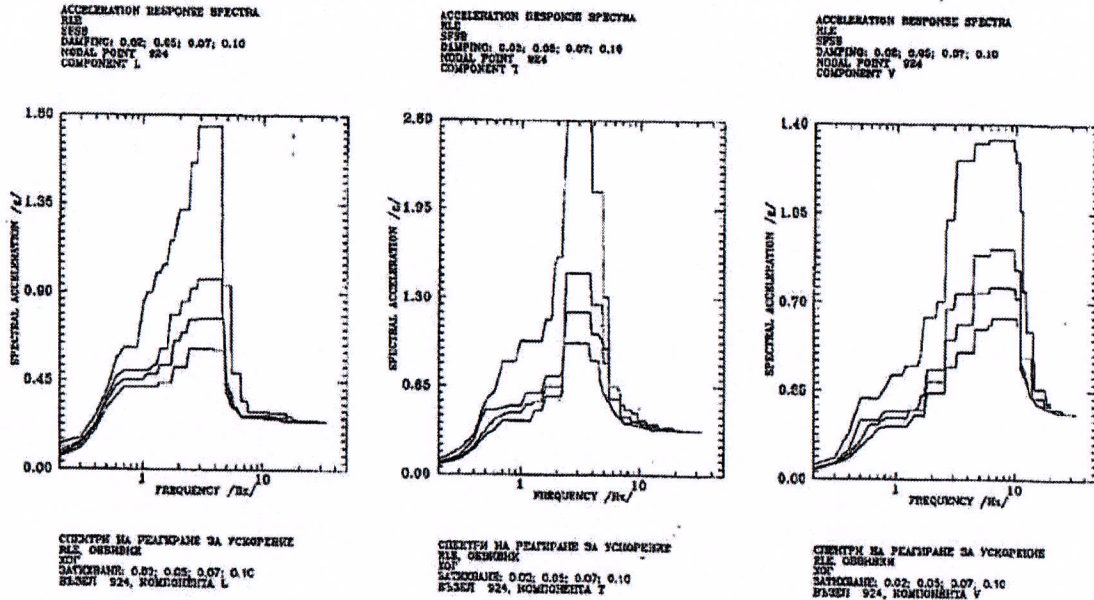
При използване на динамичен тест, докладът от теста трябва да съдържа недвусмислена заключение, че оборудването запазва работоспособност след земетресение с ускорение 0.1g.

III. Въпрос:

1. Меките връзки – да бъдат ли включени в цената на вентилаторите или ще бъдат обект на друга доставка?

III. Отговор:

1. Меките връзки е необходимо да бъдат включени в цената.



Спектри на реагиране за укрепения конструкция на ХОТ

Фиг.Д.25 Спектри на реагиране. Въздействие -RLE. Възед 924

ТАБЛИЦА Д-19

ЕТАЖНИ СПЕКТРИ НА РЕАГИРАНЕ - RLE
ВЪЗЕА 924

Hz	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
.20	.1273	.0872	.0729	.0620	.1054	.0840	.0781	.0723	.0570	.0429	.0385	.0355
.40	.2693	.2277	.2133	.1975	.2853	.2519	.2031	.1873	.1850	.1190	.1008	.0845
.60	.5612	.4710	.4256	.3707	.6139	.4765	.4017	.3295	.3188	.2340	.2173	.1633
.80	.6199	.4998	.4546	.4198	.8304	.5080	.4543	.3935	.3654	.2698	.2417	.2083
1.00	.8343	.5004	.4546	.4198	.9806	.5080	.4543	.3935	.4121	.2698	.2417	.2083
1.20	.8991	.5207	.4832	.4198	.9806	.5990	.5120	.3935	.4481	.2698	.2417	.2083
1.40	.9982	.6099	.5292	.4413	.9806	.5990	.5351	.4712	.4481	.2755	.2513	.2513
1.60	1.0440	.6099	.5292	.4413	1.1390	.7276	.6494	.5750	.5007	.3337	.2755	.2513
1.80	1.1640	.7852	.6527	.5177	1.1390	.7276	.6494	.5750	.6397	.4356	.3987	.3429
2.00	1.3170	.7852	.6527	.5177	1.6020	.7276	.6494	.5750	.6397	.4356	.3987	.3429
2.20	1.3170	.8550	.6958	.5177	1.6020	.7493	.6494	.5750	.7046	.4356	.3987	.3429
2.40	1.3170	.8550	.7587	.6123	2.5930	1.4830	1.1980	.9684	.7046	.4356	.3987	.3429
2.60	1.5580	.9219	.7587	.6123	2.5930	1.4830	1.1980	.9684	1.0270	.6741	.5545	.4461
2.80	1.5580	.9219	.7587	.6123	2.5930	1.4830	1.1980	.9684	1.0270	.6741	.5545	.4461
3.00	1.7410	.9665	.7649	.6123	2.5930	1.4830	1.1980	.9684	1.0270	.6741	.5545	.4461
3.20	1.7410	.9665	.7649	.6123	2.5930	1.4830	1.1980	.9684	1.2590	.7370	.6154	.5032
3.40	1.7410	.9665	.7649	.6123	2.5930	1.4830	1.1980	.9684	1.2590	.7370	.6154	.5032
3.60	1.7410	.9665	.7649	.6123	2.5930	1.4830	1.1980	.9684	1.2590	.7370	.6154	.5032
3.80	1.7410	.9665	.7649	.6123	2.5930	1.4830	1.1980	.8432	1.2590	.7370	.6154	.5032
4.00	1.7410	.9665	.7649	.6043	2.0780	1.2530	1.0360	.8432	1.2590	.7370	.6154	.5032
4.20	1.7410	.9665	.7649	.6043	2.0780	1.2530	1.0360	.8432	1.2590	.7370	.6154	.5032
4.40	1.7410	.9665	.7649	.6043	2.0780	1.2530	1.0040	.6809	1.3260	.8894	.7401	.5963
4.60	.9366	.7649	.7649	.6021	2.0780	1.2530	1.0040	.6379	1.3260	.8894	.7401	.5963
4.80	.9366	.6021	.6021	.6021	2.0780	1.2530	1.0040	.5862	1.3260	.8894	.7401	.5963
5.00	.9366	.4400	.4145	.3831	1.3100	.9276	.8237	.5667	1.3260	.8894	.7401	.5963
5.20	.9366	.4108	.3834	.3556	1.3100	.9276	.8237	.5667	1.3260	.8894	.7401	.5963
5.40	.9366	.3924	.3619	.3333	1.3100	.9276	.8237	.5667	1.3260	.8894	.7401	.5963
5.60	.4916	.3587	.3366	.3137	.6553	.5598	.5391	.5188	1.3260	.8894	.7401	.5963
5.80	.4916	.3216	.3159	.3055	.6553	.5598	.5143	.4974	1.3260	.8894	.7401	.5963
6.00	.4916	.3192	.3093	.2981	.6553	.5598	.4817	.4739	1.3420	.9144	.7592	.6132
6.20	.4916	.3077	.2988	.2888	.6553	.5598	.4543	.4529	1.3420	.9144	.7592	.6132
6.40	.4916	.2941	.2857	.2776	.6553	.5598	.4368	.4368	1.3420	.9144	.7592	.6397

ТАБЛИЦА Д-19 - Продолжение

Hz	L				T				V			
	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
6.60	.3495	.2784	.2731	.2665	.6271	.5598	.4261	.4253	1.3420	.9144	.7592	.6397
6.80	.3495	.2730	.2679	.2630	.6271	.5598	.4222	.4163	1.3420	.9144	.7592	.6397
7.00	.3495	.2730	.2679	.2630	.5161	.4307	.4133	.4086	1.3420	.9144	.7592	.6397
7.20	.3495	.2730	.2679	.2630	.5161	.4307	.4004	.3959	1.3420	.9144	.7592	.6397
7.40	.3495	.2730	.2679	.2630	.5161	.4307	.3874	.3857	1.3420	.9144	.7592	.6397
7.60	.2948	.2730	.2679	.2630	.4827	.4307	.3868	.3791	1.3420	.9144	.7592	.6397
7.80	.2948	.2730	.2679	.2630	.4827	.4307	.3868	.3791	1.3420	.9144	.7592	.6397
8.00	.2948	.2730	.2679	.2630	.4827	.4307	.3868	.3791	1.3420	.9144	.7592	.6397
8.20	.2948	.2730	.2679	.2630	.4827	.4307	.3868	.3791	1.3420	.9144	.7592	.6397
8.40	.2948	.2730	.2679	.2630	.4827	.4307	.3868	.3791	1.3420	.9144	.7592	.6397
8.60	.2948	.2730	.2679	.2630	.4563	.3971	.3868	.3748	1.3420	.9144	.7592	.6397
8.80	.2948	.2730	.2679	.2630	.4563	.3971	.3868	.3722	1.3420	.9144	.7592	.6397
9.00	.2948	.2730	.2679	.2630	.4563	.3971	.3868	.3700	1.3420	.9144	.7592	.6397
9.20	.2948	.2730	.2679	.2630	.4563	.3971	.3868	.3677	1.3420	.9144	.7592	.6397
9.40	.2948	.2730	.2679	.2630	.4563	.3971	.3868	.3652	1.3420	.9144	.7592	.6397
9.60	.2948	.2730	.2679	.2630	.4563	.3971	.3868	.3632	1.3010	.9144	.7592	.6397
9.80	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3608	1.3010	.8331	.7197	.6397
10.00	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3584	1.2560	.8331	.7197	.6397
10.20	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3572	1.2560	.8331	.7197	.6397
10.40	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3553	1.2560	.8331	.7197	.6397
10.60	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3536	1.2560	.8331	.7197	.6397
10.80	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3524	1.2560	.8331	.7197	.6397
11.00	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3515	1.0650	.8297	.7197	.6397
11.20	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3507	1.0650	.8297	.7197	.6397
11.40	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3486	1.0650	.8297	.7197	.6397
11.60	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3470	1.0650	.8297	.7197	.6397
11.80	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3452	1.0650	.8297	.7197	.6397
12.00	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3433	1.0650	.8297	.7197	.6397
12.20	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3418	1.0650	.8297	.7197	.6397
12.40	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3401	1.0650	.8297	.7197	.6397
12.60	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3380	1.0650	.8297	.7197	.6397
12.80	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3365	1.0650	.8297	.7197	.6397
13.00	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3348	1.0650	.8297	.7197	.6397
13.20	.2948	.2730	.2679	.2630	.3992	.3971	.3868	.3334	1.0650	.8297	.7197	.6397

ТАБЛИЦА Д-19 - Продолжение

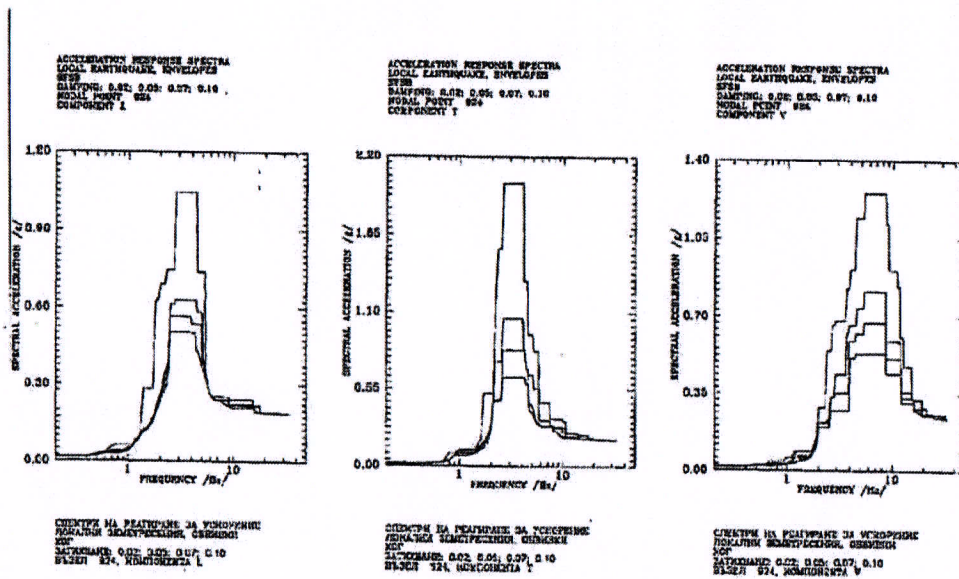
Hz	L				T				V			
	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
13.40	.2863	.2617	.2606	.2555	.3743	.3531	.3365	.3346	.5885	.4857	.3351	.3351
13.60	.2863	.2606	.2606	.2547	.3743	.3531	.3365	.3346	.5885	.4857	.3293	.3293
13.80	.2863	.2606	.2606	.2538	.3743	.3531	.3365	.3346	.5885	.4857	.3248	.3248
14.00	.2863	.2606	.2606	.2527	.3743	.3390	.3365	.3346	.5885	.4857	.3213	.3213
14.20	.2863	.2606	.2606	.2520	.3743	.3390	.3365	.3346	.5885	.4857	.3188	.3188
14.40	.2863	.2606	.2606	.2511	.3490	.3390	.3365	.3346	.3622	.3232	.3170	.3153
14.60	.2863	.2606	.2606	.2502	.3490	.3390	.3365	.3346	.3622	.3232	.3137	.3122
14.80	.2863	.2606	.2606	.2492	.3490	.3390	.3365	.3346	.3622	.3232	.3093	.3091
15.00	.2863	.2606	.2606	.2482	.3490	.3390	.3365	.3346	.3622	.3232	.3060	.3060
15.20	.2863	.2606	.2606	.2474	.3490	.3390	.3365	.3346	.3622	.3232	.3032	.3032
15.40	.2863	.2606	.2606	.2474	.3490	.3390	.3365	.3346	.3622	.3232	.3007	.3007
15.60	.2863	.2606	.2606	.2474	.3490	.3388	.3365	.3346	.3622	.3232	.2986	.2986
15.80	.2712	.2491	.2482	.2474	.3490	.3380	.3362	.3346	.3622	.3232	.2969	.2969
16.00	.2712	.2491	.2482	.2474	.3490	.3370	.3357	.3346	.3622	.3232	.2954	.2954
16.20	.2712	.2491	.2482	.2474	.3490	.3359	.3351	.3346	.3622	.3232	.2941	.2941
16.40	.2712	.2491	.2482	.2474	.3490	.3351	.3346	.3346	.3622	.3232	.2929	.2929
16.60	.2712	.2491	.2482	.2474	.3490	.3346	.3346	.3346	.3622	.3232	.2910	.2917
16.80	.2712	.2491	.2482	.2474	.3490	.3346	.3346	.3346	.3622	.3232	.2907	.2905
17.00	.2712	.2491	.2482	.2474	.3490	.3346	.3346	.3346	.3622	.3232	.2895	.2893
17.20	.2712	.2491	.2482	.2474	.3490	.3346	.3346	.3346	.3622	.3232	.2883	.2882
17.40	.2565	.2491	.2482	.2474	.3490	.3346	.3346	.3346	.3622	.3232	.2872	.2871
17.60	.2565	.2491	.2482	.2474	.3490	.3346	.3346	.3346	.3622	.3232	.2860	.2860
17.80	.2565	.2491	.2482	.2474	.3490	.3346	.3346	.3346	.3622	.2938	.2849	.2849
18.00	.2565	.2491	.2482	.2474	.3490	.3346	.3346	.3346	.3587	.2938	.2839	.2839
18.20	.2565	.2491	.2482	.2474	.3490	.3346	.3346	.3346	.3587	.2938	.2829	.2829
18.40	.2565	.2491	.2482	.2474	.3485	.3346	.3346	.3346	.3052	.2938	.2820	.2820
18.60	.2565	.2491	.2482	.2473	.3485	.3346	.3346	.3346	.3052	.2938	.2811	.2811
18.80	.2565	.2489	.2481	.2473	.3351	.3346	.3346	.3346	.3052	.2938	.2803	.2803
19.00	.2516	.2489	.2481	.2473	.3346	.3346	.3346	.3346	.3052	.2938	.2795	.2795
19.20	.2516	.2489	.2481	.2473	.3346	.3346	.3346	.3346	.3052	.2938	.2787	.2787
19.40	.2516	.2488	.2480	.2473	.3316	.3309	.3308	.3306	.3052	.2938	.2780	.2780
19.60	.2516	.2486	.2478	.2472	.3316	.3309	.3307	.3305	.3052	.2938	.2773	.2773
19.80	.2516	.2482	.2476	.2471	.3315	.3308	.3306	.3304	.3052	.2938	.2767	.2767
20.00	.2516	.2478	.2474	.2469	.3312	.3306	.3304	.3302	.3052	.2938	.2761	.2760

ТАБЛИЦА Д-19 - Продолжение

Hz	L				T				V			
	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
20.20	.2516	.2475	.2472	.2468	.3309	.3304	.3303	.3301	.2810	.2758	.2757	.2755
20.40	.2516	.2471	.2469	.2467	.3307	.3302	.3301	.3299	.2810	.2755	.2752	.2749
20.60	.2516	.2467	.2467	.2465	.3306	.3300	.3299	.3298	.2810	.2752	.2748	.2743
20.80	.2516	.2467	.2464	.2464	.3306	.3297	.3297	.3296	.2810	.2749	.2743	.2737
21.00	.2516	.2467	.2463	.2463	.3306	.3295	.3295	.3294	.2810	.2746	.2738	.2732
21.20	.2516	.2467	.2462	.2462	.3306	.3294	.3294	.3293	.2810	.2742	.2733	.2726
21.40	.2516	.2467	.2461	.2461	.3306	.3292	.3292	.3291	.2810	.2736	.2727	.2720
21.60	.2516	.2467	.2460	.2460	.3306	.3292	.3291	.3290	.2810	.2729	.2720	.2713
21.80	.2514	.2467	.2460	.2459	.3306	.3291	.3289	.3288	.2810	.2722	.2713	.2707
22.00	.2514	.2467	.2460	.2459	.3306	.3290	.3288	.3287	.2810	.2722	.2713	.2707
22.20	.2514	.2467	.2460	.2458	.3306	.3289	.3288	.3287	.2810	.2722	.2713	.2707
22.40	.2514	.2467	.2460	.2458	.3306	.3289	.3288	.3287	.2810	.2722	.2713	.2707
22.60	.2514	.2467	.2460	.2458	.3306	.3289	.3288	.3287	.2810	.2722	.2713	.2707
22.80	.2514	.2467	.2460	.2458	.3306	.3289	.3288	.3287	.2810	.2722	.2713	.2707
23.00	.2514	.2467	.2460	.2457	.3291	.3282	.3280	.3280	.2810	.2674	.2674	.2674
23.20	.2514	.2467	.2460	.2456	.3279	.3279	.3279	.3279	.2810	.2667	.2667	.2667
23.40	.2514	.2466	.2458	.2455	.3278	.3277	.3277	.3277	.2810	.2661	.2661	.2661
23.60	.2514	.2466	.2457	.2454	.3278	.3277	.3276	.3276	.2810	.2656	.2656	.2656
23.80	.2514	.2461	.2457	.2454	.3278	.3277	.3276	.3274	.2762	.2650	.2650	.2650
24.00	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2646	.2646	.2646
24.20	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2641	.2641	.2641
24.40	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2639	.2639	.2639
24.60	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2636	.2636	.2636
24.80	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2634	.2634	.2634
25.00	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632
25.20	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632
25.40	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632
25.60	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632
25.80	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632
26.00	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632
26.20	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632
26.40	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632
26.60	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632
26.80	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2762	.2633	.2632	.2632

ТАБЛИЦА Д-19 - Продолжение

Hz	L				T				V			
	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
27.00	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
27.20	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
27.40	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
27.60	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
27.80	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
28.00	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
28.20	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
28.40	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
28.60	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
28.80	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
29.00	.2511	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
29.20	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
29.40	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
29.60	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
29.80	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
30.00	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
30.20	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
30.40	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
30.60	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
30.80	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
31.00	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
31.20	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
31.40	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2633	.2633	.2632	.2632
31.60	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2592	.2587	.2586	.2583
31.80	.2483	.2461	.2457	.2454	.3278	.3277	.3276	.3273	.2592	.2587	.2586	.2583
32.00	.2483	.2460	.2456	.2454	.3278	.3277	.3276	.3273	.2592	.2587	.2586	.2583
32.20	.2483	.2460	.2456	.2453	.3278	.3277	.3276	.3273	.2592	.2587	.2586	.2583
32.40	.2483	.2458	.2455	.2453	.3278	.3277	.3276	.3273	.2592	.2587	.2586	.2583
32.60	.2483	.2457	.2454	.2453	.3278	.3277	.3276	.3273	.2592	.2587	.2586	.2583
32.80	.2483	.2456	.2453	.2452	.3278	.3277	.3276	.3273	.2592	.2587	.2586	.2583
33.00	.2483	.2455	.2452	.2452	.3278	.3277	.3276	.3273	.2592	.2587	.2586	.2583
33.20	.2475	.2453	.2452	.2452	.3278	.3277	.3276	.3273	.2592	.2587	.2586	.2583



Спектри на реагиране за учестови земетресения на ХОТ

Фиг.Д.44 Спектри на реагиране. Въздействие - локални земетр. Възс 924

ТАБЛИЦА Д-38
ЕТАЖНИ СПЕКТРИ НА РЕАГИРАНЕ - ЛОКАЛНИ ЗЕМЕТРЕСЕНИЯ
ВЪЗС 924

Hz	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
.20	.0167	.0155	.0149	.0142	.0186	.0174	.0167	.0158	.0188	.0174	.0166	.0156
.40	.0175	.0175	.0175	.0175	.0186	.0174	.0173	.0169	.0206	.0190	.0183	.0177
.60	.0381	.0338	.0334	.0294	.0219	.0210	.0208	.0208	.0250	.0223	.0212	.0200
.80	.0662	.0401	.0334	.0294	.0926	.0432	.0398	.0367	.0420	.0331	.0292	.0220
1.00	.0662	.0506	.0447	.0409	.1146	.0986	.0924	.0762	.0582	.0331	.0292	.0288
1.20	.0866	.0815	.0797	.0774	.1146	.0986	.0924	.0762	.0874	.0680	.0588	.0481
1.40	.2818	.1218	.1162	.1117	.1146	.0986	.0924	.0891	.0874	.0680	.0588	.0481
1.60	.2818	.1435	.1388	.1324	.1981	.1581	.1381	.1228	.0874	.0680	.0588	.0551
1.80	.6276	.2051	.1965	.1948	.5218	.2034	.1791	.1567	.1170	.1032	.0946	.0862
2.00	.6885	.2643	.2496	.2354	.5218	.2994	.2755	.2493	.2872	.2179	.2179	.1962
2.20	.6885	.3394	.3000	.2783	1.1420	.7519	.4713	.4713	.2872	.2179	.2179	.1962
2.40	.7433	.4028	.3704	.3344	1.5480	.7519	.4713	.4713	.5440	.2249	.2179	.1962
2.60	.7433	.6137	.5666	.5066	2.0110	1.0590	.8298	.6368	.5440	.3348	.3348	.2732
2.80	1.0440	.6290	.5666	.5066	2.0110	1.0590	.8298	.6368	.6619	.3348	.3348	.2732
3.00	1.0440	.6290	.5666	.5066	2.0110	1.0590	.8298	.6368	.6802	.4395	.3529	.2743
3.20	1.0440	.6290	.5666	.5066	2.0110	1.0590	.8298	.6368	.6802	.4395	.3529	.2743
3.40	1.0440	.6290	.5666	.5066	2.0110	1.0590	.8298	.6368	.6802	.4395	.3529	.2743
3.60	1.0440	.6290	.5666	.5066	2.0110	1.0590	.8298	.6368	.6802	.4395	.3529	.2743
3.80	1.0440	.6290	.5666	.5066	2.0110	1.0590	.8298	.6368	.6802	.4395	.3529	.2743
4.00	1.0440	.6290	.5361	.5006	2.0110	1.0590	.8298	.6368	.9112	.6622	.5904	.5124
4.20	1.0440	.6290	.5361	.5006	1.3190	.8298	.8298	.6368	.9112	.6622	.5904	.5124
4.40	1.0440	.6290	.5361	.4328	1.3190	.7004	.7004	.5849	.9112	.6622	.5904	.5124
4.60	.7358	.5836	.5361	.4219	.9413	.6557	.4712	.4206	1.1450	.7379	.6233	.5325
4.80	.7358	.5836	.5361	.3977	.9413	.6557	.4494	.3932	1.1450	.7379	.6233	.5325
5.00	.7358	.5836	.4011	.3702	.9413	.6557	.4186	.3788	1.1450	.7379	.6233	.5325
5.20	.7358	.3859	.3692	.3477	.8219	.5533	.3764	.3497	1.1450	.7379	.6233	.5325
5.40	.3662	.3441	.3337	.3218	.8219	.5533	.3373	.3260	1.2550	.8142	.6731	.5331
5.60	.3158	.3083	.3024	.2972	.8219	.5533	.3173	.3066	1.2550	.8142	.6731	.5331
5.80	.2776	.2776	.2769	.2766	.4548	.3286	.3110	.2950	1.2550	.8142	.6731	.5331
6.00	.2618	.2611	.2611	.2611	.4548	.3286	.2894	.2809	1.2550	.8142	.6731	.5331
6.20	.2506	.2505	.2505	.2505	.4548	.3286	.2894	.2809	1.2550	.8142	.6731	.5331
6.40	.2506	.2442	.2442	.2442	.4548	.3286	.2894	.2809	1.2550	.8142	.6731	.5331

ТАБЛИЦА Д-38 - Продолжение

Hz	L				T				V			
	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
6.60	.2506	.2426	.2409	.2409	.4548	.3286	.2884	.2809	1.2550	.8142	.6731	.5331
6.80	.2506	.2426	.2398	.2393	.4548	.3286	.2884	.2809	1.2550	.8142	.6731	.5331
7.00	.2506	.2426	.2398	.2384	.4548	.3286	.2884	.2809	1.2550	.8142	.6731	.5331
7.20	.2506	.2426	.2398	.2372	.4548	.3268	.2884	.2809	1.2550	.8142	.6731	.5331
7.40	.2506	.2426	.2398	.2353	.3377	.3268	.2884	.2809	1.2550	.8142	.6731	.5331
7.60	.2506	.2426	.2398	.2328	.3377	.2968	.2884	.2809	1.2550	.8142	.6731	.5331
7.80	.2506	.2426	.2398	.2299	.3377	.2968	.2884	.2809	1.2550	.8142	.6731	.5331
8.00	.2506	.2426	.2398	.2269	.3377	.2823	.2715	.2611	1.2550	.8142	.6731	.5331
8.20	.2506	.2426	.2398	.2242	.3377	.2823	.2715	.2568	1.2550	.8142	.6731	.5331
8.40	.2506	.2426	.2398	.2218	.3377	.2823	.2715	.2514	1.2550	.8142	.6731	.5331
8.60	.2506	.2426	.2398	.2199	.3377	.2823	.2715	.2465	1.2550	.8142	.6731	.5331
8.80	.2506	.2426	.2398	.2182	.3377	.2823	.2715	.2394	1.1160	.5906	.5104	.4427
9.00	.2506	.2230	.2183	.2163	.3377	.2823	.2715	.2314	1.1160	.5906	.5104	.4427
9.20	.2426	.2230	.2171	.2141	.3377	.2823	.2715	.2242	.9064	.5906	.5104	.4427
9.40	.2426	.2230	.2171	.2118	.3377	.2823	.2715	.2187	.9064	.5906	.5104	.4427
9.60	.2426	.2230	.2171	.2118	.3377	.2823	.2715	.2150	.9064	.5906	.5104	.4427
9.80	.2426	.2230	.2171	.2118	.3377	.2823	.2122	.2122	.9064	.5906	.5104	.4427
10.00	.2426	.2230	.2171	.2118	.3231	.2745	.2120	.2095	.9064	.5906	.5104	.4427
10.20	.2426	.2230	.2171	.2118	.3231	.2745	.2120	.2090	.9064	.5906	.5104	.4427
10.40	.2426	.2230	.2171	.2118	.3231	.2745	.2120	.2090	.9064	.5906	.5104	.4427
10.60	.2426	.2230	.2171	.2118	.3231	.2163	.2120	.2090	.9064	.5906	.5104	.4427
10.80	.2426	.2230	.2171	.2118	.2370	.2163	.2120	.2090	.9064	.5906	.5104	.4427
11.00	.2426	.2230	.2171	.2118	.2370	.2163	.2120	.2090	.8939	.5906	.5104	.4427
11.20	.2426	.2230	.2171	.2118	.2370	.2163	.2120	.2090	.8342	.5906	.5104	.4427
11.40	.2426	.2230	.2171	.2118	.2370	.2163	.2120	.2090	.8342	.5906	.5104	.4427
11.60	.2426	.2230	.2171	.2118	.2370	.2163	.2120	.2085	.8342	.5906	.5104	.4427
11.80	.2426	.2230	.2171	.2118	.2370	.2163	.2120	.2076	.6098	.5816	.5104	.4427
12.00	.2426	.2230	.2171	.2118	.2370	.2163	.2120	.2066	.6098	.5816	.5104	.4427
12.20	.2426	.2230	.2171	.2118	.2369	.2163	.2120	.2055	.6098	.3587	.3298	.3100
12.40	.2426	.2230	.2171	.2118	.2369	.2163	.2120	.2042	.6098	.3587	.3298	.3100
12.60	.2426	.2230	.2171	.2118	.2345	.2163	.2120	.2027	.6098	.3587	.3298	.3100
12.80	.2426	.2230	.2171	.2118	.2345	.2163	.2120	.2019	.4746	.3587	.3298	.3100
13.00	.2426	.2230	.2171	.2118	.2345	.2163	.2120	.2019	.4746	.3587	.3298	.3100
13.20	.2426	.2230	.2171	.2118	.2345	.2163	.2120	.2019	.4746	.3587	.3298	.3100

ТАБЛИЦА Д-38 - Продолжение

Hz	L				T				V			
	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
13.40	.2426	.2230	.2171	.2118	.2345	.2163	.2120	.2019	.4746	.3587	.3298	.3100
13.60	.2426	.2230	.2171	.2118	.2345	.2163	.2120	.2019	.4746	.3587	.3298	.3100
13.80	.2426	.2230	.2171	.2118	.2345	.2163	.2120	.2019	.4746	.3587	.3298	.3100
14.00	.2426	.2230	.2171	.2118	.2345	.2163	.2120	.2019	.4746	.3587	.3298	.3100
14.20	.2426	.2230	.2171	.2118	.2226	.2118	.2043	.2019	.4746	.3587	.3298	.3100
14.40	.2426	.2230	.2171	.2118	.2226	.2077	.2043	.2019	.4746	.3587	.3298	.3100
14.60	.2426	.2230	.2171	.2118	.2226	.2072	.2043	.2019	.4746	.3587	.3298	.3100
14.80	.2426	.2230	.2171	.2118	.2226	.2055	.2043	.2017	.4746	.3587	.3298	.3100
15.00	.2426	.2230	.2171	.2118	.2226	.2043	.2043	.2013	.4746	.3587	.3298	.3100
15.20	.2426	.2230	.2171	.2118	.2226	.2043	.2043	.2011	.4746	.3587	.3267	.3100
15.40	.2183	.2171	.2171	.2118	.2226	.2043	.2043	.2007	.3267	.3267	.3267	.3100
15.60	.2183	.2171	.2171	.2118	.2226	.2043	.2043	.2004	.3267	.3267	.3267	.3100
15.80	.2183	.1964	.1964	.1964	.2226	.2043	.2043	.2000	.3267	.3267	.3267	.3100
16.00	.2103	.1955	.1955	.1955	.2226	.2043	.2043	.1995	.3243	.2857	.2857	.2768
16.20	.2183	.1947	.1947	.1947	.2226	.2043	.2043	.1991	.3243	.2881	.2857	.2778
16.40	.2183	.1942	.1942	.1942	.2226	.2043	.2043	.1987	.3243	.2857	.2857	.2769
16.60	.2183	.1938	.1938	.1938	.2226	.2043	.2043	.1983	.3243	.2857	.2857	.2758
16.80	.2183	.1935	.1935	.1935	.2226	.2043	.2043	.1979	.3243	.2857	.2857	.2747
17.00	.2183	.1932	.1932	.1932	.2226	.2043	.2043	.1976	.3243	.2857	.2857	.2735
17.20	.2103	.1930	.1930	.1930	.2226	.2043	.2043	.1973	.3243	.2857	.2857	.2723
17.40	.2183	.1928	.1928	.1928	.2226	.2043	.2043	.1970	.3243	.2057	.2857	.2711
17.60	.2183	.1927	.1927	.1927	.2226	.2043	.2043	.1967	.3243	.2857	.2857	.2698
17.80	.2103	.1926	.1926	.1926	.2226	.2043	.2043	.1965	.3243	.2857	.2857	.2684
18.00	.1928	.1924	.1924	.1924	.2082	.1964	.1964	.1962	.3243	.2857	.2857	.2671
18.20	.1928	.1923	.1923	.1923	.2082	.1962	.1961	.1960	.3243	.2857	.2857	.2658
18.40	.1928	.1922	.1922	.1922	.2082	.1959	.1959	.1958	.3243	.2857	.2857	.2644
18.60	.1928	.1921	.1921	.1921	.2082	.1958	.1957	.1956	.3243	.2857	.2857	.2631
18.80	.1928	.1920	.1920	.1920	.2082	.1956	.1955	.1954	.3243	.2857	.2857	.2617
19.00	.1928	.1919	.1919	.1919	.2082	.1955	.1954	.1952	.3243	.2857	.2857	.2604
19.20	.1928	.1918	.1918	.1918	.2082	.1954	.1952	.1950	.3243	.2857	.2857	.2591
19.40	.1928	.1917	.1917	.1917	.1986	.1952	.1950	.1948	.2865	.2613	.2597	.2578
19.60	.1928	.1916	.1916	.1916	.1906	.1950	.1948	.1946	.2865	.2601	.2581	.2565
19.80	.1928	.1915	.1915	.1915	.1986	.1947	.1946	.1944	.2865	.2586	.2569	.2554
20.00	.1928	.1914	.1914	.1914	.1986	.1945	.1944	.1943	.2065	.2577	.2568	.2554

ТАБЛИЦА Д-38 - Продолжение

Hz	L				T				V			
	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
20.20	.1928	.1914	.1913	.1913	.1986	.1941	.1941	.1940	.2865	.2577	.2568	.2554
20.40	.1928	.1912	.1912	.1912	.1986	.1939	.1939	.1938	.2865	.2577	.2568	.2554
20.60	.1928	.1911	.1911	.1911	.1986	.1937	.1937	.1936	.2865	.2577	.2568	.2554
20.80	.1928	.1910	.1910	.1910	.1986	.1936	.1936	.1935	.2865	.2577	.2568	.2554
21.00	.1928	.1909	.1909	.1909	.1986	.1935	.1934	.1933	.2865	.2577	.2568	.2554
21.20	.1928	.1908	.1908	.1908	.1986	.1934	.1933	.1932	.2865	.2577	.2568	.2554
21.40	.1928	.1908	.1907	.1907	.1986	.1932	.1931	.1930	.2865	.2577	.2568	.2554
21.60	.1928	.1908	.1907	.1907	.1960	.1930	.1930	.1929	.2635	.2577	.2568	.2554
21.80	.1928	.1908	.1906	.1906	.1960	.1929	.1928	.1927	.2635	.2577	.2568	.2554
22.00	.1928	.1908	.1906	.1906	.1960	.1927	.1927	.1926	.2635	.2577	.2568	.2554
22.20	.1928	.1908	.1905	.1905	.1960	.1926	.1925	.1925	.2635	.2577	.2568	.2554
22.40	.1928	.1908	.1905	.1905	.1960	.1925	.1924	.1923	.2635	.2577	.2568	.2554
22.60	.1928	.1908	.1905	.1904	.1960	.1924	.1923	.1922	.2635	.2577	.2568	.2554
22.80	.1928	.1908	.1905	.1904	.1960	.1923	.1922	.1921	.2635	.2577	.2568	.2554
23.00	.1927	.1907	.1904	.1903	.1960	.1922	.1921	.1920	.2635	.2577	.2568	.2554
23.20	.1922	.1905	.1903	.1902	.1960	.1921	.1920	.1919	.2635	.2577	.2568	.2554
23.40	.1922	.1904	.1902	.1902	.1960	.1919	.1918	.1918	.2635	.2577	.2568	.2554
23.60	.1922	.1904	.1901	.1901	.1960	.1917	.1917	.1917	.2635	.2577	.2568	.2554
23.80	.1922	.1904	.1901	.1900	.1960	.1916	.1916	.1916	.2635	.2577	.2568	.2554
24.00	.1922	.1904	.1901	.1900	.1934	.1915	.1915	.1915	.2629	.2577	.2568	.2554
24.20	.1922	.1904	.1901	.1900	.1934	.1914	.1914	.1914	.2603	.2577	.2568	.2554
24.40	.1922	.1904	.1901	.1899	.1934	.1913	.1913	.1913	.2577	.2577	.2568	.2554
24.60	.1922	.1904	.1901	.1899	.1934	.1913	.1912	.1912	.2577	.2577	.2568	.2554
24.80	.1922	.1904	.1901	.1899	.1934	.1913	.1912	.1912	.2577	.2577	.2568	.2554
25.00	.1922	.1904	.1901	.1899	.1934	.1913	.1912	.1912	.2577	.2577	.2568	.2554
25.20	.1922	.1904	.1901	.1899	.1934	.1913	.1912	.1912	.2568	.2499	.2480	.2455
25.40	.1922	.1904	.1901	.1899	.1934	.1913	.1912	.1912	.2568	.2499	.2480	.2455
25.60	.1922	.1904	.1901	.1899	.1934	.1913	.1912	.1912	.2568	.2499	.2480	.2455
25.80	.1922	.1904	.1901	.1899	.1934	.1913	.1912	.1911	.2568	.2499	.2480	.2455
26.00	.1922	.1904	.1900	.1899	.1934	.1913	.1912	.1911	.2568	.2499	.2480	.2455
26.20	.1922	.1903	.1900	.1898	.1934	.1913	.1911	.1910	.2568	.2499	.2480	.2455
26.40	.1922	.1903	.1900	.1898	.1934	.1913	.1911	.1909	.2568	.2499	.2480	.2455
26.60	.1917	.1902	.1899	.1897	.1934	.1913	.1911	.1909	.2568	.2499	.2480	.2455
26.80	.1912	.1901	.1899	.1897	.1934	.1913	.1911	.1909	.2568	.2499	.2480	.2455

ТАБЛИЦА Д-38 - Продолжение

Hz	L				T				V			
	2%	5%	7%	10%	2%	5%	7%	10%	2%	5%	7%	10%
27.00	.1905	.1899	.1896	.1897	.1934	.1912	.1910	.1908	.2568	.2499	.2480	.2455
27.20	.1904	.1899	.1897	.1896	.1934	.1912	.1910	.1908	.2568	.2499	.2480	.2455
27.40	.1904	.1899	.1897	.1896	.1934	.1911	.1909	.1907	.2568	.2499	.2480	.2455
27.60	.1904	.1899	.1896	.1895	.1934	.1910	.1909	.1907	.2568	.2499	.2480	.2455
27.80	.1904	.1899	.1896	.1895	.1934	.1910	.1908	.1906	.2568	.2499	.2480	.2455
28.00	.1904	.1899	.1896	.1895	.1934	.1909	.1908	.1906	.2568	.2499	.2480	.2455
28.20	.1904	.1899	.1896	.1894	.1934	.1909	.1907	.1905	.2568	.2499	.2480	.2455
28.40	.1904	.1899	.1896	.1894	.1913	.1909	.1907	.1905	.2568	.2499	.2480	.2455
28.60	.1904	.1899	.1896	.1894	.1912	.1908	.1907	.1904	.2568	.2499	.2480	.2455
28.80	.1904	.1899	.1896	.1894	.1911	.1908	.1906	.1904	.2568	.2499	.2480	.2455
29.00	.1904	.1899	.1896	.1893	.1911	.1907	.1906	.1903	.2568	.2499	.2480	.2455
29.20	.1903	.1899	.1896	.1893	.1911	.1907	.1905	.1903	.2568	.2499	.2480	.2455
29.40	.1901	.1899	.1896	.1893	.1911	.1906	.1905	.1902	.2568	.2499	.2480	.2455
29.60	.1901	.1899	.1896	.1892	.1911	.1906	.1904	.1902	.2568	.2499	.2480	.2455
29.80	.1901	.1899	.1896	.1892	.1911	.1906	.1904	.1901	.2568	.2499	.2480	.2455
30.00	.1901	.1899	.1896	.1892	.1911	.1905	.1904	.1901	.2568	.2499	.2480	.2455
30.20	.1901	.1899	.1896	.1892	.1911	.1905	.1904	.1901	.2568	.2499	.2480	.2455
30.40	.1901	.1899	.1896	.1892	.1911	.1905	.1904	.1901	.2568	.2499	.2480	.2455
30.60	.1901	.1899	.1896	.1892	.1911	.1905	.1904	.1900	.2568	.2499	.2480	.2455
30.80	.1901	.1899	.1896	.1892	.1911	.1904	.1904	.1900	.2568	.2499	.2480	.2455
31.00	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1900	.2568	.2499	.2480	.2455
31.20	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1900	.2568	.2415	.2397	.2378
31.40	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1899	.2568	.2415	.2397	.2377
31.60	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1899	.2568	.2415	.2397	.2376
31.80	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1899	.2568	.2415	.2397	.2375
32.00	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1898	.2568	.2415	.2397	.2374
32.20	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1898	.2510	.2415	.2396	.2373
32.40	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1898	.2468	.2414	.2395	.2371
32.60	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1898	.2454	.2414	.2394	.2370
32.80	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1897	.2451	.2412	.2392	.2368
33.00	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1897	.2447	.2411	.2391	.2366
33.20	.1901	.1899	.1896	.1891	.1911	.1904	.1904	.1897	.2442	.2409	.2389	.2364