



Ephemeriden für Sternfreunde  
von Karl-Heinz Bücke

www.buecke-info.de

Venus 2024

Datum	$\alpha$	$\delta$	b	$\Delta$ (AE)	E	mv	$\varphi$	$\emptyset$	k	q (")	$\Delta\alpha$ (h:m)	$\Delta\delta$ (°)	l	r
1.01.	16:03	-18.8	1.9	1.182	37 W	-4.1	56.1	14.11	0.779	3.12	-2:40	4.3	186.5	0.720
4.01.	16:18	-19.5	1.9	1.201	37 W	-4.1	54.9	13.89	0.787	2.95	-2:38	3.3	191.3	0.721
7.01.	16:34	-20.2	1.8	1.219	36 W	-4.0	53.8	13.68	0.796	2.80	-2:36	2.3	196.1	0.721
10.01.	16:49	-20.8	1.6	1.237	36 W	-4.0	52.6	13.48	0.804	2.65	-2:33	1.3	201.0	0.722
13.01.	17:05	-21.3	1.5	1.255	35 W	-4.0	51.4	13.29	0.812	2.50	-2:31	0.3	205.8	0.722
16.01.	17:21	-21.7	1.4	1.273	34 W	-4.0	50.3	13.10	0.819	2.37	-2:28	-0.7	210.6	0.722
19.01.	17:36	-22.1	1.3	1.290	34 W	-4.0	49.2	12.93	0.827	2.24	-2:25	-1.6	215.4	0.723
22.01.	17:52	-22.3	1.1	1.307	33 W	-4.0	48.1	12.76	0.834	2.12	-2:22	-2.5	220.3	0.723
25.01.	18:08	-22.4	1.0	1.324	32 W	-4.0	46.9	12.60	0.841	2.00	-2:19	-3.3	225.1	0.724
28.01.	18:24	-22.5	0.8	1.341	32 W	-4.0	45.8	12.44	0.848	1.89	-2:15	-4.1	229.9	0.724
31.01.	18:40	-22.4	0.7	1.357	31 W	-4.0	44.8	12.29	0.855	1.78	-2:11	-4.8	234.6	0.724
3.02.	18:56	-22.3	0.5	1.373	31 W	-4.0	43.7	12.15	0.862	1.68	-2:08	-5.5	239.4	0.725
6.02.	19:12	-22.0	0.4	1.389	30 W	-4.0	42.6	12.01	0.868	1.59	-2:04	-6.2	244.2	0.725
9.02.	19:28	-21.6	0.2	1.404	29 W	-4.0	41.5	11.88	0.874	1.49	-1:60	-6.7	249.0	0.726
12.02.	19:44	-21.2	0.1	1.419	29 W	-4.0	40.5	11.75	0.880	1.41	-1:56	-7.2	253.7	0.726
15.02.	20:00	-20.6	0.0	1.434	28 W	-3.9	39.4	11.63	0.886	1.32	-1:52	-7.7	258.5	0.726
18.02.	20:15	-20.0	-0.2	1.449	27 W	-3.9	38.4	11.51	0.892	1.24	-1:48	-8.1	263.3	0.727
21.02.	20:31	-19.2	-0.3	1.463	26 W	-3.9	37.3	11.40	0.898	1.17	-1:44	-8.4	268.0	0.727
24.02.	20:46	-18.4	-0.5	1.477	26 W	-3.9	36.3	11.29	0.903	1.10	-1:40	-8.7	272.8	0.727
27.02.	21:01	-17.5	-0.6	1.490	25 W	-3.9	35.3	11.19	0.908	1.03	-1:36	-8.9	277.5	0.727
1.03.	21:16	-16.6	-0.7	1.504	24 W	-3.9	34.2	11.09	0.913	0.96	-1:33	-9.1	282.3	0.728
4.03.	21:31	-15.5	-0.8	1.517	24 W	-3.9	33.2	11.00	0.918	0.90	-1:29	-9.2	287.0	0.728
7.03.	21:46	-14.4	-0.9	1.530	23 W	-3.9	32.2	10.91	0.923	0.84	-1:26	-9.3	291.8	0.728
10.03.	22:00	-13.3	-1.0	1.542	22 W	-3.9	31.2	10.82	0.928	0.78	-1:22	-9.3	296.5	0.728
13.03.	22:15	-12.0	-1.1	1.554	22 W	-3.9	30.1	10.73	0.932	0.72	-1:19	-9.2	301.2	0.728
16.03.	22:29	-10.8	-1.2	1.566	21 W	-3.9	29.1	10.65	0.937	0.67	-1:16	-9.1	306.0	0.728
19.03.	22:43	-9.5	-1.3	1.577	20 W	-3.9	28.1	10.58	0.941	0.62	-1:12	-9.0	310.7	0.728
22.03.	22:57	-8.1	-1.3	1.588	19 W	-3.9	27.0	10.50	0.945	0.57	-1:09	-8.8	315.5	0.728
25.03.	23:11	-6.7	-1.4	1.599	19 W	-3.9	26.0	10.43	0.949	0.53	-1:06	-8.6	320.2	0.728
28.03.	23:25	-5.3	-1.4	1.610	18 W	-3.9	25.0	10.36	0.953	0.48	-1:04	-8.4	325.0	0.728
31.03.	23:38	-3.9	-1.5	1.620	17 W	-3.9	24.0	10.30	0.957	0.44	-1:01	-8.1	329.7	0.728
3.04.	23:52	-2.4	-1.5	1.629	16 W	-3.9	22.9	10.24	0.961	0.40	-0:58	-7.8	334.5	0.728
6.04.	0:06	-1.0	-1.5	1.639	16 W	-3.9	21.9	10.18	0.964	0.37	-0:55	-7.5	339.2	0.728
9.04.	0:19	0.5	-1.5	1.648	15 W	-3.9	20.8	10.12	0.967	0.33	-0:53	-7.2	344.0	0.727
12.04.	0:33	2.0	-1.5	1.656	14 W	-3.9	19.8	10.07	0.971	0.30	-0:50	-6.8	348.7	0.727
15.04.	0:47	3.4	-1.5	1.664	13 W	-3.9	18.7	10.02	0.974	0.27	-0:48	-6.4	353.5	0.727
18.04.	1:00	4.9	-1.4	1.672	13 W	-3.9	17.7	9.98	0.976	0.24	-0:45	-6.0	358.3	0.727
21.04.	1:14	6.3	-1.4	1.679	12 W	-3.9	16.6	9.93	0.979	0.21	-0:43	-5.6	3.0	0.726
24.04.	1:28	7.8	-1.4	1.686	11 W	-3.9	15.5	9.89	0.982	0.18	-0:40	-5.2	7.8	0.726
27.04.	1:41	9.2	-1.3	1.693	10 W	-3.9	14.4	9.85	0.984	0.16	-0:38	-4.8	12.6	0.726
30.04.	1:55	10.5	-1.2	1.699	10 W	-3.9	13.4	9.82	0.986	0.13	-0:35	-4.3	17.4	0.725



Datum	$\alpha$	$\delta$	b	$\Delta$ (AE)	E	mv	$\varphi$	$\varnothing$	k	q (")	$\Delta\alpha$ (h:m)	$\Delta\delta$ (°)	l	r
3.05.	2:09	11.9	-1.2	1.705	9 W	-3.9	12.3	9.79	0.989	0.11	-0:32	-3.9	22.2	0.725
6.05.	2:24	13.1	-1.1	1.710	8 W	-3.9	11.2	9.76	0.991	0.09	-0:30	-3.5	27.0	0.725
9.05.	2:38	14.4	-1.0	1.715	7 W	-3.9	10.1	9.73	0.992	0.07	-0:27	-3.0	31.8	0.724
12.05.	2:52	15.6	-0.9	1.719	6 W	-3.9	9.0	9.70	0.994	0.06	-0:24	-2.6	36.6	0.724
15.05.	3:07	16.7	-0.8	1.723	6 W	-3.9	7.8	9.68	0.995	0.05	-0:22	-2.2	41.4	0.723
18.05.	3:22	17.8	-0.7	1.726	5 W	-3.9	6.7	9.66	0.997	0.03	-0:19	-1.8	46.2	0.723
21.05.	3:37	18.8	-0.6	1.729	4 W	-3.9	5.6	9.65	0.998	0.02	-0:16	-1.5	51.0	0.723
24.05.	3:52	19.7	-0.5	1.731	3 W	-3.9	4.5	9.64	0.998	0.01	-0:13	-1.1	55.8	0.722
27.05.	4:07	20.5	-0.4	1.733	2 W	-3.9	3.3	9.63	0.999	0.01	-0:10	-0.8	60.6	0.722
30.05.	4:23	21.3	-0.3	1.734	2 W	-3.9	2.2	9.62	1.000	0.00	-0:06	-0.5	65.4	0.721
2.06.	4:38	22.0	-0.2	1.735	1 W	-3.9	1.0	9.61	1.000	0.00	-0:03	-0.3	70.2	0.721
5.06.	4:54	22.5	0.0	1.735	0 O	-3.9	0.2	9.61	1.000	0.00	0:00	-0.0	75.1	0.721
8.06.	5:10	23.0	0.1	1.735	1 O	-3.9	1.3	9.61	1.000	0.00	0:04	0.2	79.9	0.720
11.06.	5:26	23.4	0.2	1.734	2 O	-3.9	2.5	9.62	1.000	0.00	0:07	0.3	84.8	0.720
14.06.	5:42	23.7	0.3	1.733	3 O	-3.9	3.6	9.63	0.999	0.01	0:11	0.4	89.6	0.720
17.06.	5:58	23.9	0.4	1.731	3 O	-3.9	4.8	9.64	0.998	0.02	0:15	0.5	94.5	0.719
20.06.	6:14	23.9	0.5	1.729	4 O	-3.9	6.0	9.65	0.997	0.03	0:18	0.5	99.3	0.719
23.06.	6:30	23.9	0.6	1.726	5 O	-3.9	7.2	9.67	0.996	0.04	0:22	0.5	104.2	0.719
26.06.	6:46	23.8	0.8	1.722	6 O	-3.9	8.3	9.68	0.995	0.05	0:26	0.4	109.0	0.719
29.06.	7:03	23.5	0.9	1.718	7 O	-3.9	9.5	9.71	0.993	0.07	0:29	0.3	113.9	0.719
2.07.	7:19	23.2	1.0	1.714	8 O	-3.9	10.7	9.73	0.991	0.08	0:33	0.1	118.8	0.719
5.07.	7:34	22.7	1.0	1.709	8 O	-3.9	11.9	9.76	0.989	0.11	0:36	-0.1	123.6	0.718
8.07.	7:50	22.1	1.1	1.703	9 O	-3.9	13.1	9.79	0.987	0.13	0:40	-0.3	128.5	0.718
11.07.	8:06	21.5	1.2	1.697	10 O	-3.9	14.3	9.83	0.985	0.15	0:43	-0.6	133.4	0.718
14.07.	8:21	20.8	1.3	1.691	11 O	-3.9	15.5	9.87	0.982	0.18	0:47	-0.9	138.3	0.718
17.07.	8:37	19.9	1.3	1.684	12 O	-3.9	16.7	9.91	0.979	0.21	0:50	-1.2	143.1	0.719
20.07.	8:52	19.0	1.4	1.676	13 O	-3.9	17.9	9.95	0.976	0.24	0:53	-1.6	148.0	0.719
23.07.	9:07	18.0	1.4	1.668	13 O	-3.9	19.0	10.00	0.973	0.27	0:56	-2.0	152.9	0.719
26.07.	9:22	16.9	1.5	1.659	14 O	-3.9	20.2	10.05	0.969	0.31	0:59	-2.4	157.8	0.719
29.07.	9:36	15.8	1.5	1.650	15 O	-3.9	21.4	10.11	0.966	0.35	1:02	-2.9	162.6	0.719
1.08.	9:51	14.6	1.5	1.641	16 O	-3.9	22.6	10.17	0.962	0.39	1:04	-3.3	167.5	0.719
4.08.	10:05	13.3	1.5	1.631	17 O	-3.9	23.8	10.23	0.958	0.43	1:07	-3.8	172.4	0.720
7.08.	10:19	12.0	1.5	1.620	17 O	-3.9	24.9	10.29	0.953	0.48	1:10	-4.3	177.2	0.720
10.08.	10:33	10.7	1.5	1.610	18 O	-3.9	26.1	10.36	0.949	0.53	1:12	-4.8	182.1	0.720
13.08.	10:47	9.3	1.4	1.598	19 O	-3.9	27.3	10.44	0.944	0.58	1:15	-5.3	186.9	0.720
16.08.	11:00	7.8	1.4	1.587	20 O	-3.9	28.4	10.51	0.940	0.63	1:17	-5.8	191.8	0.721
19.08.	11:14	6.3	1.4	1.575	21 O	-3.9	29.6	10.59	0.935	0.69	1:20	-6.3	196.6	0.721
22.08.	11:28	4.9	1.3	1.562	21 O	-3.9	30.7	10.68	0.930	0.75	1:22	-6.8	201.5	0.722
25.08.	11:41	3.3	1.2	1.549	22 O	-3.9	31.9	10.77	0.925	0.81	1:24	-7.3	206.3	0.722
28.08.	11:54	1.8	1.1	1.536	23 O	-3.9	33.0	10.86	0.919	0.88	1:27	-7.8	211.1	0.722
31.08.	12:08	0.3	1.1	1.522	24 O	-3.9	34.2	10.96	0.914	0.95	1:29	-8.3	215.9	0.723



Datum	$\alpha$	$\delta$	b	$\Delta$ (AE)	E	mv	$\varphi$	$\emptyset$	k	q (")	$\Delta\alpha$ (h:m)	$\Delta\delta$ (°)	l	r
3.09.	12:21	-1.3	1.0	1.508	24 O	-3.9	35.3	11.06	0.908	1.02	1:32	-8.7	220.7	0.723
6.09.	12:34	-2.8	0.9	1.494	25 O	-3.9	36.4	11.16	0.902	1.09	1:34	-9.2	225.5	0.724
9.09.	12:48	-4.4	0.7	1.479	26 O	-3.9	37.6	11.27	0.896	1.17	1:37	-9.6	230.3	0.724
12.09.	13:01	-5.9	0.6	1.464	27 O	-3.9	38.7	11.39	0.890	1.25	1:39	-10.0	235.1	0.724
15.09.	13:15	-7.4	0.5	1.449	27 O	-3.9	39.8	11.51	0.884	1.33	1:42	-10.3	239.9	0.725
18.09.	13:28	-8.9	0.4	1.434	28 O	-3.9	40.9	11.64	0.878	1.42	1:45	-10.7	244.7	0.725
21.09.	13:42	-10.4	0.2	1.418	29 O	-3.9	42.0	11.77	0.871	1.51	1:48	-10.9	249.5	0.726
24.09.	13:55	-11.8	0.1	1.402	30 O	-3.9	43.1	11.90	0.865	1.61	1:51	-11.2	254.2	0.726
27.09.	14:09	-13.2	-0.1	1.385	30 O	-3.9	44.2	12.04	0.858	1.71	1:54	-11.4	259.0	0.726
30.09.	14:23	-14.5	-0.2	1.368	31 O	-3.9	45.3	12.19	0.851	1.81	1:57	-11.6	263.8	0.727
3.10.	14:37	-15.8	-0.4	1.351	32 O	-3.9	46.5	12.34	0.844	1.92	2:00	-11.7	268.5	0.727
6.10.	14:52	-17.0	-0.5	1.334	32 O	-4.0	47.6	12.50	0.837	2.03	2:04	-11.8	273.3	0.727
9.10.	15:06	-18.2	-0.7	1.317	33 O	-4.0	48.7	12.67	0.830	2.15	2:07	-11.8	278.0	0.727
12.10.	15:21	-19.3	-0.8	1.299	34 O	-4.0	49.8	12.84	0.823	2.27	2:11	-11.8	282.7	0.728
15.10.	15:36	-20.4	-1.0	1.281	34 O	-4.0	50.9	13.02	0.815	2.40	2:14	-11.7	287.5	0.728
18.10.	15:51	-21.3	-1.1	1.263	35 O	-4.0	52.0	13.21	0.808	2.54	2:18	-11.6	292.2	0.728
21.10.	16:06	-22.2	-1.3	1.245	36 O	-4.0	53.1	13.40	0.800	2.68	2:22	-11.4	297.0	0.728
24.10.	16:21	-23.0	-1.4	1.226	36 O	-4.0	54.2	13.60	0.792	2.82	2:26	-11.1	301.7	0.728
27.10.	16:37	-23.6	-1.6	1.207	37 O	-4.0	55.3	13.82	0.784	2.98	2:30	-10.8	306.5	0.728
30.10.	16:52	-24.2	-1.7	1.188	38 O	-4.0	56.5	14.04	0.776	3.14	2:34	-10.4	311.2	0.728
2.11.	17:08	-24.7	-1.8	1.169	38 O	-4.0	57.6	14.27	0.768	3.31	2:38	-9.9	316.0	0.728
5.11.	17:24	-25.1	-1.9	1.150	39 O	-4.0	58.7	14.51	0.759	3.49	2:42	-9.4	320.7	0.728
8.11.	17:40	-25.4	-2.0	1.130	39 O	-4.1	59.9	14.76	0.751	3.68	2:46	-8.8	325.4	0.728
11.11.	17:55	-25.6	-2.1	1.110	40 O	-4.1	61.0	15.02	0.742	3.87	2:49	-8.1	330.2	0.728
14.11.	18:11	-25.6	-2.2	1.090	41 O	-4.1	62.2	15.30	0.733	4.08	2:53	-7.3	335.0	0.728
17.11.	18:27	-25.6	-2.3	1.070	41 O	-4.1	63.4	15.58	0.724	4.30	2:56	-6.5	339.7	0.728
20.11.	18:43	-25.4	-2.3	1.050	42 O	-4.1	64.6	15.89	0.714	4.54	2:60	-5.7	344.5	0.727
23.11.	18:58	-25.2	-2.4	1.030	42 O	-4.1	65.8	16.20	0.705	4.78	3:03	-4.8	349.2	0.727
26.11.	19:14	-24.8	-2.4	1.009	43 O	-4.1	67.0	16.53	0.695	5.04	3:06	-3.8	354.0	0.727
29.11.	19:29	-24.3	-2.4	0.988	43 O	-4.2	68.3	16.88	0.685	5.32	3:08	-2.8	358.8	0.727
2.12.	19:44	-23.7	-2.4	0.967	44 O	-4.2	69.5	17.25	0.675	5.61	3:10	-1.7	3.5	0.726
5.12.	19:59	-23.1	-2.4	0.946	44 O	-4.2	70.8	17.63	0.664	5.92	3:12	-0.7	8.3	0.726
8.12.	20:14	-22.3	-2.4	0.925	45 O	-4.2	72.1	18.03	0.653	6.25	3:14	0.4	13.1	0.726
11.12.	20:28	-21.5	-2.3	0.904	45 O	-4.2	73.5	18.46	0.642	6.60	3:15	1.6	17.9	0.725
14.12.	20:43	-20.5	-2.3	0.882	45 O	-4.2	74.8	18.91	0.631	6.98	3:16	2.7	22.7	0.725
17.12.	20:56	-19.5	-2.2	0.860	46 O	-4.3	76.2	19.39	0.619	7.39	3:16	3.8	27.4	0.725
20.12.	21:10	-18.4	-2.1	0.839	46 O	-4.3	77.6	19.89	0.607	7.82	3:17	5.0	32.2	0.724
23.12.	21:23	-17.3	-1.9	0.817	46 O	-4.3	79.1	20.42	0.595	8.28	3:17	6.1	37.0	0.724
26.12.	21:36	-16.1	-1.8	0.795	47 O	-4.3	80.6	20.98	0.582	8.78	3:16	7.2	41.8	0.723
29.12.	21:49	-14.9	-1.6	0.773	47 O	-4.3	82.1	21.58	0.568	9.31	3:16	8.3	46.6	0.723

Die Ephemeriden gelten für 0 Uhr Weltzeit.

Geozentrische Koordinaten:

$\alpha$  und  $\delta$ : Rektaszension und Deklination zum Äquinoktium des Datums. b: ekliptikale Breite;  $\Delta$ : Abstand von der Erde.  
E: Elongation (Winkel zwischen Planet und Sonnenmitte); mv: visuelle Helligkeit;  $\varphi$ : Phasenwinkel

Physische Ephemeriden (für Beobachtungen am Teleskop):

$\emptyset$ : scheinbarer Durchmesser;  
k: beleuchteter Teil; q: Phasendefekt (Beleuchtungsdefekt)

Koordinaten für Tagesbeobachtungen:

$\Delta\alpha$  und  $\Delta\delta$ : Rektaszensions- und Deklinationsdifferenzen (Venus minus Sonne)

Heliozentrische Koordinaten:

l: Länge zum Äquinoktium des Datums; r: Abstand von der Sonne.

14.09.2015