



MSV Series

Extended Discharge Tables

2V VRLA-AGM

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MSV-200

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	285	196	130	76.5	65.4	57.5	38.5	33.5	26.5	22.5	11.3	9.38
1.65V	267	190	126	74.7	63.3	55.4	37.4	32.4	26.1	22.1	11.1	9.23
1.67V	260	187	124	74.0	62.5	54.5	37.0	32.0	26.0	22.0	11.0	9.17
1.70V	241	182	122	72.5	61.6	54.0	36.5	31.5	25.5	21.5	10.8	8.96
1.75V	210	168	112	68.5	57.9	50.5	34.5	30.0	24.5	20.5	10.3	8.54
1.80V	183	147	106	66.0	55.7	48.5	33.5	29.5	24.0	20.0	10.0	8.33
1.83V	159	130	97.5	62.0	52.9	46.5	32.0	28.0	22.8	19.5	9.75	8.13

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	466	344	231	139	118	104	70.5	62.0	50.0	42.0	21.0	17.5
1.65V	438	334	230	138	118	103	70.1	61.6	49.6	41.6	20.8	17.4
1.67V	427	330	230	138	117	103	70.0	61.5	49.5	41.5	20.8	17.3
1.70V	407	319	223	135	115	101	69.5	60.5	48.5	41.0	20.5	17.1
1.75V	368	298	208	129	110	96.5	66.5	58.0	47.5	40.0	20.0	16.7
1.80V	336	267	196	124	106	92.5	64.5	56.5	46.0	39.5	19.8	16.5
1.83V	286	231	181	116	100	88.5	61.5	54.0	44.0	38.0	19.0	15.8

MSV-300

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	427	294	194	115	98.2	86.3	57.8	50.3	39.8	33.8	16.9	14.1
1.65V	400	284	188	112	95.1	83.1	56.2	48.7	39.2	33.2	16.6	13.8
1.67V	389	280	185	111	93.8	81.8	55.5	48.0	39.0	33.0	16.5	13.8
1.70V	362	273	182	109	92.6	81.0	54.8	47.3	38.3	32.3	16.2	13.5
1.75V	316	252	168	103	87.0	75.8	51.8	45.0	36.8	30.8	15.4	12.8
1.80V	274	220	158	99.0	83.6	72.8	50.3	44.3	36.0	30.0	15.0	12.5
1.83V	238	195	146	93.0	79.4	69.8	48.0	42.0	34.2	29.3	14.7	12.2

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	700	517	346	208	178	156	106	93.0	75.0	63.0	31.5	26.3
1.65V	657	501	345	207	176	155	105	92.5	74.5	62.5	31.3	26.0
1.67V	640	494	345	206	176	154	105	92.3	74.3	62.3	31.2	26.0
1.70V	610	479	334	202	172	151	104	90.8	72.8	61.5	30.8	25.6
1.75V	552	447	312	193	165	145	100	87.0	71.3	60.0	30.0	25.0
1.80V	504	400	294	185	158	139	96.8	84.8	69.0	59.3	29.7	24.7
1.83V	429	347	271	174	150	133	92.3	81.0	66.0	57.0	28.5	23.8



MSV Series

Extended Discharge Tables

2V VRLA-AGM

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MSV-400

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	586	425	259	158	133	116	77.3	66.2	52.0	43.0	21.5	18.0
1.65V	555	407	254	157	133	116	76.9	66.0	51.8	42.9	21.5	17.9
1.67V	543	399	253	156	132	115	76.7	65.8	51.7	42.9	21.4	17.9
1.70V	517	385	248	155	131	114	76.4	65.5	51.5	42.7	21.3	17.8
1.75V	476	354	237	152	129	113	75.4	64.8	51.0	42.3	21.2	17.6
1.80V	428	313	222	146	124	109	73.5	63.3	50.0	41.6	20.8	17.3
1.83V	381	284	211	140	120	106	71.5	61.7	48.9	40.8	20.4	17.0

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	884	733	474	292	245	212	142	124	99.2	83.5	41.8	34.8
1.65V	875	710	468	290	243	211	141	123	98.7	83.3	41.6	34.7
1.67V	871	701	465	289	242	210	141	123	98.5	83.1	41.6	34.6
1.70V	862	679	458	287	241	209	141	122	98.3	83.0	41.5	34.6
1.75V	842	631	442	282	238	207	140	121	97.8	82.5	41.3	34.4
1.80V	755	566	420	273	232	203	139	120	96.8	81.5	40.8	34.0
1.83V	674	520	402	262	224	197	136	119	95.1	80.2	40.1	33.4

MSV-500

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	732	512	329	194	164	143	96.7	82.8	64.9	52.7	26.4	22.0
1.65V	683	499	327	192	162	141	96.6	82.7	64.7	52.3	26.2	21.8
1.67V	664	494	326	191	161	140	96.5	82.6	64.6	52.2	26.1	21.8
1.70V	639	478	321	189	160	139	95.8	82.1	64.3	51.8	25.9	21.6
1.75V	577	460	310	186	157	136	94.5	81.2	63.9	51.2	25.6	21.3
1.80V	512	427	295	177	151	132	91.7	79.1	62.6	50.0	25.0	20.8
1.83V	442	382	268	163	141	125	88.4	75.9	59.6	47.2	23.6	19.7

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	1223	894	588	367	312	274	180	156	125	102	51.0	42.5
1.65V	1170	877	583	365	311	273	179	155	124	101	50.6	42.2
1.67V	1149	870	581	364	310	272	178	154	124	101	50.5	42.1
1.70V	1118	850	575	361	308	270	177	154	123	100	50.0	41.7
1.75V	1038	810	561	352	302	267	176	153	122	99.2	49.6	41.3
1.80V	943	774	531	348	298	263	173	150	120	98.2	49.1	40.9
1.83V	834	699	496	327	281	248	170	147	117	95.9	48.0	40.0



MSV Series

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2V VRLA-AGM

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MSV-650

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	925	636	421	249	213	187	125	109	86.1	73.1	35.2	29.4
1.65V	867	615	407	243	206	180	121	105	85.0	72.0	35.1	29.3
1.67V	844	606	401	241	203	177	120	104	84.5	71.5	35.1	29.2
1.70V	784	591	395	236	201	176	119	102	82.9	69.9	35.0	29.1
1.75V	684	545	364	223	188	164	112	97.5	79.6	66.6	34.6	28.9
1.80V	594	477	343	215	181	158	109	95.9	78.0	65.0	34.0	28.4
1.83V	517	422	317	202	172	151	104	91.0	74.1	63.4	33.4	27.8

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	1516	1119	749	450	384	338	229	202	163	137	67.9	56.6
1.65V	1424	1085	748	448	381	334	228	201	162	136	67.6	56.4
1.67V	1387	1071	748	447	380	333	228	200	161	135	67.6	56.3
1.70V	1322	1037	723	437	373	327	226	197	158	133	67.4	56.2
1.75V	1197	968	676	418	357	314	216	189	154	130	67.0	55.9
1.80V	1091	866	637	401	342	301	210	184	150	128	66.3	55.2
1.83V	929	751	587	377	325	288	200	176	143	124	65.1	54.3

MSV-800

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	1138	783	518	306	262	230	154	134	106	90.0	45.0	37.5
1.65V	1067	757	501	299	253	221	150	130	105	88.6	44.3	36.9
1.67V	1038	746	494	296	250	218	148	128	104	88.0	44.0	36.7
1.70V	964	728	486	290	247	216	146	126	102	86.0	43.0	35.8
1.75V	842	671	448	274	232	202	138	120	98.0	82.0	41.0	34.2
1.80V	732	587	422	264	223	194	134	118	96.0	80.0	40.0	33.3
1.83V	636	519	390	248	212	186	128	112	91.2	78.0	39.0	32.5

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	1865	1378	922	554	473	416	282	248	200	168	84.0	70.0
1.65V	1752	1335	921	551	469	412	281	247	199	167	83.3	69.4
1.67V	1707	1318	920	550	468	410	280	246	198	166	83.0	69.2
1.70V	1627	1276	890	538	458	402	278	242	194	164	82.0	68.3
1.75V	1473	1191	832	514	439	386	266	232	190	160	80.0	66.7
1.80V	1343	1066	784	494	421	370	258	226	184	158	79.0	65.8
1.83V	1144	925	722	464	400	354	246	216	176	152	76.0	63.3



MSV Series

Extended Discharge Tables

2V VRLA-AGM

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MSV-1000

Constant Current Discharge Characteristics Unit: Amperes (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	1423	979	648	383	327	288	193	168	133	113	56.5	47.1
1.65V	1334	946	627	374	317	277	187	162	131	111	55.4	46.2
1.67V	1298	933	618	370	313	273	185	160	130	110	55.0	45.8
1.70V	1206	910	608	363	308	270	183	158	128	108	54.0	45.0
1.75V	1052	839	560	343	290	253	173	150	123	103	51.5	42.9
1.80V	915	734	528	330	279	243	168	148	120	100	50.0	41.7
1.83V	795	649	488	310	265	233	160	140	114	97.5	48.8	40.6

Constant Power Discharge Characteristics Unit: Watts (25°C, 77°F)

F.V/Time	15MIN	30MIN	60MIN	2HR	2.5HR	3HR	5HR	6HR	8HR	10HR	20HR	24HR
1.60V	2332	1722	1153	693	592	520	353	310	250	210	105	87.5
1.65V	2191	1669	1151	689	587	515	351	309	249	209	104	86.9
1.67V	2134	1648	1150	688	585	513	350	308	248	208	104	86.7
1.70V	2033	1595	1113	673	573	503	348	303	243	205	103	85.4
1.75V	1842	1489	1040	643	549	483	333	290	238	200	100	83.3
1.80V	1679	1333	980	618	527	463	323	283	230	198	99.0	82.5
1.83V	1430	1156	903	580	500	443	308	270	220	190	95.0	79.2