

Advanced Technology • 20-Year Design Life

Innovative Engineering Comes to VRLA Batteries



POWERCOM DIVISION

Technology Smart. Value Conscious.

C&D Technologies is an industry leader when it comes to cutting-edge, VRLA-battery technology that performs when you need it. We've taken our 90-plus years' engineering expertise and patented designs to create Orion®—the VRLA battery that makes legendary C&D performance and reliability more affordable than ever—now available in flame-retardant materials. When you choose Orion, you get more than a combination of state-of-the-art technology and value-conscious dependability. You get the reliability and peace of mind that only come from the strength of C&D Technologies' Powercom Division's sales, service, and support. No matter where you are in the world.



A The Maximizer™
Fitted to the top of the Orion, The Maximizer makes sure you get the most out of your VRLA battery. Exclusive to C&D and patent pending, The Maximizer vent assembly reduces corrosion of the positive grids, reduces float current, and reduces the potential for thermal runaway and dry-out. And most importantly, The Maximizer maintains negative plate performance.

B Fix-Flex™ Post Seal
This unique patent-pending design provides excellent reliability, yet has the flexibility needed for normal plate growth. The innovative design also provides a visual indication when the battery is nearing its end of life.

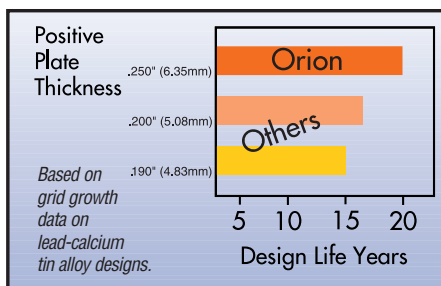


Full battery life



Nearing end of battery life

Extra-Thick Plates
The amount of lead and the thickness of the plates have a direct correlation to the life of the battery. To ensure you get the longest battery design life with the thickest plates in the industry, the Orion has positive plates that are 0.250" (6.35 mm) thick for a 20-year design life.



C 50% Fewer Connections to Maintain
Larger Orion batteries have fewer connections to torque, install, and maintain, as well as copper-to-copper interfaces for improved connection integrity—compare our four-post design to the typical industry four- or six-post design.

D Innovative Rack Design
Set up Orion quickly with our new rack-and-stack system. Uprights are pre-welded for easy assembly into a light-weight, yet sturdy system. Despite its low cost, the Orion features adjustable shelves and a Zone 4 Seismic Rating* in a 35", 50" or 72" tall rack. And, the system's width can be ideal for standard 23" (584.2 mm) rack space.
*UBC '94 Code, non-essential

E Top Termination
Secure connection for multiple cable termination.

Horizontal Plate Configuration
By placing the plates in a horizontal position, Orion provides increased cycling capability and a uniform, space-efficient footprint. It takes advantage of improved cell performance over conventional plate position without the need for mechanical compression plates.



Open Design for Better Heat Dissipation
The Orion provides optimized performance with convective cooling. Every cell is exposed to the surrounding environment. Consequently, heat buildup is greatly reduced versus a fully enclosed tray, maximizing battery life.

20-Year Design Life
Make your investment last with the VRLA battery designed and built for 20-year life in float applications. With the Orion, you get reliable post design, thicker plates for long life, Maximizer technology, and an easy-to-assemble, rack-and-stack system.

Large Ampere-Hour Range
Ten cell sizes make Orion suitable for a wide range of applications.

Cover and Jar
The Orion's durable cover and jar are impact resistant and flame retardant, LOI>28.

Discover the Affordable, State-of-the-Art Orion for Yourself.
For more details on how Orion can be the power solution for your applications, call a C&D Technologies' Powercom Division sales representative at 1-800-543-8630 today. Visit us on the Internet at www.cdpowercom.com or e-mail us at powercom@cdtechno.com.

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ORION
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Orion® Specifications

24 VOLT SYSTEMS

CELL TYPE	AMP-HOUR CAPACITY**	CELL WEIGHT lbs (kg)	CELL ARRANGEMENT # WIDE BY # HIGH	SYSTEM PART NUMBER*	RACK DIMENSIONS			SYSTEM WEIGHT lbs (kg)	FLOOR LOADING CONTACT PSI (MPa)
					WIDTH INCHES (mm)	DEPTH INCHES (mm)	HEIGHT INCHES (mm)		
OR90-9	344	52 (24)	3 X 4	120R90-9-35FR	23.8 (605.5)	20.9 (530.4)	34.4 (873.8)	835 (380)	4.15 (0.029)
			3 X 4	120R90-9-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	850 (386)	4.23 (0.029)
OR90-11	432	63 (29)	3 X 4	120R90-11-35FR	23.8 (605.5)	20.9 (530.4)	34.4 (873.8)	985 (447)	4.90 (0.034)
			3 X 4	120R90-11-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	1000 (454)	4.98 (0.034)
OR90-13	520	74 (34)	3 X 4	120R90-13-35FR	23.8 (605.5)	20.9 (530.4)	34.4 (873.8)	1150 (522)	5.72 (0.039)
			3 X 4	120R90-13-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	1150 (522)	5.72 (0.039)
OR90-15	608	85 (39)	3 X 4	120R90-15-35FR	23.8 (605.5)	20.9 (530.4)	34.4 (873.8)	1325 (601)	6.59 (0.045)
			3 X 4	120R90-15-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	1325 (601)	6.59 (0.045)
OR90-17	696	97 (44)	4 X 3	120R90-17-35FR	30.3 (769.6)	20.9 (530.4)	34.4 (873.8)	1460 (662)	6.32 (0.044)
			3 X 4	120R90-17-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	1575 (669)	7.34 (0.051)
OR90-19	784	107 (49)	4 X 3	120R90-19-35FR	30.3 (769.6)	20.9 (530.4)	34.4 (873.8)	1615 (733)	6.99 (0.048)
			3 X 4	120R90-19-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	1625 (737)	8.08 (0.056)
OR90-21	872	119 (54)	4 X 3	120R90-21-35FR	30.3 (769.6)	20.9 (530.4)	34.4 (873.8)	1775 (805)	7.69 (0.053)
			3 X 4	120R90-21-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	1775 (805)	8.83 (0.061)
OR90-23	960	131 (59)	3 X 4	120R90-23-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	1950 (885)	9.70 (0.067)
OR90-25	1048	143 (65)	3 X 4	120R90-25-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	2100 (935)	10.45 (0.072)
OR90-27	1136	155 (70)	3 X 4	120R90-27-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	2250 (1021)	11.19 (0.077)

*For the Non Flame-retardant plastic material option, delete the FR from the system part number.
 **8-hour rate to 1.75 Vpc at 77F (25C)

48 VOLT SYSTEMS

CELL TYPE	AMP-HOUR CAPACITY**	CELL WEIGHT lbs (kg)	CELL ARRANGEMENT # WIDE BY # HIGH	SYSTEM PART NUMBER*	RACK DIMENSIONS			SYSTEM WEIGHT lbs (kg)	FLOOR LOADING CONTACT PSI (MPa)
					WIDTH INCHES (mm)	DEPTH INCHES (mm)	HEIGHT INCHES (mm)		
OR90-9	344	52 (24)	3 X 8	240R90-9-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	1575 (715)	7.84 (0.054)
OR90-11	432	63 (29)	3 X 8	240R90-11-50FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	1900 (862)	9.46 (0.065)
OR90-13	520	74 (34)	4 X 6	240R90-13-50FR	30.3 (769.6)	20.9 (530.4)	50.4 (1279.7)	2200 (998)	9.53 (0.066)
			3 X 8	240R90-13-72FR	23.8 (605.5)	20.9 (530.4)	50.4 (1279.7)	2225 (1009)	11.07 (0.076)
OR90-15	608	85 (39)	4 X 6	240R90-15-50FR	30.3 (769.6)	20.9 (530.4)	50.4 (1279.7)	2525 (1145)	10.93 (0.075)
			3 X 8	240R90-15-72FR	23.8 (605.5)	20.9 (530.4)	72.4 (1839.0)	2550 (1157)	12.69 (0.087)
OR90-17	696	97 (44)	4 X 6	240R90-17-72FR	30.3 (769.6)	20.9 (530.4)	72.4 (1839.0)	2880 (1305)	12.47 (0.086)
			3 X 8	240R90-17-2AFR	23.8 (605.5)	20.9 (530.4)	72.4 (1839.0)	2850 (1293)	14.18 (0.098)
OR90-19	784	107 (49)	4 X 6	240R90-19-72FR	30.3 (769.6)	20.9 (530.4)	72.4 (1839.0)	3200 (1451)	13.86 (0.096)
			3 X 8	240R90-19-2AFR	23.8 (605.5)	20.9 (530.4)	72.4 (1839.0)	3175 (1440)	15.80 (0.109)
OR90-21	872	119 (54)	4 X 6	240R90-21-72FR	30.3 (769.6)	20.9 (530.4)	72.4 (1839.0)	3475 (1576)	15.05 (0.104)
OR90-23	960	131 (59)	4 X 6	240R90-23-72FR	30.3 (769.6)	20.9 (530.4)	72.4 (1839.0)	3800 (1723)	16.45 (0.113)
OR90-25	1048	143 (65)	4 X 6	240R90-25-72FR	30.3 (769.6)	20.9 (530.4)	72.4 (1839.0)	4100 (1859)	17.75 (0.122)
OR90-27	1136	155 (70)	4 X 6	240R90-27-72 FR	30.3 (769.6)	20.9 (530.4)	72.4 (1839.0)	4425 (2007)	19.16 (0.132)

*For the Non Flame-retardant plastic material option, delete the FR from the system part number.
 **8-hour rate to 1.75 Vpc at 77F (25C)

RATINGS IN AMPERES AT 77F (25C)

CELL TYPE	1.75 F.V.										1.80 F.V.										1.81 F.V.												
	24	12	10	8	7	6	5	4	3	2	1	24	12	10	8	7	6	5	4	3	2	1	24	12	10	8	7	6	5	4	3	2	1
OR90-9	17	31	36	43	48	54	63	74	92	122	171	17	31	36	43	47	53	61	71	88	116	161	16	31	36	42	47	53	60	71	87	114	156
OR90-11	21	39	46	54	60	68	78	93	115	152	213	21	39	45	53	59	67	76	88	110	144	201	21	38	45	53	59	66	76	89	109	142	196
OR90-13	25	47	55	65	73	82	94	111	138	182	257	25	46	54	64	71	80	91	106	132	173	241	25	46	54	64	70	79	91	107	131	172	235
OR90-15	30	55	64	76	85	96	110	130	162	213	299	29	54	63	75	83	93	107	124	154	202	281	29	54	63	74	82	93	106	125	153	200	274
OR90-17	34	63	73	87	97	109	126	149	185	243	342	34	62	72	86	95	107	122	142	176	231	321	33	62	72	85	94	106	121	143	175	228	313
OR90-19	38	71	82	98	109	123	142	167	208	273	385	38	70	81	97	107	120	137	159	198	260	361	38	69	81	96	106	119	136	161	197	257	352
OR90-21	43	79	92	109	121	137	157	186	231	304	428	42	78	90	107	119	134	153	177	220	289	402	42	77	90	106	118	133	152	179	219	285	391
OR90-23	47	87	101	120	134	151	173	205	254	334	470	46	85	99	118	130	147	168	195	242	319	442	46	85	99	117	130	146	167	197	241	314	430
OR90-25	51	95	110	131	146	164	189	223	277	365	513	51	93	108	129	142	160	183	213	264	347	482	50	93	108	128	141	159	182	215	263	343	469
OR90-27	56	103	119	142	158	178	205	242	300	395	556	55	101	117	140	154	174	199	231	286	376	523	55	100	117	138	153	173	197	233	285	371	508

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