

JOHNSON  
CONTROLS

# POWERSTACK

LONG LIFE AND  
HI-PERFORMANCE ANCE  
VRLA BATTERY

 Amara Raja



# POWERSTACK

## Amara Raja - Powered By Innovation

The future belongs to those who stake a claim for it here and now. This axiom has been our guiding principle at Amara Raja helping us to ceaselessly innovate and explore the new and never before.

**Amara Raja** has put its vision into practice by striding forward in the power management industry and consolidating its position as one of the leading players in the Asia - Pacific region. With **Johnson Controls Inc.**, a world leader as an equity alliance partner (26%), Amara Raja pioneered the next generation battery technology in India. This partnership facilitates sharing of knowledge and innovations to accelerate and expand development efforts in the global battery market. It also enables harnessing technology that acclimatizes batteries to operate in harsh tropical conditions. Working together with alliance partner Johnson Controls, Amara Raja set up India's finest battery plants, the first such facility for Johnson Controls in the last decade. This facility is backed by one of the finest Reserch and Development centers on site. A center that constantly and unceasingly thinks out of the box and develops products and services that match world - class standards and sets industry benchmarks.

**Amara Raja's** Battery Excellence Centre is another first for the region. Here, products are put through rigorous tests to ensure that they comply with international standards and design requirements. With the latest testing equipment, the center evaluates battery performance, design and longevity. Apart from this, there are facilities for application engineering, vehicle systems study, simulations and computer - aided design, inclding a full calibration laboratory.

**Amara Raja's** quality commitment has ensured that it conforms to international quality standards.

**Amara Raja** today has the distinction of being a prime player in the Johnson Controls led global alliance and is forging ahead into new markets - powered by innovation.

**Amara Raja's** Powerstack, a hi-performance battery is desingedv to meet the demands of a wide range of industrial applications. The Powerstack range, modular in structure, is capable of accommodating a wide spectrum of capacities depending on the application. Major application areas include Telecommunication, Power utilities, Railways, Defence and other heavy industries.



# POWERSTACK

## The Reliable Powerhouse

### Performance Edge

- **Self-discharge:** ≤ 3 % per month
- **Shelf life without re-charge:** Up to 5 months\*
- **Operating conditions:** -40°C to + 55°
- **Design Float Life:** 20 Years full float services
- **Design Cycle Life:** 4000 Cycles at 20% Depth Of Discharge  
: 2000 Cycles at 50% Depth Of Discharge  
: 1200 Cycles at 80% Depth Of Discharge

**Note:** All values are rated at 25°C Charging parameters at 25°C

**Method:** Constant Potential Current Limited Charging

Charge Provision	Charging Voltage	Maximum charging current (Amps)
Float charge	2.23 VPC	$0.2C_{10}$
Boost charge	2.30 VPC	$0.2C_{10}$

$C_{10}$  is the rated capacity at 10 hours

Amara Raja's commitment to excellence is borne by the prestigious certifications that it holds to its credit.

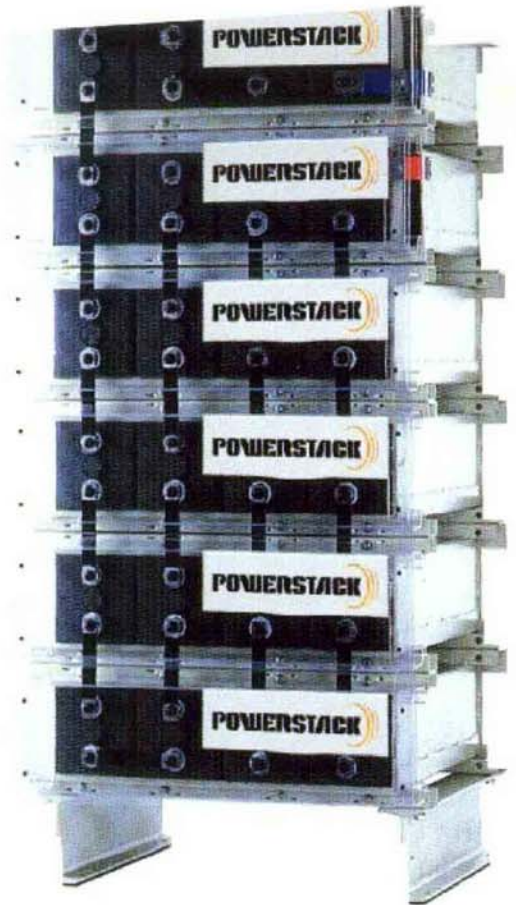
### Quality Edge

- **QS 9000/ISO - 9001 Certification** by RW TUV accredited across all functional areas and business ranging from manufacturing to service.
- **Certification by Underwriters' Laboratories** for product safety
- **ISO - 14001 Certification** signifying the environmental consciousness  
Implementation of KAIzean. Six Sigma programs  
signifying commitment toward **TQM** culture

Quality Systems certified to  
EN ISO 9001 : 1994  
and QS-9000 : 1998 by



UL recognition-  
International Safety Standards



## TECHNICAL SPECIFICATIONS

### Product:

- Container & Cover: Polypropylene Co-polymer (Flame - retardant optional)
- Separator: Spun glass micro-porous matrix or Absorbed Glass Mat (AGM)
- Positive Plate: Flat-pasted Type ( 5.3 MM Thickness )
- Positive Plate Alloy: Hybrid Alloy (MFX Alloy) with deep discharge and long life characteristics
- Negative Plate: Flat-pasted Type ( 3.9 MM Thickness )
- Negative Plate Alloy: Lead Calcium Alloy with Maintenance-Free characteristics
- Safety valve: Self resealing, Pressure regulated, Explosion-proof
- Terminals: Lead terminals with copper inserts
- Connectors: Heavy-duty lead plated copper connectors
- Trays: Acid resistant MS Trays, self-stackable type



## AMPERES to 1.85 ECV @25°C

Cell type	Nominal Ah Capacity to 1.75 @ C10 at 25°C	DISCHARGE CURRENT IN AMPS																			
		1h	2h	3h	4h	5h	6h	7h	8h	10h	12h	24h									
<b>50</b>																					
<b>5005</b>	100	50	31	23	19	15	13	12	10	9	8	4									
<b>5009</b>	200	100	62	47	38	31	27	24	21	18	16	8									
<b>60</b>																					
<b>6005</b>	120	60	37	28	23	19	16	14	13	10	9	5									
<b>6009</b>	240	120	75	56	46	38	32	29	26	21	19	10									
<b>6011</b>	300	150	94	71	57	47	41	36	32	27	24	13									
<b>6013</b>	360	180	112	85	69	57	49	43	39	32	28	15									
<b>80</b>																					
<b>8009</b>	345	172	108	81	66	54	47	42	37	31	27	15									
<b>8001</b>	430	215	134	101	82	68	58	52	47	38	34	18									
<b>8013</b>	515	257	161	122	99	81	70	62	56	46	41	22									
<b>8015</b>	600	300	192	142	115	95	82	73	65	54	48	26									
<b>8017</b>	690	345	188	163	132	109	94	84	75	62	55	30									
<b>8021</b>	860	430	216	203	165	136	117	104	94	77	68	37									
<b>8025</b>	1030	515	269	244	198	163	141	125	113	93	82	44									
<b>8033</b>	1375	687	322	325	264	218	188	167	151	124	110	59									
<b>8045</b>	1800	900	431	426	346	286	246	219	197	162	144	78									
<b>8051</b>	2070	1035	564	490	398	329	283	252	227	187	165	90									
<b>8063</b>	2580	1290	648	611	496	410	353	314	283	233	206	112									
<b>8075</b>	3090	1545	808	732	594	491	423	376	339	279	247	134									
<b>8099</b>	4125	2062	968	977	793	655	565	503	453	373	330	179									
<b>80126</b>	5160	2580	1293	1222	992	820	706	629	567	466	412	224									
<b>80132</b>	5500	2750	1724	1303	1057	874	753	670	604	497	440	239									
<b>90</b>																					
<b>9013</b>	570	285	178	135	109	90	78	69	62	51	45	24									
<b>9015</b>	665	332	208	157	127	105	91	81	73	60	53	28									
<b>9017</b>	760	380	238	180	146	120	104	92	83	68	60	33									
<b>9021</b>	950	475	297	225	182	151	130	115	104	85	76	41									
<b>9025</b>	1140	570	357	270	219	181	156	139	125	103	91	49									
<b>9033</b>	1520	760	476	360	292	241	208	185	167	137	121	66									
<b>9045</b>	1995	997	625	472	383	317	273	243	219	180	159	86									
<b>9051</b>	2280	1140	714	540	438	362	312	278	250	206	182	99									
<b>9063</b>	2850	1425	893	675	548	453	390	347	313	257	228	123									
<b>9075</b>	3420	1710	1072	810	657	543	468	417	375	309	273	148									
<b>9099</b>	4560	2280	1429	1080	876	724	624	556	501	412	364	198									
<b>90132</b>	6080	3040	1905	1440	1169	966	832	741	668	550	486	264									

## WATTS PER CELL DATA TO 1.78 ECV @ 25°C

Cell type	Nominal Ah Capacity to 1.75 @ C10 at 25°C	DISCHARGE POWER IN WATTS																			
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90		
<b>50</b>																					
<b>5005</b>	100	174	162	150	141	134	128	123	111	127	107	102	99	94	90	86	82	79	76		
<b>5009</b>	200	347	324	300	283	268	256	246	222	253	214	205	197	188	179	172	164	158	152		
<b>60</b>																					
<b>6005</b>	120	208	194	180	170	161	154	148	133	152	128	123	118	113	108	103	99	95	91		
<b>6009</b>	240	416	389	360	339	322	307	295	267	304	257	246	236	225	215	206	197	190	182		
<b>6011</b>	300	521	486	450	424	402	384	369	333	380	321	307	296	282	269	257	247	237	228		
<b>6013</b>	360	625	583	540	509	483	461	443	400	456	385	369	355	338	323	309	296	284	273		
<b>80</b>																					
<b>8009</b>	345	599	559	518	488	463	442	424	383	437	369	354	340	324	309	296	284	272	262		
<b>8001</b>	430	746	697	645	608	577	550	529	478	545	460	441	424	404	385	369	354	340	327		
<b>8013</b>	515	894	835	773	728	691	659	633	572	653	551	528	507	483	462	442	424	407	391		
<b>8015</b>	600	1041	972	900	848	805	768	738	667	760	642	615	591	563	538	515	493	474	456		
<b>8017</b>	690	1197	1118	1035	975	926	883	848	767	874	738	707	680	648	619	592	567	545	524		
<b>8021</b>	860	1492	1394	1290	1216	1154	1101	1057	956	1090	920	881	847	807	771	738	707	679	653		
<b>8025</b>	1030	1787	1669	1545	1456	1382	1318	1266	1144	1305	1101	1056	1015	967	923	884	847	813	782		
<b>8033</b>	1375	2386	2228	2063	1943	1845	1760	1690	1528	1742	1470	1409	1355	1291	1233	1179	1131	1086	1045		
<b>8045</b>	1800	3124	2917	2700	2544	2415	2303	2213	2000	2281	1925	1845	1773	1690	1614	1544	1480	1422	1367		
<b>8051</b>	2070	3592	3355	3105	2926	2777	2649	2545	2300	2623	2214	2122	2039	1943	1856	1776	1702	1635	1572		
<b>8063</b>	2580	4477	4181	3870	3647	3461	3302	3171	2867	3269	2759	2644	2542	2422	2313	2213	2122	2038	1960		
<b>8075</b>	3090	5362	5008	4635	4367	4146	3954	3798	3433	3915	3304	3167	3044	2900	2770	2651	2541	2440	2347		
<b>8099</b>	4125	7158	6685	6188	5830	5534	5279	5071	4583	5227	4411	4228	4064	3872	3698	3538	3392	3258	3134		
<b>80126</b>	5160	8954	8363	7740	7293	6923	6603	6343	5733	6538	5518	5289	5083	4844	4626	4426	4243	4075	3920		
<b>80132</b>	5500	9544	8914	8250	7774	7379	7038	6761	6111	6969	5882	5637	5418	5163	4930	4718	4523	4344	4178		
<b>90</b>																					
<b>9013</b>	570	989	924	855	806	765	729	701	633	722	610	584	562	535	511	489	469	450	433		
<b>9015</b>	665	1154	1078	998	940	892	851	817	739	843	711	682	655	624	596	570	547	525	505		
<b>9017</b>	760	1319	1232	1140	1074	1020	973	934	844	963	813	779	749	713	681	652	625	600	577		
<b>9021</b>	950	1649	1540	1425	1343	1275	1216	1168	1056	1204	1016	974	936	892	852	815	781	750	722		
<b>9025</b>	1140	1978	1848	1710	1611	1529	1459	1401	1267	1445	1219	1168	1123	1070	1022	978	938	900	866		
<b>9033</b>	1520	2638	2463	2280	2148	2039	1945	1868	1689	1926	1625	1558	1497	1427	1363	1304	1250	1200	1155		
<b>9045</b>	1995	3462	3233	2993	2820	2677	2553	2452	2217	2528	2133	2045	1965	1873	1788	1711	1641	1576	1515		
<b>9051</b>	2280	3956	3695	3420	3223	3059	2918	2803	2533	2889	2438	2337	2246	2140	2044	1956	1875	1810	1732		
<b>9063</b>	2850	4946	4619	4275	4028	3824	3647	3503	3167	3611	3048	2921	2808	2675	2555	2445	2344	2251	2165		
<b>9075</b>	3420	5935	5543	5130	4834	4588	4377	4204	3800	4334	3657	3505	3369	3210	3066	2934	2813	2701	2598		
<b>9099</b>	4560	7913	7390	6840	6445	6118	5836	5605	5067	5778	4876	4674	4492	4280	4088	3912	3750	3601	3464		
<b>90132</b>	6080	10551	9854	9120	8594	8157	7781	7474	6756	7704	6502	6232	5989</								

## AMPERES to 1.75 ECV @25°C

Cell type	Nominal Ah Capacity to 1.75 @ C10 at 25°C	MINUTES			DISCHARGE CURRENT IN AMPS										
		5	15	30	1h	2h	3h	4h	5h	6h	7h	8h	10h	12h	24h
<b>50</b>															
<b>5005</b>	100	101	84	71	54	33	25	20	17	15	13	12	10	8.6	4.7
<b>5009</b>	200	202	168	143	108	67	51	41	34	30	26	24	20	20	9.5
<b>60</b>															
<b>6005</b>	120	121	100	86	64	40	30	24	20	18	16	14	12	10	6
<b>6009</b>	240	242	201	172	129	81	61	49	41	36	32	28	24	20	11.4
<b>6011</b>	300	303	252	215	162	101	77	62	52	45	40	36	30	25	14.2
<b>6013</b>	360	363	302	258	194	122	92	74	62	54	48	43	36	31	17
<b>80</b>															
<b>8009</b>	345	348	289	248	186	116	88	71	60	51	46	41	34	29	16
<b>8001</b>	430	434	361	309	232	145	110	89	74	64	57	51	43	37	20
<b>8013</b>	515	520	432	370	278	174	132	106	89	77	68	62	51	44	24
<b>8015</b>	600	606	504	431	324	203	154	124	104	90	80	72	60	51	28
<b>8017</b>	690	696	579	496	372	233	177	142	120	103	92	83	69	59	32
<b>8021</b>	860	868	722	618	464	291	221	178	149	129	114	103	86	74	40
<b>8025</b>	1030	1040	865	741	556	349	265	213	179	154	137	124	103	88	49
<b>8033</b>	1375	1388	1155	989	743	466	354	284	239	206	183	165	137	118	65
<b>8045</b>	1800	1818	1512	1294	972	610	463	372	313	270	240	216	180	155	85
<b>8051</b>	2070	2090	1739	1489	1118	701	533	428	360	310	276	249	207	178	98
<b>8063</b>	2580	2606	2168	1856	1394	874	664	534	449	387	344	310	258	222	122
<b>8075</b>	3090	3121	2596	2223	1670	1047	796	639	538	463	413	372	309	266	147
<b>8099</b>	4125	4166	3466	2967	2229	1398	1063	854	718	619	551	496	412	355	196
<b>80126</b>	5160	5212	4336	3712	2789	1749	1329	1068	898	774	689	621	516	44	245
<b>80132</b>	5500	5555	4621	3956	2972	1864	1417	1138	958	825	735	662	550	474	261
<b>90</b>															
<b>9013</b>	570	575	478	410	308	193	146	118	99	85	76	68	57	49	27
<b>9015</b>	665	671	558	478	359	225	171	137	115	99	88	80	66	57	31
<b>9017</b>	760	767	638	546	410	257	195	157	132	114	101	91	76	65	36
<b>9021</b>	950	959	798	683	513	322	244	196	165	142	127	114	95	81	45
<b>9025</b>	1140	1151	957	820	616	386	293	236	198	171	152	137	114	98	54
<b>9033</b>	1520	1535	1277	1093	821	515	391	314	264	228	203	183	152	131	72
<b>9045</b>	1995	2015	1676	1435	1078	676	514	413	347	299	266	240	199	171	95
<b>9051</b>	2280	2303	1915	1640	1232	772	587	472	397	342	304	274	228	196	108
<b>9063</b>	2850	2878	2394	2050	1540	966	734	590	496	427	381	343	285	245	135
<b>9075</b>	3420	3454	2873	2460	1848	1159	881	708	595	513	457	412	342	294	162
<b>9099</b>	4560	4606	3831	3280	2464	1545	1175	944	794	684	609	549	456	393	217
<b>90132</b>	6080	6141	5109	4374	3286	2061	1567	1258	1059	912	812	732	608	524	289

## AMPERES to 1.80 ECV @25°C

Cell type	Nominal Ah Capacity to 1.75 @ C10 at 25°C	MINUTES			DISCHARGE CURRENT IN AMPS										
		5	15	30	1h	2h	3h	4h	5h	6h	7h	8h	10h	12h	24h
<b>50</b>															
<b>5005</b>	100	96	81	68	52	32	25	20	16	14	12	11	9.6	8	4.5
<b>5009</b>	200	192	163	136	105	65	50	40	33	29	25	23	19	17	9
<b>60</b>															
<b>6005</b>	120	115	98	82	63	39	30	24	20	17	15	13	11	10	5
<b>6009</b>	240	230	196	164	126	78	60	48	40	34	30	27	23	20	10
<b>6011</b>	300	288	245	205	157	98	75	60	50	43	38	34	28	25	13
<b>6013</b>	360	346	295	246	189	118	90	72	60	52	46	41	34	30	16
<b>80</b>															
<b>8009</b>	345	331	282	236	181	113	86	69	58	50	44	39	33	29	15
<b>8001</b>	430	413	352	294	226	141	107	86	72	62	55	49	41	36	19
<b>8013</b>	515	495	422	352	271	169	128	103	87	74	66	59	49	43	23
<b>8015</b>	600	576	491	410	315	197	150	120	101	87	77	69	57	50	27
<b>8017</b>	690	663	565	472	363	226	172	138	116	100	88	79	66	58	31
<b>8021</b>	860	826	704	589	452	282	215	173	145	124	110	99	83	72	39
<b>8025</b>	1030	990	844	705	542	338	257	207	174	149	132	119	99	87	46
<b>8033</b>	1375	1322	1127	941	723	452	343	276	232	199	177	159	132	116	62
<b>8045</b>	1800	1730	1475	1232	947	592	450	362	304	261	231	208	173	152	81
<b>8051</b>	2070	1990	1696	1417	1089	680	517	416	350	300	266	239	199	175	94
<b>8063</b>	2580	2480	2114	1767	1357	848	645	519	436	374	332	298	249	218	117
<b>8075</b>	3090	2971	2532	2116	1626	1016	772	621	522	448	398	358	298	261	140
<b>8099</b>	4125	3966	3381	2825	2171	1356	1031	829	697	598	531	477	398	349	187
<b>80126</b>	5160	4961	4229	3534	2715	1697	1290	1038	873	748	664	597	498	437	234
<b>80132</b>	5500	5288	4508	3767	2894	1809	1375	1106	930	798	708	637	530	466	250
<b>90</b>															
<b>9013</b>	570	548	467	390	300	187	142	114	96	82	73	66	55	48	25
<b>9015</b>	665	639	545	455	350	218	166	133	112	96	85	77	64	56	30
<b>9017</b>	760	730	622	520	400	250	190	152	128	110	97	88	73	64	34
<b>9021</b>	950	913	778	650	500	312	237	191	160	137	122	110	91	80	43
<b>9025</b>	1140	1096	934	780	600	375	285	229	192	165	146	132	110	96	51
<b>9033</b>	1520	1461	1245	1041	800	500	380	305	257	220	195	176	146	128	69
<b>9045</b>	1995	1918	1635	1366	1050	656	498	401	337	289	257	231	192	169	90
<b>9051</b>	2280	2192	1868	1561	1200	750	570	458	385	330	293	264	220	193	103
<b>9063</b>	2850	2740	2336	1952	1500	937	712	573	482	413	367	330	275	241	129
<b>9075</b>	3420	3288	2803	2342	1800	1125	855	688	578	496	440	396	330	289	155
<b>9099</b>	4560	4384	3737	3123	2400	1500	1140	917	771	661	587	528	440	386	207
<b>90132</b>	6080	5846	4983	4164	3200	2000	1520	1223	1028	882	783	704	586	515	276

# RANGE SPECIFICATIONS

Powerstack is available in varied ranges to meet their customers complex business needs. Powerstack is available in modular desing, with 2V as the basiccell, with capacities ranging from 100Ah to 6000Ah housed in self-stackable MS Trays, as shown in the data sheet.

## POWERSTACK RANGE

Cell type	Nominal Ah Capacity to 1.75 @ C10 at 25°C	Module Voltage	Stacking dimensions ±5 mm						Module weight ± 5		Packed unit weight ± 10	
			Length		Width		Height		KGS	LBS	KGS	LBS
			MM	IN	MM	IN	MM	IN				
5005	100	12	615	24.21	395	15.55	163	6.42	68	150	445	981
5009	200	12	615	24.21	395	15.55	240	9.45	107	236	465	1025
6005	120	12	615	24.21	458	18.03	163	6.42	80	176	515	1136
6009	240	12	615	24.21	458	18.03	240	9.45	127	280	545	1202
6011	300	12	615	24.21	458	18.03	278	10.94	150	331	630	1389
6013	360	12	615	24.21	458	18.03	315	12.40	175	386	735	1621
8009	345	12	615	24.21	580	22.83	240	9.45	168	370	705	1555
8001	430	12	615	24.21	580	22.83	278	10.94	199	439	830	1830
8013	515	12	615	24.21	580	22.83	315	12.40	230	507	955	2106
8015	600	12	615	24.21	580	22.83	353	13.90	261	576	818	1804
8017	690	6	615	24.21	580	22.83	225	8.86	157	346	663	1462
8021	860	6	615	24.21	580	22.83	261	10.28	188	415	785	1731
8025	1030	6	615	24.21	580	22.83	300	11.81	220	485	915	2018
8033	1375	6	615	24.21	580	22.83	376	14.80	284	626	888	1958
8045	1800	12	615	24.21	580	22.83	1060	41.73	783	1727	818	1804
8051	2070	6	615	24.21	580	22.83	675	26.57	471	1039	663	1462
8063	2580	6	615	24.21	580	22.83	783	30.83	564	1244	785	1731
8075	3090	6	615	24.21	580	22.83	900	35.43	660	1455	915	2018
8099	4125	6	615	24.21	580	22.83	1125	44.29	852	1879	888	1958
80126	5160	6	615	24.21	580	22.83	1566	61.65	1128	2487	785	1731
80132	5500	6	615	24.21	580	22.83	1504	59.21	1704	3757	888	1958
9013	570	12	615	24.21	650	25.59	315	12.40	258	569	1062	2342
9015	665	12	615	24.21	650	25.59	353	13.90	294	648	917	2022
9017	760	6	615	24.21	650	25.59	225	8.86	176	388	740	1632
9021	950	6	615	24.21	650	25.59	261	10.28	211	465	880	1940
9025	1140	6	615	24.21	650	25.59	300	11.81	246	542	1020	2249
9033	1520	6	615	24.21	650	25.59	376	14.80	321	708	1000	2205
9039	1710	12	615	24.21	650	25.59	945	37.20	744	1707	1062	2342
9045	1995	12	615	24.21	650	25.59	1060	41.73	882	1945	917	2022
9051	2280	6	615	24.21	650	25.59	675	26.57	528	1164	740	1632
9063	2850	6	615	24.21	650	25.59	783	30.83	633	1396	880	1940
9075	3420	6	615	24.21	650	25.59	900	35.43	738	1627	1020	2249
9099	4560	6	615	24.21	650	25.59	1128	44.41	963	2123	1000	2205
90132	6080	6	615	24.21	650	25.59	1504	59.21	1284	2831	1000	2205

These models are horizontal stacking type.

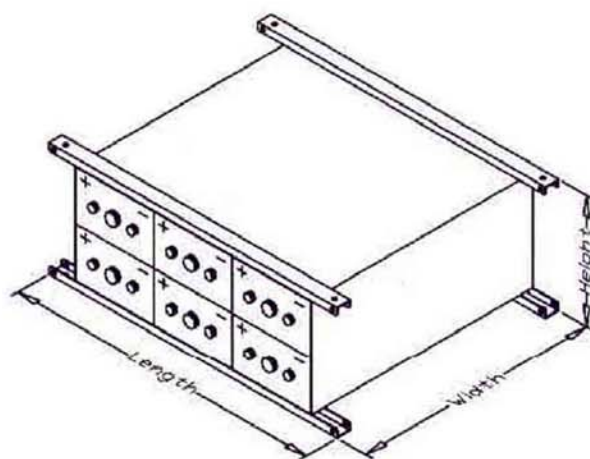
Backed by its unflinching commitment to offer the best of technology and quality, Amara Raja offers you Powerstack, the reliable power house.

## APPLICATION SPECTRUM

Powerstack provides robust back up power solutions for varied applications.

Major application areas include:

- **Power utilities:** (Switchgear & Instrumentation Controls, Transmission & Distribution)
- **Telecommunications:** (Basic telephony, Cellular Telephony, Transmission, Last Mile Connectivity, Local Network)
- **Uninterruptible Power Supply Systems:** (Data Processing, Process Instrumentation, Automated Banking)
- **Solar Photovoltaics (SPV):** (Off shore oil exploration platforms & Cathodic protection)
- **Railways:** (Train lighting & Airconditioning)
- **Process & Service Industry**
- **Defence**



**AMARA RAJA BATTERIES LIMITED**  
(An Amara Raja - Johnson Controls Company)

Registered Office:

**Manufacturing Facilities & Central Distribution Centre**  
Karakambadi - 517 520, Tirupati, Andhra Pradesh, India  
Tel: +91-877-228 5561 to 65 Fax: +91-877-228 5600  
email: amararaja@amararaja.co.th

Corporate Operations Office:

**Corporate Marketing Office & Customer Support Centre**  
12, Kadambakkam High Road, Chennai - 600 034, India  
Tel: +91-44-28213270 Fax: +91-44-2828 4821  
email: mktg@amararaja.co.in

Due to company's ongoing product improvement process, the design and specifications are subject to change without prior notice.

RANGE SPECIFICATIONS