POWERSTACK Endüstriyel VRLA aküler

TÜRKÇE | Ürün bilgileri ve teknik başvuru



Bu Türkçe açıklamalı sürüm, gönderilen üretici belgesine dayanılarak Alemdar Enerji için hazırlanmıştır. Orijinal belgenin tüm sayfaları, teknik tabloları ve grafikleri dosyanın sonundaki İngilizce ekte korunmuştur. Üretici onaylı çeviri değildir.

Ürün ve kullanım alanları

PowerStack; telekomünikasyon, enerji kuruluşları, demiryolları, savunma ve ağır sanayinin yedek enerji gereksinimleri için tasarlanmış modüler bir akü ailesidir. Temel hücre gerilimi 2 V'tur. Kaynak teknik tabloda 100–6120 Ah kapasite ve modele göre 6 V, 12 V veya 24 V modüller bulunur.

Telekom uygulamaları: sabit ve hücresel telefon, iletim, son kullanıcı bağlantısı, yerel ağ, geniş bant ve mikrodalga. UPS uygulamaları: veri işleme, proses enstrümantasyonu ve otomatik bankacılık. Enerji tesisleri: şalt, ölçüm-kontrol, iletim ve dağıtım. Diğer uygulamalar: tren aydınlatması ve klima, şebekeden bağımsız solar sistemler, solar aydınlatma, enerji depolama, açık deniz petrol platformları, katodik koruma ve hizmet endüstrisi.

Performans ve yapı

Kaynak katalogda 20 yıl tasarım tampon ömrü ve %20 deşarj derinliğinde 4000 çevrim belirtilir. Derin deşarj kabiliyeti ve modüler, üst üste yerleştirilebilir yapı kurulum esnekliği sağlar. Tasarım ömrü garanti süresi değildir.

Takviyeli kanatlı polipropilen gövde ve kapak; yüksek sıkıştırmalı mikro gözenekli AGM separatör; SRS ızgaralı sıvanmış düz pozitif ve negatif plakalar kullanılır. Pozitif plakada derin deşarj ve uzun ömür için hibrit alaşım, negatif plakada bakım gerektirmeyen kurşun-kalsiyum alaşım bulunur.

Patentli kurşun oksit hamuru yüksek şarj kabulü ve düşük kendiliğinden deşarj sunar. Bakır insertli kurşun terminaller, ağır hizmet tipi kurşun kaplı bakır bağlantılar ve aside dayanıklı çelik tepsiler kullanılır. Kutup işaretleri bağlantı tanımlamasını kolaylaştırır. Basınç düzenlemeli emniyet valfi kendiliğinden kapanır. Ürün fabrikadan %100 şarjlı sevk edilir.

Çalışma ve şarj koşulları

Kendiliğinden deşarj haftada %1'den az; yeniden şarj edilmeden depolama süresi en fazla 6 ay olarak verilir. Çalışma sıcaklığı −40 °C ile +60 °C; rekombinasyon verimi %98'den yüksektir. Depolama talimatları kullanım kılavuzuna göre uygulanmalıdır.

Şarj yöntemi akım sınırlı sabit gerilimdir. 27 °C'de tampon şarj 2,23–2,25 V/hücre, yükseltme şarjı 2,30–2,32 V/hücre; her iki durumda en yüksek akım 0,2 C'dir. C, 10 saatlik rejimdeki nominal Ah kapasitesidir.

Kalite ve uygunluk

Katalogda ISO 9001:2015, ISO 14001:2015 ve ISO 45001:2018 üretim tesisi belgeleri; IEC 60896-21/22:2004, IEC 61427, IS 15549, CE ve UL uygunluk ifadeleri bulunur. Ayrıca 1997 UBC Bölge 4 deprem gerekleri, IMDG ve IATA/ICAO A67 taşıma hükümleri belirtilir. Kurşun, plastik ve sülfürik asit geri dönüştürülebilir. Bu ifadeler kaynak belgenin beyanlarıdır.

Orijinal teknik ek için Türkçe okuma anahtarı

Ek sayfa 6: modül modeli, nominal Ah kapasitesi (C10, 1,75 V/hücre, 27 °C), modül gerilimi, ön kapak dahil W/D/H boyutları (±5 mm), modül ağırlığı (±5 kg). Takip eden sayfalar sabit akım ve sabit güç deşarj değerlerini gösterir. Kurulum çizimi, boyutlar için katalogdan önceliklidir. Sayılar değiştirilmeden korunmuştur.

İngilizce terim	Türkçe karşılığı
Rated / Nominal capacity	Anma / nominal kapasite
Float / Boost charge	Tampon / yükseltme şarjı
Constant current / power discharge	Sabit akım / sabit güç deşarjı
ECV / VPC	Deşarj sonu hücre gerilimi / hücre başına volt
C10 / C20	10 / 20 saatlik deşarj rejimindeki kapasite
DOD / SOC / PSOC	Deşarj derinliği / şarj durumu / kısmi şarj durumu
Cycle life / design float life	Çevrim ömrü / tasarım tampon ömrü
Length / Width / Height / Depth	Uzunluk / genişlik / yükseklik / derinlik
Weight / Dimensions	Ağırlık / boyutlar
Min / Hr / Hrs	Dakika / saat
Cell / Module / Terminal	Hücre / modül / kutup başı

Takip eden sayfalar: İngilizce üretici belgesinin tam kopyası. Katalog baskı tarihindeki bilgiler geçerlidir; kurumsal rakamlar güncel yıl iddiası olarak değerlendirilmemelidir.

AMARA RAJA

Gotta be a better way



HI-PERFORMANCE

V R L A

BATTERIES

POWERSTACK

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 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 Indian Ocean Rim.

This facilitates sharing of knowledge and innovations to accelerate and expand development efforts in the global battery market. It also enables harnessing technology that acclimatized batteries to operate in harsh tropical conditions.

Amara Raja's Energy & Mobility plant facility is backed by one of the finest Research & 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
Gotta be a better way



Amara Raja's Energy & Mobility Excellence Center 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 system study, simulations and computer-aided design, including a full calibration laboratory. Amara Raja's quality commitment has ensured that it conforms to International quality standards.

Powered by Innovation and strategic association with technology giants like GNB, USA (a 10 year technical collaboration) and Johnson Controls Inc., USA (a 20 year vibrant JV), Amara Raja is constantly foraying into new markets and applications.

Amara Raja's Powerstack, a hi-performance battery is designed 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 Telecommunications, Power Utilities, Railways, Defence and other heavy industries.

POWERSTACK

POWERSTACK
The Reliable Powerhouse

PERFORMANCE EDGE

- Design Float life of 20 years and cyclic life of 4000 cycles at 20% DOD
- Leadership bolstered by proven performance in harsh tropical conditions, since 1989
- Deep discharge capability
- Modular design for ease of installation and stacking flexibility
- Unique Ribbed Design Polypropylene container and cover offering enhanced strength and durability for safe operation
- Patented Lead Oxide Paste Recipe offering excellent charge acceptance and low self-discharge rate
- Innovative Plate Design offers low internal resistance and superior high rate discharge performance
- Advanced AGM separator offering a longer service life and enhanced high rate discharge performance
- 100% charged when shipped from factory

QUALITY EDGE

- Produced in state-of-the-art ISO 9001: 2015, ISO 14001: 2015 certified facility
- ISO 45001: 2018 certified
- Continuous improvement through Internationally acclaimed tools like TQM, Kaizen, Six Sigma, 5S













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 backup power solutions
for varied applications.

MAJOR APPLICATION AREAS INCLUDE:

- ***Telecommunications -*** Basic Telephony, Cellular Telephony, Transmission, Last Mile Connectivity, Local Network Broadband, Microwave
- ***Uninterruptible Power Supply Systems -*** Data Processing, Process Instrumentation, Automated Banking
- ***Power Utilities -*** Switchgear & Instrumentation Controls, Transmission & Distribution
- ***Railways -*** Train lighting, Air-conditioning
- ***Solar Power Backup***
  Off-grid Systems, Solar Lighting, Energy Storage Systems (ESS), Offshore Oil Exploration Platforms, Cathodic Protection
- ***Process & Service Industry***
- ***Defence***

INTERNATIONAL COMPLIANCE

- Compliance to IEC 60896-21/22:2004 and IEC 61427 Standards
- Compliance to IS 15549
- CE Marking for Conformite Europeene, ratified by Underwriters Laboratories
- UL Approved
- Conformity to country specific standards / license programs
- Complies to 1997 UBC Zone 4 Seismic Requirements
- Classified as Non Hazardous Cargo and complies to requirements of IMDG (International Maritime Code for Dangerous Goods)
- Complies to Air Transport Requirement - IATA/ICAO special provision A67
- Completely Recyclable - Lead, Plastic and Sulphuric acid can be recycled and reused

TECHNICAL SPECIFICATIONS

PRODUCT:

- ***Container & Cover -*** Polypropylene Co-polymer (fire-retardant optional)
- ***AGM Separator -*** Spun glass micro-porous matrix with high compression.
- ***Positive Plate -*** SRS Grid Flat Pasted Type
- ***Positive Plate Alloy -*** Hybrid Alloy with deep discharge and long life characteristics
- ***Negative Plate -*** SRS Grid Flat Pasted Type
- ***Negative Plate Alloy -*** Lead Calcium Alloy with Maintenance-Free characteristics
- ***Safety Valve -*** Self resealing, pressure regulated, explosion-proof
- ***Terminals -*** Lead terminals with copper inserts with a large surface area to provide maximum conductivity
- ***Connectors -*** Heavy-duty lead plated copper connectors
- ***Trays -*** Acid resistant MS trays, self-stackable type
- ***Color -*** Coded terminal polarity - Provides easy terminal identification



RANGE SPECIFICATIONS

Powerstack is available in varied ranges to meet customers' complex business needs. Powerstack is available in modular design, with 2V as the basic cell, with capacities ranging from 100Ah to 6000Ah, housed in self-stackable MS trays.

DISCHARGE DATASHEET ATTACHED

PERFORMANCE:

- **Self-discharge:** Less than 1% per week
- **Shelf life without re-charge:** Upto 6 months
- **Operating conditions:** - 40° C to + 60° C
- **Design Float Life:** 20 Years
- **Recombination Efficiency:** > 98%

NOTE:

- All values are rated at 27°C.
- Charging parameters at 27°C.

Method: Constant Potential Current Limited

Charge Provision	Charging Voltage	Maximum Charging Current (Amps)
Float charge	2.23 - 2.25 VPC	0.2 C
Boost charge	2.30 - 2.32 VPC	0.2 C

C is the rated capacity @ 10 hour

**Please refer to operating manual for storage instructions*











POWERSTACK

POWERSTACK RANGE

MODULE SPECIFICATION AND PERFORMANCE DATA

Sl. No.	Cell Type	Nominal Ah Capacity @ C10 to 1.75 ECV at 27°C	System Module Voltage (v)	Stacking dimensions (Including front cover) ± 5 mm			Module Weight ± 5 Kgs
				W	D	H	
1	IP6005	100	24	706	397	252	102
2	IP7005	120	24	706	422	252	117
3	IP6009	200	12	706	394	220	92
4	IP7009	240	12	706	419	220	105
5	IP7011	300	12	706	419	250	125
6	IP1011	375	12	706	515	252	170
7	IP3011	400	12	706	515	252	177
8	IP1013	450	12	706	515	282	196
9	IP1017	600	12	706	515	342	235
10	IP1021	750	6	706	515	231	160
11	IP1025	900	6	706	515	261	186
12	IP1031	1125	6	706	515	306	226
13	IP1037	1350	6	706	515	351	266
14	IP1050	1800	6	706	515	522	373
15	IP1062	2250	6	706	515	612	452
16	IP1074	2700	6	706	515	702	533
17	IP1093	3375	6	706	515	918	678
18	IP1111	4050	6	706	515	1053	799
19	IP1124	4500	6	706	515	1224	904
20	IP1148	5400	6	706	515	1404	1065
21	IP2009	340	12	706	570	220	159
22	IP2011	425	12	706	570	252	189
23	IP2013	510	12	706	570	282	218
24	IP2017	680	12	706	570	342	275
25	IP2021	850	6	706	570	231	178
26	IP2025	1020	6	706	570	261	207
27	IP2031	1275	6	706	570	306	251
28	IP2037	1530	6	706	570	351	296
29	IP2050	2040	6	706	570	522	413
30	IP2062	2550	6	706	570	612	502
31	IP2074	3060	6	706	570	702	592
32	IP2093	3825	6	706	570	918	753
33	IP2111	4590	6	706	570	1053	888
34	IP2124	5100	6	706	570	1224	1004
35	IP2148	6120	6	706	570	1404	1184

Note:
1. "D" dimensions are with front covers.
2. Installation drawing will supersedes the catalogue for dimensions.
3. Design Improvements are continuous process, as result the contents may change without prior notice.

SPECIFICATIONS

POWERSTACK

SPECIFICATIONS

WATTS PER CELL DATA TO 1.75 ECV @ 27°C

Sl. No.	Cell type	Nominal Ah Capacity @ C10 at 27° C	Discharge Power in Watts															
			5 Min	10 Min	15 Min	30 Min	1 Hrs	2 Hrs	3 Hrs	4 Hrs	5 Hrs	6 Hrs	7 Hrs	8 Hrs	10 Hrs	12 Hrs	20 Hrs	24 Hrs
1	IP6005	100	249	201	183	139	108	68	52	41	34	29.2	25.9	23.3	19.4	17.1	11.2	9.5
2	IP7005	120	299	241	219	166	129	82	62	49	40	35.0	31.1	28.0	23.2	20.5	13.4	11.4
3	IP6009	200	498	402	366	277	215	136	103	82	67	58.4	51.8	46.7	38.7	34.1	22.3	19.1
4	IP7009	240	597	483	439	332	258	163	124	99	81	70.1	62.2	56.0	46.4	41.0	26.8	22.9
5	IP7011	300	747	603	548	416	323	204	155	123	101	87.6	77.7	70.0	58.1	51.2	33.5	28.6
6	IP1011	375	933	754	686	519	404	255	194	154	126	109.5	97.1	87.5	72.6	64.0	41.9	35.7
7	IP3011	400	996	804	731	554	431	272	206	165	135	116.8	103.6	93.4	77.4	68.3	44.6	38.1
8	IP1013	450	1120	905	823	623	484	306	232	185	151	131.4	116.6	105.1	87.1	76.8	50.2	42.9
9	IP1017	600	1493	1207	1097	831	646	408	310	247	202	175.2	155.4	140.1	116.1	102.4	67.0	57.2
10	IP1021	750	1867	1508	1371	1039	807	510	387	309	252	219.0	194.3	175.1	145.1	128.1	83.7	71.5
11	IP1025	900	2240	1810	1645	1247	969	612	465	370	303	262.8	233.2	210.1	174.2	153.7	100.4	85.8
12	IP1031	1125	2800	2263	2057	1558	1211	765	581	463	378	328.5	291.4	262.6	217.7	192.1	125.6	107.2
13	IP1037	1350	3360	2715	2468	1870	1453	918	697	555	454	394.2	349.7	315.2	261.2	230.5	150.7	128.6
14	IP1050	1800	4480	3620	3290	2493	1938	1224	929	740	605	525.5	466.3	420.2	348.3	307.3	200.9	171.5
15	IP1062	2250	5600	4525	4113	3116	2422	1530	1161	926	757	656.9	582.9	525.3	435.4	384.2	251.1	214.4
16	IP1074	2700	6720	5430	4936	3740	2907	1836	1394	1111	908	788.3	699.5	630.3	522.5	461.0	301.3	257.3
17	IP1093	3375	8400	6788	6170	4675	3633	2295	1742	1388	1135	985.4	874.3	787.9	653.1.	576.3	376.7	321.6
18	IP1111	4050	10080	8145	7403	5610	4360	2754	2091	1666	1362	1182.5	1049.2	945.5	783.7	691.5	452.0	385.9
19	IP1124	4500	11200	9050	8226	6233	4845	3060	2323	1851	1514	1313.9	1165.8	1050.5	870.8	768.4	502.2	428.8
20	IP1148	5400	13440	10860	9871	7479	5813	3672	2788	2221	1816	1576.6	1398.9	1260.7	1044.9	922.0	602.7	514.6
21	IP2009	340	846	684	622	471	366	231	176	140	114	99.3	88.1	79.4	65.8	58.1	37.9	32.4
22	IP2011	425	1058	855	777	589	458	289	219	175	143	124.1	110.1	99.2	82.2	72.6	47.4	40.5
23	IP2013	510	1269	1026	932	706	549	347	263	210	172	148.9	132.1	119.1	98.7	87.1	56.9	48.6
24	IP2017	680	1692	1368	1243	942	732	462	351	280	229	198.5	176.2	158.7	131.6	116.1	75.9	64.8
25	IP2021	850	2116	1709	1554	1177	915	578	439	350	286	248.2	220.2	198.4	164.5	145.1	94.9	81.0
26	IP2025	1020	2539	2051	1865	1413	1098	694	527	420	343	297.8	264.2	238.1	197.4	174.2	113.8	97.2
27	IP2031	1275	3173	2564	2331	1766	1373	867	658	525	429	372.3	330.3	297.7	246.7	217.7	142.3	121.5
28	IP2037	1530	3808	3077	2797	2119	1647	1040	790	629	515	446.7	396.4	357.2	296.1	261.2	170.8	145.8
29	IP2050	2040	5077	4103	3729	2826	2196	1387	1053	839	686	595.6	528.5	476.2	394.7	348.3	227.7	194.4
30	IP2062	2550	6347	5128	4661	3532	2745	1734	1316	1049	858	744.5	660.6	595.3	493.4	435.4	284.6	243.0
31	IP2074	3060	7616	6154	5594	4238	3294	2081	1580	1259	1029	893.4	792.7	714.4	592.1	522.5	341.5	291.6
32	IP2093	3825	9520	7693	6992	5298	4118	2601	1975	1574	1287	1116.8	990.9	893.0	740.1	653.1	426.9	364.5
33	IP2111	4590	11424	9231	8391	6357	4941	3121	2369	1888	1544	1340.1	1189.1	1071.6	888.2	783.7	512.3	437.4
34	IP2124	5100	12693	10257	9323	7064	5491	3468	2633	2098	1715	1489	1321.2	1190.6	986.9	870.8	569.2	486.0
35	IP2148	6120	15232	12308	11187	8477	6589	4161	3159	2518	2059	1786.9	1585.4	1428.7	1184.2	1045.0	683.0	583.2

SPECIFICATIONS

POWERSTACK

WATTS PER CELL DATA TO 1.90ECV @ 27°C

Sl. No.	Cell type	Nominal Ah Capacity @ C10 at 27° C	Discharge Power in Watts															
			5 Min	10 Min	15 Min	30 Min	1 Hrs	2 Hrs	3 Hrs	4 Hrs	5 Hrs	6 Hrs	7 Hrs	8 Hrs	10 Hrs	12 Hrs	20 Hrs	24 Hrs
1	IP6005	100	220	178	152	116	95	59	44	36	29	25.1	22.3	20.1	16.5	14.6	8.9	7.8
2	IP7005	120	264	214	182	140	115	71	53	43	35	30.1	26.7	24.1	19.8	17.5	10.7	9.4
3	IP6009	200	440	356	304	233	191	118	89	72	58	50.2	44.6	40.1	33.1	29.2	17.8	15.7
4	IP7009	240	528	427	365	279	229	142	107	86	69	60.2	53.5	48.2	39.7	35.0	21.4	18.8
5	IP7011	300	660	534	456	349	286	178	133	108	86	75.3	66.9	60.2	49.6	43.8	26.7	23.5
6	IP1011	375	825	667	570	437	358	222	167	135	108	94.1	83.6	75.3	62.0	54.7	33.4	29.4
7	IP3011	400	880	712	608	466	382	237	178	144	115	100.4	89.1	80.3	66.1	58.3	35.6	31.3
8	IP1013	450	990	801	684	524	430	266	200	162	130	112.9	100.3	90.3	74.4	65.6	40.0	35.2
9	IP1017	600	1320	1068	912	699	573	355	267	215	173	150.6	133.7	120.4	99.2	87.5	53.4	47.0
10	IP1021	750	1651	1335	1140	873	716	444	334	269	216	188.2	167.1	150.5	124.0	109.4	66.7	58.7
11	IP1025	900	1981	1602	1368	1048	859	533	400	323	259	225.8	200.6	180.6	148.8	131.3	80.1	70.5
12.	IP1031	1125	2476	2002	1710	1310	1074	666	500	404	324	282.3	250.7	225.8	185.9	164.1	100.1	88.1
13	IP1037	1350	2971	2402	2052	1572	1289	799	601	485	389	338.7	300.8	270.9	223.1	196.9	120.1	105.7
14	IP1050	1800	3961	3203	2737	2096	1719	1065	801	646	519	451.7	401.1	361.2	297.5	262.5	160.2	140.9
15	IP1062	2250	4952	4004	3421	2619	2148	1331	1001	808	648	564.6	501.4	451.5	371.9	328.2	200.2	176.2
16	IP1074	2700	5942	4805	4105	3143	2578	1598	1201	970	778	677.5	601.7	541.8	446.3	393.8	240.2	211.4
17	IP1093	3375	7427	6006	5131	3929	3222	1997	1501	1212	972	846.9	752.1	677.3	557.8	492.2	300.3	264.2
18	IP1111	4050	8913	7207	6157	4715	3867	2396	1802	1455	1167	1016.2	902.5	812.7	669.4	590.7	360.3	317.1
19	IP1124	4500	9903	8008	6842	5239	4297	2663	2002	1616	1296	1129.2	1002.8	903.0	743.8	656.3	400.4	352.3
20	IP1148	5400	11884	9610	8210	6287	5156	3195	2402	1939	1556	1355.0	1203.3	1083.6	892.5	787.6	480.5	422.8
21	IP2009	340	748	605	517	396	325	201	151	122	98	85.3	75.8	68.2	56.2	49.6	30.3	26.6
22	IP2011	425	935	756	646	495	406	251	189	153	122	106.6	94.7	85.3	70.2	62.0	37.8	33.3
23	IP2013	510	1122	908	775	594	487	302	227	183	147	128.0	113.6	102.3	84.3	74.4	45.4	39.9
24	IP2017	680	1496	1210	1034	792	649	402	303	244	196	170.6	151.5	136.5	112.4	99.2	60.5	53.2
25	IP2021	850	1871	1513	1292	990	812	503	378	305	245	213.3	189.4	170.6	140.5	124.0	75.6	66.6
26	IP2025	1020	2245	1815	1551	1187	974	604	454	366	294	255.9	227.3	204.7	168.6	148.8	90.8	79.9
27	IP2031	1275	2806	2269	1938	1484	1217	754	567	458	367	319.9	284.1	255.9	210.7	186.0	113.4	99.8
28	IP2037	1530	3367	2723	2326	1781	1461	905	681	550	441	383.9	340.9	307.0	252.9	223.2	136.1	119.8
29	IP2050	2040	4489	3630	3101	2375	1948	1207	908	733	588	511.9	454.6	409.4	337.2	297.5	181.5	159.7
30	IP2062	2550	5612	4538	3877	2969	2435	1509	1134	916	735	639.9	568.2	511.7	421.5	371.9	226.9	199.7
31	IP2074	3060	6734	5445	4652	3562	2922	1811	1361	1099	881	767.8	681.9	614.0	505.8	446.3	272.3	239.6
32	IP2093	3825	8418	6807	5815	4453	3652	2263	1702	1374	1102	959.8	852.4	767.6	632.2	557.9	340.3	299.5
33	IP2111	4590	10101	8168	6978	5344	4383	2716	2042	1649	1322	1151.7	1022.8	921.1	758.7	669.5	408.4	359.4
34	IP2124	5100	11224	9076	7754	5937	4869	3018	2269	1832	1469	1279.7	1136.5	1023.4	843.0	743.8	453.8	399.3
35	IP2148	6120	13468	10891	9304	7125	5843	3621	2723	2198	1763	1535.7	1363.8	1228.1	1011.5	892.6	544.5	479.2

POWERSTACK

SPECIFICATIONS

AMPERES TO 1.75ECV @ 27°C

Sl. No.	Cell type	Nominal Ah Capacity @ C10 at 27° C	Discharge Current in Amps															
			5 Min	10 Min	15 Min	30 Min	1 Hrs	2 Hrs	3 Hrs	4 Hrs	5 Hrs	6 Hrs	7 Hrs	8 Hrs	10 Hrs	12 Hrs	20 Hrs	24 Hrs
1	IP6005	100	139	111	100	75	57	36	27	21	17	15.2	13.4	12.1	10.0	8.8	5.7	4.9
2	IP7005	120	167	133	120	90	69	43	32	26	21	18.2	16.1	14.5	12.0	10.6	6.9	5.9
3	IP6009	200	278	222	200	149	114	72	54	43	35	30.3	26.8	24.2	20.0	17.6	11.5	9.8
4	IP7009	240	333	267	240	179	137	86	65	52	42	36.4	32.2	29.0	24.0	21.1	13.8	11.8
5	IP7011	300	417	333	300	224	171	108	81	64	52	45.5	40.3	36.2	30.0	26.4	17.2	14.7
6	IP1011	375	521	417	375	280	214	134	101	80	66	56.8	50.3	45.3	37.5	33.0	21.6	18.4
7	IP3011	400	556	444	400	299	229	143	108	86	70	60.6	53.7	48.3	40.0	35.2	23	19.6
8	IP1013	450	625	500	450	336	257	161	122	97	79	68.2	60.4	54.3	45.0	39.6	25.9	22.1
9	IP1017	600	833	667	600	448	343	215	162	129	105	90.9	80.5	72.5	60.0	52.9	34.5	29.4
10	IP1021	750	1042	833	750	560	429	269	203	161	131	113.6	100.7	90.6	75.0	66.1	43.1	36.8
11	IP1025	900	1250	1000	900	672	514	323	243	193	157	136.4	120.8	108.7	90.0	79.3	51.7	44.1
12	IP1031	1125	1563	1250	1125	840	643	403	304	241	197	170.5	151.0	135.9	112.5	99.1	64.7	55.1
13	IP1037	1350	1875	1500	1350	1007	771	484	365	290	236	204.5	181.2	163.0	135.0	118.9	77.6	66.2
14	IP1050	1800	2500	2000	1800	1343	1029	645	486	386	315	272.7	241.6	217.4	180.0	158.6	103.4	88.2
15	IP1062	2250	3125	2500	2250	1679	1286	806	608	483	393	340.9	302.0	271.7	225.0	198.2	129.3	110.3
16	IP1074	2700	3750	3000	2700	2015	1543	968	730	579	472	409.1	362.4	326.1	270.0	237.9	155.2	132.4
17	IP1093	3375	4688	3750	3375	2519	1929	1210	912	724	590	511.4	453.0	407.6	337.5	297.4	194.0	165.4
18	IP1111	4050	5625	4500	4050	3022	2314	1452	1095	869	708	613.6	543.6	489.1	405.0	356.8	232.8	198.5
19	IP1124	4500	6250	5000	4500	3358	2571	1613	1216	966	787	681.8	604.0	543.5	450.0	396.5	258.6	220.6
20	IP1148	5400	7500	6000	5400	4030	3086	1935	1459	1159	944	818.2	724.8	652.2	540.0	475.8	310.3	264.7
21	IP2009	340	472	378	340	254	194	122	92	73	59	51.5	45.6	41.1	34.0	30.0	19.5	16.7
22	IP2011	425	590	472	425	317	243	152	115	91	74	64.4	57.0	51.3	42.5	37.4	24.4	20.8
23	IP2013	510	708	567	510	381	291	183	138	109	89	77.3	68.5	61.6	51.0	44.9	29.3	25.0
24	IP2017	680	944	756	680	507	389	244	184	146	119	103.0	91.3	82.1	68.0	59.9	39.1	33.3
25	IP2021	850	1181	944	850	634	486	305	230	182	149	128.8	114.1	102.7	85.0	74.9	48.9	41.7
26	IP2025	1020	1417	1133	1020	761	583	366	276	219	178	154.5	136.9	123.2	102.0	89.9	58.6	50.0
27	IP2031	1275	1771	1417	1275	951	729	457	345	274	223	193.2	171.1	154.0	127.5	112.3	73.3	62.5
28	IP2037	1530	2125	1700	1530	1142	874	548	414	328	267	231.8	205.4	184.8	153.0	134.8	87.9	75.0
29	IP2050	2040	2833	2267	2040	1522	1166	731	551	438	357	309.1	273.8	246.4	204.0	179.7	117.2	100.0
30	IP2062	2550	3542	2833	2550	1903	1457	914	689	547	446	386.4	342.3	308.0	255.0	224.7	146.6	125.0
31	IP2074	3060	4250	3400	3060	2284	1749	1097	827	657	535	463.6	410.7	369.6	306.0	269.6	175.9	150.0
32	IP2093	3825	5313	4250	3825	2854	2186	1371	1034	821	669	579.5	513.4	462.0	382.5	337.0	219.8	187.5
33	IP2111	4590	6375	5100	4590	3425	2623	1645	1241	985	802	695.5	616.1	554.3	459.0	404.4	263.8	225.0
34	IP2124	5100	7083	5667	5100	3806	2914	1828	1378	1094	892	772.7	684.6	615.9	510.0	449.3	293.1	250.0
35	IP2148	6120	8500	6800	6120	4567	3497	2194	1654	1313	1070	927.3	821.5	739.1	612.0	539.2	351.7	300.0

SPECIFICATIONS

POWERSTACK

AMPERES TO 1.90ECV @ 27°C

Sl. No.	Cell type	Nominal Ah Capacity @ C10 at 27° C	Discharge Current in Amps															
			5 Min	10 Min	15 Min	30 Min	1 Hrs	2 Hrs	3 Hrs	4 Hrs	5 Hrs	6 Hrs	7 Hrs	8 Hrs	10 Hrs	12 Hrs	20 Hrs	24 Hrs
1	IP6005	100	116	93	79	60	49	30	23	18	15	12.8	11.9	10.2	8.3	7.3	4.5	3.9
2	IP7005	120	140	112	95	72	59	36	27	22	18	15.3	14.3	12.2	10.0	8.8	5.4	4.7
3	IP6009	200	233	187	159	120	98	61	45	37	29	25.5	23.8	20.3	16.7	14.7	8.9	7.8
4	IP7009	240	279	224	190	145	118	73	55	44	35	30.6	28.6	24.4	20.0	17.6	10.7	9.4
5	IP7011	300	349	280	238	181	147	91	68	55	44	38.3	35.7	30.5	25.0	22.0	13.4	11.8
6	IP1011	375	436	350	298	226	184	114	85	69	55	47.8	44.6	38.1	31.3	27.6	16.8	14.7
7	IP3011	400	465	374	317	241	196	121	91	73	59	51.0	47.6	40.7	33.4	29.4	17.9	15.7
8	IP1013	450	523	421	357	271	221	136	102	82	66	57.4	53.6	45.8	37.6	33.1	20.1	17.6
9	IP1017	600	698	561	476	361	294	182	136	110	88	76.5	71.4	61.0	50.1	44.1	26.8	23.5
10	IP1021	750	872	701	595	452	368	227	170	137	110	95.7	89.3	76.3	62.6	55.1	33.5	29.4
11	IP1025	900	1047	841	714	542	441	273	205	165	132	114.8	107.1	91.6	75.1	66.1	40.2	35.3
12.	IP1031	1125	1308	1051	893	678	551	341	256	206	165	143.5	133.9	114.4	93.9	82.7	50.3	44.1
13	IP1037	1350	1570	1262	1071	813	662	409	307	247	198	172.2	160.7	137.3	112.7	99.2	60.3	52.9
14	IP1050	1800	2093	1682	1429	1084	882	545	409	330	264	229.6	214.3	183.1	150.3	132.3	80.4	70.6
15	IP1062	2250	2616	2103	1786	1355	1103	682	511	412	330	287.0	267.9	228.9	187.8	165.3	100.5	88.2
16	Ip1074	2700	3140	2523	2143	1627	1324	818	614	495	396	344.4	321.4	274.7	225.4	198.4	120.6	105.9
17	IP1093	3375	3924	3154	2679	2033	1654	1023	767	618	495	430.5	401.8	343.3	281.7	248.0	150.8	132.4
18	IP1111	4050	4709	3785	3214	2440	1985	1227	920	742	594	516.6	482.1	412.0	338.1	297.6	181.0	158.8
19	IP1124	4500	5233	4206	3571	2711	2206	1364	1023	824	660	574.0	535.7	457.8	375.6	330.6	201.1	176.5
20	IP1148	5400	6279	5047	4286	3253	2647	1636	1227	989	792	688.8	642.9	549.3	450.8	396.8	241.3	211.8
21	IP2009	340	395	318	270	205	167	103	77	62	50	43.4	40.5	34.6	28.4	25.0	15.2	13.3
22	IP2011	425	494	397	337	256	208	129	97	78	62	54.2	50.6	43.2	35.5	31.2	19.0	16.7
23	IP2013	510	593	477	405	307	250	155	116	93	75	65.1	60.7	51.9	42.6	37.5	22.8	20.0
24	IP2017	680	791	636	540	410	333	206	155	125	100	86.7	81.0	69.2	56.8	50.0	30.4	26.7
25	IP2021	850	988	794	675	512	417	258	193	156	125	108.4	101.2	86.5	71.0	62.5	38.0	33.3
26	IP2025	1020	1186	953	810	614	500	309	232	187	150	130.1	121.4	103.8	85.1	74.9	45.6	40.0
27	IP2031	1275	1483	1192	1012	768	625	386	290	234	187	162.6	151.8	129.7	106.4	93.7	57.0	50.0
28	IP2037	1530	1779	1430	1214	922	750	464	348	280	224	195.2	182.1	155.6	127.7	112.4	68.4	60.0
29	IP2050	2040	2372	1907	1619	1229	1000	618	464	374	299	260.2	242.9	207.5	170.3	149.9	91.2	80.0
30	IP2062	2550	2965	2383	2024	1536	1250	773	580	467	374	325.3	303.6	259.4	212.9	187.4	113.9	100.0
31	IP2074	3060	3558	2860	2429	1843	1500	927	695	560	449	390.3	364.3	311.3	255.4	224.8	136.7	120.0
32	IP2093	3825	4448	3575	3036	2304	1875	1159	869	701	561	487.9	455.4	389.1	319.3	281.0	170.9	150.0
33	IP2111	4590	5337	4290	3643	2765	2250	1391	1043	841	673	585.5	546.4	466.9	383.1	337.3	205.1	180.0
34	IP2124	5100	5930	4766	4048	3072	2500	1545	1159	934	748	650.5	607.1	518.8	425.7	374.7	227.9	200.0
35	IP2148	6120	7116	5720	4857	3687	3000	1855	1391	1121	897	780.6	728.6	622.6	510.9	449.7	273.5	240.0

The above data are average values and tolerance of ±5% is applicable for the above constant current and power discharge values.

Customer referrals



Amara Raja Energy & Mobility Limited
(Formerly known as Amara Raja Batteries Limited)

Corporate Operations Office:
Terminal A. 1-18/1/AMR/NR. Nanakramguda,
Gachibowli, Hyderabad - 500 032. INDIA

Registered Office & Manufacturing Facility-1
Unit-I, Karakambadi - 517 520, Tirupati,
Andhra Pradesh, INDIA

Manufacturing Facility-2
UNIT-II, Nunegundlapalle, Bangarupalyam,
Chittoor - 517416. Andhra Pradesh, INDIA

Overseas Marketing Offices
UAE I NIGERIA I INDONESIA

Reach us @ www.amararajaeandm.com
Email: customercare@amararaja.com

ISO 9001 : 2015 | ISO 14001 : 2015 | ISO 45001 : 2018

Middle East Asia Office:

Amara Raja Batteries Middle East (FZE)
SAIF Office PB-15-64,
P.O. Box 124018, Sharjah - U.A.E
Tel No: +97 15 08278627
Email: ibdintl@amararaja.com



Contains Lead Please handover at approved waste handling point

Completely Recyclable

Protect eyes from Electrolyte

Electrical Hazard

Read Instructions

Specifications are subject to modification without prior notice

ARE&M/IBD/PS/EXP/1223

Design improvement is a continuous process of Amara Raja. As a result, The given battery picture is indicative purpose only, actual may varies.