

EXIDE  
INDUSTRIAL

 **EXIDE**  
**INVA Flat**



The Tallest Flat

*Mera Inverter Maange Only* **INVA**

Presenting Exide **INVA Flat** 1800 and 2000, with extra heavy duty thicker plates inside for withstanding frequent and long power cuts. The batteries have got lug type terminals and electrolyte level indicators, making INVAFLAT truly user-friendly inverter batteries. They have heat sealed tamper proof lids, with rope type lifting arrangements. These batteries incorporate tower type design in strong and rugged polypropylene containers.

**The Tallest Flat.**

**ADVANTAGES**

- Extra heavy duty thicker plates as per exclusive Exide design ensuring durability, resistance to corrosion and inbuilt margins for high ambient temperature
- Built with PE pocket type separator bonded with glass mat for extra support to active material, making the battery more suitable for deep cycle application
- These is high acid volume per ampere hour ensuring low maintenance characteristics
- Suitable for long and frequent powercuts with quick recharge adaptability
- Substantial savings in floor area
- Resistance to abuse

**TECHNICAL SPECIFICATION**

Model	Capacity at 27°C when discharged at C20 upto 1.75 vpc (1.280 sp. gr)	Dimension (+/-3mm)			Weight (Kg +/-5%)		Volume of Electrolyte (1.220 Sp. Gr) Liters/Cell	Initial charge Minimum AH input (AH)	Initial Charge at Constant Current (A)		Constant Potential Limiting Current (Amps)	Trickle Charge (Current in mA)	
		Length	Width	Height*	Dry	Filled			Start (upto 2.36 vpc)	Finish (upto 2.75 vpc)		Min.	Max.
INVA FLAT 1800	180Ah	500	187	430	36.50	62.50	3.55	525	18.0	9.0	30	150	600
INVA FLAT 2000	200Ah	500	187	430	47.77	72.50	3.35	615	21.0	10.5	35	175	700

\*The height mentioned is upto terminal top.

**HIGHER DISCHARGE RATES (OPTIONAL)**

Hours		10	5	3	1
Capacity Ah	INVA FLAT1800	150	132	117	87
	INVA FLAT2000	175	154	137	102

**INITIAL CHARGING INSTRUCTIONS**

1. Filling in Specific Gravity	1.220 +/- 0.005 at 27°C	5. Conditions of fully charged	a) 3 consecutive hourly readings of specific gravity and voltage become constant b) Top of charge voltage will be around 16.2V – 16.5V c) All cells should gas freely d) Minimum Ah has been given
2. Rest Period	4 - 6 hrs.		
3. Minimum Ah input	525Ah for IF1800 and 615Ah for IF2000		
4. In order to reduce the charging time, the following routine may be adopted. For IF1800, the initial charging current may be 18.0A upto 2.36 vpc followed by 9.0A upto 2.75 vpc. For IF2000, the initial charging current may be 21.0A upto 2.36 vpc followed by 10.5A upto 2.75 vpc. However in both cases, minimum Ah input to be given. Under no circumstances, battery temperature should exceed 50°C. In case the temperature exceeds 50°C, adequate rest to be given till the electrolyte temperature comes to ambient temperature and charging to be continued.			
6. Specific Gravity at fully charged condition	1.250 +/- 0.005 at 27°C		

**NORMAL RECHARGING INSTRUCTIONS**

Recharging through Inverter at constant potential mode of 14.4V with limited current as specified. After battery potential reaches 14.4V, the battery should continue in trickle charge mode at constant potential of 13.8V.

**BATTERY SELECTION CHART**

Inverter Rating (VA)	Inverter DC input voltage (V)	Back-Up Time					
		6 Hrs.	5 Hrs.	4 Hrs.	3 Hrs.	2 Hrs.	1 Hrs.
500	12	2P IF1800	2P IF1800	IF2000	IF1800	IF1800	IF1800
	24	2S IF1800	2S IF1800	2S IF1800	2S IF1800	2S IF1800	2S IF1800
700	12	2P IF2000	2P IF1800	2P IF1800	IF2000	IF1800	IF1800
	24	2S IF2000	2S IF1800	2S IF1800	2S IF1800	2S IF1800	2S IF1800
1000	12	3P IF1800	3P IF1800	2P IF2000	2P IF1800	2P IF1800	IF1800
	24	2S X 2P IF1800	2S X 2P IF1800	2S IF2000	2S IF1800	2S IF1800	2S IF1800
1300	12	4P IF1800	3P IF2000	3P IF1800	2P IF2000	2P IF1800	IF1800
	24	2S X 2P IF1800	2S X 2P IF1800	2S X 2P IF1800	2S IF2000	2S IF1800	2S IF1800
2000	12	-	-	4P IF2000	3P IF2000	3P IF2000	2P IF1800
	24	2S X 3P IF1800	2S X 3P IF1800	2S X 2P IF2000	2S X 2P IF1800	2S X 2P IF1800	2S IF1800

Note: P = Parallel, S = Series. 2S X 3P IF1800 => A string containing 2 nos. IF1800 in series and 3 nos. such strings in parallel. IF1800 stands for INVAFLAT 1800

**Statutory Notice:**

All batteries contain lead, which is harmful for humans and environment. As per statutory requirements, the used battery must be returned to the authorized dealer, manufacturer or at the designated collection centres.

Contact our Exide Powercentre Showrooms for Sales & Services



**INVA Flat** is a product of ISO 9001 and ISO 14001 certified factories

<b>Head Office</b> Kolkata	'Exide House', 59E Chowringhee Road, Kolkata - 700 020, Phone (033) 2283 2120/33/36/50/51/71/ 2238/39, Fax (033) 2283 2632/37	<b>Kolkata</b>	6A Hatibagan Road, Entally, Kolkata - 700 014, Phone (033) 2284 3137, 2286 1860/6193 Fax (033) 2289 7455	<b>Lucknow</b>	Phone (0522) 223 1255, 262 0722/6971, 261 5280, Fax (0522) 261 8089
<b>Corporate Marketing Office</b> Kolkata	6A Hatibagan Road, Entally, Kolkata - 700 014, Phone (033) 2286 6158/6159, Fax (033) 2286 6186 E-mail: indiacore@ent.exide.co.in	<b>Branch Offices</b> Bhubaneswar	Phone (0674) 243 1385/1847, Fax (0674) 243 1385	<b>Varanasi</b>	Phone (0542) 250 1680, Fax (0542) 250 1296 PP
<b>Regional Offices</b> New Delhi	'Exide House', 3E/1 Link Road, Jhandewalan Extension, New Delhi - 110 055, Phone (011) 2362 7095/ 96/98, 5154 0626, Fax (011) 2355 5703	<b>Guwahati</b>	Phone (0361) 234 2500/1119	<b>Bangalore</b>	Phone (080) 5128 3492-5/2357 8672, Fax (080) 559 9624
<b>Chennai</b>	21/22, Alandur Road, Guindy, Chennai - 600 032, Phone (044) 2234 7326, 2231 6725 (Direct)/26, Fax (044) 2231 1216	<b>Jamshedpur</b>	Phone (0657) 242 6847/8349	<b>Coimbatore</b>	Phone (0422) 222 1846, Fax (0422) 222 1737
<b>Mumbai</b>	'RAHEJAS', 5th Floor, 8C Main Avenue, V P Road, Santacruz (West), Mumbai - 400 054, Phone (022) 2646 5283/84, Fax (022) 2646 5042	<b>Patna</b>	Phone (0612) 222 6632, 221 1040, 257 3039, Fax (0612) 223 1569	<b>Hyderabad</b>	Phone (0484) 240 9128 (D), Fax (0484) 253 7869
		<b>Siliguri</b>	Phone (0353) 254 0321	<b>Kochi</b>	Phone (079) 2685 6697 (D)/8/9661, Fax (079) 2685 6698
		<b>Chandigarh</b>	Phone (0172) 500 0014, 265 7409/4387/4553, Fax (0172) 265 4395	<b>Ahmedabad</b>	Phone (0731) 255 6290/91, Fax (0731) 249 3395
		<b>Ghaziabad</b>	Phone (0575) 273 4574, 283 2172/73	<b>Indore</b>	Phone (022) 2646 5041, Fax (022) 2646 5042
		<b>Jaipur</b>	Phone (0141) 229 3704/3799, Fax (0141) 229 2877	<b>Nagpur</b>	Phone (0712) 259 4722, 561 5882/83, Fax (0712) 259 1479
		<b>Jalandhar</b>	Phone (0181) 553 4983, 223 7870, 223 7874, Fax (0181) 245 9571	<b>Pune</b>	Phone (020) 3230 4043 (D)/41/42, Fax (020) 2422 3843, Telefax (0265) 235 4240
				<b>Vadodara</b>	

This catalogue is issued to provide outline information only and is not deemed to form part of an offer or contract. Our policy is one of continued improvement and we reserve the right to change details without prior notice.

PHX/IF1800, 2000/10K/08-2006

[www.exideindustrialbatteries.com](http://www.exideindustrialbatteries.com)