



# EXIDE

# EXIDE INDUSTRIAL



## Batteries for Home UPS & Inverter Application

*Mera Inverter Maange Only* **INVA**



Winner of EFY Awards for Best SMF Battery 6 times in a row 2005, 2006, 2007, 2008, 2009 & 2010



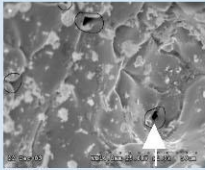
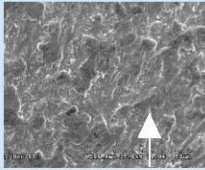
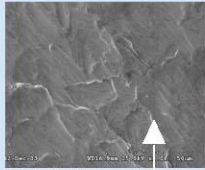
Products from ISO 9001 and ISO 14001 certified factories

## WHY EXIDE TÖRR TUBULAR FOR INVERTER APPLICATION?

Lead Acid Batteries, designed for "Home UPS & Inverter Applications" are to ensure availability of uninterrupted and regulated power during mains failure or dip in input voltage.

Exide's INVA Range of "Ironclad®" "Törr Tubular®" Batteries are customized exclusively for Home UPS & Inverter applications. They have rugged internal elements required for withstanding frequent and long power cuts. The Thick Tubular Plates casted in High Pressure (100 Bar) Hadi Casting machines ensure a long life and it's through partition inter-cell connections ensure an even better voltage profile on discharge. The result: a steady discharge during power cuts of long duration and also enhanced service life.

Scanning Electron Microscope (SEM) Study reveals that Battery Plates casted in High Pressure ensures super fine grain structure for Strength, Long Life, Low Maintenance and Highest Reliability.

Gravity Casting	Low Pressure Casting 10 Bar	High Pressure Casting 100 Bar HADI
		
Big voids Non uniform micro hardness	Small voids Very low micro hardness	No voids Uniform micro hardness

What's more? Each of Exide's INVA Range of "Törr Tubular®" Batteries conforming to IS:13369 - 1992 are housed in a light weight, durable, beautiful polypropylene container with easy lifting arrangement - You can proudly display it in your living room. Flat terminals with composite 'Vent Plug cum Level Indicator' make it a truly user-friendly and environment friendly battery.

Exide Törr Tubular Batteries for Inverter Applications come to you in three ranges :

- PREMIUM INVAGOLD RANGE
- REGULAR INVATUBULAR RANGE
- ECONOMY INVARED+ RANGE

### INVAGOLD RANGE

Exide **INVA GOLD** Range - The Premium Akkumulatören suitable to run your high value appliances during power outages

#### SPECIAL FEATURES

- Premium Tubular Range
- Extra Thick Tubular plates ensuring very long life - 1200 cycles at 80 D.O.D.
- Housed in Tall containers which give higher electrolyte volume per Ampere Hour
- Micro porous ceramic vent plugs make it more environment friendly
- 54 Months Warranty



### PREMIUM AKKUMULATÖREN

#### TECHNICAL SPECIFICATION

Model	Capacity at 27°C when discharged at C20 upto 1.75 vpc	Dimension (+/-3mm)			Weight (Kg+/-5%) Filled	Volume of Electrolyte (1.220 Sp. Gr) Liters/Cell	Warranty* (Months)	Notes
		Length	Width	Height*				
IG500	150Ah	500	187	416	62.55	3.55	54	

\*The height mentioned is upto terminal top.

\*Conditions apply

#### APPLICATION CHART

Electrical Load	System Voltage	Reca. Inverter Rating	Recommended Battery for Different Back-up time				
			5 Hrs.	4 Hrs.	3 Hrs.	2 Hrs.	1 Hr.
4 Fans + 4 Tube Lights	12	650 VA	3P IG500	2P IG500	2P IG500	2P IG500	IG500
5 Fans + 4 Tube Lights + 1 TV	12	850 VA	4P IG500	3P IG500	3P IG500	2P IG500	2P IG500
9 Fans + 8 Tube Lights + 1 TV	24	1450 VA	2S X 3P IG500	2S X 3P IG500	2S X 2P IG500	2S X 2P IG500	2S IG500

## INVATUBULAR RANGE

Exide **INVA TUBULAR** Range – The Ultimate Tubular batteries especially designed with Thick Tubular Plates to withstand long and frequent power interruptions.

### FEATURES

- Regular Tubular Range
- Deep Cycle Design - 1000 plus cycles at 80% D.O.D.
- Housed in Tall containers which give higher electrolyte volume per Ampere Hour
- 48 Months Warranty



### TECHNICAL SPECIFICATION

Model	Capacity at 27°C when discharged at C20 upto 1.75 vpc	Dimension (+/-3mm)			Weight (Kg+/-5%) Filled	Volume of Electrolyte (1.220 Sp. Gr) Liters/Cell	Warranty* (Months)	Notes
		Length	Width	Height*				
IT400	115Ah	500	187	416	53.80	3.38	48	
IT500	150Ah	500	187	416	59.81	3.43	48	
IT550	165Ah	500	187	416	61.65	3.33	48	
IT750	200Ah	500	187	416	66.00	3.30	48	

\*The height mentioned is upto terminal top.

\*Conditions apply

### APPLICATION CHART

Electrical Load	System Voltage	Reco. Inverter Rating	Recommended Battery for Different Back-up time				
			5 Hrs.	4 Hrs.	3 Hrs.	2 Hrs.	1 Hr.
4 Tube + 4 Fan	12	650 VA	2P IT750	2P IT500	2P IT400	IT750	IT400
4 Tube + 5 Fan + 1 TV	12	850 VA	3P IT550	2P IT750	2P IT550	2P IT500	IT550
8 Tube + 9 Fan + 1 TV	24	1450 VA	2S X 2P IT750	2S X 2P IT750	2S X 2P IT500	2S IT750	2S IT500

### TECHNICAL SPECIFICATION

Model	Capacity at 27°C when discharged at C20 upto 1.75 vpc	Dimension (+/-3mm)			Weight (Kg+/-5%) Filled	Volume of Electrolyte (1.220 Sp. Gr) Liters/Cell	Warranty* (Months)	Notes
		Length	Width	Height*				
IT500 SUPER	150AH+	500	187	416	62.6	3.00	48	

\*The height mentioned is upto terminal top.

\*Conditions apply



### APPLICATION CHART

Electrical Load	System Voltage	Reco. Inverter Rating	Recommended Battery for Different Back-up time				
			5 Hrs.	4 Hrs.	3 Hrs.	2 Hrs.	1 Hr.
4 Tube + 4 Fan	12	650 VA	2P IT500 SUPER	2P IT500 SUPER	2P IT500 SUPER	IT500 SUPER	IT500 SUPER
4 Tube + 5 Fan + 1 TV	12	850 VA	3P IT500 SUPER	2P IT500 SUPER	2P IT500 SUPER	2P IT500 SUPER	IT500 SUPER
8 Tube + 9 Fan + 1 TV	24	1450 VA	2P X 2S IT500 SUPER	2P X 2S IT500 SUPER	2P X 2S IT500 SUPER	2S IT500 SUPER	2S IT500 SUPER

## INVARED+ RANGE

Exide **INVARED+** Range - The next generation Red Tubular battery designed specially to withstand long and frequent power interruptions, with all new Thick Tubular Positive Plates, and which requires very low maintenance.

### FEATURES

- Economy Tubular Range
- 20% more electrolyte which means lesser topping-up frequency and better thermal management
- Faster Recharge
- 36 Months Warranty



**The Red Tubular**

### TECHNICAL SPECIFICATION

Model	Capacity at 27°C when discharged at C20 upto 1.75 vpc	Dimension (+/-3mm)			Weight (Kg+/-5%) Filled	Volume of Electrolyte (1.220 Sp. Gr) Liters/Cell	Warranty (Months)	Notes
		Length	Width	Height*				
IR300+	80Ah	410	176	281	30.1	1.60	36	
IR350+	100Ah	506	220	277	43.0	2.60	36	
IR450+	135Ah	506	220	277	47.5	2.47	36	
IR500+	150Ah	506	220	277	50.1	2.40	36	

\*The height mentioned is upto terminal top. \* At 27°C when discharged at C20 upto 1.75 vpc (1.250 sp.gr)

### APPLICATION CHART

Electrical Load	System Voltage	Reco. Inverter Rating	Recommended Battery for Different Back-up time				
			5 Hrs.	4 Hrs.	3 Hrs.	2 Hrs.	1 Hr.
4 Tube + 4 Fan	12	650 VA	3P IR450+	2P IR500+	2P IR450+	2P IR350+	IR450+
4 Tube + 5 Fan + 1 TV	12	850 VA	4P IR450+	3P IR450+	3P IR450+	2P IR450+	2P IR300+
8 Tube + 9 Fan + 1 TV	24	1450 VA	3P X 2S IR450+	3P X 2S IR450+	2P X 2S IR500+	2P X 2S IR450+	2S IR500+

### BASIC MAINTENANCE TIPS

#### DO'S

- ✓ Ensure that the Inverter/Home-UPS AC input plug is firmly connected to a three pole grounded mains socket. Connecting to any other socket may result in a shock hazard.
- ✓ Always keep the battery top dry and clean, and keep the same in a dry and cool place preferably inside a battery cabinet.
- ✓ Ensure that the battery terminals are firmly tightened with the battery connecting cable from the inverter. The terminals and fasteners should be clean, dry & smeared with petroleum jelly.
- ✓ Check the float level indicator of all the cells once in two months. If the indicators show low level, then top up the cells with only battery grade distilled water or de-mineralised water.

#### DONT'S

- ✗ Do not keep any object on top of the battery, especially metallic which may cause short-circuit between the battery terminals.
- ✗ Never short-circuit the negative and positive battery terminals. Never take any open flame or cause any spark near the battery. This may cause explosion.
- ✗ Never add acid in the battery.
- ✗ Avoid over discharging or over charging the battery. Overcharging or over discharging will significantly affect performance and life of the battery.

#### 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.



Authorised Dealer

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