



SHAKTI

A line of four semi-trucks is shown in profile, facing right, positioned behind the end of the word "SHAKTI". The trucks are rendered in a simple, high-contrast style with black outlines and white highlights.

'Zero Maintenance' Truck Battery
Your Trusted & Dependable Partner

COMPACT – HIGH PERFORMANCE – RELIABLE – COST SAVER

LCV & HCV



Pure Lead Tin Sealed Maintenance Free Batteries for Automotive Applications

Delivering the future first.

Requirements of an Engine Starting battery

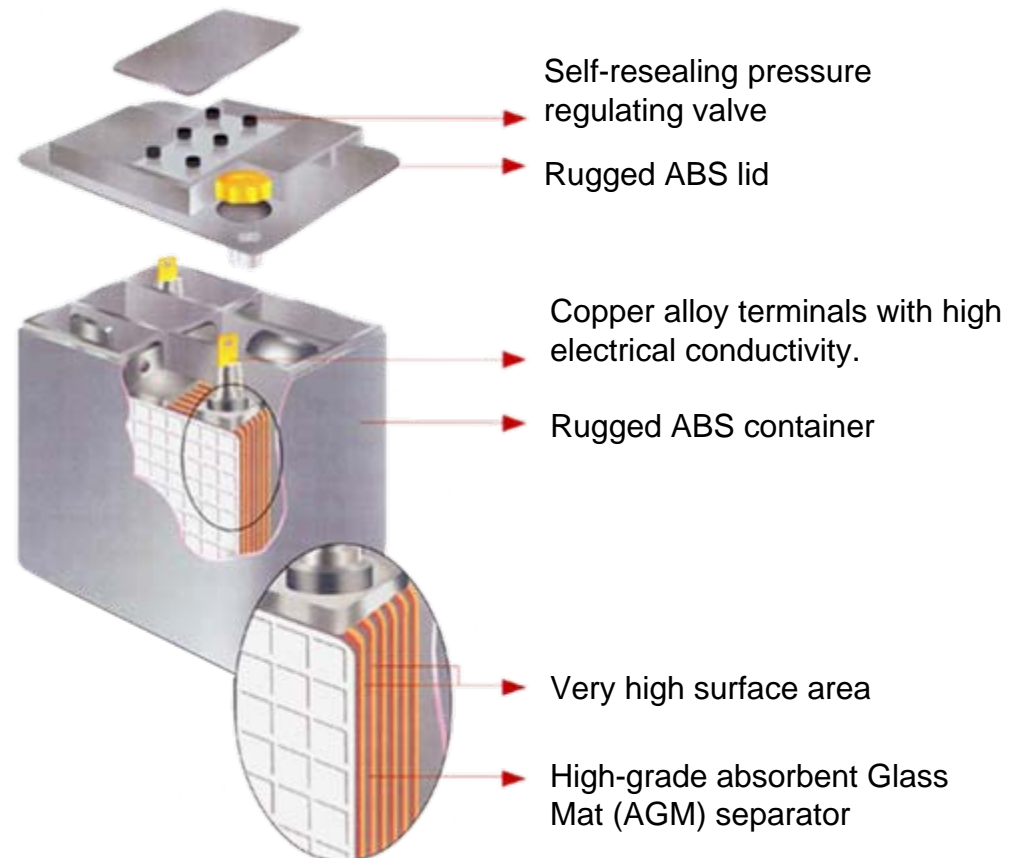
- | |
|-----------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">▪ High cranking current capability |
| <ul style="list-style-type: none">▪ Ability to crank cold engines or engines in idle condition for long time |
| <ul style="list-style-type: none">▪ Good high & low temperature performance |
| <ul style="list-style-type: none">▪ Compact & light weight |
| <ul style="list-style-type: none">▪ Faster recharge capability |
| <ul style="list-style-type: none">▪ No emission of corrosive fumes |
| <ul style="list-style-type: none">▪ Long life, both in storage & working. |

Important Customer requirements

Customer Requirement	Flooded Battery	Cummins Shakti Battery
Reliability of Starting	Satisfactory	Excellent
No Electrolyte adjustment	Adjustment required frequently	Maintenance-free
Readiness for use	Needs electrolyte filling and charging at site	Ready to use (filled & charged)
Ease of installation	Needs careful handling, possibility of acid spillage	Easy to install with no risk of acid spillage and very lightweight.
Ease of Maintenance	Difficult (acid top-up, sp. Gr adjustment)	No special maintenance
Low temperature performance	Generally not recommended below -10°C	Can work satisfactorily up to -40°C

SHAKTI - 'Zero Maintenance' Truck Battery

- Pure Lead-Tin thin plate Valve Regulated Lead-acid (VRLA) battery
- Unmatched peak power performance.
- Awesome starting capability
- Reliable starting even under the most adverse operating conditions.
- Most preferred choice for critical applications requiring high performance, reliability and long life



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Product Technology

- Product design used in applications like Battle tank starting and aircraft starting
- Normally flooded type lead calcium alloys with thicker grids are used in battery.
- Battery uses **Pure Lead-Tin thin plate** technology & contains 99.9% pure lead.
- Calcium, antimony etc. improves grid rigidity but increases positive grid corrosion hence thicker plates for longer life sacrificing energy density & high discharge.

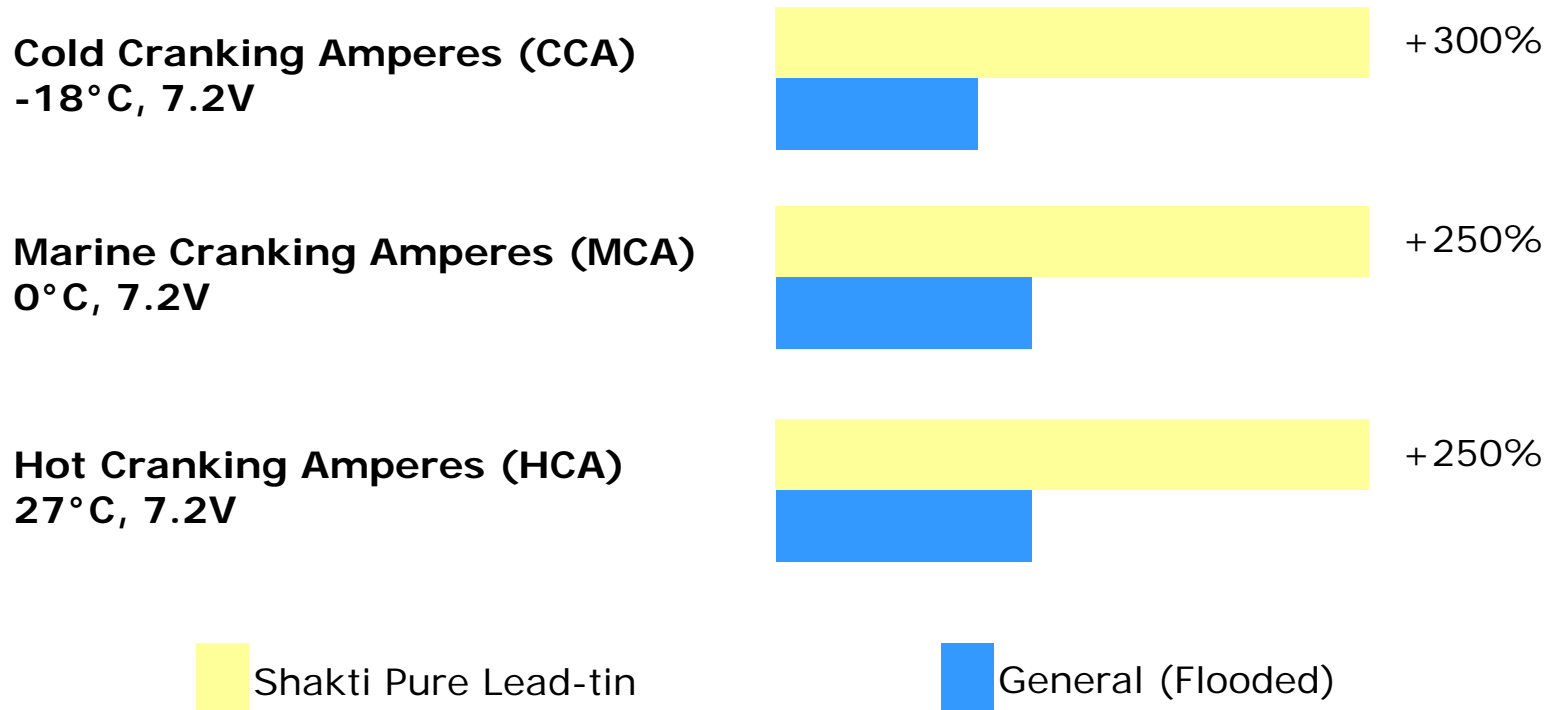
Pure Lead Tin Vs Other Lead Acid Batteries

Pure Lead-Tin

- Very high surface area.
- Very low corrosion in acid medium.
- Can be cast as thin grids without affecting life.
- Improved cycle life.

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Shakti – Cranking Performance



Note : Data compared for same capacity battery

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Features & Benefits

Maintenance free VRLA design –

Sealed system requires No Battery topping up or specific gravity checks. No flowing electrolyte and hence No spillage of battery acid and no corrosion or sulphation of battery terminals

Ready to use –

Compact & light weight for easy handling, Occupies very little space and is Filled & factory charged

Reliability –

Thin plate's gives more surface area reduced internal resistance hence high power capability for guaranteed starting, faster recharging and Consistent performance throughout battery life

Shelf Life –

Low self discharge provides extended storage capability while maintaining high state of charge for dependable operation

Features & Benefits

Cranking currents -

Up to 300% higher cold cranking ampere (CCA) than conventional flooded batteries

Longer life -

More starting cycles

Excellent low temperature performance –

Performance tested at -40°C ambient

Shock & vibration resistant –

Ideal for rough terrain. Sealed system hence can be installed in any angle

Warranty –

36 months warranty

Comparison with Conventional battery

Cummins Shakti Model	Capacity Ah	Dimensions (mm)			CCA	Approx. Wt. (Kgs)
		L	W	H		
AX1006968	32	163	142	225	500	12.5
Typical Equivalent Flooded Battery	70	260	173	220	430	17.5

Cummins Shakti Model	Capacity Ah	Dimensions (mm)			CCA	Approx. Wt. (Kgs)
		L	W	H		
AX1006969	50	330	168	200	620	20.0
Typical Equivalent Flooded Battery	80	410	176	233	500	25.9
	99	505	182	257	610	36.0

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Comparison with Conventional battery

Cummins Shakti Model	Capacity Ah	Dimensions (mm)			CCA	Approx. Wt. (Kgs)
		L	W	H		
AX1006970	65	330	168	200	720	25.0
Typical Equivalent Flooded Battery	130	505	223	238	700	41.9
	135	508	222	257	750	44.4

Cummins Shakti Model	Capacity Ah	Dimensions (mm)			CCA	Approx. Wt. (Kgs)
		L	W	H		
AX1006971	80	286	268	210	820	32.0
Typical Equivalent Flooded Battery	150	508	222	257	830	45.0

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Shakti – Selection Guidelines

Shakti Model	Capacity Ah
AX1006868	32
MRP (Rs.)	4450.00
Replaces Flooded	70
MRP (Rs.)	
Min:	4331.00
Max:	5574.00

APPLICATIONS		
Vehicle Type	OEM	Model
<u>Jeep / SUV</u>	Bajaj HM M&M TELCO	Matador-F305 & 307 /Traveler / TRAX /Gama/Town /Judo Trekker/Oka Armada/Commander/ Bolero /Voyager/Commander, /Maxx, /Saver i, Safari/Sumo/TataMobile/ Sierra/Estate

Shakti Model	Capacity Ah
AX1006969	50
MRP (Rs.)	6150.00
Replaces Flooded	80-99
MRP (Rs.)	
Min:	5428.00
Max:	7324.00

APPLICATIONS		
Vehicle Type	OEM	Model
<u>LCV:</u>	Ashok Leyland Bajaj Eicher HM Kirloskar-Toyota M&M Swaraj Mazda TELCO	Cargo 759/909/IVECO range Matador F305/ 307/ Traveler/ Trax/ Gama/ Town/Judo Dyna HCV-24, RTV Qualis Cabking, /Omnibus/Minibus/Tourister/L oadking/ Rakshak/Ambulance 3T 608/709/807

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Shakti – Selection Guidelines

Shakti Model	Capacity Ah
AX1006970	65
MRP (Rs.)	6650.00
Replaces Flooded	130, 135
MRP (Rs.) Min: Max:	8809.00 9568.00

APPLICATIONS		
Vehicle Type	OEM	Model
<u>HCV</u>	Leyland	Comet/Tusker/Taurus/Viking/Che etah

Shakti Model	Capacity Ah
AX1006971	80
MRP (Rs.)	8150.00
Replaces Flooded	150
MRP (Rs.) Min: Max:	8238.00 10288.00

APPLICATIONS		
Vehicle Type	OEM	Model
<u>HCV:</u>	Tata Motors	SD400/SA/SAK/1613TC/2516/1512TC/3516/2213/SE1613/SK/LP/LP T/LPO

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Thank you