# SM42B20LEFB Product Data Sheet

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# **Enhanced Flooded Battery Features**

## **Maintenance Free**

No need to replenish distilled water throughout the life of the battery.

#### Lower Self-Discharge

Highly refined lead alloys that render extremely low rates of selfdischarge.

# Enhanced Cycling Capability

Innovative design features to provide cycling performance strong enough for vehicles with ISS systems.

#### **Enhanced Charge Acceptance**

Calcium alloy H/Duty Powerframe grids and low resistance separators have 20% improved charging acceptance.

# **Enhanced Cold Cranking Ability**

Ability to crank up to 30% higher rate even in low state of charge

#### Inbuilt hydrometer

Allows you to check the charge status of the battery at a glance



# **ISS Vehicle Applications**

| Honda City                         | 2014 - On  |
|------------------------------------|------------|
| Toyota Prius *Heavy Duty<br>Option | 2002 -2004 |

Note: Incorrect battery selection may impair the Idle-Stop-Start function and will noticeably reduce battery life. Industry tests show that conventional batteries lose between 7 % and 16 % of available capacity after just one week's use in an Idle Start-Stop equipped vehicle. \* This will also void any warranty on a standard SMF calcium battery.

| Technical Specifications |          |                    |             |
|--------------------------|----------|--------------------|-------------|
| Variety:                 | EFB      | Length:            | 196 mm      |
| Voltage:                 | 12 V     | Width:             | 128 mm      |
| CCA:                     | 340      | Height             | 203 mm      |
| Reserve Capacity:        | 63       | Terminal Height:   | 223 mm      |
| <b>AH</b> (20 hour):     | 43       | DG Classification: | Corrosive 8 |
| Weight:                  | 11.05 kg | UN Number:         | 2794        |
| BCI Group:               | JIS M42  | Package Group:     | Ш           |

## WARRANTY - 18 MONTH FULL REPLACEMENT PRIVATE PASSENGER CAR USE

<sup>\*</sup> ACDelco EFB batteries are specifically designed for use in ISS equipped vehicles. \* EFB Batteries are a cost effective upgrade for standard vehicles.



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## What are Idle Stop Start Systems?

Vehicles fitted with Idle-Stop-Start (ISS) systems are often referred to as mild or micro-hybrids and have been developed by vehicle manufacturers to improve fuel efficiency and reduce vehicle emissions.

An ISS System works by shutting off the engine when the vehicle stops, is idling or when the brake is applied. The battery becomes the sole power source during this period. Once the accelerator is depressed the engine restarts instantly enabling the vehicle to be driven. By shutting off the vehicle's engine, the ISS system eliminates the amount of fuel that would otherwise have been used thus reducing emissions and fuel consumption.



AC Delco EFB (Enhanced Flooded Battery) batteries are specifically designed for use in ISS systems and feature industry-leading design features to ensure superior performance, delivering maximum fuel saving & emission reductions.

ISS systems place unique demands on batteries and

conventional (non-EFB) batteries should not be used in vehicles with ISS systems. AC Delco EFB batteries are made to handle the increased drain associated with multiple engine restarts as well as the power requirements needed to run all accessories whilst the engine is switched off, and the ability to accept rapid recharging between stops. They must also deliver the higher cranking capacity to start the vehicle in a fraction of a second when the brake is released or the accelerator depressed.

# Vehicles Using ISS Technology

The number of vehicles incorporating ISS systems

**Average Annual Starts** 

is growing rapidly. By 2017 it is estimated that 70% of new cars in some countries will have stop-start technology. Leading manufacturers including Audi, BMW, Honda, Mazda, Nissan, Subaru, Toyota and Volkswagen have already introduced vehicles with ISS technology and this list is growing.

High-Density Active Plate Material ✓ Superior Negative Plate Additives

✓ Thicker Power-Frame Battery Plates

- Highly Durable Grids
- Improved Rapid-Charge Acceptance
- Enhanced Cycling Capability
- EFB batteries can be used in vehicles which do not have ISS systems for improved starting power and longer battery life

Conventional ISS System

System

# **ISS-equipped Vehicles** (Average 12,500 Starts per year)

- Starts Vehicle every 1 to 2 kilometres (more often in heavy traffic)
- Battery often operates in partial state of charge •
- Accessories draw power from EFB battery when engine is off and not charging.
- Rapidly charges battery in-between engine on/ off cycles and low engine load opportunities

# **Conventional System** (Average 1,500 Starts per year)

- Starts vehicle approx. 4 times a day
- Maintains battery at or near full state of charge
- Accessories draw from a fully charged battery
- Alternator maintains power supply to battery and all accessories for duration of journey.