



Microprocessor Controlled Smart Battery Charger / Maintainer BaTExpert 100 MM 007950007100







1. With industry leading feature sets

- Aesthetic appearance to attract end users with a user friendly LCD display and label design.

- Multiple functions to meet every user's needs with multiple power supply modes & multi construction/LFP battery types)



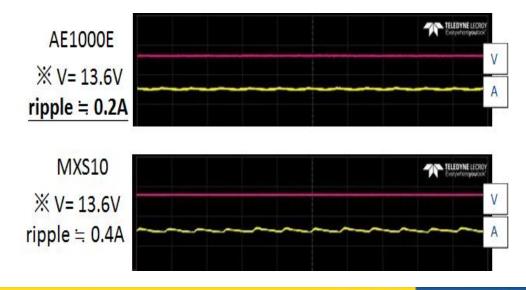




1. With industry leading feature sets

-Advance technology to charge a battery more effectivity. Such as low-temperature compensation, Repair mode and simple judgment function, etc.

-The low ripple power supply function doesn't interference the car ECU.







- Safety designs with Microprocessor controlled 9-stage charging algorithm, IP65 enclosures, Over-charge, Over-voltage, Spark free, Reverse polarity protection, Full insulation Clamp, etc.

2. Extensive range of high quality chargers- Family look to offer a complete AE offering





12V SINGLE BANK 1.5 / 10 Amp Battery Charger / Maintainer MAGNET



Full insulation Clamps





Cigarette plug (Optional)

Model Number	BT100
Display	LCD
Button	Two (mode & type)
Insulation case	IP65
Dimension	210 x 98 x 60 mm
Weight	880 g
Package	Color box package





BaTExpert 100



Model Number	BaTExpert 100		
Charging Current (Max)	1.5 Amp : 2.3Ah – 30Ah ;		
	10 Amp: 30Ah –200Ah (Switchable)		
Voltage AC	220~240V, 50/60Hz		
Applicate battery	• 12V Start-stop EFB, Start-stop AGM, WET, MF,		
	Ca/Ca, AGM and GEL lead-acid batteries		
	 12V LiFePO₄ starting battery 		
Low starting voltage	2V for Lead-acid battery ; 10V for LFP battery		
	9 stages for Flooded/AGM/GEL lead-acid battery		
Charging algorithm	6 stages for LiFePO4 battery		
	(Charging curve design for customer's requirement)		
Operation Temperature	-20~50°C, output power is reduced automatically at		
	high temperatures		
Power Supply	Yes (Data savor function)		
Temperature Compensation	Automatic (Built-in temperature sensor)		





■All in one, 12V charging mode:

Workable with all lead-acid batteries(including Start-stop EFB, Start-stop AGM, WET, MF, Ca/Ca, AGM and GEL) and LFP batteries.
1.5 & 10 Amp switchable for battery ranging from 2.3AH to 200AH

(motorcycle to HD batteries)

■Power supply mode:

•without losing important configurations! It will be a good helper when replacing a battery!!

•A good helper to be deployed in car show rooms, too.

Save deeply discharged battery

•Newly developed Battery Repair mode can repair BAD capacity storage battery automatically!

•When the battery is at low voltage level, such when you forget turning off headlights, it can recharge the deeply discharged battery as low as 2V.







Save Energy & Time

Unique charging diagram: <u>30% energy</u> and <u>50% time saving</u>

Fully Charged with Automatically Temperature compensation

 Without any manual setting. Temperature Sensor can detect automatically make sure battery can be charged effectively and fully regardless high or low temperature.

User-friendly Design

• Easy-to-read <u>LCD</u> user interface: Fully automatic charging/maintaining.

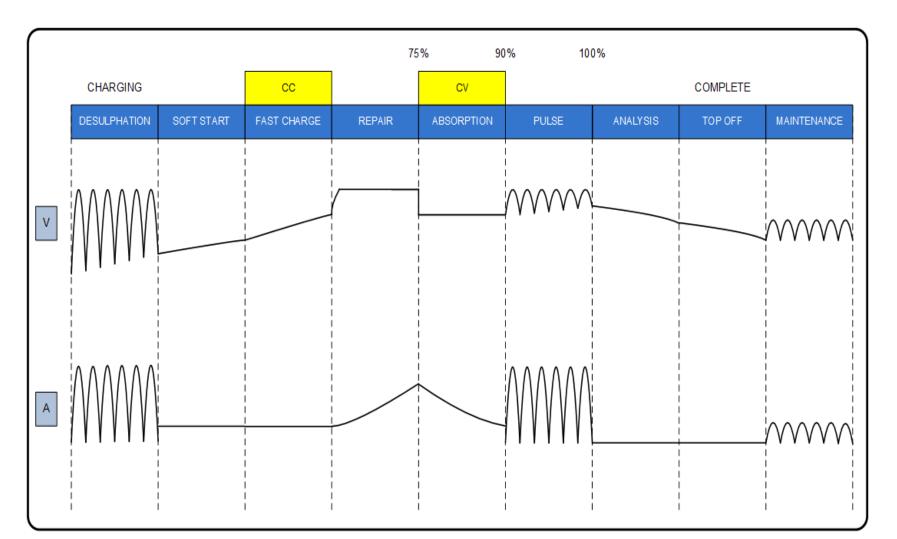
Safe & Reliable

- Multiple protection design
 - ✓ Over-charging protection
 - ✓ Spark free
 - ✓ Reverse polarity protection
- IP65 classified protection: Dust and water resistant
- Optimizes battery performance & longevity





BaTExpert 100 Innovative Charging Diagram (1/3)



Smart use, fully charge, and better care





BaTExpert 100 Innovative Charging Diagram (2/3)



• **BaTExpert 100** is a fully automatic smart charger.

The microprocessor will charge/maintain a battery with the optimal setup:

Desulfation: Saves a deeply discharged or a lightly sulfated battery for recovery.

Soft start: Tests that the battery is in suitable condition to receive a charge.

 \succ **Fast Charge**: Charges battery to 75% in the fastest and most efficient manner.

 \geq <u>**Repair</u>**: If the charged battery's charge storage capability is weak, it will detect and start the Repair function to recover battery automatically.</u>



BaTExpert 100 Innovative Charging Diagram (3/3)



•**BaTExpert 100** is a fully automatic smart charger.

The microprocessor will charge/maintain a battery with the optimal setup:

 \blacktriangleright **Absorption**: When the battery reaches 75% charge, the charger output is constant with high voltage small current to 90% in a safe manner.

ightarrow **Pulse**: When the battery reaches 90% charge, the charger starts a charge pulse with a smaller current to fully charge in the safest manner.

ightarrow **Analysis** : Tests that the battery is retaining the charge that has been delivered.

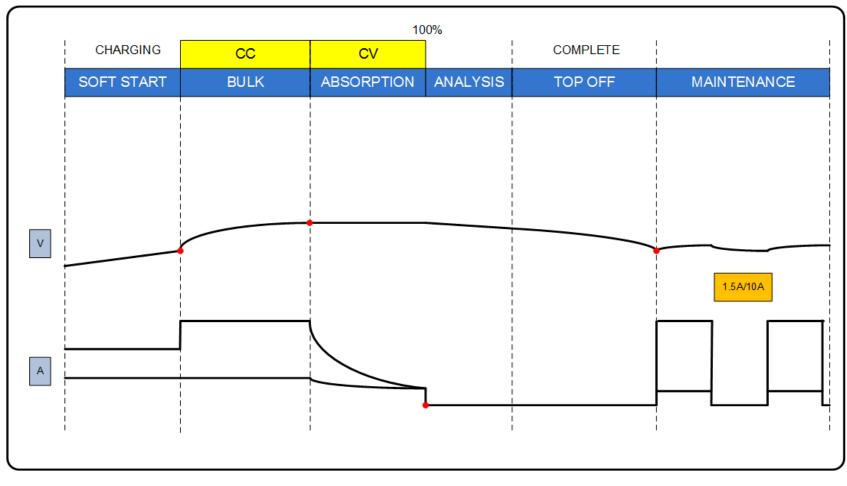
Top off: Fully charge the battery without overcharging the battery.

> Maintenance: Maintains the battery in a full state of charge.





BaTExpert 100 6-stage Intelligent Switch Power Technology



Smart use, fully charge, and better care



BaTExpert 100 LiFePO4 Battery Charging Diagram (3/3)



BaTExpert 100

• is a fully automatic smart charger.

The microprocessor will charge/maintain a battery with the optimal setup:

 \geq <u>Soft start</u>: Tests that the battery is in suitable condition to receive a charge.

 \geq **Fast Charge**: Charges battery to 75% in the fastest and most efficient manner.

 \geq <u>Absorption</u>: When the battery reaches 75% charge, the charger output is constant with high voltage small current to 90% in a safe manner.

 \geq <u>Analysis</u> : Tests that the battery is retaining the charge that has been delivered.

> **Top off**: Fully charge the battery without overcharging the battery.

Maintenance: Maintains the battery in a full state of charge.

APPENDIX. BaTExpert 100 Selection Guide



Battery Size		Time to 80% Charged (Start from SOC=0%)	
Ampere Hours (AH)	Cold Cranking Amps (CCA)	BaTExpert 100 (1.5Amp)	BaTExpert 100 (10Amp)
2	40	1~2 hr	Not recommended
6	80	4 hrs	Not recommended
10	120	6~7 hrs	Not recommended
14	150	9~10 hrs	Not recommended
20	200	13~14 hrs	2 hrs
50	400	Maintenance	5 hrs
70	550	Maintenance	7 hrs
120	900	Maintenance	12 hrs
150	1170	Maintenance	15 hrs
200	1560	Maintenance	20 hrs





BaTExpert 100



MAGNETI MARELL	I COMPARISON CHART		
Model Number	BatExpert 100	MXS10 10AMP SMARTBATTERY CHARGER (C-TEK)	C7 Battery Charger (BOSCH)
Photo		E . million	
Suitable Battery	12V Start-stop EFB, Start-stopAGM, WET, MF, Ca/Ca, AGMand GEL lead-acid batteries12V LiFePO4 starting battery	12V Lead-acid, AGM, Wet, and Gel batteries	12V + 24V Lead-acid, AGM,Wet, and Gel batteries
Technology	Microprocessor Controlled, PULSE Technology	Microprocessor Controlled	Microprocessor Controlled
Charge Stages	9 - Lead-Acid battery6 - LiFePO4 starting battery	8	6
Charge Current (Max.)	12V 1.5 Amp (Motorcycle Battery)&10 Amp (Car Battery)	10 Amp	12V: 7 Amp24V: 3.5 Amp
Power Supply	Yes	Yes	Yes
Rated Voltage AC	220~240V, 50/60Hz	220~240V, 50/60Hz	220~240V, 50/60Hz
Application	12V Lead-acid Batteries12V LiFePO4 starting battery	12V Lead-acid Batteries	12V + 24V Lead-acid Batteries
Display/Indicator	LCD	LED	LED
IP65 Classified(Dust, Splash, Rain protection)	Yes	Yes	Yes
Spark Free	Yes	Yes	Yes
Reverse Poles Protection	Yes	Yes	Yes
Over-charging Protection	Yes	Yes	Yes
Dimension	L210 X W98 X H60 (mm)	L170 X W73 X H48 (mm)	L197 X W108 X H65 (mm)



BaTExpert 100



Thank you for being with us.



MM 007950007100

Magneti Marelli Plac pod Lipami 5 40-476 Katowice Tel. +48 32 60 36 144 <u>www.magnetimarelli-checkstar.pl</u>



