



**WINNER**  
BATTERY

# WINNER ICARUS

12350W

AGM High Discharge Rate series

Datasheet Q1/2016

## Specifications

Nominal Voltage	12V
Nominal Power @ 20 °C (15min)	350W/Cell @ 1.67 V/Cell
Dimensions	
Length	304 mm
Width	168 mm
Container Height	208 mm
Total Height	227 mm
Max Discharge Current	900 A (5sec)
Max Charging Current	27.0 A
Standard Terminals	F18
Container Material	ABS UL 94 HB ABS UL 94 V-0 on request

## Characteristics

Capacity 25° C	
20 hr @ 5.30 A	106.00 Ah
1.5 hr @ 43.73 A	65.60 Ah
1 hr @ 55.47 A	55.47 Ah
1 C @ 106.00 A	53.00 Ah
Internal Resistance	5.0 mΩ
Charging Voltage (25 °C)	
Standby Use	2.275±0.025V/CELL (-3.3mV/°C/CELL)
Cycle Use	2.45±0.05V/CELL (-5.0mV/°C/CELL)
Weight	29 Kg

## The WINNER ICARUS technology

WINNER ICARUS series is designed for High Rate discharge performance and service life in either float or cyclic applications, even after repeated over-discharges. It incorporates the latest AGM VRLA technology and excellent know-how. It is tested according to international standard IEC 60896-21 and complies to defined requirements of IEC 60896-22.

The unique construction and sealing techniques of WINNER ICARUS High Rate series guarantee leak proof operation in any position, with no adverse effect to capacity or service life.

## Positive plate

The positive plates are made of a grid frame of heavy duty lead-tin-calcium alloy and active material of porous lead dioxide.

## Negative plate

The negative plates are made of a grid frame of lead-tin-calcium alloy as well and with active material of spongy lead.

## Separator

The separators are made of non-woven fabric of fine glass fibers and are chemically stable in the electrolyte sulfuric acid. The high porousness fully absorbs the electrolyte and prevents shorting between positive and negative plates.

## Terminal structure

The electrode terminals are protected due to both the structure that secures long adhesive - embedded paths and the use of strong epoxy material.



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#### Electrolyte

They utilize an electrolyte suspension system consisting a high porosity, glass fiber material, which in conjunction with plates, totally absorbs the electrolyte.

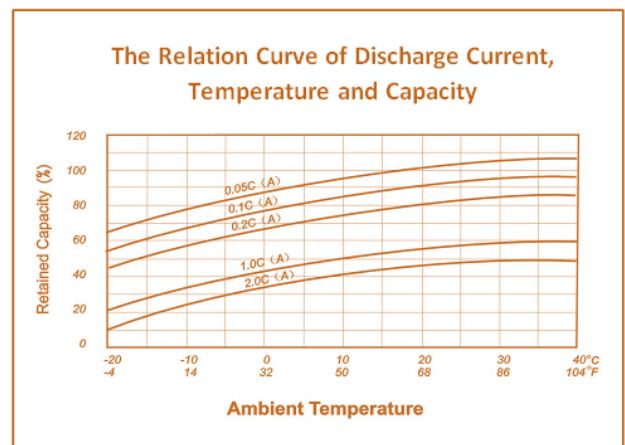
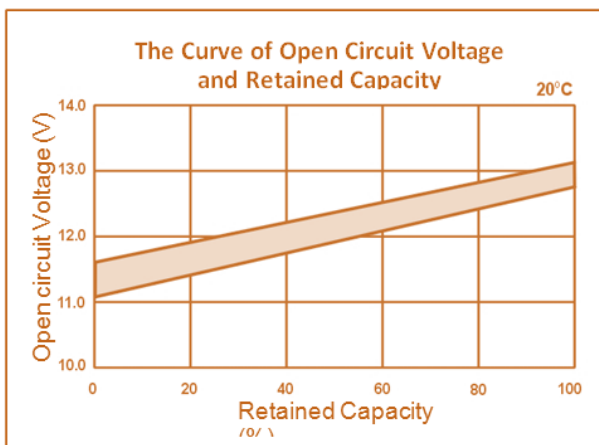
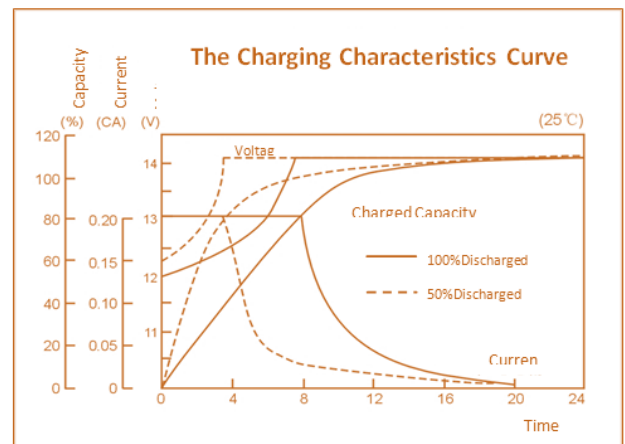
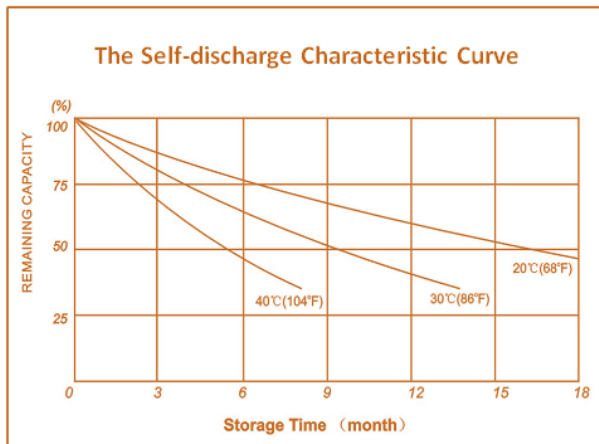
#### Safety valves

The incorporated built-in design controls gas generation and induces recombination of more than 99% of gasses generated during float usage. Special safety release valves, designed to operate between 2 and 5 psi automatically reseal, preventing an excessive accumulation of gas inside the battery.

#### Container

The battery case is made of ABS material, is shock resistant and it can be also available as flame retardant too.

#### Diagrams





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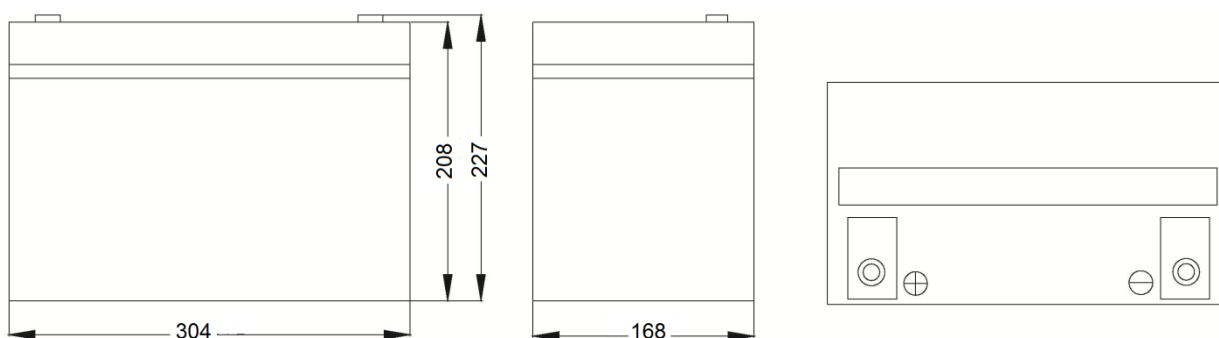
## Constant Current Discharge Data: AMPERES (25°C)

[A]	MINUTES - AMPERE CONSTANT CURRENT DISCHARGE (25 °C)								
	F.V	5,00	8,00	10,00	15,00	20,00	30,00	60,00	90,00
1,85	222,20	220,00	179,20	150,30	120,00	88,90	52,49	41,25	
1,80	260,20	239,00	194,70	157,70	124,40	92,00	54,16	42,98	
1,75	288,30	248,80	217,50	165,20	128,50	96,00	55,47	43,73	
1,70	321,10	258,40	238,10	174,00	135,00	99,60	56,80	44,56	
1,67	330,90	264,80	251,40	181,10	138,70	101,40	57,79	45,37	
1,60	340,70	279,50	252,70	185,40	147,30	105,30	58,95	47,00	

## Constant Power Discharge Data: WATTS/cell (25°C)

[W]	MINUTES - WATTS/CELL CONSTANT POWER DISCHARGE (25 °C)								
	F.V	5,00	8,00	10,00	15,00	20,00	30,00	60,00	90,00
1,85	422,83	410,67	396,50	304,67	231,00	171,67	102,37	80,67	
1,80	481,33	433,67	404,50	318,67	236,33	176,83	104,30	83,17	
1,75	528,50	451,67	412,50	332,50	243,83	183,00	106,10	83,67	
1,70	580,50	462,00	443,33	343,17	252,83	187,50	106,67	84,17	
1,67	587,33	474,67	464,50	353,67	257,83	190,33	107,48	85,17	
1,60	599,17	494,33	468,00	360,00	271,00	195,67	109,85	87,67	

## Dimensions - Terminals



Terminal F18

