



**WINNER**  
BATTERY

# WINNER ICARUS

12370W

AGM High Discharge Rate series

Datasheet Q1/2016

## Specifications

<b>Nominal Voltage</b>	12V
<b>Nominal Power @ 20 °C (15min)</b>	370W/Cell @ 1.67 V/Cell
<b>Dimensions</b>	
<b>Length</b>	329 mm
<b>Width</b>	172 mm
<b>Container Height</b>	216 mm
<b>Total Height</b>	223 mm
<b>Max Discharge Current</b>	1000 A (5sec)
<b>Max Charging Current</b>	30.0 A
<b>Standard Terminals</b>	F18
<b>Container Material</b>	ABS UL 94 HB ABS UL 94 V-0 on request

## Characteristics

<b>Capacity 25° C</b>	
<b>20 hr @ 5.30 A</b>	106.00 Ah
<b>5 hr @ 47.59 A</b>	71.40 Ah
<b>1 hr @ 60.37 A</b>	60.37 Ah
<b>1 C @ 106.00 A</b>	53.00 Ah
<b>Internal Resistance</b>	4.0 mΩ
<b>Charging Voltage (25 °C)</b>	
<b>Standby Use</b>	2.275±0.025V/CELL (-3.3mV/°C/CELL)
<b>Cycle Use</b>	2.45±0.05V/CELL (-5.0mV/°C/CELL)
<b>Weight</b>	31.50 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.

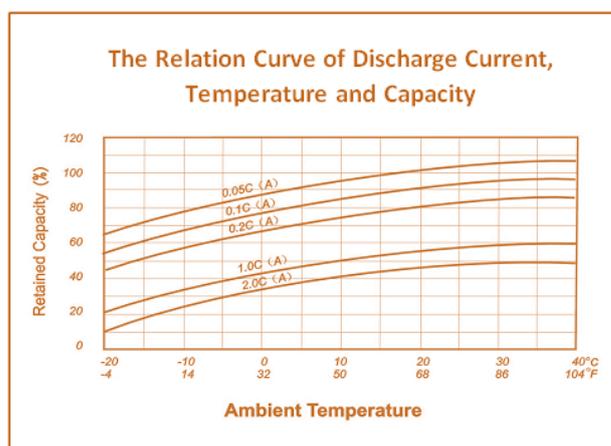
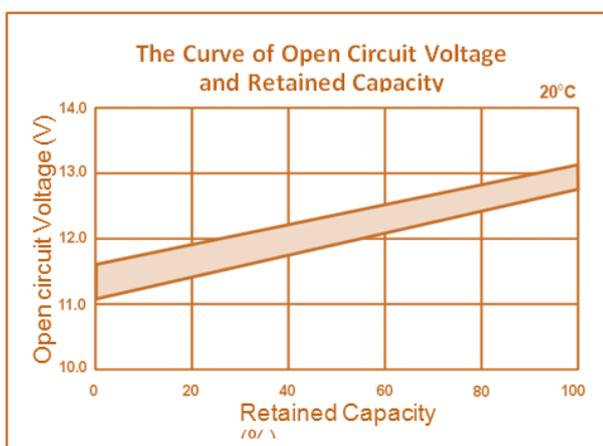
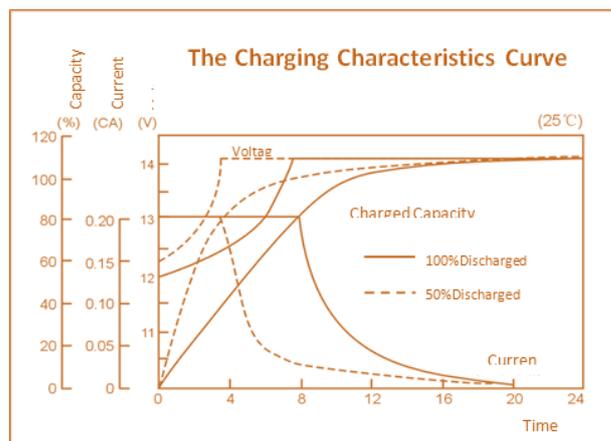
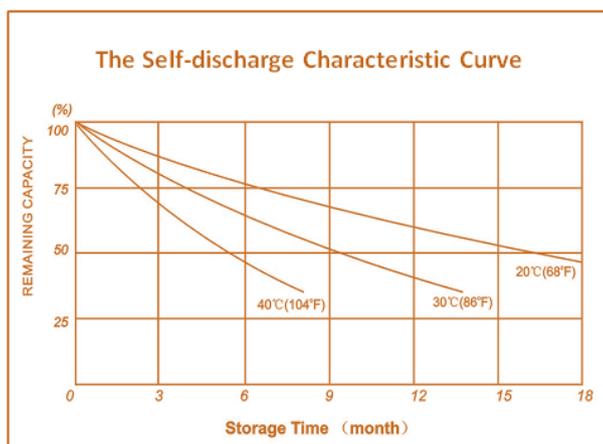
## Safety valves

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



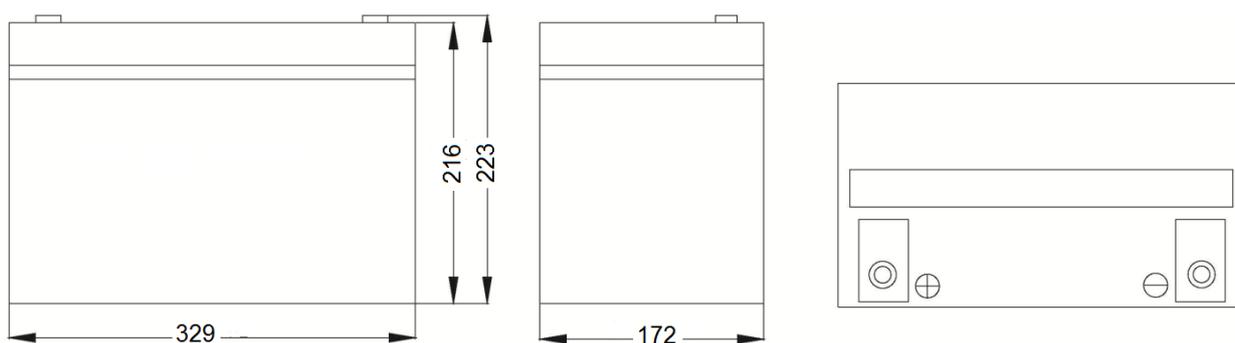
#### Constant Current Discharge Data: AMPERES (25°C)

[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	239,40	237,00	193,00	161,90	130,60	96,80	57,12	44,89	
1,80	280,30	257,50	209,80	169,90	135,40	100,10	58,94	46,77	
1,75	310,60	268,00	234,30	177,90	139,90	104,40	60,37	47,59	
1,70	345,90	278,40	256,50	187,50	146,90	108,40	61,81	48,50	
1,67	356,50	285,30	270,80	195,10	151,00	110,30	62,89	49,38	
1,60	367,10	301,10	272,20	199,80	160,30	114,50	64,15	61,14	

#### 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	455,50	442,50	427,17	328,17	251,33	186,67	111,40	87,67	
1,80	518,67	467,17	435,83	343,17	257,17	192,50	113,50	90,50	
1,75	569,50	486,67	444,50	358,33	265,33	199,17	115,45	91,17	
1,70	625,50	497,67	477,67	369,83	275,17	204,00	116,08	91,67	
1,67	632,67	511,33	500,50	381,00	280,67	207,00	116,97	92,67	
1,60	645,50	532,67	504,33	387,83	295,00	213,00	119,53	95,33	

#### Dimensions - Terminals



Terminal F18

