

## RID WR 12-100

RESERVED POWER BATTERIES



12V  
100AH



**AGM**  
VRLA BATTERY

### ELECTRICAL SPECIFICATIONS

Nominal voltage	12V
Number of cells	6
Rated capacity	100 Ah (10 h rate to 1.80 Vpc at 20 °C)
Internal resistance	6.5 mOhm (IEC 60 896-21/22)
Short circuit current	1960 A (IEC 60 896 -21/22)
Float charge voltage	2.27 V per cell (Vpc) at 20 °C

### PHYSICAL CHARACTERISTICS

Length	398 mm
Width	110 mm
Height	286 mm
Weight	32,9 kg

### DESIGN FEATURES

Design life at 20 °C	Very Long Life 12+ years
Platess	Tick Flat Pasted
Active material	Very high purity virgin lead
Grid alloy	Lead-Calcium-Tin alloy
Electrolyte	Sulphuric acid, Analytical grade
Separator	Absorbing Glass Mat (AGM)
Operating temperature	-20 °C to +60 °C (maximum) +15 °C to +25 °C (recommended)
Venting valve	Rubber, one way, self resealing: - Opening pressure: 3 PSI; - Resealing pressure: 2 PSI
Internal gas recombination efficiency	more than 99%
Central degassing system	Available
Flame arrestor	Available
Storage temperatures	-20 °C to +40 °C
Shelf life	Less than 2.0% per month at 20°C
Container / lid material	Shock resistant ABS FR; flammability class UL94 V0
Terminal position	Front
Terminal sealing	Mechanical + epoxy double sealing
Terminal type	Brass; Female; M8 thread
Terminal torque	7Nm
Terminal cover	Available
Carrying Handle	Available
Connectors and bolts	Supplied as standard



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### BATTERY CAPACITY AT CONSTANT CURRENT DISCHARGE (AH) FOR BATTERY RID WR 12-100 AT 20 °C

Uf, Vpc	5 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
1.60	21	36	52	62.8	73.1	80.3	85.5	89.6	92.7	98.9	103.0	110.2
1.65	21	36	51	62.5	72.8	80.0	85.1	89.2	92.3	98.4	102.5	109.6
1.70	20	36	51	62.2	72.4	79.6	84.7	88.7	91.8	97.9	102.0	109.1
1.75	20	35	51	61.6	71.7	78.8	83.8	87.9	90.9	97.0	101.0	108.0
1.80	20	35	50	61.0	71.0	78.0	83.0	87.0	90.0	96.0	100.0	107.0
1.85	20	34	49	59.5	69.2	76.0	81.0	84.8	87.8	93.6	97.5	104.3

### DISCHARGE PERFORMANCE AT CONSTANT CURRENT DISCHARGE (A) FOR BATTERY RID WR 12-100 AT 20 °C

Uf, Vpc	5 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
1.60	253	144	103	62.8	36.6	26.8	21.4	17.9	15.5	12.4	10.3	5.51
1.65	249	144	103	62.5	36.4	26.7	21.3	17.8	15.4	12.3	10.3	5.48
1.70	245	143	102	62.2	36.2	26.5	21.2	17.7	15.3	12.2	10.2	5.46
1.75	242	142	101	61.6	35.9	26.3	21.0	17.6	15.2	12.1	10.1	5.40
1.80	240	140	100	61.0	35.5	26.0	20.8	17.4	15.0	12.0	10.0	5.35
1.85	234	136	98	59.5	34.6	25.3	20.3	17.0	14.6	11.7	9.8	5.22

### DISCHARGE PERFORMANCE AT CONSTANT POWER DISCHARGE (W PER CELL) FOR BATTERY RID WR 12-100 AT 20 °C

Uf, Vpc	5 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	6 h	8 h	10 h	20 h
1.60	506	288	206	125.6	73.1	53.5	42.8	35.8	30.9	24.7	20.6	11.02
1.65	492	287	205	125.0	72.8	53.3	42.6	35.7	30.8	24.6	20.5	10.96
1.70	488	286	204	124.4	72.4	52.8	42.4	35.5	30.6	24.5	20.4	10.91
1.75	485	283	202	123.2	71.7	52.3	41.9	35.2	30.3	24.1	20.2	10.80
1.80	480	280	200	122.0	71.0	52.0	41.5	34.8	30.0	24.0	20.0	10.70
1.85	468	273	195	119.0	69.2	50.7	40.5	33.9	29.3	23.4	19.50	10.43

### TEMPERATURE CORRECTION FACTOR OF CAPACITY AT CONSTANT CURRENT DISCHARGE

Discharge time	-10 °C	0 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C	40 °C	45 °C
From 5 to 59 minutes	0.70	0.80	0.90	0.95	1	1.05	1.10	1.13	1.15	1.16
From 1 to 20 hours	0.82	0.88	0.94	0.97	1	1.03	1.05	1.08	1.09	1.10

### BATTERY CHARGE CONDITIONS AT 20 °C; CHARGE REGIME: CONSTANT VOLTAGE AND LIMITED CURRENT (IU)

Charge current limit	Float charge voltage	Equalization charge voltage	Boost charge voltage
"0.1 – 0.25C10 A Recommended: 0.20C10 A"	"2.27 V per cell at 20 °C; Temperature correction: -3 mV / cell / °C"	"2.32 V per cell at 20 °C Recommended: every 3 months for 24h during long time float operation"	"2.40 V per cell at 20 °C Temperature correction: -4 mV / cell / °C"
Float application: 0.20C10 A / 2.27 V per cell at 20 °C		Cycling applications: 0.20C10 A / 2.40 V per cell at 20 °C; Recharge Ah input at least 105% from previous discharge Ah	

