

FEATURES

- Lead-acid battery
- Voltage of 12 V
- Capacity of 28 Ah
- Operating temperature range of 0°C to +40°C and can function from -15°C to +50°C
- 164 mm (H) x 125 mm (L) x 175 mm (W)
- Weight of 9.5 kg
- Absorbent Glass Mat construction so spill- and leak-resistant
- T3-A terminal type

RS PRO Lead Acid Battery - 12V, 28Ah

RS Stock No.: 174-8859



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

These RS PRO lead-acid batteries are suitable for standby and floating load applications. These rechargeable batteries have a long service life.

General Specifications

Technology	AGM
Designed for Cyclic Application	Yes
Eurobat Classification	3 to 5 Years
Container Material	ABS
Application	Standby & float applications

Electrical Specifications

Capacity	28Ah
Nominal Voltage	12V
Terminal Type	T3-A
Cells Per Unit	6
Voltage Per Unit	12V
Max. Discharge Current	420A (5 sec)
Max. Charging Current Limit	8.4 A
Float charging Voltage	13.5to 13.8VDC/unit Average at 25 °C
Internal Resistance	Approx. 14mohm
Equalization and Cycle Service	14.4VDC to15.0VDC/unit Average at 25°C
Self-Discharge	Self-discharge ratio less than 3% per month.

Mechanical Specifications

Dimensions	164mm x 175mm x 125mm
Height	175mm
Length	125mm
Width	164mm
Weight	9.5kg

Operation Environment Specifications

Operating Temperature Range	Discharge : -15°C to 50°C (5°F to 122 °F) Charge : 0°C to 40°C (32°F to 104 °F) Storage : -15°C to 40°C (5°F to 104 °F)
Nominal Operating Temperature Range	25°C ± 3°C

Approvals

Compliance/Certifications	UL94-HB
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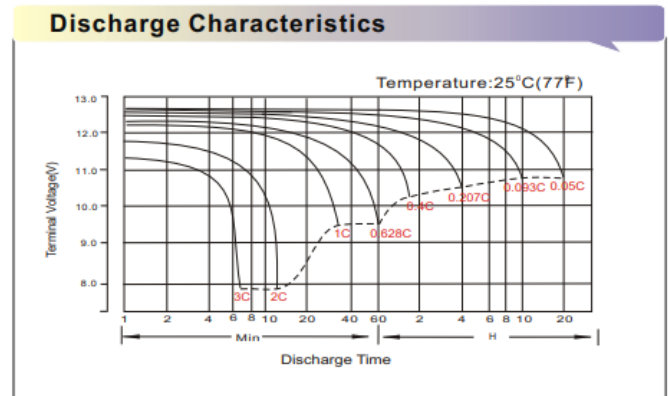
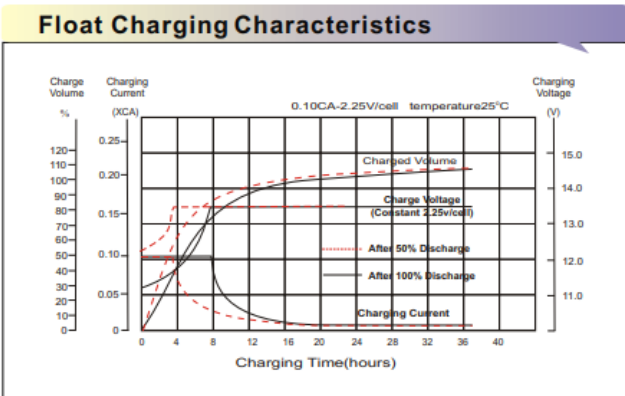
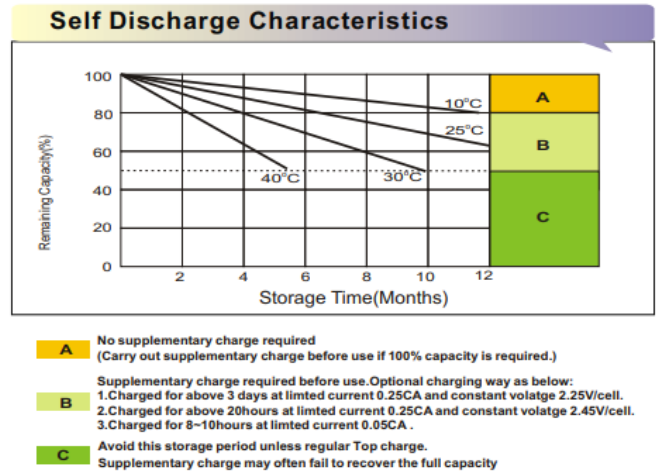
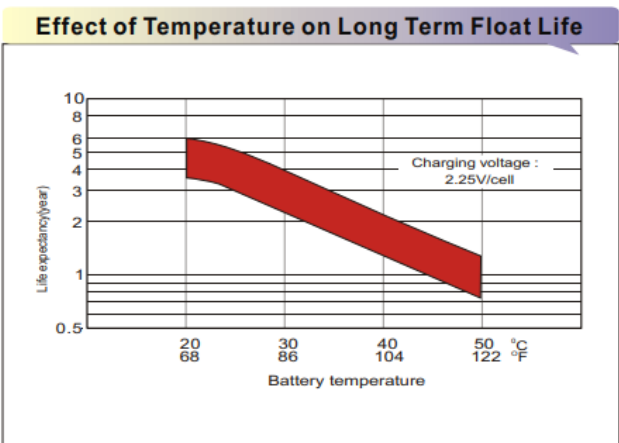
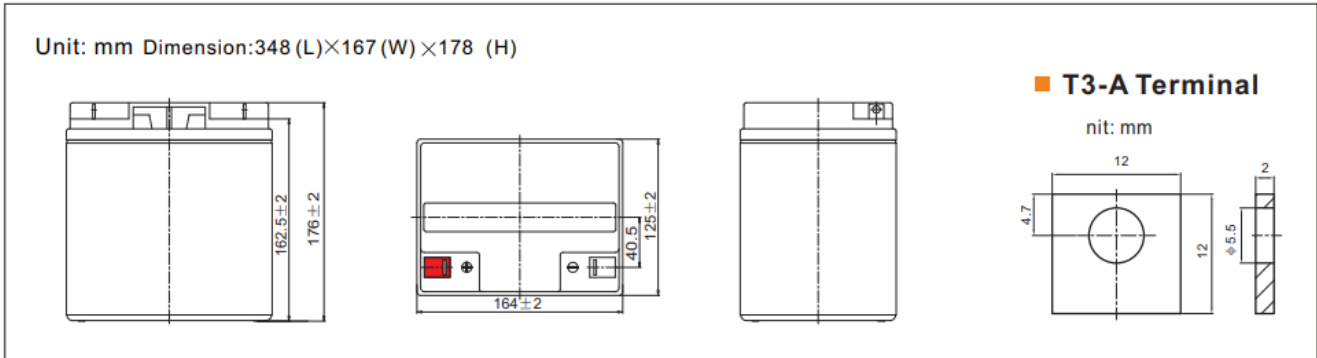
Constant Current Discharge Characteristics : A (25 °C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	53.3	40.9	33.9	29.3	22.7	16.7	14.1	8.33	6.52	5.30	4.32	3.75	3.02	2.53	1.39
1.80V/cell	71.6	52.3	41.0	34.7	26.8	19.4	15.8	9.09	7.01	5.66	4.64	4.02	3.21	2.60	1.40
1.75V/cell	80.7	57.5	44.8	37.3	27.8	20.2	16.5	9.42	7.14	5.78	4.76	4.13	3.26	2.67	1.41
1.70V/cell	88.9	62.7	47.8	39.2	28.9	21.0	17.0	9.66	7.34	5.94	4.88	4.22	3.31	2.73	1.44
1.65V/cell	98.0	67.6	50.8	41.6	30.5	21.5	17.4	9.80	7.65	6.14	5.01	4.31	3.36	2.78	1.46
1.60V/cell	108.1	73.4	54.3	44.4	32.2	22.4	17.6	10.2	7.88	6.33	5.18	4.40	3.39	2.81	1.47

Constant Power Discharge Characteristics : W (25 °C)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	97.5	75.6	63.3	55.3	43.2	32.1	27.2	16.17	12.70	10.36	8.47	7.37	5.97	5.00	2.75
1.80V/cell	129.5	95.5	75.4	64.4	50.2	37.1	30.3	17.53	13.59	11.00	9.05	7.87	6.31	5.15	2.77
1.75V/cell	142.9	103.3	81.4	68.6	51.7	38.1	31.5	18.11	13.78	11.21	9.26	8.06	6.41	5.28	2.79
1.70V/cell	153.0	110.0	85.7	71.6	53.5	39.5	32.4	18.53	14.14	11.48	9.48	8.22	6.49	5.38	2.84
1.65V/cell	166.3	117.6	90.4	75.4	56.0	40.1	32.9	18.68	14.68	11.83	9.70	8.37	6.58	5.48	2.88
1.60V/cell	179.2	124.8	95.1	79.5	58.7	41.6	33.1	19.39	15.06	12.17	9.99	8.53	6.63	5.53	2.89

Dimensions



Available Capacity Subject to Temperature

Battery Type	-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
AGM Battery 6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.80V	1.75V	1.60V
Discharge Current (A)	(A) $\leq 0.2C$	$0.2C < (A) < 1.0C$	(A) $\geq 1.0C$

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	$-0.2C \times 2h + 2.4 \sim 2.45V/Cell \times 24h$, Max. Current 0.3CA
Constant Current	0.1C until the voltage reaching 14.4V, then 0.1Cx4h

Maintenance & Cautions

Float Service:
◆ It is recommended to check battery/Float voltage each month.
Equalisation charge:
◆ Equalisation charging is recommended once every 3 to 6 months using.
◆ Discharge 100% rated capacity.
◆ Charge 2.35v/cell constant voltage, maximum 0.3CA 24hrs.