

# TECHNICAL DATA SHEET

## DAS12-18

DAS12-18 Valve Regulated Lead Acid battery.  
5 year design life for stand by power applications.  
12 Volts 18 Ah



### Innovative Features

Completely maintenance free, sealed construction eliminates the need for watering  
Fully tank formed plates  
Analytical Grade electrolyte  
Spill proof / leak proof  
Valve regulated Max internal pressure 2.5 psi  
Multi-position usage  
ABS Case and cover - V0 on request  
Low self discharge  
FAA and IATA approved as non-hazardous  
Built to comply with IEC 896-2, DIN 43534, BS 6290 Pt4, Eurobat.

### Specifications

Nominal Voltage	12 Volts
Nominal Capacity	18Ah (C20 @ 20 °C)
Design Life	5 Years
Operating Temperature	-20 °C to 50 °C
Grid alloy	Calcium / Tin lead alloy
Plates	Flat Pasted
Separator	Absorbant Glass Mat
Active material	Very high purity lead
Case and cover	ABS (VO on request)
Charge Voltage	Float 2.25 - 2.30 VPC @25 °C Cycling 2.35 @25 °C Max. 2.4 VPC Max ripple 0.05C (A)
Electrolyte	Sulphuric acid Analytical grade purity
Venting Valve	EPDM Rubber 1.5 to 2 psi (10.5 - 14 KPa) release pressure. Resealing at 1 psi (7 KPa)
Terminal	Insert 12mm Dia M5 thread. Epoxy sealed by extended mechanical paths
Torque setting	The recommended torque value for all types is 5-7 Nm
Cables	Connectors, cables, terminal covers on request.

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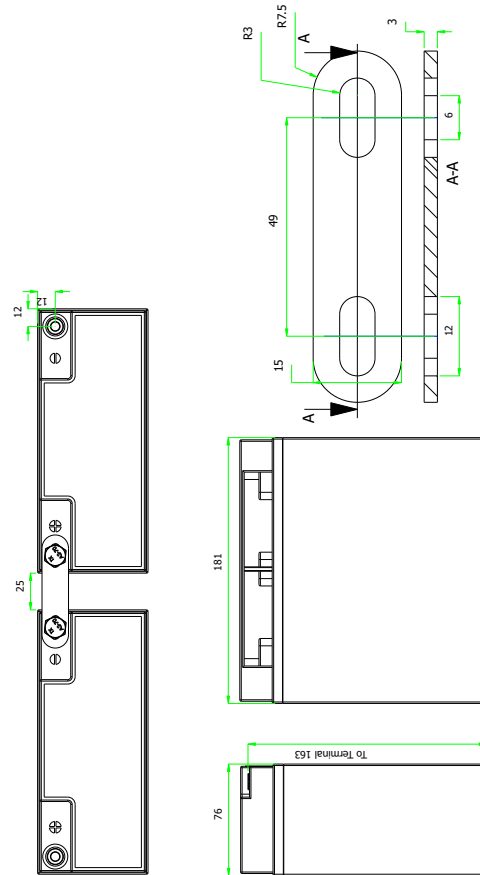
## DAS12-18

### Specifications

Nominal Voltage		12V	
Nominal Capacity		18 Ah	
Dimensions	Total Height	181 mm	7.13 inches
	(Inc. terminals)	n/a mm	n/a inches
	Length	76 mm	2.99 inches
	Width	167 mm	6.57 inches
	Weight	6.25 Kg	13.81 lbs

### Characteristics

Capacity 20 °C (68 °F) To 1.7 volts	20 hour rate	18.0 Ah
	10 hour rate	15.8 Ah
	5 hour rate	14.8 Ah
	1 hour rate	11.0 Ah
	15 min rate	8.0 Ah
	Internal Resistance	17.1 mOhms
Capacity correction for Temperature Variations (C20)	40 °C (104 °F)	102%
	20 °C (68 °F)	100%
	0 °C (32 °F)	85%
	-15 °C (5 °F)	65%
	Self-Discharge 20 °C (68 °F)	Capacity after 1 months storage
	Capacity after 3 months storage	94%
	Capacity after 6 months storage	86%
Short Circuit Current 20 °C (68 °F)	732	
Terminal	Standard	12mm Insert M5 thread
	Optional	Cu Flag
Charging (Constant Voltage)	Cyclic	2.35 - 2.40 VPC (20-25 °C)
	Float	2.27 - 2.30 VPC (15-25 °C)



### Constant Power Discharge - Watts per Cell @20 °C

End V per Cell	5M	10M	15M	20M	25M	30M	35M	40M	45M	60M	90M	2 hr	3 hr	4 hr
1.85	86.2	64.2	52.7	44.4	38.4	33.8	30.0	27.0	24.5	19.6	14.9	11.8	8.50	6.56
1.80	95.7	67.8	55.5	46.8	39.7	34.6	30.5	27.4	24.8	19.9	15.2	12.1	8.60	6.68
1.75	101	72.6	56.4	48.0	40.7	35.1	31.1	27.9	25.2	20.3	15.3	12.1	8.69	6.76
1.70	106	74.8	58.1	48.6	41.1	35.5	31.5	28.3	25.8	20.8	15.6	12.4	8.92	6.94
1.65	107	75.7	59.6	49.0	41.5	36.0	31.9	28.7	26.2	21.2	15.8	12.6	8.99	-
1.60	108	76.0	60.0	50.0	42.0	36.5	32.5	29.2	26.7	21.6	16.1	12.7	9.04	-

### Constant Amps Discharge - Amps @20 °C

End V per Cell	5M	10M	15M	20M	25M	30M	35M	40M	45M	60M	90M	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	46.3	34.4	28.1	23.6	20.4	17.9	15.8	14.2	12.8	10.2	7.72	6.09	4.36	3.35	2.75	1.80	1.49	1.25	0.86
1.80	52.2	36.9	30.0	25.2	21.3	18.5	16.2	14.5	13.1	10.5	7.92	6.26	4.43	3.42	2.84	1.87	1.53	1.28	0.88
1.75	55.9	39.9	30.8	26.0	21.9	18.8	16.6	14.8	13.4	10.7	8.03	6.32	4.49	3.48	2.87	1.88	1.54	1.29	0.89
1.70	58.9	41.4	32.0	26.5	22.3	19.2	16.9	15.1	13.7	11.0	8.16	6.49	4.62	3.58	2.95	1.92	1.58	1.33	0.90
1.65	60.0	42.0	32.9	26.9	22.6	19.5	17.2	15.4	14.0	11.2	8.33	6.59	4.67	-	-	-	-	-	-
1.60	60.6	42.4	33.2	27.4	22.9	19.8	17.6	15.7	14.3	11.5	8.46	6.64	4.70	-	-	-	-	-	-

### Ampere Hour @20 °C

End V per Cell	2 hr	3 hr	4 hr	5 hr	8 hr	10 hr	12 hr	20 hr
1.85	12.2	13.1	13.4	13.8	14.4	14.9	15.0	17.2
1.80	12.5	13.3	13.7	14.2	15.0	15.3	15.4	17.7
1.75	12.6	13.5	13.9	14.3	15.1	15.4	15.5	17.8
1.70	13.0	13.9	14.3	14.8	15.4	15.8	16.0	18.0
1.65	13.2	14.0	-	-	-	-	-	-
1.60	13.3	14.1	-	-	-	-	-	-