

# DOUGLAS SAFEGUARD<sup>®</sup> DST

## THE DOUGLAS DST

**SERIES** of valve-regulated, Top Termination, spill-proof batteries provides trouble-free, safe operations. There is no need to ever add electrolyte, as gases generated during operation are internally recombined at high efficiency.

The small amount of gas that doesn't recombine is allowed to escape by means of a special one-way vent valve, thus avoiding excessive pressure build-up. The multi-cell, compact design of these units is ideal for your long duration telecommunication needs. Douglas DST batteries use state of the art design, high-grade materials, and a controlled plate-making process that provides excellent capacity output per cell. Capacities range from 45 to 125 Ah in 12V units.



## DESIGN FEATURES:

- **Terminals.** All top terminal models of the Douglas DST are supplied with brass insert receptacles allowing for easy installation and maximum conductivity.
- **Plates.** Positive plate grids are made of lead-calcium-tin alloy allowing for consistent float voltages. Balanced negative plates ensure optimum recombination efficiency.
- **AGM Separators.** High performance low resistance microporous glass fibers help facilitate gas diffusion and optimize acid absorption. Separator is designed for low internal resistance and high power density.
- **Safety Valve.** Every cell has its own safety valve that is designed to operate between 2 and 3 psi in the event of abusive operating conditions.
- **Container and cover.** All of the DST product line are made of durable thick-walled polypropylene which imparts great resistance to shock and vibration. **Standard DST container and cover** are flame retardant. (UL94-V0 / L.O.I. > 28%).
- **Electrolyte.** High purity sulfuric acid absorbed in the separator has 1.300 specific gravity. Sealed, non-spillable, easy to install and maintain.
- **Storage.** Special grid alloys assure a low self-discharge rate allowing the DST product line to be stored for up to Six (6) months at 77°F/25°C before a freshening charge is required.
- **Long Service Life.** Under normal operating conditions 5 years of dependable service life can be expected in stand-by applications, or 200 - 1000 charge/discharge cycles depending on depth of discharge.
- **Wide Operating Temperature Range.** Batteries may be discharged over a temperature range of -4°F (20°C) to 122°F (50°C).
- **Leak-Proof Design.** No special handling precautions or shipping containers are required due to the leak-proof design and are approved for shipping as non-hazardous, non-spillable per IATA Special Provision A67 and DOT 49 CFR 171-189.

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DST

## Performance Specifications

Constant Current Discharge Rates in Amperes @ 77°F (25°C) to 1.75 End VPC

TYPE	Standby Time						
	1 Min	30 Min	1 Hr	3 Hr	4 Hr	8 Hr	10 Hr
DST12-45	240.0	63.0	36.0	13.7	10.6	5.8	4.8
DST12-75	336.0	89.0	55.0	21.7	16.9	9.0	7.3
DST12-85	362.0	103.0	64.0	25.4	19.7	10.5	8.6
DST12-95	448.0	118.0	73.0	29.0	22.5	12.0	9.8
DST12-120	555.0	161.0	94.0	37.3	29.0	15.6	12.7

Constant Current Discharge Rates in Amperes @ 77°F (25°C) to 1.78 End VPC

TYPE	Standby Time						
	1 Min	30 Min	1 Hr	3 Hr	4 Hr	8 Hr	10 Hr
DST12-45	228.0	60.0	35.0	13.5	10.4	5.7	4.7
DST12-75	314.0	87.0	54.0	21.7	16.9	9.0	7.3
DST12-85	367.0	102.0	64.0	35.4	19.7	10.5	8.6
DST12-95	419.0	116.0	73.0	29.0	22.5	12.0	9.8
DST12-120	510.0	157.0	93.0	37.2	29.0	15.6	12.7

Constant Current Discharge Rates in Amperes @ 77°F (25°C) to 1.80 End VPC

TYPE	Standby Time						
	1 Min	30 Min	1 Hr	3 Hr	4 Hr	8 Hr	10 Hr
DST12-45	220.0	59.0	34.0	13.2	10.3	5.6	4.7
DST12-75	300.0	85.0	54.0	21.5	16.7	9.0	7.3
DST12-85	350.0	99.0	63.0	25.1	19.5	10.5	8.6
DST12-95	400.0	113.0	71.0	28.6	22.3	12.0	9.8
DST12-120	484.0	153.0	91.0	36.9	28.8	15.6	12.7

Constant Current Discharge Rates in Amperes @ 77°F (25°C) to 1.83 End VPC

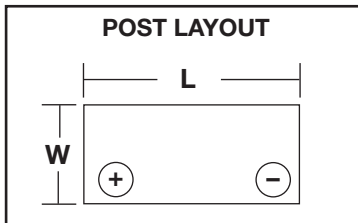
TYPE	Standby Time						
	1 Min	30 Min	1 Hr	3 Hr	4 Hr	8 Hr	10 Hr
DST12-45	200.0	57.0	33.0	13.0	10.1	5.5	4.6
DST12-75	300.0	85.0	54.0	21.5	16.7	9.0	7.2
DST12-85	315.0	95.0	60.0	24.3	18.6	10.2	8.4
DST12-95	360.0	109.0	69.0	27.8	21.6	11.7	9.6
DST12-120	428.0	146.0	88.0	35.8	28.0	15.4	12.6

## Product Specifications

TYPE	NOMINAL VOLTAGE	Amp @ 8 Hr rate to 1.75 End VPC @ 77°F / 25°C	LENGTH		WIDTH		*OVERALL HEIGHT		WEIGHT		TERMINAL	TORQUE
			Inch	mm	Inch	mm	Inch	mm	Lbs	Kg	size	lbf.in
DST12-45	12	46.4	8.6	226	5.5	139	8.1	206	43.0	19.5	6mm**	60 (6.8Nm +/-5%)
DST12-75	12	72	10.1	258	6.9	174	8.1	206	60.0	27.2	6mm**	60 (6.8Nm +/-5%)
DST12-85	12	84	11.9	303	6.9	174	8.3	211	71.0	32.2	6mm**	60 (6.8Nm +/-5%)
DST12-95	12	96	13.3	338	6.8	173	8.3	211	80.0	36.3	6mm**	60 (6.8Nm +/-5%)
DST12-120	12	124.8	13.3	338	6.8	173	10.7	272	110.0	49.9	6mm**	60 (6.8Nm +/-5%)

\*Height Includes Terminal

\*\*Terminal is a Female Threaded Receptacle



CHARGING
FLOAT
2.25-2.27 Vpc @ 77°F (25°C)

Please note that when the ambient temperature deviates by more than 9°F the charge voltage will need to be compensated. Consult the Douglas DST I/O Manual for required adjustments.

