



DOUGLAS®  
guardian<sup>®</sup>  
TEL

## RELIABLE, LOW COST POWER TO KEEP YOUR TELECOMMUNICATIONS SYSTEMS RUNNING. ALL THE TIME.

**THE DOUGLAS GUARDIAN TEL SERIES** of valve-regulated, spill-proof batteries provides trouble-free, safe operation in any position. 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 telecom needs. Douglas Guardian TEL batteries use state of the art design, high-grade materials, and a controlled platemaking process that provides excellent capacity output per cell. Capacities range from 30 to 170 Ah in 12V units.

### DESIGN FEATURES:

- **Terminal Post.** All batteries come with copper-inserted lead terminals for quick, easy assembly. Post seals assure leak-free operation in both vertical or horizontal installations. Front terminal feature of DGT12-100 and DGT12-170 is ideal for compact installations in 23" relay racks.
- **Plates.** Tank formed lead-calcium plates assure consistent float voltages and eliminates the need for equalize charges.
- **Separators.** High quality microporous glass fibers facilitate gas diffusion and optimize acid absorption. Separator designed for low internal resistance and high power density. Separator maintains compression throughout life giving excellent vibration resistance.
- **Electrolyte.** High-purity sulfuric acid absorbed in separator has 1.300 specific gravity. Sealed, non-spillable, easy to handle and install, supplied filled and charged.
- **Safety Valve.** Every cell has its own one-way valve that operates between 2-6 psi for safety in the event of abusive operating conditions.
- **Container and Cover.** Models are made of flame-retardant material, UL94-V0, LOI>28%. All materials impart great resistance to shock, vibration, chemicals, and heat.
- **Wide Operating Temperature Range.** Batteries may be discharged over a temperature range of -40° to 140° F (-40° to 60° C) and charged at temperatures ranging from -4° to 122° F (-20 to 50° C).
- **Long Service Life.** Under normal operating conditions, five years of dependable service life can be expected in stand-by applications, or between 200 -1000 charge/discharge cycles depending on the average depth of discharge. For maximum life, temperature compensation of the charge voltage is recommended when the operating temperature is outside the range of 68° to 77° F (20° to 25° C).
- **Leak-Proof Design.** No special handling precautions or shipping containers are required due to the leak-proof construction. All models are approved by DOT and IATA for shipment by air and are UL recognized components.
- **Storage.** Special grid alloys assure a low self-discharge rate and long shelf life. This low self-discharge rate (about 3% capacity per month) permits storage of batteries for up to 1 year before charging if kept at 68° F (20° C) or lower. Storage at higher ambient temperatures increases the self-discharge rate and requires more frequent charging.



DOUGLAS BATTERY  
Connect with a leader.

# DOUGLAS guardian<sup>®</sup> TEL



RECOMMENDED CHARGE VOLTAGE	
Float	Recharge
2.25-2.30 Vpc	2.30-2.35 Vpc

- Recharging.** Recharge time depends on the current available and the depth and rate of discharge. The initial charge current should not exceed 0.20 x C Amps. (e.g., 20 amperes for a 100Ah battery). The battery is fully charged when the current drops to approximately 0.001 x C Amps (0.1% of rated capacity). C is defined as the nominal capacity of the battery (see table below.)

## Product Specifications

Type	Terminal Bolt Size	Nom. Volts	Ah Capacity <sup>†</sup>	Overall Dimensions (Max.)						Weight	
				Length		Width		Height		lb.	kg
				in.	mm	in.	mm	in.	mm		
DGT12-30	M6	12	30	7.69	195	5.22	133	6.62	168	26.0	11.8
DGT12-50	M6	12	50	9.04	230	5.48	139	8.61	219	39.0	17.7
DGT12-70	M6	12	70	10.26	261	6.66	169	8.61	219	55.0	25.0
DGT12-90	M6	12	90	12.12	308	6.66	169	8.61	219	68.0	30.9
DGT12-100 <sup>††</sup>	1/4-20	12	100	21.00	533	4.28	109	9.63	245	80.0	36.3
DGT12-120	1/4-20	12	115	13.50	344	6.85	174	11.02	280	100.0	45.4
DGT12-170 <sup>††</sup>	5/16-18	12	170	22.47	571	8.80	224	10.12	257	152.0	68.9

† - Based on 8-hour rate to 1.75 Vpc @ 77°F (25°C)

Terminal Type: Copper inserted terminals

†† - Front-access terminals

## Performance Specifications

## Discharge Rates in Amperes @ 77°F (25°C)

1.75 Vpc																	
Type	Minutes					Hours											
	1	5	10	15	30	1	1.5	2	3	4	5	6	8	10	12	20	24
DGT12-30	167	125	88.4	66.5	38.5	23.0	17.0	12.4	8.7	6.7	5.5	4.7	3.7	3.0	2.5	1.6	1.4
DGT12-50	234	176	115	97.2	62.6	38.0	27.4	20.5	14.3	11.1	9.1	7.7	6.2	4.9	4.2	2.7	2.3
DGT12-70	308	232	168	139	89.6	54.2	37.9	29.7	20.8	16.2	13.4	11.4	8.7	7.3	6.2	4.0	3.4
DGT12-90	375	282	209	171	111	64.8	46.8	38.7	27.0	20.9	17.1	14.6	11.3	9.3	7.9	5.0	4.3
DGT12-100	498	342	246	189	114	68.7	50.0	39.8	28.9	22.7	18.7	16	12.5	10.3	8.6	5.5	4.6
DGT12-120	597	410	295	227	137	81.3	59.2	47.2	34.4	27.0	22.2	18.9	14.4	12.0	10.2	6.5	5.5
DGT12-170	764	579	421	324	196	118	85.6	68.1	48.8	38.4	31.8	27.2	21.3	17.4	14.8	9.2	7.6

  

1.67 Vpc								
Type	Minutes							
	1	5	10	15	30	60	90	
DGT12-30	194	145	97.8	71.8	42.8	24.7	17.7	
DGT12-50	271	204	130	108	65.1	40.7	28.6	
DGT12-70	374	281	199	154	96.2	58.2	40.3	
DGT12-90	444	333	239	192	120	65.0	47.0	
DGT12-100	583	393	267	198	125	68.9	49.8	
DGT12-120	700	472	320	237	140	82.7	59.8	
DGT12-170	959	653	460	345	201	118	86.8	

All Data Subject to Change Without Notice