

# ORION 27A 12V Alkaline Cell

## Alkaline Batteries



Orion Alkaline batteries are very small, very light, and great for small and low-power devices. They're also fairly safe, have a long shelf life and fairly inexpensive per unit. These batteries are the most commonly used worldwide in torch, remote control, clock, toys, digital cameras, radios etc.

Do not purchase Lithium batteries before reading and understanding these safety cautions. Using a Lithium cell incorrectly may cause it to leak, generate heat, smoke, catch on fire.



### SAFETY

- +The cell must stay in the operating temperatures outlined in its data sheet.
- +The cell must not exceed voltage, current, and other ratings in its data sheet.
- +Store batteries separately, and do not transport without proper packaging.
- +Never store or transport together with conductive or metallic objects particularly in a pocket or bag.
- +Do not keep in the sun, in a hot car, or anywhere with direct heat.
- +If the cell is attached to a PCB, keep it away from high-static environments.
- +Recycle discontinued batteries according to local regulations and cover terminals with insulating tape before disposal.
- +Discharge end or cut-off voltage in data sheet is lower-limit for discharge cycle and should not be exceeded.
- +Charger or device should implement warning for over-voltage, over current, and over-temperature, control of overcharge, and charge timer.
- +Be careful not to short-circuit.

### TECHNICAL DATA

Cell Dimensions	7.7x 28mm
Cell Weight	4.5g
Cell Capacity (20k $\Omega$ continuous to 6V)	25mAh
Voltage (nominal)	12V
Discharge Cut-off Voltage	6V
Temperature range	-10°C to 45°C
Recommended Storage Temperature	20°C $\pm$ 2°C
Open Circuit Voltage (fresh)	$\geq$ 12.30V
Open Circuit Voltage (after 12 months)	$\geq$ 12.10V
Closed Current Voltage (fresh)	$\geq$ 11.50V (load 2k $\Omega$ for 0.3s)
Closed Current Voltage (after 12 months)	$\geq$ 11.40V (load 2k $\Omega$ for 0.3s)
Service Life (20k $\Omega$ )	$\geq$ 30hours (cut off: 6V)
Service Life (20k0 $\Omega$ after 12 months)	$\geq$ 27hours (cut off: 6V)