

CDA INTERCORP

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Power Generators For Downhole Tools



Compact and Customizable Housings

Significant advantages can be realized by utilizing state of the art generators, rather than expensive batteries or hundreds of meters of tether line, to supply power for your downhole application needs. High reliability in harsh environments, compact design, and a prolonged lifetime of power generation make CDA's generators ideal for the downhole environment.

The unparalleled performance at minimum diameter and volume of our generators make them a geometrically advantageous solution to integrate within wellbore tools. Depending upon the power requirements of the application, CDA's generator frame sizes range from ³/₄" to 3" OD, and therefore are an ideal fit within even the smallest diameter tools. The only input necessary for the generation of electrical power is the abundant supply of mechanical energy present in downhole drilling applications. Electrical power is generated by tapping into the torque created via the rotating drill string, or by utilizing the high pressure drilling fluids/mud which can turn the generators turbine as it flows. The generated power can then be used to power electronic systems, sensors, and motors. The power generated comes without worrying about depleting your power source, such as with finite life/temperature battery packs.

Besides the inherent advantages of downhole generators when compared to limited life power sources, CDA's durable design and construction makes it a component whose lifetime and reliability excel even in the most extreme downhole environments. Standard design features include a high temperature and chemically resistant polyimide based class H225 winding insulation system, mil-spec lead wires, and matched coefficient of expansion materials. Also standard to all designs is the use of high grade stainless steel materials, and the use of the same design methodologies and manufacturing process which are not only employed in our downhole applications, but also have decades of use in the 2 other industries that CDA serves, the military and space industries. As a result, the typical operational environment for our downhole applications include +200° C ambient temperature, at 20,000 psi of pressure. Higher operating temperatures and pressures are available on request.

Besides being known for the high reliability & durability of our downhole products, CDA has also built its reputation on our ability to customize our generators to our customer's needs. CDA works with our customers to provide various voltages, power levels, drive speeds, mounting provisions, and output shaft definitions. As a result, we are able to facilitate the generators integration into the tool, and therefore make the entire process as seamless as possible for our customers.

Customers Include:

- * ABB
- * Baker Hughes
- * Halliburton
- * National Oilwell
- * Weatherford
- * Western Well Tool

Generator Powered Applications: * MWD & LWD Tools

- * Electrical Valves Actuation
- * Downhole Sensors
- * Core Samplers
- * Pump Drives

For Further information, or product literature request, call CDA directly or email us at <u>mail@cda-intercorp.com</u> for an immediate response to your requirement needs.