# DOWNHOLE TOOLING

Order products

Coming 2021!

Ultra-Reliable Custom Electric Solutions





## **Superior Reliability**

- Significantly Reduced Downtime and Service Costs
- Exceptional Resistance to Oils, Chemicals and Hydrolysis
- Superior Electrical Performance in Ambient Temps to +260°C.
- Highest Voltage Endurance in the Harshest Downhole Environments
- Able to Survive Flood Events

### **Application Examples**

- Rotary Steerable Tooling
  - LWD/MWD Alternators
  - Steering Actuation
  - Hydraulic Pump Electric Motors
- Wireline
  - Hydraulic Pump Electric Motors

## **Environmental Ratings**

- Temperatures to 260°C
- Pressures to 30.000+ PSI
- Aggressive Media/Fluids
- High Aspect Ratio Form Factor (L/D to 50:1)
- Reliability > 2,000 Hrs.
- Shock Tolerance > 50g
- Electrical Efficiency > 90%
- Water Solubility in Oil > 2% Water Content
- H<sub>2</sub>S Resistant









#### **About Us**

For more than 20 years, Windings has pioneered the development of electromagnetic solutions for critical upstream applications in the Oil & Gas industry.

As a full-service provider, Windings is a leader in the design, test, manufacture and support of custom electric motors, alternators and related components engineered to survive and perform under the hostile conditions of downhole drilling and wireline tooling.

#### Engineering Services - Application Analysis

**Core Competencies** 

- Design Analysis & Simulation
- Prototyping
- Manufacturing Optimization
  - Concurrent Engineering
  - DFMA Analysis
  - Process Documentation
  - Tooling and Fixture Design
- Part Production
  - Motors & Alternators
  - Rotors
  - Stators

## **Key Differentiators**

- Provider of Custom, Integrated Electromagnetic Solutions
- Focus on Critical Applications in Extreme Environments
- Engineering Partner to Our Customers
- Optional Client Ownership of Custom IP

## **Quality Certifications**



