

Turbine Generator

■ Introduction

Turbine generator generates electricity by using the kinetic energy of the flowing drilling mud. Instead of the traditional lithium batteries, turbine generator provides continuous power for downhole instruments. It is safe, reliable and environmental. Turbine generator includes an optional energy storage sub which contains several high temperature rechargeable batteries inside. When the mud pump works, turbine generator generates electricity to recharge the battery. And when the mud pump stops, the energy storage sub provides continuous power for downhole instruments, which does not affect the static data acquisition by MWD system.

■ Features

- Using the kinetic energy of flowing drilling mud to generate electricity. It is safe, reliable and environmental
- Energy storage sub is optional and the static data can be collected
- Interface compatibility with different instruments

■ Application

- Provide continuous power for downhole instruments in oil and coal drilling, such as MWD, LWD system.

■ Technical Parameters

- Operating temperature Up to 150°C / 302°F
- Mean time between failure(MTBF) >600h
- Maintenance period 300h

■ Specification

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|-------------------|----------------------------|----------------------------|
| ● Model | LHE6480 | LHE6481 |
| ● Dimension | 1551mm×Φ42mm | 1500mm×Φ48mm |
| ● Output power | ≥4W@300mL/min | ≥20W@30L/S |
| ● Output voltage | 8±0.5V(customizable) | 30±0.5V(customizable) |
| ● Impeller OD | ≤Φ57.5mm | ≤Φ67mm |
| ● Max. Pressure | 60MPa | 120MPa |
| ● Vibration | 10grms,30 to 1000Hz | 10grms,30 to 1000Hz |
| ● Shock | 1000g,0.5ms half sine wave | 1000g,0.5ms half sine wave |
| ● Stator standard | 38° | 0°,30° |
| ● Sotor standard | 52° | 28°,42° |

■ Parameter of LHE6481 Energy Storage Sub (option)

- Operating Temperature Up to 125°C / 257°F
- Power-on time >10min 200mA@24V
- Battery capacity ≥4AH

