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REDA ESP System Cables

Designed to maximize ESP system run life

APPLICATIONS

- Land and offshore wells with ESP systems installed
- Gas, oil, or condensate producers
- High-temperature, gassy, and corrosive wells
- Deepwater wells with high-horsepower ESP systems

BENEFITS

- Ensures consistent delivery of electrical power to downhole equipment, even in challenging conditions
- Extends overall ESP system run life

FEATURES

- Fully annealed, high-conductive copper
- Alloy-coated copper conductors for increased corrosion protection
- Adhesive layer between the conductor and insulation to prevent gas migration
- Variety of armor grades including standard galvanized steel and MONEL® alloys
- Optional integral stainless steel tubing for continuous downhole chemical treatment
- Thick lead barrier for maximum protection against gas and corrosive fluids
- Fluorocarbon tape barrier that protects against chemical attack and provides mechanical hoop strength to protect against explosive decompression in gassy environments
- Voltage ratings up to 8 kV
- Current-handling capabilities of 200 A and higher

The REDA* ESP system cables are designed to maximize system run life with long-term, uninterrupted power delivery. All of these cables are built using state-of-the-art material technologies and manufacturing facilities and tested as part of an industry-leading quality-assurance process.

High-integrity cable technologies

All REDA ESP system cables incorporate fully annealed, high-conductivity copper conductors. Nonlead cables utilize tin-lead alloy-coated conductors for additional protection against corrosion. An optional armored capillary tube design combines the power cable and an injection tube into one package—simplifying workover operations and preventing damage to the injection tube.

These cables ensure ESP power for a wide range of surface and downhole environments, from low-temperature, low-gas conditions to high temperatures, pressures, gas content, and corrosive fluids. Each standard cable can be customized to suit the specific requirements of a given well, including temperature and pressure ratings, and protection from corrosion and gas/oil degradation.

Properties to suit most wells

REDA MAX* ESP power cables are designed primarily for nonaggressive conditions. Each cable is made of a modified variant of ethylene propylene diene rubber (EPDM) to enhance insulation system life. The EPDM insulation-jacket compounds are based on our extensive experience in elastomer formulation and mixing. The EPDM has high elasticity, tensile strength, and maximized dielectric and thermal aging properties, supporting an elevated temperature rating up to 400 degF [204 degC].

Maximum protection in challenging conditions

REDA Lead* lead barrier ESP power cable are designed primarily for wells with high-temperature up to 500 degF [260 degC], gassy, or corrosive conditions, or a combinations of these. All REDA Lead cables incorporate advanced EPDM insulation, as well as best-in-class impervious lead barriers for long-lasting durability in gas and corrosive fluids.

High-reliability for deepwater wells

The top-of-the-line REDA Subsea* high-reliability corrosion-resistant ESP cable is specifically designed to ensure long run life in deepwater projects that use the MaxFORTE* high-reliability ESP system. The patented cable is the industry's first shielded 8-kV cable with a conductor shield, insulation shield, and metallic shield, and it meets the high-voltage industry standards for ESP applications. In addition, it incorporates fully annealed high-conductivity copper with tin-lead alloy coating for corrosion protection, advanced EPDM rubber insulation, best-in-class impervious lead barriers, and double armor for additional mechanical protection.

CANATEX COMPLETIONS
EXHIBIT 2036

REDA ESP Cables

REDA ESP Cable Specifications							
	Temperature Range, degF [degC]	**Profile**	**Insulation**	**Barrier**	**Jacket**	**Armor**	**Voltage, kV**
REDA MAX ESP Power Cables							
ETBE-R	–40 to 400 [–40 to 204]	Round	EPDM†	Fluoropolymer tape	EPDM	Galvanized steel§	5
ETBE-F	–40 to 400 [–40 to 204]	Flat	EPDM	Fluoropolymer tape	EPDM	Galvanized steel§	5
EE-R	–40 to 400 [–40 to 204]	Round	EPDM	None	EPDM	Galvanized steel§	5
REDA Lead Lead-Barrier ESP Power Cables							
ELC-LPF	–40 to 400 [–40 to 204]	Flat	EPDM	Lead	None	Galvanized steel	5
ELC-F	–40 to 450 [–40 to 232]	Flat	EPDM	Lead	None	Galvanized steel§	5
EHLTB-F	–40 to 500 [–40 to 260]	Flat	Extreme EPDM	Heavy lead and fluoropolymer tape	None	Galvanized steel§	5
ELBE-R	–40 to 450 [–40 to 232]	Round	EPDM	Lead	EPDM	Galvanized steel§	5
REDA Subsea High-Reliability Corrosion-Resistant ESP Cable							
SESLTBE-R	–40 to 400 [–40 to 204]	Round	High-voltage EPDM	Lead and fluoropolymer tape	EPDM	Double-layer galvanized steel	8

†Ethylene propylene diene monomer
§MONEL® and stainless steel armor available on request.
Other configurations can be manufactured on request.

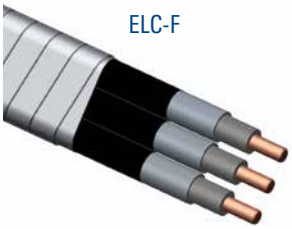
Cables Nomenclature Guide

- E – EPDM
- T – Tape
- B – Braid
- O – Nitrile
- L – Lead
- C – Cushion
- HL – Heavy Lead
- S – Semicon
- R – Round
- F – Flat
- LP – Low Profile

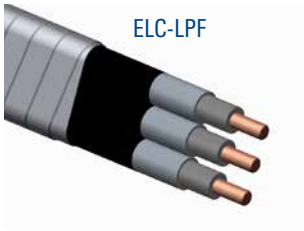
ETBE-R

EE-R

SESLTBE-R


ELC-F

ELBE-R


ELC-LPF

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