



BULLETIN B215-05005

Envirotran® EF™ Transformers

Receive the Benefits of Envirotemp® FR3™ Fluid in Single Phase Transformers!

Description:

Cooper Power Systems has introduced the revolutionary Envirotran® EF™ transformers, which offer an environmentally responsible, high efficiency, safer choice. The units have high-fire-point fluid, providing fire safety benefits, and a projected life well beyond that of a traditional mineral-oil transformer. These efficient and cost-effective transformers use Envirotemp® FR3™ fluid.

Features:

Environmentally Responsible

Envirotemp FR3 fluid is derived from 100% edible vegetable oils. The fluid biodegrades quickly and completely in the environment. As a soybean-based fluid, it is eligible for future regulatory relief. Additionally, alternative spill response procedures may be possible. As a renewable, locally-grown resource, Envirotemp FR3 fluid also reduces dependence on foreign oil.

- Designed to NEMA TP1 efficiency. This standard, developed by NEMA to guide the electrical industry toward the use of high-efficiency transformers, will likely be adopted by the U.S. Department of Energy as the minimum standard for efficiency.

Improved Fire Safety

Envirotemp FR3 fluid's high fire point (360°C) and flash point (330°C) are more than twice as high as mineral oil, minimizing the risk of transformer fires and reducing liability concerns. Over 1,000 transformers per year are destroyed by fire, with insurance claims estimated at over \$50 million per year. Cooper Power Systems high fire point fluid-filled transformers have had a flawless safety record for over 30 years.

Longer Life

The Envirotran EF transformer coil design has been optimized to maximize Envirotemp FR3 fluid benefits and to minimize the first cost of this new technology. Cooper Power Systems has developed the leading thermal model in the industry. Hundreds of heat runs have been performed to verify calculations.

- Extended transformer insulation life: Insulating paper integrity is the determining factor for transformer life. With no overloading, the Envirotran EF transformer insulating paper exhibits over seven times the normal life of mineral-oil paper.
- Increased durability: Due to Envirotemp FR3 fluid's unique properties, units can be overloaded up to 14% without causing loss of transformer insulation life (subject to temperature limitations of the IEEE loading guide). This means that Envirotran EF transformers are more durable than comparable mineral oil transformers.

Envirotran® EF™ Transformers

Product Scope: Pad-mounted Transformers
10-167 kVA

Primary: to 19920V
(150 kV BIL)

Secondary: 120-600V
(30 kV BIL)

Optional Accessories: Taps, Multiple voltage, lightning arresters, and MagneX™ interrupter and more. See Catalog Section 215-20 for further details.



Product Scope: Pole-mounted Transformers
10-50 kVA

Primary: to 19920V
(150 kV BIL)

Secondary: 120-600V
(30 kV BIL)

Optional Accessories: Taps, Multiple voltage, lightning arresters, MagneX™ interrupter and more. See Catalog Section 215-10 for further details.



Envirotran EF transformers meet NEMA TP1 efficiency and ANSI Hot Spot Temperature requirements. Envirotemp FR3 fluid conforms to ASTM D6871 and pending IEEE PC57.147, "Guide for Acceptance and Maintenance of Natural Ester Fluids in Transformers".

For more information on Envirotemp® FR3™ fluid call 1-877-CPS-INFO or visit us on the web at www.cooperpower.com