LTC TRANSFORMER OIL FILTRATION SYSTEM

The Load Tap Changer Filtration System (LTCFS) was developed to meet the Electric Utility industry’s need to reduce the overall operational and maintenance costs of Load Tap Changers without sacrificing system reliability. Continuous online filtration of dielectric oil has proven to be a cost-effective means of combating problems associated with LTCs, and transformers retrofitted with our LTC Transformer Oil Filtration System will obtain the following benefits:

Maintain High Dielectric Strength
Extended Maintenance Intervals
Reduced Contact Wear & Coking
Extended Oil Life
Reduced Contact Erosion

The LTC Filtration System is recommended for installation on Load Tap Changer Transformers that:

• Operate Near Their Top MVA Rating
• Have High Contact Wear
• Perform At Peak Capacities
• Have A Relatively Small Volume of Insulating Oil
• Experience High Maintenance Costs

FEATURES

High Efficiency Particulate / Carbon Removal Filter Element - Composed of microglass media rated Beta>200 - can remove particles as small as ½ micron in single pass.

Water Removal Element - capable of removing up to 0.25 gallons of water.

Element Plugged Indication - A differential pressure switch signals when the elements need to be changed

Variable Operation - System can be run continuously or at 1-4 intervals per day via solid state timer

Automatic Safety Shut-Down & Isolation - If a leak is detected
**Electrical Specifications**

**Voltage:** 120 VAC, 1 Ph, 60 Hz

**Motor:** ¾ hp, 1725 RPM, TEFC

**Internal Control Box:** NEMA 4 with (3) Indicator Lights with push to test switches, & (1) 120 Volt / 20 amp breaker.

**24 Hour Motor Control Timer:** Timer capable of 4 cycles per day at 1 min. to 5.9 hours per cycle. Can be used continuously or intermittently.

**Mechanical Specifications**

**Flow Rate:** 6 GPM standard (Optional 1-15 GPM flow rates available)

**Element Indication** @ 40 PSID.

**Element Bypass** @ 60 PSID.

**Pump:** Heavy duty self-priming positive displacement gear pump.

**Cabinet:** NEMA 4 rain-tight, galvanized steel, painted gray acrylic with louvers. UL, SA, and CSA approved.

**Piping:** Galvanized steel, ¾” NPTM inlet & outlet connections.

**Gauges:** (2) 0-60 PSID Gauges to visually see differential pressure between filters.

**Oil Sample Valves:** (2) oil sample valves for quick & convenient oil analysis.

**Custom options available**

- Cabinet Oil Leak Detection Device
- Stainless Steel Cabinet
- Hour meter
- Inlet Make-Oil Adder Valve
- Flow Sight
- Acid Removal Filter.
- Other Custom Options – Call Us

**Ordering Information**

**Enclosure:** NEMA 4

**Weight:** 150 lbs.

**Shipping weight:** 180 lbs.

**Dimensions:** 24” W / 32” H / 12” D

**Particulate filter** see Model Code table

**Water removal filter** see Model Code table

For technical support & installation help call us at 830-816-3332

www.oilfiltrationsystems.com
System Component Identification

PN: LTCFS-6-S510/2-3/4-120-B

- INLET BALL VALVE
- OIL ADDITION BALL VALVE
- RELIEF VALVE
- VACUUM GAUGE
- INLET Y-STRAINER
- POSITIVE DISPLACEMENT GEAR PUMP
- ELECTRIC DIFFERENTIAL PRESSURE GAUGES
- MAIN POWER ELECTRICAL ENCLOSURE
- ¾ HP MOTOR
- SYSTEM PRESSURE GAUGE
- OUTLET BALL VALVE
- OUTLET CHECK VALVE
- INTermatic TIMER
- WATER REMOVAL FILTER ELEMENT (FILTER #1)
- PARTICULATE FILTER ELEMENT (FILTER #1)

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# System Specifications

<table>
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<tr>
<th>Model Code</th>
<th>Table 1</th>
<th>Table 2</th>
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<th>Table 4</th>
<th>Table 5</th>
<th>Table 6</th>
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<tbody>
<tr>
<td>LTCFS</td>
<td>6</td>
<td>S510/2</td>
<td>¾</td>
<td>120</td>
<td>B</td>
<td></td>
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</tbody>
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**Table 1:**
LTCFS = Load Tap Changer Filtration System

**Table 2:**
Rated Flow (GPM)

- 6 = 6
- 10 = 10
- 8 = 8
- 15 = 15

**Table 3:**
Housing Size & Style
- S510/2 = Dual Spin On Element in Series
- 820X = 16” cartridge style filter housing/carbon steel/hinged lid
- 960=16" 1.5 in line cartridge style filter housing

**Table 4:**
Horsepower

- ¾ = ¾ Horsepower
- 2 = 2 Horsepower

**Table 5:**
Electrical Requirements

- 120 = 120 Volt

**Table 6:**
B = Buna
V = Viton