

CJC® TrafoMate, TMU

Permanent Degassing, Dehydration & Fine Filtration of Insulation Oil
Reliable & Safe Transformer Operation and Maximum Service Life

APPLICATION

The **CJC® TrafoMate, TMU** is designed for permanent installation and continuous operation on on-load transformers to extract moisture, oxygen and other dissolved gases from insulation oil.

The CJC® TrafoMate also filters the oil using the specially designed cellulose filter insert, capable of removing the finest solid particles, sludge and acidic oil degradation products.

The CJC® TMU keeps the transformer oil and cellulose insulation in perfect condition, continuously eliminating moisture, oxygen, gases, oil contaminants and oxidation catalysts from the oil, thus extending transformer lifetime and reducing failure rate.

The CJC® TrafoMate is suitable for all oil filled transformers and can be used on:

- Step-up power transformers installed in power plants.
- Step-down industrial transformers.
- Distribution grid transformers.

CJC® TrafoMate provides extension of remaining lifetime of older transformers as well as preventive maintenance of the insulation system on newer high loaded low oil volume transformers.

BENEFITS

- Preserving transformer oil and insulation paper and avoiding oil degradation and insulation paper decomposition.
- Preventing inefficient and expensive stationary high flow oil recovery treatments and replacement of large oil volume.
- Avoiding long and costly transformer overhauls.
- Increased reliability and safety of transformer operation and extended transformer service life.
- Mitigation and reducing the risk of major catastrophic transformer failures and loss of production.
- Enhanced overall transformer efficiency, reducing CO₂ emissions and optimizing the environmental footprint.



CJC® TrafoMate TMU
stand alone, front and back



Cabinet for
CJC® TrafoMate TMU



CJC® Tmi Filter Insert 15/25
*ref. to Product Sheet
PSFI3217-UK*

FEATURES

- Continuous removal of moisture, oxygen and other gasses plus removal of particles such as carbon/soot, metals, fibres and sludge.
- Plug and play with fully automatic operation.
- Automatic re-start after power supply cut out.
- Sample valve for representative samples for oil and Dissolved Gas Analysis (DGA).
- Cabinet, optional.

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PERFORMANCE

- Dry oil and low water content in the insulation oil, typically < 10 ppm (IEC 60814)
- Low moisture content in the cellulose insulation system
- Low oxygen level in the insulation oil, typically < 3000 ppm
- Low level of dissolved gases
- High oil cleanliness level, typically 16/14/11 (ISO 4406)
- Low oil acidity
- Increased breakdown voltage
- High dielectric strength and heat transfer capacity
- Preservation of oil's dielectric properties

Performance parameters can be achieved and maintained with CJC® TrafoMate operating permanently. Performance of the equipment depends on proper installation, operation and maintenance. To ensure the achievement of the performance parameters, regular maintenance and service as indicated by C.C.JENSEN is necessary.

REMOTE CONDITION MONITORING

CJC® TrafoMate can be optionally supplied with sensors enabling online monitoring of the transformer oil:

- Relative Humidity, RH %
- Temperature, T°C
- Conductivity/Permittivity

The remote condition monitoring option also allows to monitor the CJC® TrafoMate condition and operation parameters such as Pressures and Run Status. Thus it enables predictive condition based maintenance.

FILTER INSERT CJC® TMI

The CJC® TrafoMate filters the oil using the specially designed CJC® Filter Insert TMI, which is made of a specific blend of cellulose fibres. In one process, it removes oil contaminants and oxidation catalysts such as micron-sized solid particles, sludge, acidic oil degradation products and solid insulation decomposition compounds. It is based on the well-proven CJC® Cellulose Filter Insert technology. For more information, please refer to Product Sheet for TMI No. PSFI3217-UK.

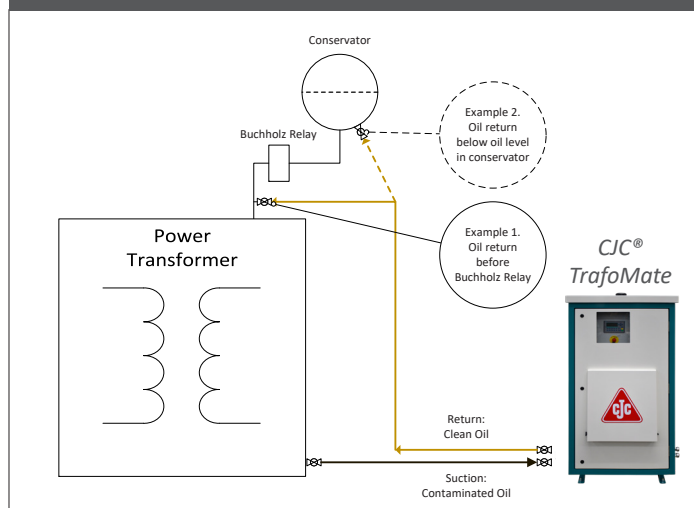
Made of 100% natural cellulose fibres.



TECHNICAL DATA

CJC® TrafoMate		TMU
Filtration flow	l/h / gal/h	150 / 40
Power Supply	V / Hz	3x380-415 V / 50 Hz 3x440-480 V / 60 Hz
Current, max	A	3
Power consumption, max	kW	1
Weight, <u>without</u> cover	kg / lb	186 / 410
Weight, <u>with</u> cover	kg / lb	241 / 531
Dimensions (LxWxH) <u>without</u> cover	mm / in	700 x 700 x 1495 27.6 x 27.6 x 58.9
Dimensions (LxWxH) <u>with</u> cover	mm / in	860 x 830 x 1495 33.9 x 32.7 x 58.9
Oil tank volume, max	m³ / gal	80 / 21134
Oil temperature, min/max	°C °F	5 - 80 141 - 176
Ambient temperature min/max	°C °F	0 - 45 32 - 113

INSTALLATION DIAGRAM:



MAINTENANCE & SERVICE

C.C.JENSEN recommends periodic service with maximum 12 months interval including service on the degassing system and replacement of the CJC® Filter Insert TMI. To facilitate the service C.C.JENSEN offers service agreements. For more information, please contact your nearest C.C.JENSEN office, www.cjc.dk/contact.