

MB



MB Drive Services GmbH

Transformer rental service

For majority of customers the availability of their assets is critical. We fully understand it and support you to minimize the impact of equipment failure. Our mission is to support you in keeping your drive system in motion.

Our drive transformer rental can help you to quickly restart your process. However, our service is not just for transformer failure. Whenever you need a dedicated VFD transformer for temporary use MB Drive Services will be pleased to support you.



Our mission

There are various scenarios leading to a need for temporary rental of VFD transformer:

- failure or damage of transformer on site
- production delay
- transportation damage
- temporary use



Failure on site (e.g. short circuit)



Transport damage / logistics issues



Manufacturer's delay



Temporary use only (e.g. testing)



VFD transformer rental

Transformer failures

Transformers belong to the most reliable electric equipment. The mean time between failures based on calculations and/or field experience is typically in the range of 1'500 – 2'000 years.

However, a failure can never be completely excluded.

The root cause can be various:

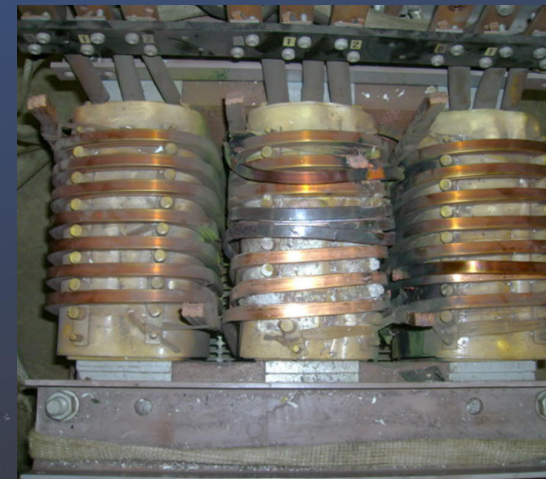
- Design problem
- Inappropriate specification
- Transformer quality issue
- Insufficient protection
- Other

Moreover, VFD transformers are typically unique and more complex than ordinary distribution transformers

What would you do if such scenario had happened?

How would your organization react?

MB Drive Services might have a matching solution for you through our transformer rental service.



Transportation damages



During transportation things may go wrong resulting in damaged goods. Although looking simple, transformer is a complex and sensitive structure.

Transport damage might require replacement of parts of transformer or in worst case manufacturing a complete new unit.

This all takes time and could negatively impact your business. One solution is a rental transformer that bridges the time until the original transformer is repaired.

Temporary use

You might need a specific VFD transformer just for limited period of time. For example, the project drive transformer shall work on 13.8 kV/60 Hz. However, you need to test the equipment in a 6.6 kV/50 Hz environment.

The test will be conducted in few days and it does not pay off to purchase an additional transformer for the test campaign. Instead, check out our rental service whether we can offer a cost effective alternative to you.

Let us know in advance. Even if we do not have a suitable unit on stock right now we may consider purchasing it and extending our fleet.



Availability value is characterized by two quantities:

- Mean Time Between Failure (MTBF)
- Mean Time To Repair (MTTR)

$$Availability = \frac{MTBF}{MTBF + MTTR}$$

For a distribution transformer the MTBF can be as high as 1'800 to 2'000 years. For a VFD transformer, due to its complexity, a realistic value is in the range 500 – 900 years. VFD has significantly shorter MTBF. However, the VFD is designed in such way that faulty component can be quickly removed and replaced by a spare. Practically all VFD repairs can be done directly on site. In contrast, transformer might need to be transported into a service workshop or back to the factory.

	Input transformer	Variable frequency drive
MTBF	900 years	12 years
MTBF	7'884'000 hours	105'200 hours
MTTR	840 hours	4 hours
Availability	99.989%	99.996%

Availability is just a figure. However, is your business ready when a damage or failure of your drive transformer happens?

Transformer rental

One of our services is a transformer rental. We specifically focus on VFD transformers, i.e. transformers supplying variable frequency drives. These transformers are frequently called converter transformers or rectifier duty transformers. They have features such as phase shifting and are designed considering specific requirements such as increased insulation, harmonic currents or winding configurations enabling target phase displacement.

Our service

 info@mb-drive-services.com  <https://mb-drive-services.com/rental-services/>

Our service

When you need a spare VFD transformer we are here to support you. Our rental transformer has following characteristics:

- Power rating up to 5-6 MVA
- Range of input voltages
- Dry type technology
- Environmentally safe
- Compatible with VFDs from various manufacturers
- Suitable for installation indoor or outdoor
- Stored in Switzerland
- Quickly transportable across Europe



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Compatibility check

Check it upfront

Whenever there is an unplanned downtime one needs to act fast. Do you want to check upfront whether we have a rental solution for your drive system?

Check the transformer parameters upfront with us and we let you know if we could help you.

Send us basic information such as:

- Primary (grid side) voltage
- 50 Hz or 60 Hz
- Secondary (converter side) voltage
- Rated power
- Winding configuration (vector group)

Alternatively just email us a nameplate photo of your transformer or a technical datasheet.



info@mb-drive-services.com



<https://mb-drive-services.com/rental-services/>

Contact

Get in touch with us to see how we can support you:

Email: info@mb-drive-services.com

Web: <https://mb-drive-services.com/rental-services/>

We are looking forward to hearing from you!

MB Drive Services

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