BAUR
ensuring the flow

VDS-C enables fast online checks on medium-voltage cables

MITNETZ STROM

BAUR References

Customer:
MITNETZ STROM, the largest regional distribution network operator in eastern Germany (with a network covering 74,000 km), is responsible for the planning, operation, and marketing of the power network.

BAUR solution:
With the new liona VDS-C VDS PD coupler, MITNETZ STROM can perform a spot test on routes within a few minutes and only needs to perform an offline measurement on cables if the results are positive.

One of the first operators of the VDS-C is Mitteldeutsche Netzgesellschaft Strom mbH, MITNETZ STROM, which had the use of a prototype of the new liona accessory. MITNETZ STROM operates a distribution network of around 15,000 kilometres of medium-voltage cables, of which more than a third has already been in use for more than 30 years. In order to ensure maximum availability, the network operator carries out approx. 1,000 cable diagnostics and PD commissioning measurements per year.

Challenges associated with cable diagnostics and the solution in the form of the VDS-C

„However, for normal cable diagnostics including partial discharge measurement we have to de-energise the cable," says Nico Biewald. He is a measurement technology installer and responsible for, among other things, diagnostics and cable fault location at MITNETZ STROM. „This is often also usually the case for online measurements, because the HFCT sensors cannot be connected and disconnected on many routes while in the operating state."

Connect whilst energised, measure while energised: The new VDS-C can identify partial discharges on cables quickly and easily during operation.

„I reckon that we will purchase at least one VDS-C VDS PD coupler for each network area."

Nico Biewald

Advantages of the VDS PD coupler for MITNETZ STROM

For his team, the VDS-C is a boon. „Now we can check cables for partial discharge without having to interrupt supply," says Biewald. „This is particularly useful in built-up areas where we would otherwise have to ensure supply with an emergency power generator."

VDS-C in comparison with conventional measurement methods

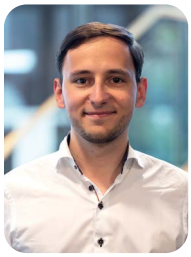
Biewald not only tested the VDS-C, but also compared the measurements taken using the accessory to the results of conventional offline and online measurements. His conclusion: Using the VDS-C VDS PD coupler also provides reliable information on whether there are partial

VDS-C connected

discharges on a medium-voltage cable. „What the online measurement with the VDS-C doesn't provide is the fault location," says the installer. „Nevertheless, the new accessory still saves us a lot of work. Within a few minutes we can perform a spot test on routes and only need to perform a complex offline measurement if the results are positive."

MITNETZ Strom: Our conclusion

For MITNETZ STROM, this also means that, overall, more cables can be diagnosed and the time-consuming measurements better planned. This ultimately leads to better knowledge about the cable condition and, in the medium-term, to a lower probability of a failure occurring. „I reckon that we will purchase at least one VDS-C for each network area," says Biewald, who's eagerly awaiting its market launch. „In combination with the liona online partial discharge measuring device, it will help us with diagnostics within our own network, as well as with the service work that we carry out on behalf of other network operators."



Matthias Zimmermann
Application Engineer
matthias.zimmermann@baur.eu

BAUR GmbH
Raiffeisenstraße 8 · 6832 Sulz · Austria
T +43 5522 4941-0
headoffice@baur.eu · www.baur.eu