	Operating Instructions	Date: 19.04.2017
	UGE F	Revision 00

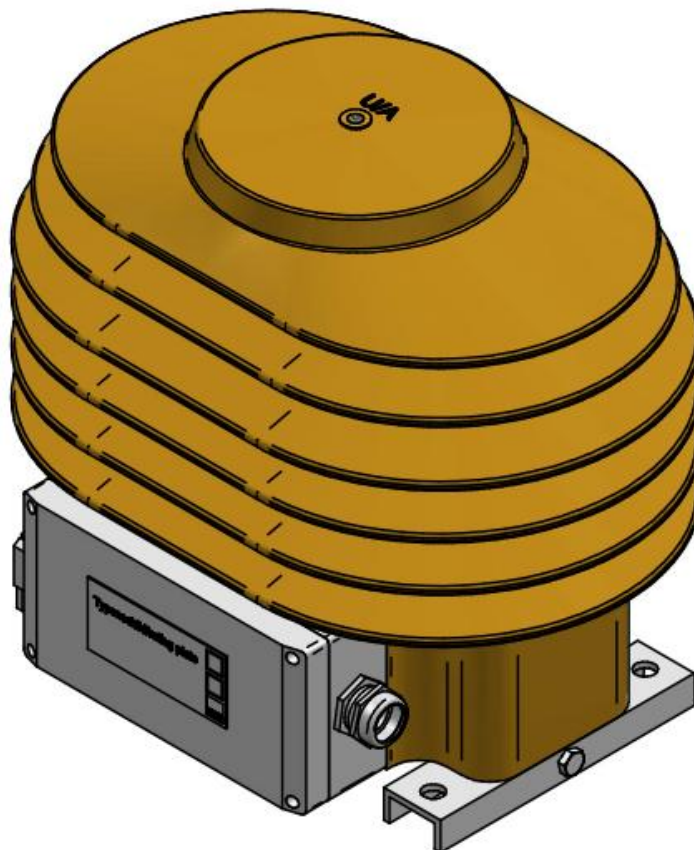
Voltage Transformer Type: UGE F

Designation: UGE F .. D26
UGE F .. E43

E.g. UGE F 17,5 D26

UGE F	17,5	D26
Single pole outdoor voltage transformer	insulation level	installation size

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1 Safety Guidelines

- This operating manual contains information and precaution rules for a safe installation and usage with respect to the mentioned requirements.
- Please read this instruction manual thoroughly!

2 Applications

The voltage transformers of the type UGEF:

- are suitable for outdoor usage.
- are suitable for ambient air temperature -40°C to $+40^{\circ}\text{C}$, other temperature ranges on request. Specific air temperature is indicated on the rating plate.
- are suitable for storage and transport temperature -50°C to $+70^{\circ}\text{C}$.
Altitude is until 1000m above NN. Altitude above 1000m only with agreement between ELEQ Kerpen GmbH and customer.
The secondary windings are used for measurement and/or protection purposes.
The pollution level is "heavy" respectively "very heavy "depending on the insulation level and type.
- The mounting instructions must be followed carefully.

3 Failures and critical loading

- If the equipment safety is not guaranteed, the equipment must be switched off and further usage is prohibited.

The equipment safety may be endangered by:

- visible damage of housing, terminal lines or terminal box including sealing.
- improper storage of the transformer. **Attention! Do not store or transport transformer below above mentioned temperature.**
- transport damage of the transformer.
- improper mechanical loadings of the voltage transformer e.g. high pressure loadings and impact stresses by loading with weights (stacking) or by fall from the storage place during transport and installation.
- improper electrical loadings of the voltage transformer e.g. overload (burden is higher than the given thermal limiting output or voltages exceeding the rated voltage multiplied by the rated voltage factor and time rating).
- **operation of the voltage transformer with short-circuit secondary windings. Danger of explosion.**

4 Set-ups, Mounting and De-mounting

- Any kind of work is only allowed in a voltage-free state of the transformer.
- Only qualified persons are allowed to carry out any kind of work.
- **Attention!** The voltage transformers are very heavy. For mounting and transport you have to use the appropriate lifting tools. For the transport the primary connection threaded bushing can be use. The voltage transformers must be secured in the lifting tools. Pendulousness must be avoided. Do not stand below the floating loading.
- **Wear personal protective equipment to avoid bruise and cuts.**
- The statutory and occupational safety guidelines must be observed.

5 Electrical connections

- The general statutory installation standards for electrical installation are to be followed carefully.
- Generally, it needs to be guaranteed that no required clearances and creepage distances are shortened by mounting of the voltage transformer.
- The tightening torque of the primary connection (M10) is 20 Nm. Therefore you must pay attention that the screws must be screwed in smoothly.
- The secondary terminal leads must be adequately stripped. In application of flexible wires it is to be noted that when stripping, the wires need to be ensured by end ferrules or cable shoes (M5). The secondary terminals can be earthed with the supplied jumpers. The tightening torque for the secondary screws is 2,5 Nm.
- The secondary terminals wire cross-section should be 2,5 mm² in case the wire length is less than 25 m.
- The mounting devices are internal connected with the ground bus. A ground connection on the mounting devices are possible (marked) with suitable screws and tightening torque according the table 1. The operator has to ensure that the voltage transformers are grounded with a sufficient cross-section grounding conductor.

Table 1

Tightening torque electrical contacts	
M8	10 Nm
M10	20 Nm

6 Mechanical mounting

- **Attention:** No damage to the housing may occur during the installation procedure.
- The operator is responsible to ensure that the voltage transformer has to be connected tightly to the fixture avoiding high mechanical load on the transformer.
- The fixation of the transformer is to be performed depending on the size M12 screws (minimum strength class 8,8). The screws (with sufficient length) are to be installed by the operator with washers ISO 7089-10-200 HV and fastened with a tightening torque accordance table 2. It is recommended to tighten the screws cross-wise. These need to be secured according to the regular standards, e.g. glue.

Table 2:

Tightening torque mounting device	
M12	65 Nm

7 Maintenance

The transformer is maintenance free but it is recommended:

- A visible check is to be performed at regular intervals with reference to damage of the housing and electrical connections.
- All electrical contacts including the earth-connections are to be checked in regular intervals with reference to tightness and corrosion-free state.
- Visibility checks must be performed on all mechanical fixtures with reference to deformation, damage or firmness.
- All maintenance procedures are to be performed in a voltage-free state.
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8 Repair

- General it is forbidden for the end-user to perform any repair of the transformer. In any case the transformer must be sent to the manufacturer.

9 General conditions of supply

ELEQ delivers exclusive according to ORGALIME S 2012. Should customers have purchase conditions which are beyond or in contradiction with the general conditions according to ORGALIME S 2012, the general conditions according to the ORGALIME S 2012 are in force, unless there is a written declaration of consent of ELEQ for recognition of these conditions.