

LIGHT CONCRETE COMPACT SUBSTATION GBÜ 2000



VERSATILE, COMPACT LOCAL GRID AND CUSTOMER SUBSTATION

Manufactured in accordance with IEC 62271-202
(VDE 0670-202)

Suitable for use with transformers up to 2000 kVA
(optionally 2500 kVA)

Arc tested with various SF6-insulated MV switchgear,
including: ABB Safe-Ring / Safe Plus,
Ormazabal GAE, Schneider RM6 and Siemens 8DJH

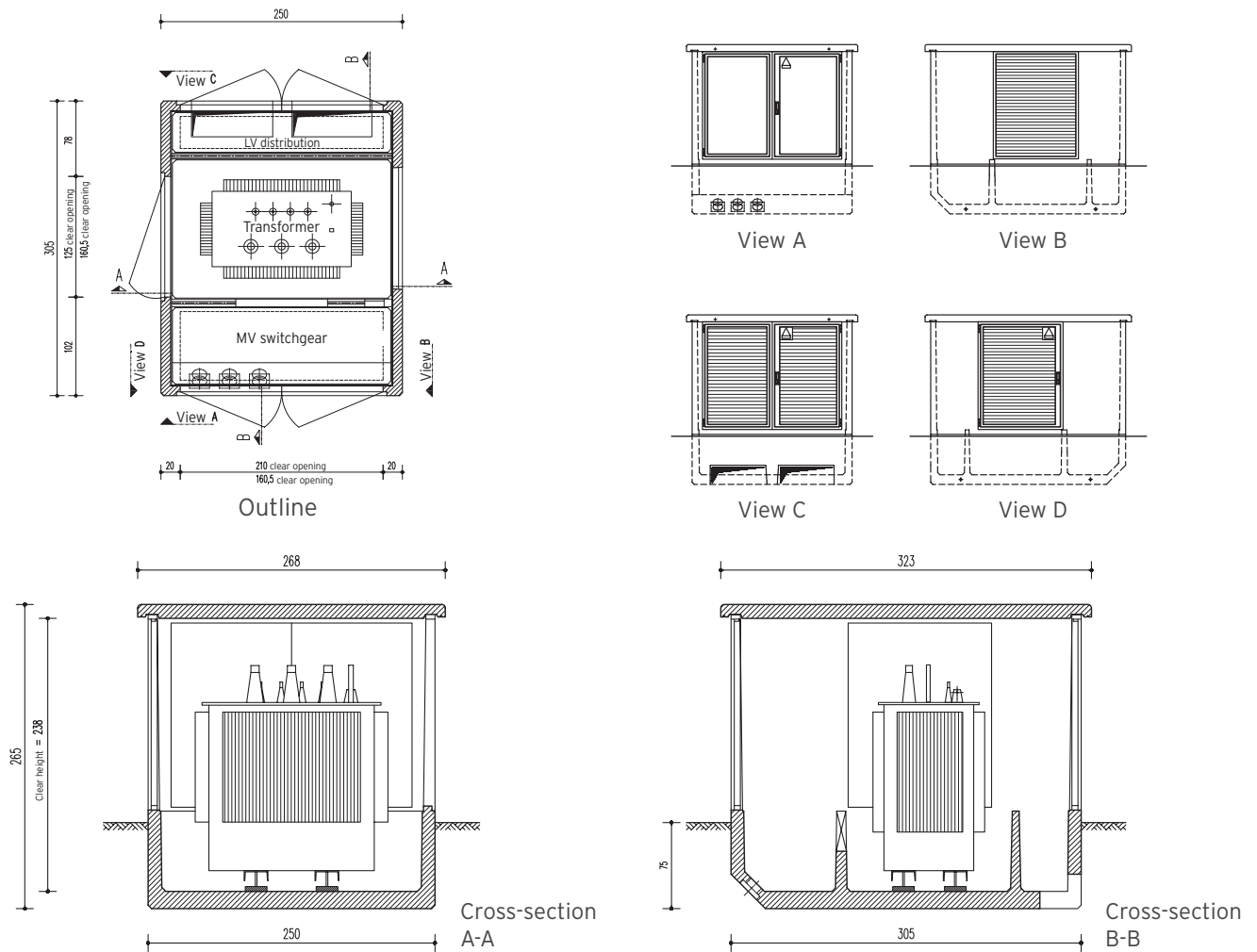
Arc tested with various air-insulated MV metering
panels, including: Elley MF10/20, Ormazabal GAE-1Mx

Manufactured in accordance with the 26th German
Federal Immission Control Ordinance (BimSchV)

Delivery with complete electrical configuration ready
for connection

COMPETENCY
RIGHT FROM
THE START

GBÜ Technical Drawing



GBÜ 2000 TECHNICAL DATA

Enclosure class:	K10, K15 or K20 (depending on transformer dissipation class)
Protection rating:	IP23D as per EN 62271-202 (higher protection rating optionally available)
External dimensions:	W x D x H = 2.500 x 3.050 x 2.650 mm (plus 90 mm roof overhang all round)
Installation excavation depth:	approx. 750 mm
Height above ground level:	approx. 1.900 mm
Weight:	Total empty weight: approx. 9.5 t (including 2.3 t roof weight)
Lifting fittings:	substation fittings: 4x KK transport anchors; roof fittings: 4x RD18

MAXIMUM SPECIFICATIONS OF INSTALLED COMPONENTS

Transformer	MV switchgear	LV distribution
2000 kVA ⁽¹⁾	SF6 gas insulated; air insulated	Distribution frame
H _{max} = 2.200 mm	H _{max} = 1.600 mm	H _{max} = 1.600 mm
L _{max} = 2.200 mm	D _{max} = 850 mm	D _{max} = 400 mm
W _{max} = 1.400 mm	W _{max} = 2.100 mm	W _{max} = 2.100 mm

⁽¹⁾ An 2500 kVA version of the substation is available on request.



1. SUBSTATION DESCRIPTION

The GBÜ 2000 compact substation is a general-purpose, space-saving local grid and customer substation with many configuration options. It is designed for use at power levels up to 2000 kVA (optionally up to 2500 kVA). The substation is produced in compliance with relevant standards and regulations such as IEC, DIN, VDE and UVV, including the following standards in particular:

- IEC 62271-202 (VDE 0671-202)
- DIN 1045: 2008-08
- 26. BimSchV
(26th German Federal Immission Control Ordinance)
- WHG (German Water Resources Act)

The substation has passed arc testing for classification IAC AB 20 kA 1s 24kV (up to 36 kV in some cases) with switchgear from all usual manufacturers, including ABB, Eaton, Ormazabal, Schneider and Siemens. Arc-tested air-insulated metering panels from Elley and Ormazabal with classification IAC AB 20 kA 1s can also be used. A version of the substation with SF6-insulated MV switchgear (ABB Safe Plus) and classification IAC AB 25 kA 1s is additionally available on request.

2. CONSTRUCTION

The substation consists of two monolithic prefabricated concrete sections (body and roof). The MV cables are fed in through watertight entry systems (e.g. Hauff). LV cables can be fed in through a downward-facing open cable duct. LV cable entry using watertight entry systems is also available as an option.

The external surface of the substation can be finished individually as desired by the customer. The available options are exposed aggregate concrete, fair-faced concrete, float-finish and roll-on stucco with a choice of colours from the RAL colour card, brick tile cladding and other special finishes.

3. DOORS AND VENTILATION

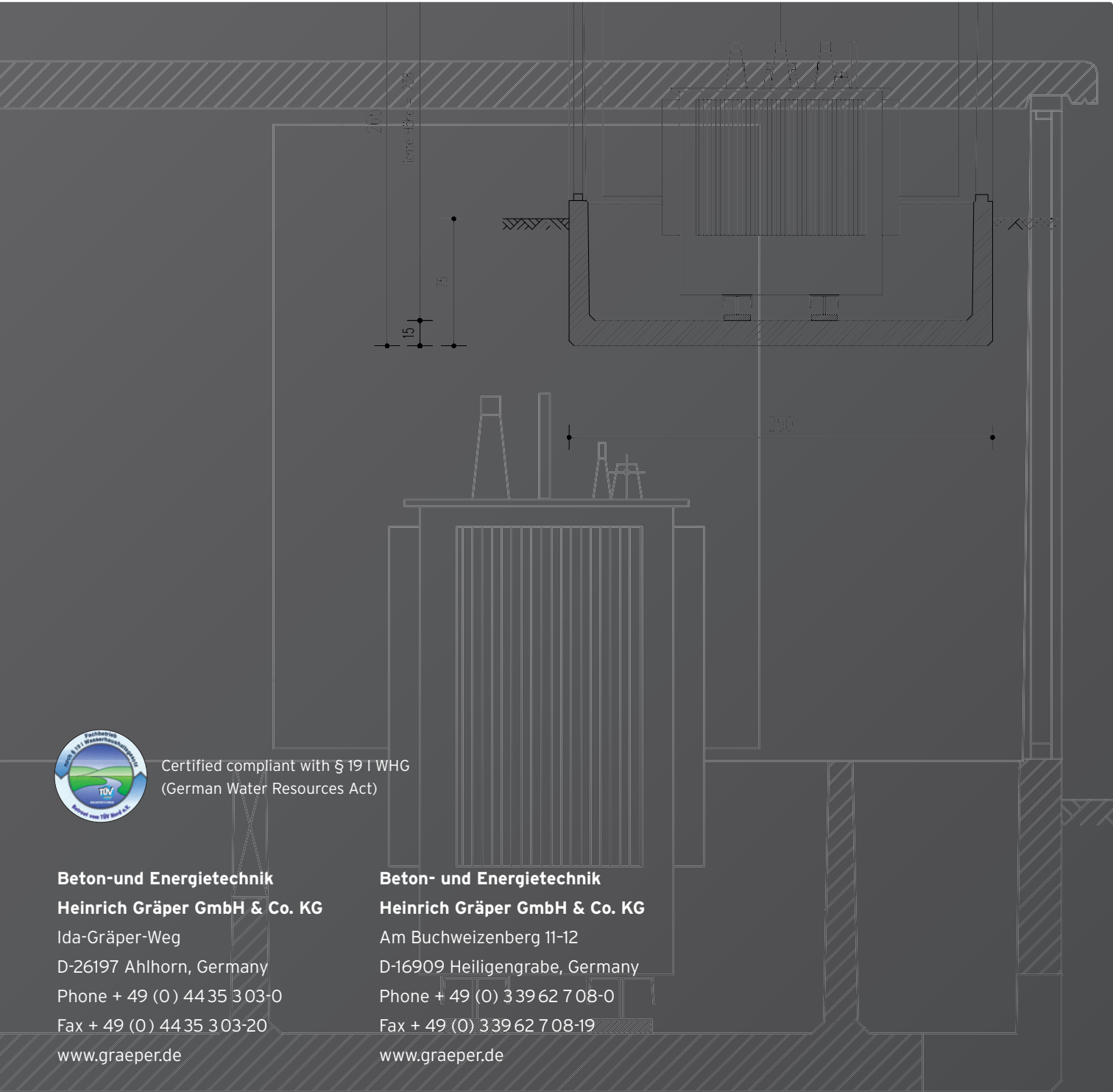
All substation doors and ventilation components originating from our own production can be made from galvanised steel or aluminium as desired. The doors are equipped with a door stay, copper earthing strip and pivoting bolt lock for one or two profile cylinders. Two-point locking mechanisms for each door leaf prevent arcing with the doors closed. The ventilation grilles are protected against penetration by objects and can optionally be fitted with insect screens.

4. ELECTRICAL CONFIGURATION

Electrical configuration of the substation with the medium-voltage switchgear, transformer, low-voltage distribution, secondary equipment, MV and LV cables, earthing and so on is performed at the factory according to customer specification and in compliance with IEC 62271-202.

5. TRANSPORT & INSTALLATION

The substation is delivered by truck to the installation site as a complete unit ready for connection and lowered into the prepared excavation using a truck-mounted crane. Four lifting points in the base area are provided for lifting the substation.



Certified compliant with § 19 I WHG
(German Water Resources Act)

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