

Component Certificate


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Type of component:	Protection device		
Component:	GMP232/1, GMP232/2, GMP232/3, GMP232/4, GMP232/1 cc, GMP232/2 cc, GMP232/3 cc, GMP232/4 cc		
Technical data:	Nominal measuring voltage	U_N	= 120 V, 690 V
	Nominal measuring current	I_N	= 1 A or 5 A
	Nominal measuring frequency	f	= 35 – 65 for 50 Hz Grid
			45 – 75 Hz for 60 Hz Grid
Nominal supply Voltage	U_{DC}	= 18 – 34 V typ. 24 V	
Certification programs:	P30VA01 Rev 09/11.24	TÜV NORD Certification process for grid integration certification	
Standard:	Engineering Recommendation G99 Issue 1 Amendment 10 4 March 2024	Requirements for the connection of generation equipment in parallel with public distribution networks on or after 27 April 2019	
Certification scope:	Chapter 10 Protection: <ul style="list-style-type: none"> ■ Over and Under Voltage ■ Over and Under Frequency ■ Loss of Mains (LoM) / Rate of Change of Frequency (RoCoF) ■ Automatic Reconnection 		

The component complies with the requirements of the above listed certification scheme and standards with obligations. The obligations to fulfill the requirements and further technical data are listed in annex 1 (3 Pages).

Registered-No. 44 799 13137970
 Test Report No. 35384580

Validity
 from 2024-12-12
 until 2029-12-11


 Dipl.-Ing. Malte Berghaus
 Certification body of
 TÜV NORD CERT GmbH

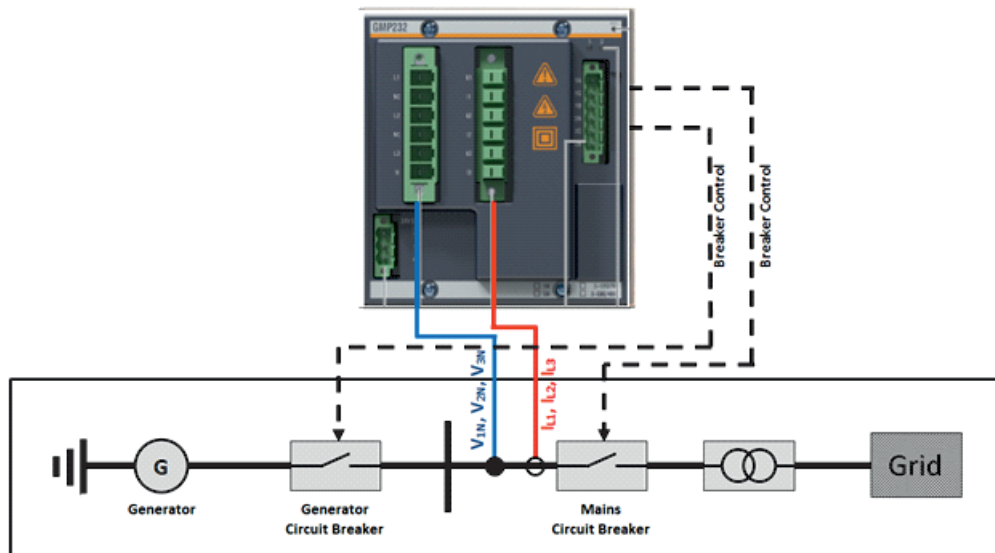
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ANNEX

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Schematic structure



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Technical data:

Unit type	GMP232/1 GMP232/1 cc	GMP232/2 GMP232/2 cc	GMP232/3 GMP232/3cc	GMP232/4 GMP232/4 cc
Nominal voltage	18 - 34 V _{DC} , typ. 24 V _{DC}			
Power consumption	max. 1.6 W			
Nominal measuring voltage	120 V _{RMS}	690 V _{RMS}	120 V _{RMS}	690 V _{RMS}
Nominal measuring current	1 A _{RMS}		5 A _{RMS}	
Nominal measuring frequency	35 - 65 Hz at 50 Hz 45 - 75 Hz at 60 Hz			
Load (current measurement)	10 mVA		250 mVA	
Load (voltage measurement)	>2 MΩ			
Relay outputs	2			
Relay inputs	none			
Construction revision	106.000			
Software version (SW)	1.xx R			


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ANNEX

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Remarks:

The validity of the certificate depends on the correct implementation of the software applications and hardware version mentioned in the Evaluation report (Annex A1).

The following protection functions were part of the conformity assessments:

- Over and Under Voltage
- Over and Under Frequency
- Loss of Mains (LoM) / Rate of Change of Frequency (RoCoF)
- Automatic Reconnection

Independently from the protection settings that were used for the tests shown in the Evaluation report (A1), the user must agree the whole protection setup with the responsible Distribution Network Operator (DNO) at installation site of the device.

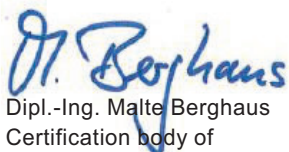
Restrictions:

The final parameterization of the protection settings must be carried out by the manufacturer of the Generating Unit or by the installer of the Power Generating Facility. The protection settings are not pre-configured. A wiring functional test must be carried out during commissioning for type tested protection devices.

Annex:

A1 Evaluation report Nr. 35384580 Version 1.0

A2 Summary of the test results


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