



**TRACTION SYNCHRONOUS ALTERNATOR GSN-1600/8**  
GPIN.528454.001 TU (Technical condition)



The alternator is intended to be used for feeding electric motors of BelAZ dump trucks with a weight capacity up to 240 t.

Types of climatic version – NF2, T2 acc. to GOST 15150-69.

Heat resistance of the insulating materials as for the alternator windings corresponds to "H" class, for the rotor winding – "F" class, for the contact rings – "B" class acc. to GOST 8865-93.

Excitement of the alternator – from an auxiliary winding (excitement from the third harmonica of the field in an air gap).

The direction of rotation of the alternator – left (from contact rings).

Category of the alternator relating to assembly type – M9809 acc. to GOST 2479-79, with the flange end of a shaft on D-end and taper lock end of a shaft on N-end.

Alternator IP category – IPW 21 acc. to GOST IEC 60034-5-2011 in case of joint operation with diesel plant.

Alternator cooling system – IC11 acc. to GOST R MEK 60034-6-2012.

The alternator can be operated at the heights of up to 3200 m above sea level.

Basic technical specifications

Parameter	Value	
	NF2	T2
Rated capacity, kW	1600	1420
Nominal voltage (line voltage), V		
– min	650*	650*
– max	780*	780*
Current, A		
– min	2x623	2x553
– max	2x748	2x664
Rotating speed, sec <sup>-1</sup> (rpm)	31.67 (1900)	
Current frequency, Hz	126.67	
Excitation current, A	270**	
Efficiency, %, above	95	
Duty type acc. to GOST IEC 60034-1-2014	S1 (continuous)	
Weight, kg, max	3550	

Remarks

\*\*Voltage on rectifier conclusions on a direct current max – 2x1000 V.

\* \* The excitement current corresponding to a point of the duty type S – max.

The alternator can be used with increase in power to 1800 kW in duty type S6 60%:

The alternator allows the current 2000 A max (on rectifiers leads for direct current) in case the over current duration does not exceed 30 sec.

The alternator can be used during short-term current increase up to 1500 A for no more than 2 min.

