

GE Mining
Industrea

BULLETIN 30435

MKII ALTERNATOR WITH GE0047-X REGULATOR

BULLETIN

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BULLETIN PJB MkII Alternator fitted with GE00047-X Regulator

GE Industrea advises the following information relating to the PJB MkII Alternator product fitted with a GE00047-X regulator board.



Communication: GE00047-X Regulator Protection

As a result of testing of the GE00047-X Regulator for the MkII Alternator it is evident that fault protection only disconnects the positive output from the alternator. The negative output is still powered when a trip is detected which leaves 3.8V in relation to earth. This may cause a spark if the cable has been cut and the negative wire comes in contact with chassis earth.

The explosion protected Alternator compliance is issued by Certificate of Conformity ANZEx 09.3007X or AUS Ex 2012(imperial unit). The regulator circuit is shown as a block representation on the Certificate of Conformity drawing M28800 sheet 2 Issue 07. Refer to the circuit below.

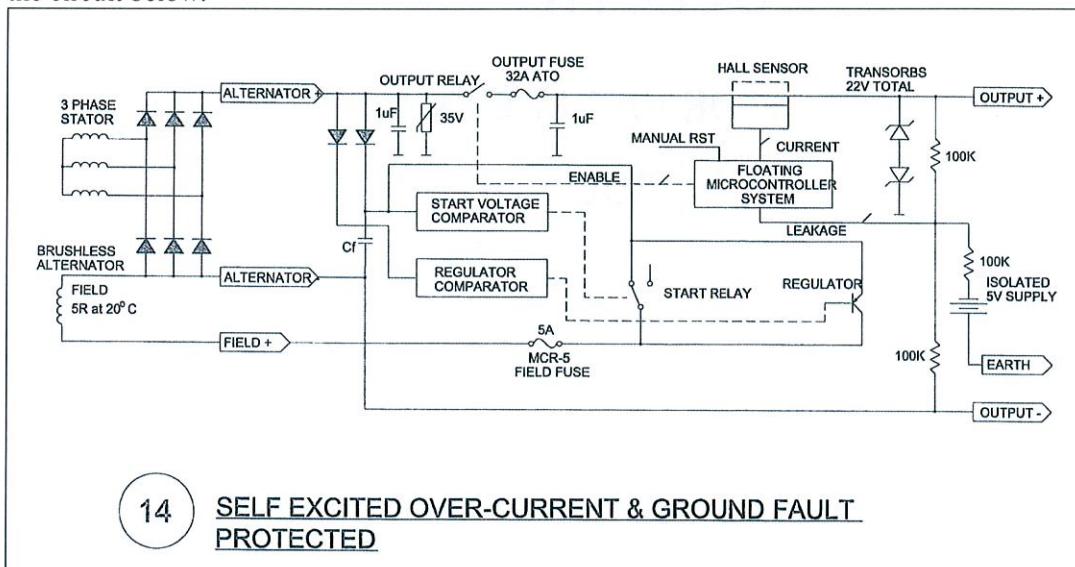


Fig 1 Regulator Board Circuit Diagram M28800.

The operation of the protection does not comply with AS/NZS 4871.6:2013 Clause 6.2.3 which states that “All sources of supply shall be disconnected by the protection system”.

A relay module can be fitted to the alternator which will open the negative output from the alternator. Refer to the sketch below.

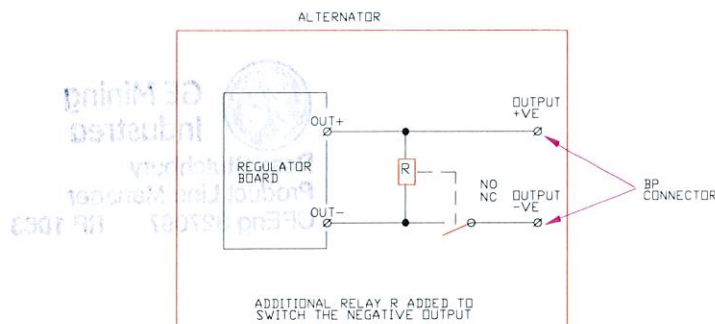


Fig 2 Additional Relay Circuit (kit 7-083280-700)



Individual Recall: PJB Alternator

GE Industrea has developed a corrective measure to bring the PJB Alternator to compliance with the 4871.6 standard by including a second relay. On fault the relay protection will switch both positive and negative output of the alternator.

The necessary components can be easily fitted to the existing regulator board. On-site installation can be undertaken by a competent electrician, or if required the alternators can be returned to a GE Industrea workshop. Please refer to GE Industrea Work Instruction C-ExW15 for installation.

Logistics: Please raise a nil value order for the 7-053280-700 Alternator Relay Kit with quantity required. Stock is available to meet anticipated requirements.

The solution offered has been assessed to be compliant with AS4871.6 without affecting the Exd explosion protection design of the alternator

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