

**INDUSTRIAL PRODUCTS  
DEPARTMENT**

Test Report: **SHOCK TESTING OF ENCLOSURE**

Report Number: 06019405

Report Date: March 2006

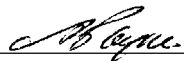
Items Tested: Enclosure containing switchgear

Tested on behalf of: Blakley Electrics Limited

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## **1 INTRODUCTION**

This report covers shock testing of an enclosure containing switch electronics in accordance with BS EN60439-4:2004 and BS EN 60068-2-27

## **2 DETAILS OF SPECIMENS**

B3/VELS200/MC1-VELS/MGPA12

## **3 DATE OF COMPLETION:**

23 March 2006

## **4 SUMMARY OF RESULTS**

The enclosure and contents withstood 18 half-sine shocks of 50g 11mS. Three shocks were applied in each sense of three mutually perpendicular axes. No damage resulted that would impair the functionality or use of the enclosure or contents. Only minor cosmetic damage was evident and this was largely due to the hard surfaces of the test fixtures.

## **5 TEST METHODS AND RESULTS**

After consideration of the instructions and guidance in BS EN60439-4:2004 and BS EN 60068-2-27 it was decided that it was highly improbable that the 50g 11mS shocks could be transmitted through a [surviving] mounting wall to the mounting lugs of the enclosure; and therefore the shock test is mainly intended to replicate the affects of mishandling during transport and installation where such items normally experience high shocks rather than multiple low levels shocks typically less than 5g that are occasionally associated with the installed environment for this intended application. Use of the shock test to prove robustness in transportation is described in BS EN 60068-2-27 as one possible objective for application of the test. It is also the commonest application of a small number of high level shocks when applied to equipment intended for fixed applications.

8.2.101.3 b) of BS EN 60068-2-27 states that subject to agreement between the manufacturer and user, the test may be carried out on separate sections of the ACS. This suggests that the test is intended to be applied as a general robustness test and indication of quality of design and build.

