



ASSESSMENT AND TEST REPORT

Report Number: MTEEx 1086/20.0271

Digital Matter Embedded
No.7 Pinetree Business Park
63 Brahma Crescent
Westfield
Edenvale
1610

Date: 07/11/2022
Client Reference: PO-01773
Revision: 1

1. STANDARD(S) USED

Testing was conducted in accordance with the following standards:

IEC 62262: 2002-02 First edition	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)
SANS 60529:2013	"Degree of protection provided by enclosure (IP Code)."

2. APPARATUS PROPERTIES

Manufacturer : Digital Matter Embedded
Type of product : Non-metallic Enclosure
Model : Remora Rugged

The enclosure was manufactured from PA 6-Copolymer, 15% glass fibres, injection moulding, heat-aging stabilized. The enclosure had the following overall dimensions: 224mm x 91mm x 41mm (Assembled)The enclosure consisted of two parts, bolted together by means of ten Philips head self-tapping screws.

3. TEST RESULTS

3.1 Clause 9.7- Degree of protection against external mechanical impacts (IK code).

Test conditions

Temperature : 20.40 °C
Air pressure : 1016 hPa

Each exposed surface of the enclosure was subjected to five impact tests (If area was big enough) starting at an impact energy of 0.14J.

Reviewed by + signature (ExTL):	D. Young	
Approved by + signature (ExCB): (MTEEx Laboratories Technical Signatory)	H. de Wet	



IK07 (Enclosure front part)

The front part of the enclosure resisted an impact of 0.14J, 0.2J, 0.35J, 0.5J, 0.7J, 1J and 2J
(Five tests at each impact energy)



IK08 (Enclosure back part)

The back part of the enclosure resisted an impact of 0.14J, 0.2J, 0.35J, 0.5J, 0.7J, 1J, 2J and 5J (Five tests at each impact energy)



Conclusion:

The front part of the enclosure had an IK07 rating assigned to it.
The back part of the enclosure had an IK08 rating assigned to it.

3.2 Clause 13.4 and 14.2.8 of IEC/SANS 60529:2013 (“Degree of protection provided by enclosure (IP Code).”)

SANS 60529: 2013 Ed.1.2		
CLAUSE	TEST	RESULT
13.4	Dust test for first characteristic numeral 6	
Step 1	Environmental conditions measured: Temp: 18.6°C, R-humidity:62.5%	
Step 2	Dimensional evaluation: 0.00083m ³	
Step 3	After testing inspection results: On completion of the test, the enclosure was opened and inspected. No dust entered the enclosure.	

SANS 60529: 2013 Ed.1.2		
CLAUSE	TEST	RESULT
14.2.8	TEST FOR SECOND CHARACTERISTIC NUMERAL 8 CONTINUOUS IMMERSION SUBJECT TO AGREEMENT	
	Environmental conditions measured: Temp: 18.6°C, R-humidity:62.5%	
	Unless there is a relevant product standard, the test conditions are subject to agreement between the manufacturer and user, but they shall be more severe than those prescribed in 14.2.7 and they shall take account of the condition that the enclosure will be continuously immersed in actual use. Depth:1m Duration: 45 minutes	
	After testing inspection results No water entered the enclosure.	

Conclusion:

The sample complied to the requirements of IP68 as set out in IEC/SANS 60529:2013

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End of Report