



Test Certificate for Ingress Protection (IP65) Testing of Outdoor Wall Mount Server Cabinet to IEC 60529:2013

Client:	4Cabling Pty Ltd
Address:	17/31 Maddox St, Alexandria, NSW, 2015
Report Number:	08134CA266529
Date of Testing:	29 July 2019 – 31 July 2019
File Number:	4CA190710
Equipment Name:	Outdoor Wall Mount Server Cabinet
Equipment Model No.:	002.015.1266
Equipment Description:	12RU 600 x 600 Outdoor Wall Mount Server Cabinet
Test Standard:	IEC 60529:2013
Result:	Pass*
Author:	Aaron Dailey Test Engineer 
Reviewed by:	Jonathan Longfield Test Engineer 
Date of Issue:	13 August 2019

Results appearing herein relate only to the sample(s) tested.
This report may not be reproduced in any form unless done so in full.

This report is issued errors and omissions exempt and is subject to withdrawal at Austest Laboratories discretion.

***Refer to Results section for clarification.**

This report is issued within the scope of A2LA accreditation #2765.02.

Accredited for compliance with ISO / IEC 17025.
Approval Specialists Pty Ltd (ACN: 094 656 354) Trading as Austest Laboratories
2/9 Packard Avenue, Castle Hill NSW 2154 Australia Ph: +612 9680 9990



TEST ITEM

4Cabling Pty Ltd of 17/31 Maddox St, Alexandria, NSW, 2015 submitted one (1) Outdoor Wall Mount Server Cabinet for Ingress Protection testing.

The test item identification and tests applied are shown in Table 1 below.

Item No.	Equipment Name	Model No.	Serial No.	Applied Tests
1	Outdoor Wall Mount Server Cabinet	002.015.1266	N/A	Water Jet (IPx5) Dust (IP6x) Probe IP6x)

Table 1: Test Item Identification

The test item is shown in Photograph 1 below.



Photograph 1: Test item - Outdoor Wall Mount Server Cabinet

On 17/07/2019 the customer issued a declaration stating that other models are of the exact same construction and from the same manufacturer as the test item. The declaration is shown in Appendix II.

This report is issued within the scope of A2LA accreditation #2765.02.

Accredited for compliance with ISO / IEC 17025.
 Approval Specialists Pty Ltd (ACN: 094 656 354) Trading as Austest Laboratories
 2/9 Packard Avenue, Castle Hill NSW 2154 Australia Ph: +612 9680 9990



TEST DETAILS

Water Jet (IPx5)

Test Parameters

The test item was subjected to a Water Jet test for assessment of degree of protection against water, in accordance IEC 60529:2013, IPx5 Code, to the following parameters:

Test Type:	Water Jet Spray
Test Means:	Jet Hose Nozzle, 6.3 mm
Spray Distance:	2.5-3.0 m
Water Flow Rate:	12.5 l/min \pm 5%
Test Duration:	3 min

Test Configuration

The test item was subjected to a Water Jet test mounted via its nominal mounting method to a vertical panel to replicate real life installation. The test item was exposed to the water jet from all sides except the back.

The Water Jet test setup is shown in Photograph 2, Appendix I.

Dust (IP6x)

Test Parameters

The test item was subjected to a Dust test for assessment of degree of protection against solid foreign objects, in accordance with IEC 60529:2013, IP6x Code, to the following parameters:

Test Type:	Circulating dust
Test Pressure	2 kPa below atmospheric ambient
Dust Medium:	Talcum Powder
Dust Particle Size:	Able to pass through a gap of 75 μ m.
Dust Quantity:	2 kg per m ³ of test chamber volume.
Test Duration:	8 hrs

This report is issued within the scope of A2LA accreditation #2765.02.

Accredited for compliance with ISO / IEC 17025.
Approval Specialists Pty Ltd (ACN: 094 656 354) Trading as Austest Laboratories
2/9 Packard Avenue, Castle Hill NSW 2154 Australia Ph: +612 9680 9990



Test Configuration

The test was conducted with the test item located inside the dust chamber with sufficient clearance from all walls ensuring adequate exposure to dust circulation. A hole was drilled in the test item to apply the required vacuum severity during the test.

The Dust test setup is shown in Photograph 3, Appendix I.

Probe (IP6x)

Test Parameters

The test item was subjected to a Probe test for assessment of degree of protection against access to hazardous parts, in accordance with IEC 60529:2013, IP6x Code, to the following parameters:

Test Type:	Probe
Test Means	Rigid steel rod
Probe Diameter:	1.0 mm $^{+0.05\text{mm}}$ ₀
Test Force:	1 N \pm 10%

Test Configuration

All externally accessible apertures identified on the test item were subjected to the probe testing from all practical directions. Testing was carried out on all faces.

Functional Testing and Assessment

The test item was subject to visual inspection only.

TEST RESULTS

Water Jet (IPx5)

Internal visual inspection of the test item at the conclusion of the Water Jet test revealed no evidence of water ingress into the enclosure.

Therefore, the Outdoor Wall Mount Server Cabinet model no. 002.015.1266, was found to be compliant with the provisions of the IEC 60529:2013 standard for degrees of protection against water ingress indicated by the second characteristic numeral, IPx5 Code.

This report is issued within the scope of A2LA accreditation #2765.02.

Accredited for compliance with ISO / IEC 17025.
Approval Specialists Pty Ltd (ACN: 094 656 354) Trading as Austest Laboratories
2/9 Packard Avenue, Castle Hill NSW 2154 Australia Ph: +612 9680 9990



Dust (IP6x)

Internal visual inspection of the test item at the conclusion of the Dust test revealed no evidence of dust ingress into the enclosure.

Probe (IP6x)

The probe did not penetrate or reach any hazardous parts inside the enclosure during the Probe test.

Therefore, the Outdoor Wall Mount Server Cabinet, model no. 002.015.1266, was found to be compliant with the provisions of the IEC 60529:2013 standard for degrees of protection against accesses to hazardous parts, indicated by the first characteristic numeral, IP6x Code.

This report is issued within the scope of A2LA accreditation #2765.02.

Accredited for compliance with ISO / IEC 17025.
Approval Specialists Pty Ltd (ACN: 094 656 354) Trading as Austest Laboratories
2/9 Packard Avenue, Castle Hill NSW 2154 Australia Ph: +612 9680 9990



Appendix I – Test Photographs



Photograph 2: Water Jet test setup



Photograph 3: Dust test setup

This report is issued within the scope of A2LA accreditation #2765.02.

Accredited for compliance with ISO / IEC 17025.
Approval Specialists Pty Ltd (ACN: 094 656 354) Trading as Austest Laboratories
2/9 Packard Avenue, Castle Hill NSW 2154 Australia Ph: +612 9680 9990



Appendix II – Customer Declaration



Declaration Letter

To Whom It May Concern:

On behalf of 4Cabling,

I declare that 002.015.XXXX Deep OUTDOOR IP65 Wall Mount & 002.015.XXXX.V Deep OUTDOOR IP45 & 002.015.XXXX Deep OUTDOOR IP45 Freestanding Server Rack are of the exact same construction and from the same manufacturer as the following items.

XXXX Denotes Rack RU & size

002.015.1266 – 12RU 600 x 600 Outdoor Wall Mount IP65

002.015.1266.V – 12RU 600 x 600 Outdoor Ventilated Wall Mount IP45 , includes Fan Unit.

002.015.2286 – 22RU 800x 600 Outdoor Freestanding Server Rack IP45 Includes Fan Unit

17/07/2019

Jane Adkins
Purchasing Manager

www.4cabling.com.au
PO BOX 7730
17/31 Maddox St ALEXANDRIA NSW 2015
ABN 74 123 035 889

This report is issued within the scope of A2LA accreditation #2765.02.

Accredited for compliance with ISO / IEC 17025.
Approval Specialists Pty Ltd (ACN: 094 656 354) Trading as Austest Laboratories
2/9 Packard Avenue, Castle Hill NSW 2154 Australia Ph: +612 9680 9990

