# ELECTRICAL CERTIFICATE OF COMPLIANCE

**REFERENCE/CERTIFICATE ID NO.:** #5681C4

This form has been designed to be used by licensed electrical workers to certify that installations or Part installations under Part 1 or Part 2 of AS/NZS 3000 are safe to be connected to the specified system of electrical supply.

**Location Details:** 4/17 Lyon Street, Frankton, Hamilton

**Contact Details:** (Name and address) Kim DuBois

**Name of Electrical Worker:** Devon Moon

**Registration/Practising licence number:** E281876

**Phone & email:** 0276818298

**Name and registration number of person(s) supervised:** Hugh Van Asbeck, David Williams (EW149711)

## Certificate of Compliance

**Type of work:** ☐ Addition ☐ Alteration ☑ New work

**The prescribed electrical work is:** ☐ Low risk ☐ General ☑ High-risk (specify):

Mains work

**Means of compliance:** ☐ Part 1 of AS/NZS 3000 ☑ Part 2 of AS/NZS 3000

**Additional Standards or electrical code of practice were required:** ☑ No ☐ Yes (specify):

**Date or range of dates that prescribed electrical work undertaken:** 12/2/2020 to 18/8/2020

**Contains fittings that are safe to connect to a power supply?** ☑ Yes ☐ No

**Specify type of supply system:** 230vMEN

**The installation has an earthing system that is correctly rated (where applicable)** ☑ Yes ☐ No

**Parts of the installation to which this certificate relates that are safe to connect to a power supply?**

☐ All ☑ Parts (specify) Main switchboard, meterbox and earth

**The work relies on manufacturers instructions:** ☐ Yes ☑ No

If yes – identify the instruction manual including name, date and version. Also attach a copy of manufacturer's instructions to this certificate.

(Or provide reference to readily accessible electronic format, eg internet link.)

Identify:
Link:

**The work has been done in accordance with a certified design:** ☐ Yes ☑ No

If yes – identify the certified design including name, date and version. Also attach a copy of the certified design to this certificate.

(Or provide reference to readily accessible electronic format, eg internet link.)

Identify:
Link:

**The work relies on a Supplier Declaration of Conformity (SDoC):** ☐ Yes ☑ No

If yes - identify the SDoC including name, date and version OR EESS registration. Also attach a copy of the SDoC to this certificate.

(Or provide reference to readily accessible electronic format, eg internet link.)

Identify:
Link:

**The installation has been satisfactorily tested in accordance with the Electricity (Safety) Regulations 2010** ☐ No ☑ Yes

**Description of Work:**

Install 16mm 1c ns mains from Private pillar, meter box, main switchboard, earth peg ad lead.

| Test Results (provide values) | | |
|---|---|---|
| Polarity (independent earth): | | |
| Insulation resistance: | 999M | Ohms |
| Earth Continuity: | 0.04 | Ohms |
| Bonding: | 0.02 | Ohms |
| Fault Loop impedance | | Ohms |
| Other (specify): | | |

**By signing this document I certify that the completed prescribed electrical work to which this Certificate of Compliance applies has been done lawfully and safely, and the information in the certificate is correct.**

**Certifier's signature:** D Moon **Date:** 24/8/2020

CUSTOMER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED FOR A MINIMUM OF 7 YEARS

# ELECTRICAL CERTIFICATE OF COMPLIANCE & ELECTRICAL SAFETY CERTIFICATE

**REFERENCE/CERTIFICATE ID No.:** #5681/4

This form has been designed to be used by licensed electrical workers to certify that installations or Part installations under Part 1 or Part 2 of AS/NZS 3000 are safe to be connected to the specified system of electrical supply.

**Location Details:** 4/17 Lyon Street, Frankton, Hamilton

**Contact Details:** (Name and address) Kim Du Bois

**Name of Electrical worker:** Devon Moon

**Registration/Practising licence number:** E281876

**Phone & email:** 0276818298

**Name and registration number of person(s) supervised:** Hari Kanbi (EW143847), David Williams (EW149711)

## Certificate of Compliance

**Type of work:** ☐ Addition ☐ Alteration ☑ New work

**The prescribed electrical work is:** ☐ Low risk ☑ General ☐ High-risk (Specify):

**Means of compliance:** ☐ Part 1 of AS/NZS 3000 ☑ Part 2 of AS/NZS 3000

**Additional Standards or electrical code of practice were required:** ☑ No ☐ Yes (specify):

**Date or range of dates that prescribed electrical work undertaken:** 12/2/2020 to 18/8/2020

**Contains fittings that are safe to connect to a power supply?** ☑ Yes ☐ No

**Specify type of supply system:** 230V MEN

**The installation has an earthing system that is correctly rated (where applicable)** ☑ Yes ☐ No

**Parts of the installation to which this certificate relates that are safe to connect to a power supply?**

☑ All ☐ Parts (specify)

**The work relies on manufacturers instructions:** ☐ Yes ☑ No

If yes – identify the instruction manual including name, date and version. Also attach a copy of manufacturer's instructions to this certificate.
(Or provide reference to readily accessible electronic format, eg Internet link.)

Identify:
Link:

**The work has been done in accordance with a certified design:** ☐ Yes ☑ No

If yes – identify the certified design including name, date and version. Also attach a copy of the certified design to this certificate.
(Or provide reference to readily accessible electronic format, eg Internet link.)

Identify:
Link:

**The work relies on a Supplier Declaration of Conformity (SDoC):** ☐ Yes ☑ No

If yes - identify the SDoC including name, date and version OR EESS registration. Also attach a copy of the SDoC to this certificate.
(Or provide reference to readily accessible electronic format, eg Internet link.)

Identify:
Link:

**The installation has been satisfactorily tested in accordance with the Electricity (Safety) Regulations 2010** ☐ No ☑ Yes

**Description of Work:**

Supply and install all electrical outlets, fittings and switches as per plan.
Test and liven.
16 x Power points, 15 x Light fittings
2 x exterior lights, 1 x HWC
1 x Heat pump, 2 x Extractor fan
1x Wall mounted heaters

Install supply for oven/hob

| Test Results (provide values) | | |
|---|---|---|
| Polarity (Independent earth): | As per attached | |
| Insulation resistance: | Test sheet | Ohms |
| Earth Continuity: | 5681 /4 | Ohms |
| Bonding: | | Ohms |
| Fault Loop impedance | | Ohms |
| Other (specify): | | |

**By signing this document I certify that the completed prescribed electrical work to which this Certificate of Compliance applies has been done lawfully and safely, and the information in the certificate is correct.**

**Certifier's signature:** DJmoon **Date:** 1/9/2020

## Electrical Safety Certificate

**By signing this document I certify that the installation, or part of the installation, to which this Electrical Safety Certificate applies is connected to a power supply and is safe to use.**

**Certifier's name:** Devon Moon

**Registration/Practising licence number:** E281876

**Certifier's signature:** DJmoon

**Certificate Issue Date:** 1/9/2020

**Connection Date:** 20/8/2020

**CUSTOMER COPY – THIS IS AN IMPORTANT DOCUMENT AND SHOULD BE RETAINED FOR A MINIMUM OF 7 YEARS**

This Electrical Safety Certificate also confirms that the electrical work complies with the building code for the purposes of Section 19(1)(a) of the Building Act 2004

# Electrical Installation test report supporting the Electrical Certificate of Compliance

Company: 2E Electrical

Installation ref: 17 Lyon street unit 4

CoC ref: 56814 ESC ref: 56814

Person testing: Devon moon Reg No: E2918916

Date of tests: 20 08 2020

Date of Connection: 17 08 2020

## Section 1: Visual Inspection

A visual inspection has been undertaken to confirm as far as practicable that the work completed is Electrically Safe and complies with the regulations and standards. ☐

### Parts of installation visually inspected:

- ☑ General Safety of Installation
- ☑ Consumer Mains
- ☑ Switchboards
- ☐ Segregation of Services
- ☑ Earthing System
- ☑ MEN Link & N E Bars
- ☑ Wiring Systems
- ☑ Tags, Labels, Markers

Other

## Section 2: Earthing and Bonding

The earthing continuity and equipotential bonding of the installation has been tested. ☐

Main Earth continuity & resistance (<0.5Ω) 0.84 Ω

Bonding: earth bar to Meter box 0.02 Ω

Bonding: earth bar to ——— Ω

Bonding: earth bar to ——— Ω

Bonding: earth bar to ——— Ω

Main Earth location:# below meter box

#Marked at Main SWBD ☑ Yes

Main Earth labeled? ☑ Yes

Earth electrode resistance (if measured) ——— Ω

## Section 3: Polarity Tests

Polarity testing is critical to ensure the safety of any installation. A crossed polarity is almost certain to result in a shock or electrocution.

### Polarity of supply conductors: un-energised

Continuity: Phase at point of supply to Ph - main switch ☐

Neutral at point of supply to main Neutral ☑

### Polarity of supply conductors: Energised

Using an independent earth **(IE)** test:


**IE** to **Earth point** on meter or switch board = Volts. (should be close to 0V)

**IE** to incoming supply **Neutral** (meter board) = Volts. (should be close to 0V)

**IE** to **Phase** at main switch or L1,L2, L3 if 3 Ø = Volts. (should be around 230V)

Polarity at sub-mains and at sub-boards ☐ Yes

## Test Equipment Information

- ☑ Multi-function tester ID: ———
- ☐ Insulation resistance tester ID: ———
- ☐ Loop tester ID: ———
- ☐ RCD tester ID: ———
- ☐ Multimeter ID: ———

☑ Meters have been checked for current calibration and certification.

## Section 3: Installation Connection Tests and Checks

Mains conductor size: 1 core 16 mm² Cu or Al

Main Earth conductor size: 6 mm²

Mains protection fuse rating: 63 Amps

kA rating of main switchboard devices 6 kA

Earthing system is correctly rated ☑ yes

Phase rotation is: ☐ clockwise ☐ anti-clockwise

Main Earth conductor current ☐ ——— (A or mA)

## Section 4: Insulation Resistance Tests

Test between all current carrying conductors and earth

| | | | |
|---|---|---|---|
| Mains cable | Tested ☐ | 7999 | MΩ |
| Sub-mains cables | Tested ☐ | ——— | MΩ |
| Power circuits | Tested ☐ | ——— | MΩ |
| Lighting circuits | Tested ☐ | ——— | MΩ |
| 3 Ph circuits | Tested ☐ | ——— | MΩ |
| **Test on installation** | | | |
| Neutral to Earth | Tested ☐ | ——— | MΩ |
| Phase to Earth | Tested ☐ | ——— | MΩ |

## Section 5: Fault-loop Impedance Tests (per AS/NZS 3017:2007)

**@ Main Switchboard:**

L - N 0.28 Ω L - PE 0.30 Ω

P.s.c.c. 850 (A)or kA)

**Test on longest circuit from Main Swbd** 0.76 Ω

P.s.c.c 384 (A)or kA)

**For 3 Phase Installations:**

L1 - N ——— Ω L2 - N ——— Ω L3 - N ——— Ω

P.s.c.c. ——— (A or kA)

## Section 6: Circuit Polarity & Earth Continuity

Polarity and earth continuity tests carried out on all socket outlets, pwr's, ES light fittings, fixed appliances etc.

- ☑ All circuits & sub circuits checked for correct polarity
- ☐ All socket outlets have correct polarity
- ☑ All outlets & connections have Earth continuity

## Section 7: RCD Tests

Use additional test sheet to record full RCD tests on all RCD's, RCCD's and RCBO's

| | circuit | circuit | circuit | circuit |
|---|---|---|---|---|
| RCD tests on Swbd RCD's | RCD1 | RCD2 | | |
| Test Button Operation Checked | ✓ | ✓ | | |
| Test at **1X** rated current 0/180° | 34.1 | 28.1 | | |
| Test at **5X** rated current 0/180° | 18.2 | 20.1 | | |
| Test at **Half** rated current 0/180° | >999 | >999 | | |

# RECORD OF INSPECTION (ROI) OF HIGH- RISK PRESCRIBED ELECTRICAL WORK
## PURSUANT TO THE ELECTRICITY (SAFETY) REGULATIONS 2010

**Reference/Record ID Number:** 270804

**Issuer (Inspector) details:**

| | | | |
|---|---|---|---|
| Name of Inspector: | Michael Hutchinson | Registration #: | I283361 |
| Email address: | michaelh@2eelectrical.co.nz | Telephone: | 0274551944 |

**Location of installation:**

Location details: 4/17 LYON ST, FRANKTON

Location type: ☑ Domestic ☐ Non-Domestic Accommodation ☐ Industrial ☐ Commercial
☐ Educational ☐ Healthcare ☐ Miscellaneous (other)

**Certifying Electrical Work and Certificate of Compliance (CoC) details:**

| | | | |
|---|---|---|---|
| Name of Electrical worker(s): | DEVON MOON | Registration #: | E281876 |
| | | | |

CoC details: 568 C4 ☐ CoC(s) attached

**Certifying Electrical Work and RoI details:**

What was inspected:

Existing House / Switchboard / New House / BTS
Mains work ✓
MEN ✓
Earthing ✓
Loop and polarity ✓

Specify the regulation(s) and companion standard(s), or identify the certified design, followed when carrying out the inspection:

AS/NZS 3000:2007 (A2) Part 2 Section 8
Reg:70 (3) (a&b)
Reg: 73 A1 (e)

What are the results of the inspection:

| | | | |
|---|---|---|---|
| Visual: | | Insulation: CoC | Loop: |
| Earthing: | .04 Ω | Polarity: Correct | PSSC: |
| Bonding: | .02 Ω | Voltage: | RCD: |

**High Risk Category:**

☐ Not to AS/NZS 3000 Part 2 – 6A(2)(a)(i) ☐ Photovoltaic system – 6A(2)(a)(iv) ☐ Electrical medical area – 6A(2)(a)(vi)
☐ High voltage installation – 6A(2)(a)(ii) ☐ Hazardous area – 6A(2)(a)(v) ☑ Mains work – 6A(2)(b)
☐ Mains parallel generation – 6A(2)(a)(iii) ☐ Animal stunning or meat conditioning – 6A(2)(c)
☐ Other – please describe:

**Declaration**

I hereby confirm that the work described above has been done in accordance with the regulations; and the installation on which the work has been done is, and will be , when enlivened, electrically safe.

Post

Signature: [signature] Date: 27-8-2020

| **Electricity Industry Participation Code**<br>**Metering**<br>**Certificate Of Compliance** | wells | Doc No. : QF_MTS_38<br>Issue No. : 3<br>CCP No. : 519<br>Date : 27-03-14 |
|---|---|---|

Customer : ASSURED CONSTR ICP : 0000048480LE479 COC #: 4907957

Retailer :

Installation Address : 4/17 Lyon St
HAMILTON

Client: (if different from above)

| Work Description | Project / Job No Ref | High Risk | General | Low Risk |
|---|---|---|---|---|
| 1 INSTALL RESIDUAL METER & LISENCE | | ☐ | ☑ | ☐ |
| 2 AT PILLAR UP TO MEN | | ☐ | ☐ | ☐ |
| 3 | | ☐ | ☐ | ☐ |
| 4 | | ☐ | ☐ | ☐ |
| 5 | | ☐ | ☐ | ☐ |

| | Used | Attached | On File At Wells |
|---|---|---|---|
| Manufacturer's Instructions | ☐ | ☐ | ☑ |
| Supplier Declarations Of Conformity | | ☐ | ☐ |
| Certified Design(s) | ☐ | ☐ | ☐ |
| Other References | ☐ | ☐ | ☐ |

Compliant with
AS/NZS 3000 Part 2 ☑ Part 1 ☐
Other

The parts of this installation listed above ☑
The following parts of this installation ☐
are safe to connect to
230/400v MEN ☐
Other System V-239

1
2
3

| Tests & Record of Inspection (as applicable) | | Electrical Worker | Inspector |
|---|---|---|---|
| Visual Inspection | | ☑ | ☐ |
| Polarity (independent earth if possible) | | ☑ | ☐ |
| Insulation Resistance | | Ω | Ω |
| Earth Continuity | | Ω | Ω |
| Bonding & Earthing | | Ω | Ω |
| Earth Loop Impedance (from MEN point) | 0.24 | Ω | Ω |
| Prospective Short Circuit Current (at MEN point) | 0.967 | kA | kA |
| Residual Current Device Operation | | ☐ | ☐ |
| Other (specify) | | | |

**Certificate of Compliance:** I declare that the prescribed electrical work covered by this Certificate of Compliance has been performed and tested in accordance with the Electricity (Safety) Regulations, and that the information provided in this certificate is, to the best of my knowledge, true and correct

Certifier: Signature: Aum.

Employer Licence : ORG000158 ☐ (select licensing that applies) Electrical Registration: E1268159

Electrical Workers: Asif Lalman

Date Work Performed: 27-08-2020 Date Certified: 27-08-2020

Inspector: Signature:

Inspectors Registration: Date Inspected: - -

**Electrical Safety Certificate:** This Electrical Safety Certificate relates to work performed on the part of the installation or fitting detailed above. That part of the installation or fitting is deemed safe to use, any prescribed electrical work done on it was in accordance with the Building Act 2004, and the installation has been connected to a power supply

Certifier: Asif Lalman Signature: Aum.

Electrical Registration: E1268159 Date Connected: 27-08-2020