## Product Type Approval Certificate

## Full

This certificate is issued to:

| Supplier name and | Tyree Transformers |
| :--- | :--- |
| address: | Tyree Place, |
|  | Braemar NSW 2575, |
|  | Australia |

In respect of:

| Manufacturer: | Tyree Transformers |
| :--- | :--- |
| Place of manufacture: | Tyree Place, <br> Braemar NSW 2575, <br> Australia |
| Product description: | $66 / 11 \mathrm{kV}$, Dyn1, 3MVA, ONAN, 66kV and 11 kV is cable <br> connected, complete with OLTC manufactured to TfNSW <br> standard T HR EL 02001 SP version 1.0. |
| Use approved for: | Use on the heavy rail 66 kV and 11 kV network. |
| Conditions of approval: | Type approval is valid for the power transformers as detailed on <br> the following set of general drawings: |
|  | EL 0841699 Arrangement Drawing (Rev B) <br> EL 0841700 Foundation Drawing (Rev B) <br> EL 0841701 Rating Plate (Rev B) <br> EL 0841702 Parts List (Rev B) <br> EL 0841703 Transformer Protective Connection Diagram (Rev B) <br> EL 0841704 240/415 V AC Schematic Diagram (Rev B) <br> EL 0841705 Winding \& Oil Temperature Schematic Diagram (Rev <br> B) |


|  | EL 0841706 Voltage Regulator Connection Diagram (Rev B) |
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|  | EL 0841707 ABB Motor Drive Connection Diagram (Rev B) |
|  | EL 0841708 Marshalling Cubicle Terminal Layout (Rev B) |
|  | EL 0841709 Marshalling Cubicle Arrangement (Rev B) |
|  | EL 0841710 ABB Tapchanger Logic Diagram (Rev B) |
|  | EL 0841711 ABB Tapchanger Schematic (Rev B) |
|  | EL 0841712 ABB Tapchanger Schematic (Rev B) |
|  | EL 0841713 ABB Tapchanger Schematic (Rev B) |
|  | EL 0841714 ABB Tapchanger Schematic (Rev B) |
|  | EL 0841715 ABB Tapchanger Schematic (Rev B) |
|  | EL 0841716 ABB Tapchanger Schematic (Rev B) |
| Limitations: | N/A |

## Evaluating rail transport operator

| Name: | Nick Giannoulis |
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| Position: | A/Director Energy Networks \& Systems, Asset Management Branch, <br> Transport for NSW |
| Signature: | NGiannoulis |
| Date: | $15^{\text {th }}$ December, 2022 |

Product approval pack reference number (objective): qT796057

