

# Product Type Approval Certificate

This certificate is issued to:

|                  |   |
|------------------|---|
| <b>Supplier:</b> | Mitsubishi Electric Australia and NHP   |
|                  | 348 Victoria Road, Rydalmere, NSW 2116 (Mitsubishi Electric Australia) and 30-34 Day St N, Silverwater NSW 2128 (NHP) |

In respect of:

|   |   |
|---|---|
| <b>Manufacturer:</b>                      | Mitsubishi Electric Australia (1500V DCCB type BHF-30B) and Microelectrica Scientifica (UMLE relay)   |
| <b>Place of manufacture:</b>              | Marugame, Japan (DCCB) & Buccinasco, Italy (relay)  |
| <b>Product description:</b>               | <ol style="list-style-type: none"> <li>1. 1500V Mitsubishi DCCB (non-imported), type BHF-30B</li> <li>2. 1500V DC feeder protection relay: <ul style="list-style-type: none"> <li>• 90-250V dc, compatible with a type 2 power supply</li> <li>• Single bus V</li> <li>• Current and voltage input 0 – 20 mA</li> <li>• Relay Type: U-MLEs-Ts (touch screen)</li> <li>• Version PLV850</li> <li>• Firmware version: 0832.35.01.A</li> <li>• NHP item code: UMLESPLSTS22111</li> </ul> </li> </ol> |
| <b>Use approved for:</b>                  | 1500V Mitsubishi Feeder DCCB, type BHF-30B with protection incorporating Inter trip and Delta I functions for use in the RailCorp electrical network.   |
| <b>Product information pack reference</b> | A5785778 (objective reference)  |
| <b>Conditions of approval:</b>            | Type approval is valid for applications as detailed on the following  |

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|--------------------------|---|
|                          | <p>set of General drawings:</p> <p>EL 0588752, Rev B – block diagram</p> <p>EL 0588757, Rev F – schematic diagram</p> <p>EL 0588758, Rev E – wiring diagram</p> <p>EL 0588759, Rev D – assembly details</p> <p>EL 0588760, Rev C – mounting details</p> <p>Local Instruction, D 77603 – Maintenance Instruction Inter-trip Protection Test</p> <p>Local Instruction, D 77601 – Maintenance Instruction – Data Retrieval</p> |
| <b>Limitations:</b>      |   |
| <b>Notes / Comments:</b> | It is the document user's responsibility to ensure that the copy of Sydney Trains Local Instructions is the current version   |

## Approval

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|---------------------------|--|
| <b>ASA Lead Engineer:</b> | Chris Lilly, Asset Standards Authority         |
| <b>Position:</b>          | A/Lead Electrical Engineer                     |
| <b>Contact details:</b>   | chris.lilly@transport.nsw.gov.au and 9422 7719 |
| <b>Signature:</b>         |  |
| <b>Date:</b>              |  |

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|-------------------------------------|-----|
| <b>Independent safety assessor:</b> | N/A |
| <b>Position:</b>                    |     |
| <b>Contact details:</b>             |     |
| <b>Signature:</b>                   |     |
| <b>Date:</b>                        |     |