

ASTA CERTIFICATE

Laboratory Ref. No. 102005

CERTIFICATE OF SHORT-CIRCUIT RATING

APPARATUS: Unenclosed three-pole, 500 V / 1000 V (U_e / U_i), 1600 A to 4000 A (I_{th}), 50 Hz, Category B, withdrawable air circuit-breaker, AE4000-SWA frame size fitted with an electronic over-current relay Type WS-2.

DESIGNATION: AE4000-SWA Air Circuit Breaker

MANUFACTURER: Mitsubishi Electric Corporation
Fukuyama Works, 1-8 Midori - Machi Fukuyama - City
Hiroshima - Pref. 720 8647 Japan

TESTED BY: Testing & Certification Australia
18 Mars Road Lane Cove NSW 2066 Australia

DATE(S) OF TESTS: 30 May to 20 June 2005

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in this certificate has been subjected to the series of proving tests in accordance with

IEC Publication 60947-2 : 2003 Edition 3.0, BSEN 60947-2 : 2003 and
AS 60947.2-2005, Clause 8.3.4.

The results are shown in the record of Proving Tests and the oscillograms attached hereto. The values obtained and the general performance are considered to comply with the above Standard(s) and to justify the ratings assigned by the manufacturer as stated below.

Test sequence II: $I_{cs} = I_{cu}$

Rated service and rated ultimate short-circuit breaking capacity : I_{cs} and I_{cu}

85 kA at 500 V, 0.20 lagging power factor

Test sequence IV (Clause 8.3.6) of IEC 60947-2 : 2003, tests for the verification of rated short-time withstand current (I_{cw}) of 75 kA rms for 1 s, 165 kA peak at 500 V were performed and these are detailed in ASTA Certificate No. 16066 (TCA Laboratory Ref. No. 102006)

The record of Proving Tests applies only to the apparatus tested. The responsibility for conformity of any apparatus having the same designations with that tested rests with the Manufacturer.

This Certificate comprises 25 pages, 2 diagrams, 22 oscillograms, 10 photographs, 24 drawings and no other sheets, as detailed on page 1.

Only integral reproduction of this Certificate, or reproductions of this page accompanied by any page(s) on which are stated the assigned rated characteristics of the apparatus tested, are permitted without written permission from ASTA BEAB Certification Services, Hilton House, Corporation Street, Rugby, CV21 2DN United Kingdom. (see overleaf)



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J. Child J. Child
ASTA Observer

C. Nick-Lewis DIRECTOR

24th October 2005 Date

ASTA CERTIFICATE

Laboratory Ref. No. 102006

CERTIFICATE OF SHORT-CIRCUIT RATING

APPARATUS: Unenclosed three-pole, 500 V / 1000 V (U_e / U_i), 1600 A to 4000 A (I_{th}), 50 Hz, Category B, withdrawable air circuit-breaker, AE4000-SWA frame size fitted with an electronic over-current relay Type WS-2.

DESIGNATION: AE4000-SWA Air Circuit Breaker

MANUFACTURER: Mitsubishi Electric Corporation
Fukuyama Works, 1-8 Midori - Machi Fukuyama - City
Hiroshima - Pref. 720 8647 Japan

TESTED BY: Testing & Certification Australia
18 Mars Road Lane Cove NSW 2066 Australia

DATE(S) OF TESTS: 31 May to 14 June 2005

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in this certificate has been subjected to the series of proving tests in accordance with

IEC Publication 60947-2 : 2003 Edition 3.0, BSEN 60947-2 : 2003 and
AS 60947.2-2005, Clause 8.3.6.

The results are shown in the record of Proving Tests and the oscillograms attached hereto. The values obtained and the general performance are considered to comply with the above Standard(s) and to justify the ratings assigned by the manufacturer as stated below.

Test sequence IV: I_{cw}

Rated short-time withstand current : I_{cw}

75 kA rms for 1 s, 165 kA peak at 500 V

Test sequence II (Clause 8.3.4) of IEC 60947-2 : 2003, tests for the verification of rated service and rated ultimate short-circuit breaking capacity ($I_{CS} = I_{CW}$) of 85 kA at 500 V, 0.20 lagging power factor were performed and these are detailed in ASTA Certificate No. 16063 (TCA Laboratory Ref. No. 102005)

The record of Proving Tests applies only to the apparatus tested. The responsibility for conformity of any apparatus having the same designations with that tested rests with the Manufacturer.

This Certificate comprises 26 pages, 1 diagram, 10 oscillograms, 13 photographs, 24 drawings and no other sheets, as detailed on page 1.

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J. Child

J. Child
ASTA Observer

C. Minck-Loans DIRECTOR

31st October 2005 Date