ASTA

CERTIFICATE OF TYPE TESTS

Laboratory Ref. No: LSWGWO0077034

Certificate No. 17897

APPARATUS: Range of 25A to 63A, 30mA,100mA, 300mA Double Pole(DP) Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs), 240V (U_n), 50/60Hz.

DESIGNATION: FTCR 25A-63A 2 pole 30,100,300mA

MANUFACTURER: **Farraj Trading & Manufacturing Co.,**
P.O. Box 61122, Jebel Ali, Dubai, United Arab Emirates

TESTED BY: **Electrical Research & Development Association**
ERDA Road, Makarpura Industrial Estate, Vadodara-390 010, Gujarat, INDIA

DATES OF TESTS: 9th November 2009 to 13th August 2010

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 61008-1: 2006
Test Sequences: A, B, C, D, E, F & G.

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.

For ratings assigned by the manufacturer and proved by the tests see page 1.

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 46 pages, 2 diagrams, 107 oscillograms, 54 photographs, 28 drawings and no other sheets as detailed on page 2 & 3

UKAS PRODUCT CERTIFICATION
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Rajani Menon
..... ASTA Observer

..... Certification Manager

3RD NOVEMBER 2010 .....Date

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Types of ASTA Certificates

Certificates are issued when samples of a particular product design have been tested satisfactorily against the requirements of a National, European, International or ASTA Standard. Several forms of Certificate are available, including:

Certificate of Complete Compliance

Verifies compliance with all the requirements of a Standard

Certificate of Type/Verification Tests

Verifies complete series of type/verification tests prescribed in a Standard has been made successfully.

Certificate of Selected Type/Verification Tests

Verifies specified type/verification tests have been made successfully

Supplementary Certificate

Extends the scope of an existing Certificate to cover changes in rating or in design

ASTA Test Report

An ASTA Test Report is issued when tests otherwise satisfactory cannot be included in a Certificate for one or more reasons, e.g. verification of non-standard ratings

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Authenticity

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Ratings Assigned by the Manufacturer and Proved by Tests

Rated current (Range) (I_n):	25A, 32A, 40A & 63A
Rated residual operating current (Range) ($I_{\Delta n}$):	30mA, 100mA, 300mA
Rated residual non-operating current (Range) ($I_{\Delta no}$):	15mA, 50mA, 150mA
Rated voltage (U_n):	240V
Rated impulse withstand voltage (U_{imp}):	4kV
Number of Poles and current paths:	Two
Rated frequency:	50/60Hz
Rated making and breaking capacity (I_m):	$10I_n$
Rated residual making and breaking capacity ($I_{\Delta m}$):	$10I_n$
Rated conditional short-circuit current (I_{nc}):	10kA
Rated conditional residual short-circuit current ($I_{\Delta c}$):	3kA
Operating characteristics in case of residual current With d.c. components:	Type AC
Degree of protection:	IP20
Pollution degree/ Material Group:	2/II

1. **Test Sequence A:** Verified
   (Clauses 6, 8.1.1, 8.1.2, 9.3, 8.1.3, 9.15, 9.4, 9.5, 9.6, 9.13, 8.1.3, 9.14)
2. **Test Sequence B:** Verified
   (Clauses 9.7, 9.8, 9.20, 9.22.2, 9.23)
3. **Test Sequence C :** Verified
   (Clauses 9.10)
4. **Test Sequence D (D_0 & D_1):** Verified
   (Clauses 9.9, 9.17, 9.19, 9.21, 9.11.2.3, 9.16, 9.12, 9.18)
5. **Test Sequence E :** Verified
   (Clauses 9.11.2.4 a), 9.11.2.2)
6. **Test Sequence F :** Verified
   (Clauses 9.11.2.4 b), 9.11.2.4 c))
7. **Test Sequence G :** Verified
   (Clauses 9.22.1)