

INVERSE TIME (OVERCURRENT AND EARTH FAULT) RELAY CALIBRATION CERTIFICATE

Company Name (Electrical Services Contractor)	
Registration No	
Address	

Client	
Installation	
Circuit	
Reference No. :	

C.T Details		O/C Relay Details		E/F Relay Details	
Make		Make		Make	
Ratio		Type		Type	
Class		Serial Number		Serial Number	
VA		Rated Amp.		Rated Amp.	

TEST RESULTS :

RELAY SETTING	O/C :	TM :	TEST SETTING	O/C :	TM :
	E/F :	TM :		E/F :	TM :

A. OPERATING CURRENT TEST

OVERCURRENT				EARTH FAULT	
Setting (A)	Operating current (A)			Setting (A)	Operating Current (A)
	Red Phase	Yellow Phase	Blue Phase		

B : OPERATING TIME TEST

OVERCURRENT				EARTH FAULT	
Operating Time (s)					
linj (A)	Red Phase	Yellow Phase	Blue Phase	linj (A)	Time (s)

C. STABILITY TEST

Phase Test	Amps. Injected		Relay Amps.	Operate / Stable	Test Setting	
	Primary	Secondary			Amps.	TM

Trip Voltage		Tripping Test	
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COMMISSIONING	
RECALIBRATION	

REMARKS	
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I, being the competent person responsible (as indicated by my signature below) for the testing and calibration of the above installation, hereby CERTIFY that the above installation has been tested and calibrated on and is, to the best of my knowledge and belief, in accordance with the Electricity Regulations 1994.

 (Electrical Services Engineer)
 Name & Company Stamp

Witnessed by: _____
 Name : _____
 Date : _____

Notes :

- Any protective relay and device of an installation shall be checked, tested and calibrated by a competent person at least once in every two years, or at any time as directed by the Commission. This should be done in accordance with good and safe engineering practices.**
- To be witnessed by the owner or person authorized by the owner of the installation.**

Protection Settings

1	$I > /I_n$ phase low-set O/C	80%	100%	80%-100%
2	$K_t >$ phase TMS O/C	0.1	0.1	Main Board TMS: 0.10 Distribution board TMS: 0.05
3	$I \gg /I_n$ high-set O/C	5X	10X	5X, 10X....
4	$t \gg$ high-set O/C	0.05	0.05	0.05
5	$I_o > /I_n$ low-set E/F	0.1	0.1	0.1
6	$K_{to} >$ TMS low-set E/F	0.1	0.1	0.1
7	$I_o \gg$ high-set E/F	5X	10X	5X, 10X....
8	$t_o \gg$ high-set E/F	0.05	0.05	0.05

Current Transformer

Sampel CT 300/5

Base on IEC 60044-1

- rated primary current: 300 A,

- rated secondary current: 5 A.

CT specs: 15 VA 5P10

that means:-

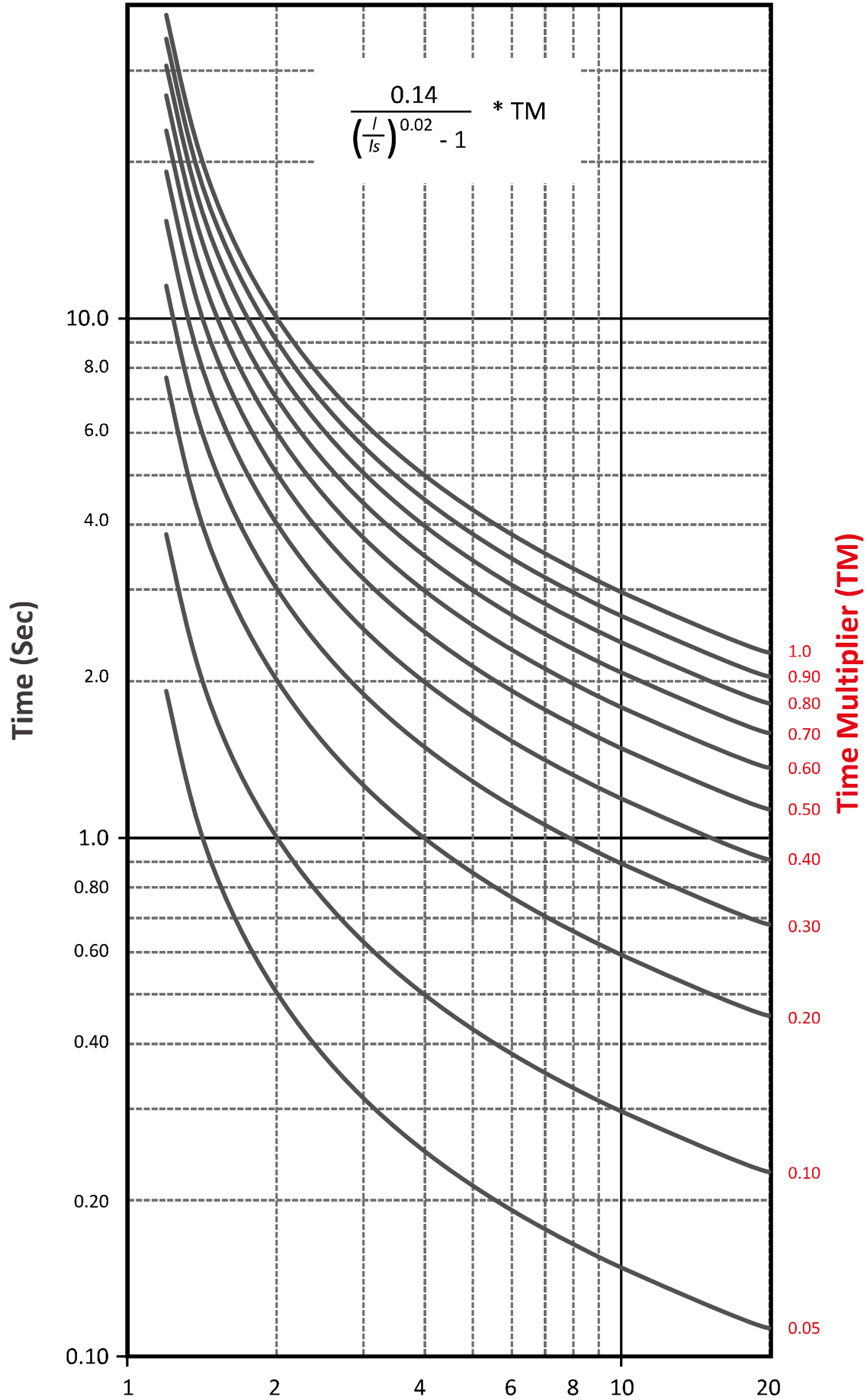
accuracy limit factor = 10

accuracy class = 5P

accuracy power = 15 VA

To simplify, for the protection CT given in example, the ratio error is less than 5% at 10 times of rated current (I_n) if the real load consumes 15 VA at I_n .

Normal Inverse 3.0 (NI 3.0)



* Complies with BS142/IEC 60255 standards

NORMAL INVERSE

