



Inženýrsko – výrobní elektrotechnický podnik, a.s.

619 00 Brno, Videnska 117

TEST PROTOCOL No. 82 – 0590

CTS 38 Appliance current transformer

(testing station stamp)

(signature)

Ing. Jaromir Mudra, CSc.

Brno, 29 September 1997

Warning: Content of this protocol can not be published without permission of the test customer.
Only entire protocol can be published and with written permission of the test laboratory.

<p align="center">TEST PROTOCOL No. 82 – 0590 Test subject: Appliance current transformer</p>		Sheet: 1
		Number of sheets: 3
Type: CTS 38	Test type: partial	
	Tested according to: IEC 185 CSN 35 1360	
Nominal values: System highest voltage: 38 kV	Test customer: KPB INTRA, s.r.o. Fucikova 860 685 01 Bucovice	
	Order number: KPB 87/97	
	Sample registration numbers: Reg. No. 528 – 530/97 Serial No. KPB 3800001 - 3800003 Drawing No.: KPB – T – 01CTS38	
	Atmospheric conditions: Temperature: 24 °C Pressure: 1021.8 hPa Humidity: 46%	
Product manufacturer: KPB INRA, s.r.o. Fucikova 860 685 01 Bucovice	Protocol contains:	Table of distribution: KPB 2x IVEP RZ 1x IVEP RT 1x IVEP archive 1x
Samples delivered on: 19 September 1997	Text sheets: 3	
	Tables:	
	Oscillograms:	
	Diagrams:	
	Drawings:	
	Photographs:	
Test results: <p align="center">CTS 38 appliance current transformer, produced by KPB INTRA, s.r.o.</p> <p align="center">complies</p> <p align="center">with thread isolation test of impulse and AC voltage according to CSN 35 1360 and IEC 185.</p>		
Test date: 22 and 23 September 1997	Tested by: Ing. Jaromir Mudra, CSc. Mr. Ladislav Dvorak <div align="right">(signature)</div>	Testing station chief: Ing. Jaromir Mudra, CSc. <div align="center">(stamp) (signature)</div>



TEST PROTOCOL No. 82 – 0590
Test subject: CTS 38 Appliance current transformer

Sheet: 2

Number of Sheets: 3

On 22 and 23 September 1997 were on the basis of order No. 87/97 KPB INTRA, s.r.o. in IVEP a.s. laboratory in Brno performed thread isolation tests by impulse and a.c. voltage at three CTS 38 appliance current transformers of 600/5/5 A, 300/5/5 A and 50/5/5 A.

Testing device:

Impulse generator 1.2 MV, Haefely, 1.2/50 μ s, 30 kJ, set on 600 kV
Two-beams impulse oscilloscope, Haefely, type 72 E
Peak impulse voltmeter, Haefely, type 64 M
Transformer cascade, 500 kV, 150 kVA, (Siemens)
Capacitor voltage divider 600 kV, Haefely with peak voltmeters Trüb-Täuber

Test proceeding and range:

In compliance with CSN 35 1360 and IEC 185 standards were on transformers performed test by atmospheric impulse of 1.2/50 μ s in both polarities and by short-time a.c. voltage of 50 Hz frequency for 1 min. Tested transformers were installed in horizontal position on earthed metal plate. On short-circuited primary winding was brought testing voltage and short-circuited secondary winding was earthed.

Test result:

Used symbols:

+ U, - U: nominal proof voltage by atmospheric impulse 1.2/50 μ s, positive and negative wave (peak value)

Entry 5/15/0 signifies 5 and subsequently 15 impulses without flashover, satisfactory result.

U_x : nominal short-time proof AC voltage
in dry conditions 50 Hz (effective value).

1. CTS 38 appliance current transformer

Serial No. 3800003, production year 1997, registration No. 528/97,
600/5/5 A, 38/80/180 kV, 31.5/80 kA, 50Hz

+ U = 180 kV/5/15/0	- passed
- U = 180 kV/5/15/0	- passed
U_x = 80 kV/50Hz/1 min.	- passed



TEST PROTOCOL No. 82 – 0590
Test subject: CTS 38 Appliance current transformer

Sheet: 3

Number of sheets: 3

2. CTS 38 appliance current transformer

Serial No. 3800001, production year 1997, registration No. 529/97,
300/5/5 A, 38/80/180 kV, 31.5/80 kA, 50Hz

+ U = 180 kV/5/15/0	- passed
- U = 180 kV/5/15/0	- passed
U _x = 80 kV/50Hz/1 min.	- passed

3. CTS 38 appliance current transformer

Serial No. 3800002, production year 1997, registration No. 530/97,
50/5/5 A, 38/80/180 kV, 31.5/80 kA, 50Hz

+ U = 180 kV/5/15/0	- passed
- U = 180 kV/5/15/0	- passed
U _x = 80 kV/50Hz/1 min.	- passed

Conclusion:

Tested CTS 38 appliance current transformers passed the thread isolation tests in accordance with CSN 35 1360 and IEC 185.