

Customer : AREVA Sachsenwerk GmbH
Order No. : 4500191205 v. 28.04.05 Pos. 070

Berlin, 04.07.05

Test Certificate

6 Current transformers, Type CT 12H
FB-No. 201017434/070
Serial No. 05/5107301 to 05/5107306

Class of insulation T72/E
Insulation level [kV] 12/28/75
Rated short-time thermal current I_{th} [kA] 50 3s
Rated frequency [Hz] 50
Rated dynamic current I_{dyn} [kA] 120

| Core | 1 | 2 |
|----------------------------|---------|---------|
| Rated ratio [A/A] | 4000/ 1 | 4000/ 1 |
| Rated output [VA] | 15 | 20 |
| Accuracy class | 0.2 | 5P |
| Instrument security factor | FS5 | - |
| Accuracy limit factor | - | 20 |

$$I_{max} = 1.0 \times I_N$$

According to the rules for instrument transformers: IEC 60044-1

Terminal markings were found to be correct.

The current transformers withstood the high-voltage test.

- Power-frequency test on primary winding / busbar : passed
- Power-frequency test on secondary windings : passed
- Inter turn test : passed
- Partial discharge test : passed

The results of the accuracy test, performed after demagnetization, comply with the limits of error for the respective accuracy class.

For results of accuracy test please see page 2 - 7

Date of test: 27.06.2005

Instrument transformer test room

by order Krause

Serial No. 05 / 5107301

Fb.No. 201017434/070

| Core 1 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|--|--|-------------|---------|--|--|
| | | 15VA; PF0.8 | | | | 3.75VA; PF1 | | | |
| I / I _N | | F [%] | D [min] | | | F [%] | D [min] | | |
| 1.0 | | -00.15 | +00.79 | | | -00.04 | -00.48 | | |
| 0.2 | | -00.04 | -00.14 | | | | | | |
| 0.05 | | -00.03 | -00.16 | | | | | | |

| Core 2 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|--|--|------------|---------|--|--|
| | | 20VA; PF0.8 | | | | 5VA; PF0.8 | | | |
| I / I _N | | F [%] | D [min] | | | F [%] | D [min] | | |
| 1.0 | | -00.03 | -00.55 | | | | | | |

Serial No. 05 / 5107302

Fb.No. 201017434/070

Core 1 1.Rated ratio 4000/ 1

| | 15VA; PF0.8 | | 3.75VA; PF1 | | | | | |
|--------------------|-------------|---------|-------------|---------|-------|---------|-------|---------|
| I / I _N | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] |
| 1.0 | -00.13 | +00.08 | -00.09 | +00.36 | | | | |
| 0.2 | -00.03 | -01.08 | | | | | | |
| 0.05 | -00.04 | -00.47 | | | | | | |

Core 2 1.Rated ratio 4000/ 1

| | | 20VA; PF0.8 | | 5VA; PF0.8 | | | | | |
|--------------------|--------|-------------|-------|------------|-------|---------|-------|---------|--|
| I / I _N | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | |
| 1.0 | -00.05 | -00.63 | | | | | | | |

Serial No. 05 / 5107303

Fb.No. 201017434/070

| Core 1 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|-------------|---------|-------|---------|-------|---------|
| | | 15VA; PF0.8 | | 3.75VA; PF1 | | | | | |
| I / I _N | | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] |
| 1.0 | | -00.14 | +00.74 | -00.04 | -00.12 | | | | |
| 0.2 | | -00.03 | +00.96 | | | | | | |
| 0.05 | | -00.03 | +01.41 | | | | | | |

| Core 2 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|------------|---------|-------|---------|-------|---------|
| | | 20VA; PF0.8 | | 5VA; PF0.8 | | | | | |
| I / I _N | | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] |
| 1.0 | | -00.05 | -00.44 | | | | | | |

Serial No. 05 / 5107304

Fb.No. 201017434/070

| Core 1 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|-------------|---------|-------|---------|-------|---------|
| | | 15VA; PF0.8 | | 3.75VA; PF1 | | | | | |
| I / I _N | | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] |
| 1.0 | | -00.14 | +00.75 | -00.03 | -00.72 | | | | |
| 0.2 | | -00.03 | -02.07 | | | | | | |
| 0.05 | | -00.03 | -01.76 | | | | | | |

| Core 2 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|------------|---------|-------|---------|-------|---------|
| | | 20VA; PF0.8 | | 5VA; PF0.8 | | | | | |
| I / I _N | | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] |
| 1.0 | | -00.04 | -00.20 | | | | | | |

Serial No. 05 / 5107305

Fb.No. 201017434/070

| Core 1 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|-------------|---------|-------|---------|-------|---------|
| | | 15VA; PF0.8 | | 3.75VA; PF1 | | | | | |
| I / I _N | | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] |
| 1.0 | | -00.16 | +00.93 | -00.06 | -00.45 | | | | |
| 0.2 | | -00.03 | -00.81 | | | | | | |
| 0.05 | | -00.03 | -01.93 | | | | | | |

| Core 2 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|------------|---------|-------|---------|-------|---------|
| | | 20VA; PF0.8 | | 5VA; PF0.8 | | | | | |
| I / I _N | | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] |
| 1.0 | | -00.03 | -00.48 | | | | | | |

Serial No. 05 / 5107306

Fb.No. 201017434/070

| Core 1 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|--------|---------|-------------|---------|-------|---------|
| | | 15VA; PF0.8 | | | | 3.75VA; PF1 | | | |
| I / I _N | | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] |
| 1.0 | | -00.16 | +00.56 | -00.04 | -00.25 | | | | |
| 0.2 | | -00.04 | -00.23 | | | | | | |
| 0.05 | | -00.04 | -01.68 | | | | | | |

| Core 2 | | 1.Rated ratio 4000/ 1 | | | | | | | |
|--------------------|--|-----------------------|---------|-------|---------|------------|---------|-------|---------|
| | | 20VA; PF0.8 | | | | 5VA; PF0.8 | | | |
| I / I _N | | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] | F [%] | D [min] |
| 1.0 | | -00.06 | -00.36 | | | | | | |