

ROUTINE PRESSURE TEST REPORT

PETERSEN COIL

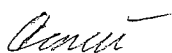
Report number	: 06213.20.1	Type	: ZTC 250
Serial number	: 6213	Test date	: 2005-06-23
Order number	: E500020		
Customer	: EGE Deutschland GmbH Berlin - AREVA Dresden US Steel KOŠICE		

Routine pressure test - 50 kPa during 24hours. This test was carried out on the complete coil filled up with transformer oil. Test fixture with manometer was fixed to a flange for a dehydrating breather.

Petersen coil **p a s s e d** the routine pressure test - according to EGE NA 4/95.

Carried out by : Jan Čondl

Head of laboratory : Ing. Karel Novák

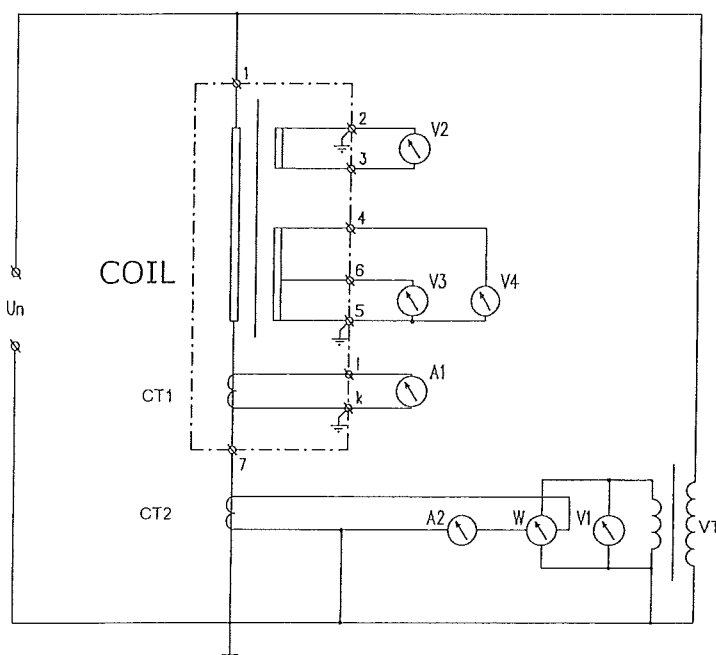


WIRING DIAGRAM

Used instruments:

Test by superposed voltage	Dielectric Strenght Tester RMG500	No	21688
Test by induced voltage	VT VSOF 240 65 / 0.065 kV	No	3192462
	Voltmeter FL 10	No	39003
Measur. of insulation resistance	Megmet ISOL 5002	No	128712WCV
	Megmet PU 310	No	60649
Measuring of ohmic winding resistance	Micro-ohmmeter OM21	No	E050117-002
Oil dielectric strenght test	Electrical oil tester MEGGER Foster OTS100AF/2	No	836/020902/1482
Measuring of regulation characteristic	Computer system SATYZ		
	CT1 STE 10	30 VA, 1FS5, 100/1 A	No 207219/05
	CT 2 SLL	0.5 - 100 A	No 9266949
	CT 2 TL/3	15-2500 A	No 225402
	VT TDP 4	6 / 0.1 kV	No 403029
	A1 G-1008	10 A	No 1046
	A2 WT 110	5 A	No 27BV0575E
	V1 WT 110	150 V	No 27BV0575E
	Pz WT 110	150 V, 5 A kW	No 27BV0575E
	V2 G-1008	2000 V	No 1091
	V3 G-1008	200 V	No 1085
	V4 G-1002.500	2000 V	No 19573
Measuring of potentiometer and converter	Metex M-4650CR	No	CJ182077
Measuring of noise	Audio-noise meter LT Luxtron SL-4011	No	M 022257
	Calibrator Reten electronic RQ 159	No	62962

Wiring diagram :



(1 - U 2 - v 3 - u 4 - um1 5 - vm 6 - um 7 - V)

Report No : 06213.20

Sheet No : 3

MEASURED VALUES

Report No. : 06213.20

Measuring of insulation resistance Measured terminals	R 15/ R 60 sek - 5kV _{DC} [MΩ]	
	Frame	U - V
Main winding U - V	19000 / > 20000	-
Power auxiliary winding u - v	> 20000 / >20000	>20000 / >20000
Measuring auxiliary winding um - vm (- um1)	>20000 / >20000	>20000 / >20000
Current transformer k - l	>20000 / >20000	>20000 / >20000

Ohmic winding resistance U - V at 20°C		0.249	Ω
Induced overvoltage withstand test 217 Hz 28 sek		20	kV
Test by superposed voltage 50 Hz to frame - 1 min:			
U - V		3	kV
u - v, um - vm (- um1) and k - l		3	kV
wiring 400 / 230 V 50 Hz		2	kV
wiring of low voltage		500	V
Insulation resistance to frame :			
wiring 400 / 230 V 50 Hz	500 V _{DC}	>500	MΩ
wiring of low voltage	100 V _{DC}	>100	MΩ
Dielectric strenght SHELL Diala D		76.7	kV / 2.5 mm
Noise level at rated voltage and rated current :			
A - weighted sound pressure level $\overline{L_{pA}}$ - 0.3 m		69.3	dB
A - weighted sound power level L_{WA}		80.3	dB

ADDITIONAL DATA

Motor drive unit EGE MD 1	3~400/230V 50Hz, 1.5 kW
Wiring diagram No	3-219282

Transformer oil SHELL Diala D is PCB and chlorine free.
For the production of the coil PCB free materials were used.

ANTICORROSIVE PROTECTION TEST REPORT

PETERSEN COIL

Report number : 06213.20.2 Type : ZTC 250
 Serial number : 6213 Test date : 2005-06-23
 Order number : E500020
 Customer : EGE Deutschland GmbH Berlin - AREVA Dresden
 US Steel KOŠICE

A: TANK, COVER, CONSERVATOR

	Marking / producer	Shade	Layer [μm]
Zincing	Metallizing		100
Ground coat	510.6019 REPOLAX	RAL 6019	60
Top coat	350.7032 MULTOXOL Regensburger Lackfabrik GmbH	RAL 7032	50

Total thickness of the anticorrosive protective layer > 210 μm

B: RADIATORS

	Marking / producer	Shade	Layer [μm]
Zincing	Hot galvanized		55
Ground coat	CHING - EMC 182 CHING - EMD 307 Ching GmbH Erlangen		40 40
Top coat	350.7032 MULTOXOL Regensburger Lackfabrik GmbH	RAL7032	40

Total thickness of the anticorrosive protective layer > 175 μm

Producers of radiators guarantee anticorrosive protection.

C: OIL RESISTANT PAINT

	Marking / producer	Shade	Layer [μm]
Ground coat	283.3012 RELANOL Regensburger Lackfabrik GmbH	RAL 3012	30

Used measuring instruments : Deltascope Type MP 2 / 0 - GA2H Fisher BRD No. 04219257

Petersen coil **passed** the anticorrosive test according to the instruction EGE NA 2/95.

Carried out by : Jan Čondl

Head of laboratory : Ing. Karel Novák

Jan Čondl



K. Novák

ROUTINE TEST REPORT PETERSEN COIL

Report number : 06213.20 Type : ZTC 250
 Serial number : 6213 Test date : 2005-06-23
 Order number : E500020
 Customer : EGE Deutschland GmbH Berlin - AREVA Dresden
 US Steel KOŠICE

GUARANTEED VALUES:

		Main winding U-V	Power auxiliary winding v-u	Measuring auxiliary winding vm-um	Measuring auxiliary winding vm-uml	Current transfor. k-l
Rated voltage	kV/50Hz	3,64	0.5	0.1		0.6
Max. voltage of network U _m	kV	7.2 - 1.1	1.1	1.1		1.1
Minimum current	A	10				
Rated current DB	A	110		10		100/1
Rated current KB	A		80			
Rated power DB	kVA	400		1		0.03
Rated power KB	kVA		40			
Loading time DB		24 h		24 h		24 h
Loading time KB			90 s			
Accuracy class		-	10	10		1FS5

Winding temperature rise allowed	80 K	Total weight	2200 kg
Oil temperature rise allowed	70 K	Oil weight	570 kg
Cooling	ONAN	Removable part weight	540 kg
Type test report	776-6206		
Lightning impulse test report	37011790		
Insulation level	LI60 AC20-AC3 / AC3 kV		

Petersen coil **passed** the test according to IEC 289 and EN 60289 VDE 0532 volume 20 and is able to operate safely.

Carried out by : Jan Čondl

Head of laboratory : Ing. Karel Novák

Jan Čondl



Karel Novák