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WAYS OF ENERGY

BOBINA
PETERSEN
ASC

EGE

BOBINA PETERSEN /ASC/

Bobinele Petersen sunt utilizate pentru compensarea curentilor capacitivi care apar la punerile la pamant din retelele electrice. Rolul fizic al bobinei de stingere este sa permita circulatia In locul de defect a unui curent reactiv de scurtcircuit iL, care se opune curentului capacitiv iC rezultat din compunerea curentilor capacitivi ai fazelor sanatoase, carora li se aplica tensiunile compuse ale retelei.
Bobinele se conecteaza intre transformatorul de creare neutru si priza de pamant a statiei.Datele de mai jos ofera informatii de baza despre modul in care sunt proiectate bobinele Petersen EGE. Designul standard al ASC poate fi modificat in functie de solicitarile beneficiarului.

DATE DE BAZA

Tensiune nominala 6/√3 pana la 110/√3 kV
Putere nominala 125 kVAr-10000 kVAr
Frecventa nominala 50 Hz
Utilizare - de scurta durata /KB-2h/
- continua /DB/
Domeniu curent 10 – 100 % In

DESIGN SI ECHIPAMENT

• Izolatoare in conformitate cu standardele DIN, EN sau tip Euromold
Cuva si baza:
- Cuva de otel fara radiatoare pentru utilizare de scurta durata
- Urechi utilizate pentru ridicarea bobinei
- Urechi pe capacul cuvei pentru ridicarea partii interioare /partea activa/
- Radiatoare in conformitate cu DIN 42559 cu regulatoare /pentru functionare continua/
- Termometru in conformitate cu DIN 42554
- Baza cu 4 roti netede sau feroviare, ajustabile /90°/ in ambele directii, cu opritori
- 4 terminale de impamantare in conformitate cu DIN 48088-B-M12

Supape:
- supapa ulei pentru umplere si golire – tip A31 OR in conformitate cu EN 50216-4
- supapa pentru prelevare probe DN15 in conformitate cu DIN 42568

Vas de expansiune /conservator/:
- dispozitiv de umplere detasabil realizat in conformitate cu standardul DIN 42553 - D si supapa de ulei A22 OR

• Dezumidificator
• Motor 230/400 V, 50 Hz,
• Ulei Nynas

Protectie anticoroziva:
- Zincare pentru partile din otel
- Vopsea
- Otel inoxidabil A2 pentru suruburi, saibe si piulite.

• Racire tip ONAN

INFASURARI AUXILIARE SI INSTRUMENTE DE MONITORIZARE

• Infasurare auxiliara de putere, 500 V ± 10%, 10 % Pn
• Infasurare de masura 100 V ± 10%, 3 A
• Transformator de curent
• Releu Bucholtz cu plutitor dublu, in conformitate cu DIN 42566
• Indicator magnetic, nivel ulei cu contacte de semnalizare
• Indicator nivel ulei, din sticla
• Termometru cu indicator si contacte de semnalizare
• Termostatf
• Traductor de temperatura Pt 100

ACCESORII SUPLIMENTARE

EGE ofera urmatoarele accesorii suplimentare:
- Indicator curent ASC – tip DU
- Indicator tensiune homopolara Uo
- Regulator automat bobina Petersen /Controller/
- Rezistor auxiliar racit natural sau plasat intr-o cuva cu ulei, utilizat pentru a mari componenta activa a curentului de defect.
- Unitate de injectie cu tiristoare de comanda, doua frecvente fixe, instalata in cofretul de comanda al motorului.

SERVICE, REPARATII

EGE ofera service complet pentru toate echipamentele oferite, de la punere in functiune pana la revizii.

ARC SUPPRESSION COILS /ASC/

Arc suppression coils are used for capacitive current compensation during earth faults in electric networks. They are to be connected between the neutral transformer point and the ground.
The below mentioned data provide customers with basic information about how EGE´s arc suppression coils are designed. The standard ASC design can be modified upon customer's requirements.

BASIC DATA

Rated voltage 6/√3 up to 110/√3 kV
Rated power 125 kVAr-10000 kVA
Rated frequency 50 Hz
Duty – short time /KB-2h/
– continuous duty /DB/
Current range 10 – 100 % In

DESIGN AND EQUIPMENT

• Bushings in compliance with DIN, EN standard or Euromold type
Tank and base:
- steel tank without radiators for short-time operation
- steel tank with radiators for continuous operation
- lugs used for lifting of a complete unit
- lifting lugs on the tank cover to lift out the inner part /active part/
- radiators in accordance with DIN 42559 with throttles /for continuous duty/
- free thermometer case according to DIN 42554
- base with 4 adjustable /90°/ smooth or rail wheels for movement in both directions, wheels with wheel stops
- 4 grounding terminals according to DIN 48088-B-M12

Valves:
- oil valve for filling and oil draining - type A31 OR according to EN 50216-4
- oil sampling valve DN15 according to DIN 42568

Expansion tank /conservator/:
- removable with filling neck made in accordance with the DIN 42553 – D standard and with oil valve A22 OR

• Air breather
• Motor drive unit 230/400 V, 50 Hz,
• Transformer oil Nynas

Anticorrosion protection:
- zinc coating of steel parts
- paint coat
- A2 stainless steel for screws, washers and nuts exposed to outdoor environment

• Type of cooling ONAN

AUXILIARY WINDINGS AND MONITORING INSTRUMENTS

• Secondary power winding 500 V+/- 10 %, 10 % of rated power
• Measuring winding 100 V +/- 10 %, 3 A
• Measuring current transformer
• Double-float Buchholz Relay according to DIN 42566
• Magnetic oil-level indicator with signal contacts
• Glass oil-level indicator
• Thermometer with indicator and signal contacts
• Thermostat
• Resistance thermometer Pt 100

ADDITIONAL ACCESSORIES

EGE offers accessories as follows:
- ASC current indicator - type DU
- Uo voltage indicator
- Arc suppression coil controller
- Providing arc suppression coil automatic adjustment
- Providing automatic switching on of a shunt resistor
- Air cooled resistor or resistor placed in a tank with oil used to increase the wattful current component

SERVICE, REPAIRS

EGE is able to offer full service for all supplied equipment from the commissioning to an overhaul.

BOBINA PETERSEN

• BOBINE PETERSEN – FUNCTIONARE CONTINUA (DESIGN STANDARD)
PETERSEN COILS – CONTINUOUS DUTY (STANDARD DESIGN)

Putere*] Power*] [max] kVA	Tip Type	Dimensiuni standard Typical dimensions [informativ]			Greutate Weight [max] kg
		A [Inaltime] A [height]	B [Latime] B [width]	C [Lungime] C [length]	
200	ASR 0.16	1650	1460	1171	990
630	ASR 0.63	2220	2160	1220	1900
1000	ASR 1.0	2400	1820	1330	2900
1700	ASR 1.6	2510	1810	1492	3800
2100	ASR 2.0	2630	2495	1505	4400
2550	ASR 2.5	2730	2315	1930	4900
4000	ASR 3.2	3015	2420	2130	6000
4300	ASR 4.0	3080	1840	2460	6500
5000	ASR 5.0	3650	2680	1820	8500
7300	ASR 6.3	3810	2550	2310	10400
8000	ASR 8.0	3875	2694	2363	12600
10500	ASR 10	4440	2694	2363	15200

• BOBINE PETERSEN – FUNCTIONARE TIMP LIMITAT – 2 ORE (DESIGN STANDARD)
PETERSEN COILS – SHORT TIME DUTY – 2 HOURS (STANDARD DESIGN)

Putere*] Power*] [max] kVA	Tip Type	Dimensiuni standard Typical dimensions [informativ]			Greutate Weight [max] kg
		A [Inaltime] A [height]	B [Latime] B [width]	C [Lungime] C [length]	
700	ASR 0.63	2220	1340	1220	2000
1250	ASR 1.0	2400	1382	1390	2500
2100	ASR 1.6	2510	1382	1490	3600
2500	ASR 2.0	2630	1390	1505	3750
3050	ASR 2.5	2730	1390	1530	4160
4500	ASR 3.2	3015	1400	1600	5200
5000	ASR 4.0	3080	1430	1600	5500
6300	ASR 5.0	3650	1770	1820	7300
8700	ASR 6.3	3810	1795	1880	8990
9450	ASR 8.0	3875	1800	1965	11010
12500	ASR 10	4435	1870	2100	14500
15000	ASR 12	4460	2010	2100	15900

Nota: *] puterea maxima depinde de tensiunea nominala aplicata bobinei Petersen
*] max. power depends on rated voltage applied on Petersen coil

• BOBINE PETERSEN PENTRU TENSIUNE RETEA – FUNCTIONARE TIMP LIMITAT
PETERSEN COILS FOR 66 KV AND 110 KV NETWORK VOLTAGE – SHORT TIME DUTY

Tensiune retea/ Network voltage 66 kV			Tensiune retea/ Network voltage 110 kV		
Tip/ Type	Putere nominala Rated power	Curent Maxim Max. current	Tip/ Type	Putere nominala Rated power	Curent Maxim Max. current
ASR 3.2 V	3810	100 A	ASR 6.3 V	6350	100 A
ASR 6.3 V	7621	200 A	ASR 10 V	12700	200 A
			ASR 15 V	19050	300 A

• BOBINE PETERSEN PENTRU TENSIUNE RETEA – FUNCTIONARE CONTINUA
PETERSEN COILS FOR 66 KV AND 110 KV NETWORK VOLTAGE – CONTINUOUS DUTY

Tensiune retea/ Network voltage 66 kV			Tensiune retea/ Network voltage 110 kV		
Tip/ Type	Putere nominala Rated power	Curent Maxim Max. current	Tip/ Type	Putere nominala Rated power	Curent Maxim Max. current
ASR 3.2 V	2860	75 A	ASR 6.3 V	4500	71 A
ASR 6.3 V	6020	158 A	ASR 10 V	10800	170 A