

3 Phase transformers with Petersén coil, 22kV

By winding the transformer core instead of stacking sheets of metal, **Hexaformer** has developed an innovative closed symmetrical cage core for its transformers. This patented triangle-shaped core gives exceptional properties, requires less material and reduces the amount of loss produced, making these products environmental friendly. Due to the symmetry of the construction, no compensation winding is necessary and the weight of the transformer is reduced

Features:

- Low loss
- Small size
- Low weight
- Robust
- Less vibrations
- Low noise level
- Smaller EM stray field
- Low in-rush current
- Low third harmonic



Characteristics

Compliant to standard IEC60076-1
 Frequency : 50 Hz
 Vector Group: ZNzn0
 Impedance voltage (Uk 75 °C): 4,0 %
 Temperature class: A (105°C)
 Ambient temperature: -40 to + 40 °C
 Temperature rise Wd/Oil: 65/60 °K
 BIL HV, LI/AC: 125/50 kV
 BIL LV, AC: 3 kV
 Off circuit tap changer : $\pm 2 \times 2.5\%$

Double isolated copper windings
 Noise level < 54 dB(A)
 Hermetically sealed tank
 ONAN Cooling
 Mineral oil as standard, synthetical or biological ester oil as option (see part number)
 Porcelain or elastimold bushings (see part number)
 Galvanised tank with fin walls
 Drain valve for oil sampling
 Lifting lugs on the cover of the tank

Part number	Rated Power (kVA)	Voltages (kV)	No load losses Po(W)	Load losses Pk(W)	Dimensions			Oil weight kg	Total Weight kg
					A(mm)	B(mm)	H(mm)		
10022R1PM	100	22/0.42	240	1700	1155	750	1650	270	1115
10022R1QM	100	22/0.42	240	1700	1155	750	1405	270	1115
20022R1PM	200	22/0.42	390	3400	1155	750	1750	320	1350
20022R1QM	200	22/0.42	390	3400	1155	750	1545	320	1350
31522R1PM	315	22/0.42	660	5100	1060	940	1885	350	1590
31522R1QM	315	22/0.42	660	5100	1060	940	1680	350	1590

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Petersén coil technical specification

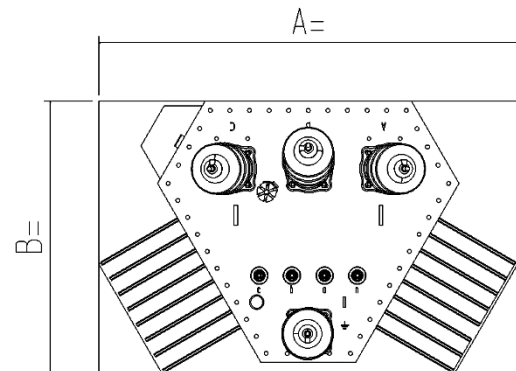
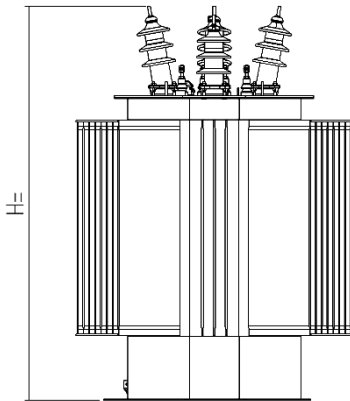
Rated voltage : $22000/\sqrt{3}$ V
Rated current: 15 A
BIL LI/AC : 125/50 kV
Standard : IEC 60289

Zero Sequence impedance

R/X in the total zero sequence impedance < 2.5%
Total variation of zero sequence impedance < 2%

The transformer is designed for rated current + Petersen coil current during a limited time of 5 mn

Mechanical Drawings



Ordering code: **10022R1YZ**

Y = P for Porcelaine

Q for elastimold

Z = M for mineral oil NYNAS 10XN or similar

E for synthetic ester oil MIDEL 7131

G for biological ester oil COOPER FR3

Västervik, Version 4.1, 2011-05-20

