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AIA 2.3A

Raport 1

Caracteristica externa si randamentul transformatorului determinate prin incarcare directa

CHESTIUNI DE STUDIAT

- Se vor determina experimental si se vor reprezenta grafic caracteristicile externe ale transformatorului, U2=f(I2) pentru cosφ2=1 si cosφ2L=0 (inductiv)

- Se vor determina prin metoda incarcarii directe curba randamentului la transformatorul studiat pentru cosφ2=1 si cosφ2L=0 (inductiv)

Tabele de adevar:

cosφ2=1

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| U1(V) | I1(A) | P1(W) | U2(V) | I2(A) | P2(W) | KS | η |
| 380 | 5.1 X 2 | 765 X 8 1 | 104 X 2 | 3.6 X 5 | 54 x 100 | 1.2 | 0.882 |
| 380 | 4.2 X 2 | 645 X 8 | 104.5 X 2 | 3 X 5 | 47 x 100 | 1 | 0.910 |
| 380 | 3.6 X 2 | 560 X 8 | 105 X 2 | 2.6 X 5 | 41 x 100 | 0.87 | 0.915 |
| 380 | 2.8 X 2 | 440 X 8 | 106 X 2 | 2 X 5 | 33x 100 | 0.67 | 0.937 |
| 380 | 3.4 X 1 | 540 X 4 | 107 X 2 | 6 X 1 | 100 x 20 | 0.4 | 0.925 |
| 380 | 1.7 X 1 | 265 X 4 | 107.5 X 2 | 3 X 1 | 49 X 20 | 0.2 | 0.924 |
| 380 | 0.5 X 1 | 20 X 4 | 108.5 X 2 | 0 | 0 | 0 | 0 |

cosφ2L=0

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| U1(V) | I1(A) | P1(W) | U2(V) | I2(A) | P2(W) | KS | η |
| 380 | 5.4 X 2 | 125 X 8 | 98.2 X 2 | 3.6 X 5 | 4.8 X 100 | 1,2 | 0.48 |
| 380 | 4.5 X 2 | 100 X 8 | 100 X 2 | 3 X 5 | 4 X 100 | 1 | 0.5 |
| 380 | 4 X 2 | 75 X 8 | 102 X 2 | 2.6 X 5 | 3.2 X 100 | 0.87 | 0.53 |
| 380 | 3.1 X 2 | 45 X 8 | 103.5 X 2 | 2 X 5 | 2 X 100 | 0.67 | 0.55 |
| 380 | 4.1 X 1 | 60 X 4 | 104.5 X 2 | 6 X 1 | 6 X 20 | 0.4 | 0.5 |
| 380 | 2.4 X 1 | 25 X 4 | 107 X 2 | 3 X 1 | 2 X 20 | 0.2 | 0.4 |
| 380 | 0.5 X 1 | 20 X 4 | 108 X 2 | 0 | 0 | 0 | 0 |

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