

()
[1].

() FEMM
[2]. , ,

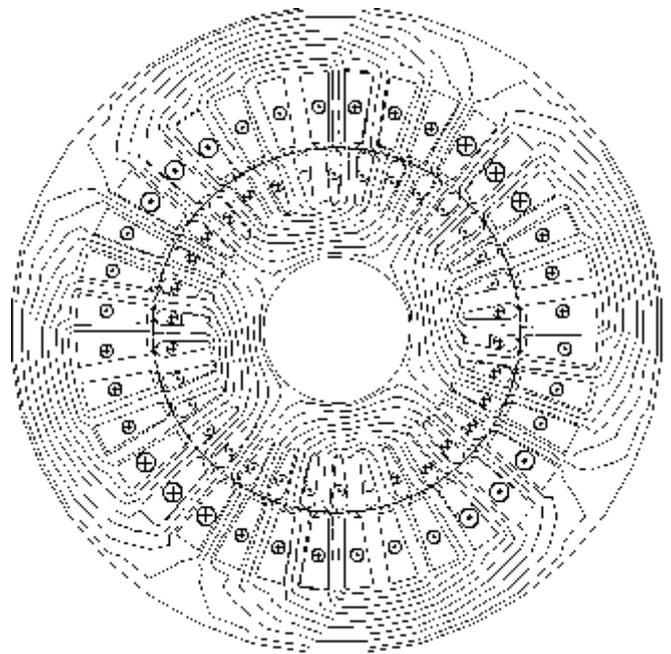
() [3].

().
 $P=5,5$ $U_s=220$
 $f=50$, $2p=4$ $m_s=3$,
 (.1) [4] : $Q_s=36$
 $Q_r=34$, $=0,3$,
 $d_s=186$, $N_s=144$.

V7

FEMM,

2212,



. 1.

[5].

[4]

\underline{U}_s

$$\underline{I}_s = I_s e^{j\psi_s} = 12,923 e^{-j34,35^\circ} \quad ; \quad -\underline{I}'_r = I'_r e^{j\psi_r} = 10,864 e^{-j11,14^\circ} \quad . \quad (1)$$

(2).

$$\underline{I}_s \quad -\underline{I}'_r, \quad \underline{I}'_r \quad \underline{I}_s: \\ \psi_{sr} = 180^\circ - (\psi_r - \psi_s) = 180^\circ - [-11,14^\circ - (-34,35^\circ)] \approx 156,8^\circ. \quad (2)$$

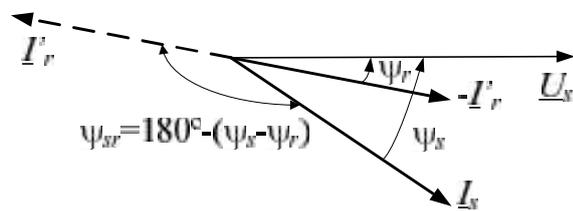
.1 : $\alpha_{sr} = \psi_{sr} / p = 78,4^\circ$.

(1)

$$I_s = 12,923$$

$$I'_r = 10,864 \quad ,$$

$$I_r = 265,027 \text{ A.}$$



. 2.

$$I_{ms} = \sqrt{2} I_s,$$

B

C: $-0,5 I_{ms}$.

$$I_{mr} = \sqrt{2} I_r,$$

$$i_{rk} = I_{mr} \sin[p(\alpha_k - 90^\circ + \alpha_{sr})],$$

α_k -

k -

FEMM

(63964)

.1 (0,02516 /).

[1]

[2].

: 1.

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