异步电动机作业04-（异步电动机参数测量）

Y05 .已知一台异步电动机，=10kW, =380V, 定子D连接，=50Hz。空载试验数据为=380V，=16.315A（线电流），=1769.5W，机械损耗=663W。短路试验数据为=50V,=32.85A(线电流)，=942.7W，计算电动机等效电路的参数（忽略电机的附加损耗，并有=）

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 电机基本数据 | | |  |  |  |
| 额定电压 | 380 | D接 |  |  |  |
| 定子电阻R1 | 0.488 |  |  |  |  |
|  |  |  |  |  |  |
| **空载试验** | | | |  |  |
| 电压 | 空载电流 | 空载损耗 | 机械损耗 |  | 空载电流(相） |
| 380 | 16.315 | 1769.5 | 663 |  | 9.41947 |
| **短路试验** | | | |  |  |
| 电压 | 短路电流 | 短路损耗 |  |  | 短路电流（相） |
| 50 | 32.85 | 942.7 |  |  | 18.96596 |
|  |  |  |  |  |  |
| 空载等效阻抗 | 40.34197 |  |  |  |  |
| 空载等效电阻 | 6.647777 |  |  |  |  |
| 空载等效电抗 | 39.79048 |  |  |  |  |
| 定子铜耗 | 129.8955 |  |  |  |  |
| 铁耗 | 976.6045 |  |  |  |  |
| 励磁电阻 | 3.668974 |  |  |  |  |
|  |  |  |  |  |  |
| 短路等效阻抗 | 2.636303 |  |  |  |  |
| 短路等效电阻 | 0.87358 |  |  |  |  |
| 短路等效电抗 | 2.487358 |  |  |  |  |
|  |  |  |  |  |  |
| 转子电阻 | 0.41129 |  |  |  |  |
| 转子漏抗 | 1.261689 |  |  |  |  |
| 励磁电抗 | 38.52879 |  |  |  |  |