**Characteristics of reactive power compensators**

**power system of the Republic of Tajikistan**

**Substations Reactors Sughd and Dushanbe**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№** | **The name of Substantions** | **Rated power [reactive megavolt-ampere RMVA]** | **Frequency Hz** | **Rated voltage**  **[KV]** | **Rated Electricity current**  **[A]** |
| 1 | Sughd-500 | 40 | 50 | 550/√3 | 126 |
| 2 | Dushanbe-500 | 40 | 50 | 550/√3 | 126 |

It is noted that the reactors 500 kW installed at the beginning and end of a 500 kV line (Dushanbe-Sughd) output substation "Dushanbe-500" and "500 Sughd" through switches.

**Characteristics of reactive power compensator installed at the substation Sughd-500**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **№** | **The name of Substations** | **Rated power [reactive kilovolt-ampere-RkVA]** | **Frequency Hz** | **Rated voltage**  **[KV]]** | **Rated Electricity current**  **[A]** | **Max. voltage**  **[kV]** | **Resistance**  **[Ohm]** | **Number of phases** | **Isc**  **[кA]** |
| 1 | Sughd=500 | 40080 | 50 | 35 | 556.7 | 38.5 | **---** | 3 | **---** |
| 2 | 40080 | 50 | 35 | 556.7 | 38.5 | **---** | 3 | **---** |
| 3 | 40080 | 50 | 35 | 556.7 | 38.5 | **---** | 3 | **---** |
| 4 | 40080 | 50 | 35 | 556.7 | 38.5 | **---** | 3 | **---** |
| 5 | 40080 | 50 | 35 | 556.7 | 38.5 | **---** | 3 | **---** |
| 6 | 40080 | 50 | 35 | 556.7 | 38.5 | **---** | 3 | **---** |
| 7 | 40080 | 50 | 35 | 607 | 38.5 | **---** | 3 | **---** |
| 8 | 40080 | 50 | 35 | 607 | 38.5 | **---** | 3 | **---** |
| 9 | 13334 | 50 | 34.5/ | 670 | 38.5/ | 30.11 | 1 | 100 |
| 10 | 13334 | 50 | 34.5/ | 670 | 38.5/ | 30.11 | 1 | 100 |

**Characteristics of reactive power compensator installed at the substation Dushanbe**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **№** | **The name of Substations** | **Rated power [reactive kilovolt-ampere-RkVA]** | **Frequency Hz** | **Rated voltage**  **[KV]** | **Rated Electricity current**  **[A]** | **Max. voltage**  **[kV]** | **Resistnace**  **[Ohm]** | **Number of phases** | **Isc**  **[кA]** |
| 1 | Dushanbe 500 | 40080 | 50 | 35 | 556.7 | 38.5 | **---** | 3 | **---** |
| 2 | 13334 | 50 | 34.5/ | 670 | 38.5/ | 30.11 | 1 | 100 |
| 3 | 13334 | 50 | 34.5/ | 670 | 38.5/ | 30.11 | 1 | 100 |