|  |  |  |  |
| --- | --- | --- | --- |
| hv\_bus\* | integer |  | high voltage bus index of the transformer |
| lv\_bus\* | integer |  | low voltage bus index of the transformer |
| sn\_mva\* | float | >> 0 | rated apparent power of the transformer [MVA] |
| vn\_hv\_kv\* | float | >> 0 | rated voltage at high voltage bus [kV] |
| vn\_lv\_kv\* | float | >> 0 | rated voltage at low voltage bus [kV] |
|  |  |  |  |
| vk\_percent\* | float | >> 0 | short circuit voltage [%] |
| vkr\_percent\* | float | ≥≥ 0 | real component of short circuit voltage [%] |
| pfe\_kw\* | float | ≥≥ 0 | iron losses [kW] |
| i0\_percent\* | float | ≥≥ 0 | open loop losses in [%] |
| shift\_degree\* | float |  | transformer phase shift angle |

In service True/False specifies if the transformer is in service.