Bus transfer current switching define and classification for high voltage disconnector switch according to IEC

The rated bus transfer current of disconnectors used in both air insulated and gas insulated is:

- for 52kV<Ur<245kV 80 % of the rated continuous current of the disconnector, but limited to 1600A.
- for 245kV≤Ur≤ 550kV 60% of the rated continuous current of the disconnector, but limited to 4000A.
- for Ur>550kV 80% of the rated continuous current of the disconnector, but limited to 4000A.

Rated bus-transfer currents greater than the values given above may be assigned by the manufacturer.

**Classification of DS for bus-charging switching:**

1. BCS: Switching of very short sections of busbar ducts of open circuits
2. BCB: BCS class+switching of parallel capacitors associated to CBs, under 180° out-of-phase condition of open circuits
3. BCL: BCS class+switching of long sections of busbar ducts of open circuits

source: https://switchgearcontent.com
4. BCT: BCS class+BCB class+BCL class

Figure shows an example of bus-transfer switching operation(close DS2→open DS1). Following the closing of DS2, the load current is distributed into two parallel paths in accordance with the impedance ratio of both paths. The current from the transformer bay is branched into 2 directions.

source: https://switchgearcontent.com