

9PX and 9SX Advanced Features

9PX and 9SX achieves higher efficiency in online mode compared to competitors

9PX & 9SX feature a 3-level inverter and PFC (input boost). 3-level inverters utilise lower voltage switches (IGBTs), thus reducing switching losses, and require smaller magnetic components (especially chokes) that allow us to reduce the losses on the output filter stage and on the input boost stage. With a 3-level inverter and PFC we can achieve up to 95% efficiency in online double conversion mode, compared to the 91% on competitive products.

Self-powered bypass increases reliability

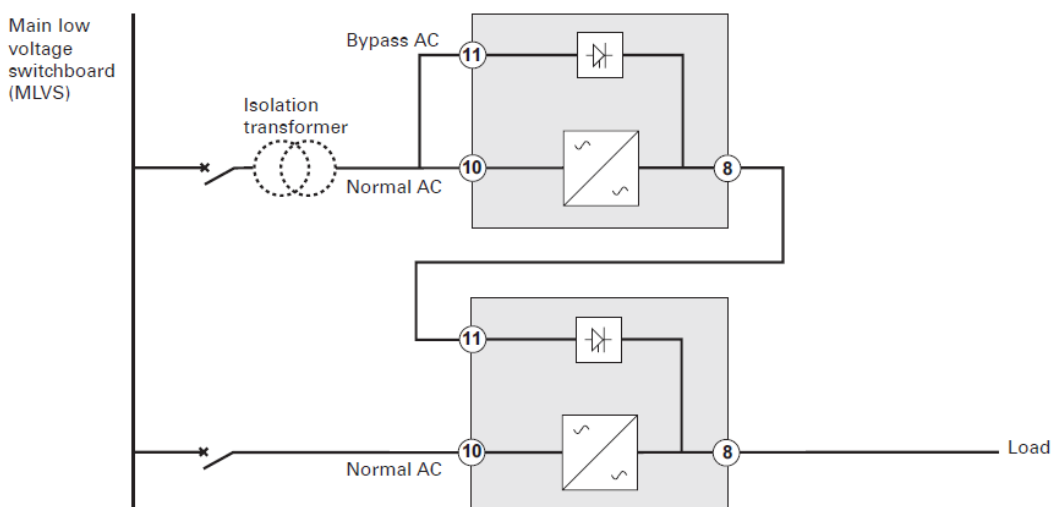
9PX and 9SX UPS feature a self-powered bypass. A self-powered bypass is a bypass that has its own power supply, which means the bypass does not depend on the main power supply of the UPS. In other words, if the UPS electronics fail or the UPS CPU fails, the bypass will still be able to power the load. This is a very important topic when discussing reliability. The only other products in Eaton's single phase range to include this feature are 9155 & EXRT. Most competitive on line UPS products in the 1-10kVA range do not have this feature, and it's something that is typically not listed in technical specifications.

Intelligent Hot Standby paralleling

Hot Standby is an affordable way to achieve redundancy between 2 UPS, as it doesn't require any output switchgear. As the 9PX/9SX 8 & 11kVA models can have separate input sources (Normal AC source and Bypass AC source) you can install them in Hot Standby mode (see below schematic). In addition, the standby UPS can be configured to be in Hot Standby mode, in this mode the slew rate is increased to 0.5Hz/s (from 1Hz/s) to enable it to track the primary UPS more accurately and enable a smoother transfer.

● Hot standby

Configuration used to provide N+1 redundancy to critical loads.



Note: The transformer is not necessary if UPS inputs are connected to the same source.