

# SKF Dynamic Motor Link - EP1000 Field Install

## The external port offers testing flexibility and operator safety

While low voltage motors are connected directly, medium and high voltage motors need at least two PTs (Potential Transformer) per voltage bus and two CTs (Current Transformer) per motor. The external connection of the EP is a low voltage connection, with less than 5 V reaching the DB25 type plug that is installed on the outer door of the MCC (Motor Control Cabinet) (Fig. 1)

The overall installation of the EP can be seen in Fig. 2. The data connection cable is

connected to the EP box and exits through a punched hole in the outer door of the MCC.

The connections to the EP are the following: a DB25 connector (parallel printer port type) and fast, secure quick release connections for the current and voltage signals. Fig. 3 shows the connected EP box in detail. All connections to the EP are low voltage (less or equal to 1000 V AC).



Fig. 1: Row of MCCs with installed EP-1000s.

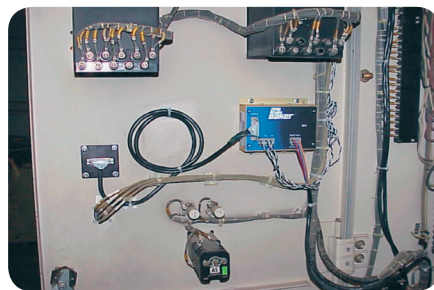


Fig. 2: Complete connection of EP1000 in MCC door.



Fig. 3: Connections to EP1000 box.

Connecting to medium or high voltage motors is achieved by connecting the sensing signals to the secondaries of the PTs and CTs that are connected to the motor and typically used for protection.

The current signals are obtained via donut CTs that are hooked around the conductors of the protection circuitry (typically 5 A rated). **Figs. 4 and 5** show such an installation.

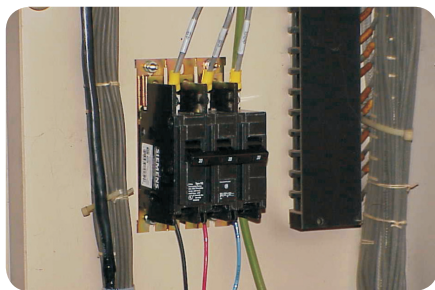
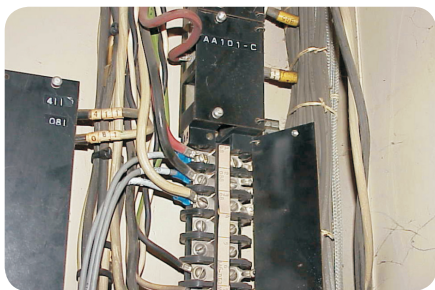
To obtain all necessary signals, the EP box also needs to be connected to the voltage signals. For medium or high voltage motors, it is necessary to connect

to the secondaries of installed PTs so that the maximum voltage level of 1000 V AC to the EP box is not exceeded. Even though not required, the installation of an additional external fuse block or three-phase switch is suggested for the EP. The additional external fuses for switches allow for trip-free safe and easy disconnection during operation of the system. **Figs. 6 and 7** show the hookup to the PT signals and an external switch.



**Fig. 4 and 5:** CT donut connections to the secondaries of the protection CTs.

**Fig. 6 and 7:** PT connection for medium and high voltage.



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