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PRACTICES

COMPLETE REVISION
April 2023

Electrical

PIP ELSPK01
Electrical Requirements for Packaged Equipment

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PURPOSE AND USE OF PROCESS INDUSTRY PRACTICES

This Practice has been prepared by harmonizing technical requirements from existing standards of major industrial operators, contractors, and standard development organizations. While this Practice is intended to incorporate the majority of requirements, individual applications may have requirements which take precedence over this Practice. Determinations concerning fitness for purpose or application of this Practice to specific project or engineering situations should not be made solely on information contained in this Practice. All Practices are intended to be consistent with applicable laws and regulations. Should this Practice conflict with applicable laws or regulations, such laws or regulations must be followed. Consult an appropriate professional before applying or acting on any material contained in or suggested by this Practice.

Use of trade names should not be viewed as an expression of preference. Other brands having the same specifications are equally correct and may be substituted for those named.

This Practice is subject to revision at any time. For more information refer to PIP ADG001, *Specification for Developing Practices*.

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PIP ELSPK01 Electrical Requirements for Packaged Equipment

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Data Forms

ELSPK01-D - Electrical Requirements for Packaged Equipment

ELSPK01-V - Electrical Requirements for Packaged Equipment – Preferred Vendors and Components

1. Scope

This Practice describes the electrical requirements for design, manufacture, inspection, testing, and shipping of packaged equipment (also referred to as skid mounted equipment). Electrical systems for packaged equipment may include components such as electrical enclosures, motors, motor controllers, heaters and process heaters, relays, controls and control panels, control stations, pilot devices, indicating lights, transformers, wires, and conduits.

This Practice does not address requirements for motor control centers, switch racks, substations, power control centers or remote instrument enclosures.

2. References

Applicable parts of the following Practices, industry codes and standards, and references shall be considered an integral part of this Practice. The editions in effect on the date of contract award shall be used, except as otherwise noted. Short titles are used herein where appropriate.

2.1 Process Industry Practices (PIP)

- PIP ELSPK01-D – *Purchaser's PIP ELSPK01-D Data Sheet for Electrical Requirements for Packaged Equipment* (included as part of this Practice)
- PIP ELSPK01-V – *Electrical Requirements for Packaged Equipment - Preferred Vendors and Components* (included as part of this Practice)

Unless otherwise specified on the PIP ELSPK01-D Data Sheet, the following referenced Practices apply.

- PIP ELCGL01 – *Electrical Design Criteria*
- PIP ELEMENT01 – *Guidelines for Selecting IEEE and API Standards for AC Motors 250 HP (185 kW) and Larger*
- PIP ELSGL01 – *Electrical Construction Specification*
- PIP ELSMT01 – *Specification for AC Induction Motors Up to and Including 500 HP (370 kW)*
- PIP ELTF01 – *Electrical Equipment and Systems Field Inspection, Testing, and Commissioning*
- PIP ELSTR06 – *Dry Type Power Transformers*
- PIP ELSWC03 – *600-Volt Power and Control Cable Specification*
- PIP ELSWC06 – *Nonshielded Power Cable Specification (2001 Volts and Above)*
- PIP ELSWC07 – *Shielded Power Cable Specification (5 to 46 kV)*
- PIP PCSKS001 – *Packaged Equipment Instrumentation Specification*
- PIP PCSKS010 – *Small, General Purpose Packaged Equipment Instrumentation Specification*
- PIP STC01015 – *Structural Design Criteria*
- PIP VESEH001 – *Electric Immersion Process Heater Specification*