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INSTALLATION OPERATION & MAINTENANCE DATA SHEET



Series 8581/2

**Receptacle, 125 A, 8581/21 and Plug 8581/22
For Hazardous and Corrosive Applications**

Please read this entire document before beginning any work.

1. Safety Instructions

Installation and maintenance of these plugs and receptacles should only be performed by skilled and experienced personnel in accordance with the National Electrical Code (NFPA 70) or the Canadian Electrical Code and any local regulations which relate to hazardous (classified) locations.


CAUTION:


- Disconnect power supply before installing or servicing these plugs and/or receptacles.
- Modifications to this product is not permitted.
- Operate only undamaged and clean plugs & sockets with observations of the operating parameters in section 2.
- For a Class I Zone 1 conduit installation, conduit seals are required, refer to NEC 505.16 (B) (1). For any other cable or conduit installation NO seals are required.
- Use only approved wiring methods for the location, with the associated conduit/cable fittings.
- The receptacle is suitable for use on a circuit capable of delivering not more than 10,000 rms symmetrical amperes, 600V maximum, when protected by properly sized Class J fuses, 200 amperes maximum. Supply wires shall be rated for 75°C.


2. Technical Data

Please refer to the technical data on the nameplates.

2.1 Certification:

NEC  File No. J.I.3D5A5.AE
Class I, Zone 1 & 2, AEx ed IIC T5
Class I, Div. 2, Groups ABCD
Class II, Div. 1 & 2, Groups EFG
Class III

CEC  File No. LR 99480-25
Class I, Zone 1 & 2, Ex ed IIC T6
Class I, Div. 2, Groups ABCD
Class II, Div. 1 & 2, Groups EFG
Class III

 PTB 01 ATEX 1161
II 2 G EEx ed IIC T6

2.2 Environmental protection:

IP 66 / Type 3, 4, 4X.

3. Receptacle Installation

3.1 Enclosure Mounting

Securely mount the receptacle in a vertical position as illustrated, using three 3/8" (10 mm) screws and suitable washers. Mounting dimensions are marked on the back of the receptacle housing.

3.2 Conduit/Cable Installation

For conduit installation, connect 2" NPT conduit to the hub and avoid misalignment. For cable installation, connect a listed 2" cable fitting to the hub. Conduit/cable fitting should not be tightened more than 100 ft-lbs (136 N-m) of torque.

3.3 Wiring

Open the receptacle cover and connect 75°C copper supply wires/cable. The supply side of the terminal block accepts up to two wires which are between 1/0 through 3/0 AWG per terminal. Allow proper length for bending and cut the conductors to length. Strip the conductor insulation 1" (25 mm) from the end. Insert the conductors into the appropriate terminals which are marked to correspond with the markings on the plug. Torque all terminal screws to approximately 54 in-lbs (6 N-m); including all unused terminals.

3.4 Auxiliary Contact

When using the 20 ampere rated early break and late make auxiliary contact for an electrical interlock or other control signal, connect the wires (12 AWG copper wire) to terminals 13 and 14. Torque the terminal screws to 18 in-lbs (2 N-m).

3.5 Function Labels

Remove the plastic function-label (taped inside the cover), mark as required, remove backing strip and apply to the recessed area above switch handle. Close the cover and tighten the cover screws.

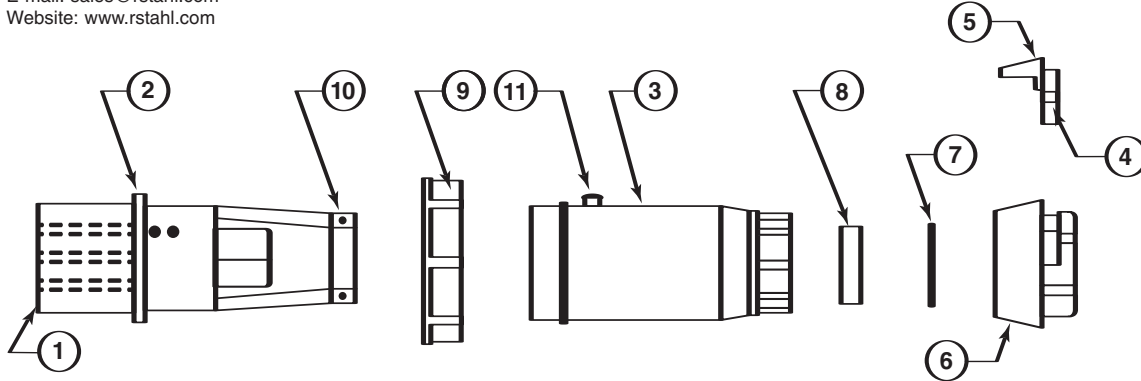
3.6 Receptacle HP Rating

3-Phase VAC	Horsepower
600 V	125
480 V	100
240 V	40

PLUG WIRING INSTRUCTIONS ON REVERSE SIDE



INSTALLATION OPERATION & MAINTENANCE DATA SHEET



4. Wiring of Plug 8581/22

4.1 Cord Type

Select a flexible cord with copper conductors of the appropriate insulation, ampacity and 90°C temperature rating. For installations in the U.S., refer to the National Electrical Code, Articles 400-4, 400-5A, 400-5B, 501-11, 502-12 and 503-10.

For installations in Canada, refer to CEC section 4 and 18.

NOTE: Wire range for plug terminals are 6-1 AWG.

Tighten terminal screws to 54 in-lbs (6 N-m) torque.

4.2. Cord Preparation

Cut cord cleanly - Do not strip away cord jacket or conductor insulation at this time.

4.3. Opening the Plug

Referring to Figure 1 above, loosen three screws ① and pull the plug body ② out of the shell ③. Loosen the screw ④ on the locking clamp ⑤, insert the screw driver in the locking clamp slot, lift the locking clamp out of the pressure ring ⑥ and unscrew the pressure ring.

4.4. Insert the Cord

Slide the pressure ring ⑥ and the washer ⑦ over the cord.

4.4.1 Install Cord Grommet

The grommet ⑧ is a universal onion ring style which accommodates several cord diameters by removing (cutting out) the inner undersized diameters. The grommet should fit snugly on the cord. The grommet may require lubrication in order to slide over the cord. Use talcum powder or an equivalent material rated for use on electrical products. Slide the grommet over the cord with the cuts toward the shell.


Note: If the grommet slides freely over the cord, there will be insufficient sealing for Class II & III Hazardous location.

4.4.2 Shell and Collar Installation

Slide the shell ③ and the collar ⑨ over the cord.

4.5. Cord Preparation

Dress the cord by removing the outer jacket and fillers for a length of 4-1/8" (105 mm) and strip the insulation off of the conductors 1-7/16" (36 mm) from the end.

CAUTION: The Equipment Ground (green wire) is to be connected to the terminal marked with the Ground (Earth) symbol, .

4.6. Connection to Terminals

Open the strain relief clamp screws ⑩ and flip the clamp to the side. Attach the leads to the appropriate terminals. Terminal markings correspond to receptacle terminal markings.

4.7. Strain Relief

Flip back the strain relief clamp ⑩, remove clamp plastic inserts, if necessary, to fit the outer diameter of the cord. Make sure that the remaining plastic inserts have their ridges pointing toward the plug before tightening.

4.8. Plug Assembly

4.8.1. Slide the locking collar ⑨ into the shell ③ and insert the plug body ② into the shell. To align the plug body ② with the shell ③, the keyway on the inside of the shell must mate with the rib in the plug body.

4.8.2 Tighten the three screws ①.

4.8.3 Slide the grommet ⑧ and the gland washer ⑦ forward until they shoulder against the shell ③ and tighten the pressure ring ⑥ until a good grommet compression is achieved.

4.8.4 Reinstall the locking clamp ⑤ and tighten the screw ④.

4.9. Dust Cap

The optional dust cap (P/N 85 818 01 14 0) must be used for Class II, Division 1 or 2, Groups E or F locations. Attach the dust cap to post ⑪.

Warning: Observe the labels on the plug and receptacle with regards to the use of receptacle covers and plug dust caps.

5. Maintenance

These plugs and receptacles require no maintenance other than a periodic inspection for damage and proper operation. The surface of the plug pins should be given a thorough inspection. Any damaged equipment should be replaced promptly to ensure the electrical safety and explosion protection of the system.

Note: The nature of these instructions is only informative and does not cover all of the details, variations or combinations in which this equipment may be used, its storage, delivery, installation, safe operation and maintenance. Since conditions of use of the product are outside of the care, custody and control of the manufacturer, the purchaser should determine the suitability of the product for his intended use, and assumes all risk and liability whatsoever in connection therewith.