



SQUARE D

Instruction Bulletin

Bulletin No. 8903-584
 May, 1991
 Raleigh, NC, U.S.A.

Supersedes 8903-584 dated 10/90

2- and 3-Pole Mechanically Held Panelboard Lighting Contactors Type PB, Series A Class 8903

Introduction

The Class 8903 Type PBM (30 A), PBP (60 A), PBN (75 A), PBQ (100 A), PBR (150 A), PBV (200 A) and PBW (225 A) panelboard lighting contactors are electrically operated and mechanically held. The contactors are available in two- or three-pole versions. Coil clearing contacts isolate the solenoid from control power after operation of the contactor. Momentary or maintained energization of the latch or "C" circuit will close the contacts. Momentary or maintained energization of the unlatch or "O" circuit will open the contacts. This lighting contactor is not designed for rapid, repetitive operation. Consult Square D Company for alternative contactor choices if rapid operation is desired.

The Class 8903 Type PB lighting contactor fits in standard depth NQOD and NEHB Lighting Panelboards.

Ratings

Please refer to the nameplate markings on this contactor to confirm that the electrical load contact ratings and operating coil voltages are correct for your application.

Terminals*

Power terminals on contactors are suitable for use with either copper or aluminum conductors. Refer to the device instruction sheet for recommended tightening torques. For further information on terminal wire sizes, contact your local Square D field office for Product Data SM845.

Remote Operation

The Class 8903 Type PB lighting contactor is designed to be operated from a remote operating station. Table 1 lists the maximum one way distance allowed between the remote operating station and this contactor.

Table 1 Maximum Control Distance

Wire Gauge AWG	Distance (feet) Coil Voltage (60 Hz)				
	120 V	208 V	240 V	277 V	480 V
14	550	1650	2200	2925	8800
12	900	2700	3600	4700	14400
10	1425	4275	5700	7550	22800

Select the wire size indicated for the coil voltage marked on the nameplate and one that satisfies the distance requirement of the installation. If the installation distance is greater than provided for in this table or if for any reason the voltage drop at the coil terminals is over 15% of the control circuit voltage rating, use a control circuit relay (Form R6 or R62).


Short Circuit Protection*

Provide branch-circuit overcurrent protection for each contactor in accordance with the National Electric Code.

Mounting

This lighting contactor is available in both bus mount and panel mount versions. It can be mounted in any position if proper control voltage can be assured.

Installation*

 DANGER
HAZARDOUS VOLTAGE. Electrical shock will cause severe injury or death. Disconnect all power before working on equipment.

Service Connections

For bus mount devices, the bus bars provide mechanical and electrical connections. Panel mount devices are supplied with lugs (refer to terminals).


NOTE
Panel mount devices must be mounted through the insulator bushings and backing insulator supplied.

Prepare bus bar surfaces to insure good electrical contact. **Bus connection must be to copper bus only.** Tighten terminals while maintaining proper electrical clearance.

Control Connections

Control terminals are marked "L", "O" and "C" for Line, Open and Close. Insert appropriate control wires and tighten terminals. Apply power to the power and control circuits and check for proper system performance.

Manual Operation*

 WARNING
UNINTENTIONAL OPERATION OF EQUIPMENT. Can cause severe personal injury or death. Disconnect all power before manual operation of this device.

Manual operation is provided for maintenance purposes only. This may be accomplished by inserting a tool to rotate operator open or closed.

Please Note:

Electrical equipment should be serviced only by qualified electrical maintenance personnel, and this document should not be viewed as sufficient instruction for those who are not otherwise qualified to operate, service, or maintain the equipment discussed. Although reasonable care has been taken to provide accurate and authoritative information in this document, no responsibility is assumed by Square D for any consequences arising out of the use of this material.



California Proposition 65 Warning—Lead and Lead Compounds

Advertencia de la Proposición 65 de California—Plomo y compuestos de plomo

Avertissement concernant la Proposition 65 de Californie—Plomb et composés de plomb

⚠️ WARNING: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov.

⚠️ ADVERTENCIA: Este producto puede exponerle a químicos incluyendo plomo y compuestos de plomo, que es (son) conocido(s) por el Estado de California como causante(s) de cáncer y defectos de nacimiento u otros daños reproductivos. Para mayor información, visite : www.P65Warnings.ca.gov.

⚠️ AVERTISSEMENT: Ce produit peut vous exposer à des agents chimiques, y compris plomb et composés de plomb, identifiés par l'État de Californie comme pouvant causer le cancer et des malformations congénitales ou autres troubles de l'appareil reproducteur. Pour de plus amples informations, prière de consulter: www.P65Warnings.ca.gov.

All trademarks are the property of Schneider Electric SE, its subsidiaries, and affiliated companies.

Schneider Electric USA, Inc.
800 Federal Street
Andover, MA 01810 USA
888-778-2733
www.schneider-electric.us

Todas las marcas comerciales son propiedad de Schneider Electric SE, sus filiales y compañías afiliadas.

Importado en México por:
Schneider Electric México, S.A. de C.V.
Av. Ejercito Nacional No. 904
Col. Palmas, Polanco 11560 México, D.F.
55-5804-5000
www.schneider-electric.com.mx

Toutes les marques commerciales sont la propriété de Schneider Electric SE, ses filiales et compagnies affiliées.

Schneider Electric Canada, Inc.
5985 McLaughlin Road
Mississauga, ON L5R 1B8 Canada
800-565-6699
www.schneider-electric.ca