DESCRIPTION • INSTALLATION • OPERATION

INSTRUCTIONS

REVERSING Life-Line contactor *

TYPE N-230 CLASS 15-815 N.2 3 POLE, SIZE 2

THE TYPE N-230 REVERSING LIFE-LINE CONTACTOR has been designed primarily to provide reversing operation for AC motors, and consists of two 3-pole non-reversing contactors mechanically interlocked to prevent both contactors from being closed at the same time. Up to three electrical interlocks per contactor (total of 6 on complete unit) may be mounted on this device depending upon circuit requirements (See Electrical Interlocks). This reversing contactor is complete with Line, Load, and Control Terminals, main cross wiring, one normally open electrical interlock, and one normally closed electrical interlock per contactor (total of 4 on complete unit).

For a typical application of a reversing contactor showing Line, Load and Control Connections refer to Fig. 1. Customer connections are shown in dashed lines. The reversing pushbutton station shown in Fig. 1 is furnished separately.

This reversing contactor unit is intended to be applicable to numerous simple control schemes (See Fig. 1) and also as a part of large control panels. Thus, to obtain maximum application flexibility for the unit, terminal marking and control wiring have been omitted but main cross wiring has been included. Ratings are shown in the following table:

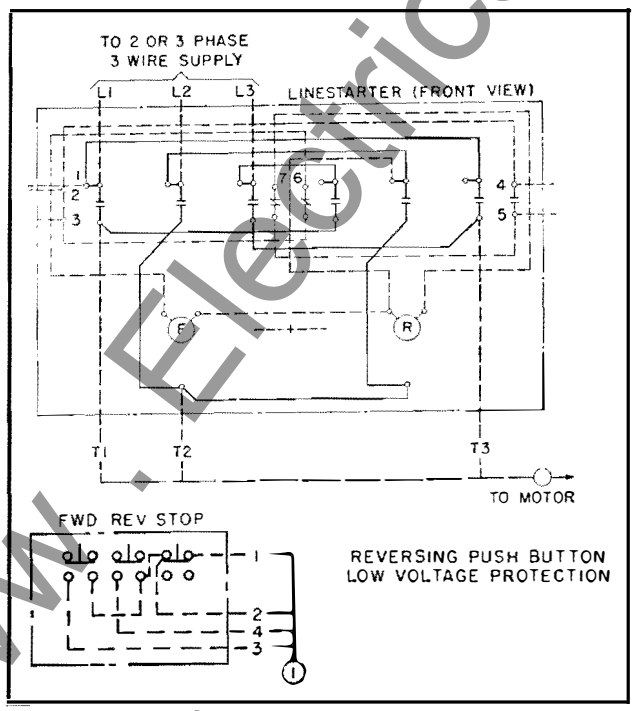

FIG. 1. Wiring Diagram

MAXIMUM A-C. RATINGS

Open—50 Amperes	Enclosed 45 Amperes	
Volts	HORSEPOWER	
	Polyphase	Single Phase
110	7½	3
208-220	15	7½
440-600	25	10

CONSTRUCTION

This Reverser employs two 3-pole non-reversing contactors of the inverted clapper type with knife edge bearing and having positive action through the use of a compression kick-out spring. This construction provides maximum accessibility for servicing and maintenance and allows coil change to be a simple operation. All current carrying parts are of high conductivity copper or copper alloy of large cross section resulting in high electrical efficiency. Long life and low contact drop are assured by fine silver contacts with large area of bond for current conduction and heat transfer.

Pressure-type connectors on main and control terminals permit the use of either solid or stranded wire without soldered joints.

INSTALLATION

1. Clean the magnet surfaces.

2. Operate the armature by hand to be sure that all parts move freely.

*Trade-Mark

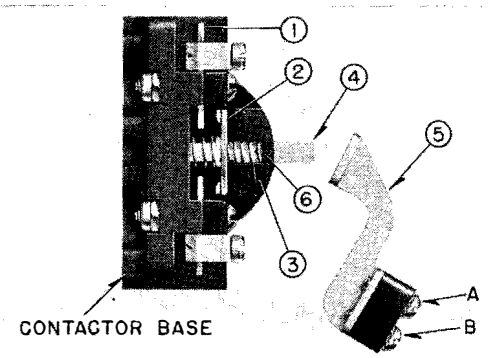

FIG. 2. Normally Open Interlock

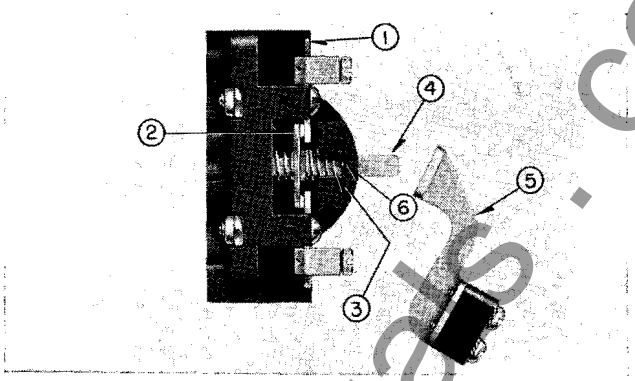

FIG. 3. Normally Closed Interlock

ELECTRICAL INTERLOCKS

This reversing unit comes equipped with one normally open interlock and one normally closed interlock on each contactor. By removing the interlock, shown in Fig. 2, and reassembling parts 1, 2 and 3 per Fig. 3, the interlock is changed from normally open to normally closed contact. The following procedure is recommended:

1. Swing arm (5) out of way by removing screw **A** and loosening screw B. (See Fig. 2).

2. To detach upper spring (3) from plunger (4) compress inturned end of spring against contact bar (2) and rotate spring until it disengages hole (6).

3. Operate reassembled interlock by hand to check freedom of moving parts before reassembling arm (5) into original position.

A third interlock per contactor may be obtained by ordering either S# 1314 890, normally open, or S# 1314 891, normally closed. The above normally open interlocks may readily be installed as normally closed interlocks per instructions enclosed with each interlock.

MAINTENANCE

The sealing surfaces on the magnet frame and armature should be kept clean.

Do not lubricate the contact tips or bearings. Fine silver contacts need no dressing throughout their life.

To Remove Contactor Coil, remove the three Hex. head magnet mounting bolts and withdraw the coil and magnet.

When Installing Contactor Coil, make sure that Hex. head magnet mounting bolts are securely tightened.

CONTACTOR IDENTIFICATION

This reversing contactor unit complete is identified by style number (shown on the carton and as listed in Price List) and consists of two basic parts (1) the reversing contactor unit without coils, and (2) the coils.

The style number of the reversing contactor unit (without coils) is S# 1577 456 and appears on the metal nameplate attached to the unit.

The coil style is marked on the coil itself along with its voltage and frequency rating.

Complete style identification for use in ordering either a complete reversing contactor unit or individual coils is given in the following table:

STYLE IDENTIFICATION

VOLTS	CYCLES	COIL STYLE	COMPLETE STYLE
110	60	1470 201	1578 371
110	25		
208	60	1470 202	1578 372
220	60		
220	25		
380	50	1470 203	1578 373
440	60		
480	60		
550	60	1470 204	1578 374
600	60	1470 205	1578 375
110	50	1470 206	1578 376
220	50	1470 207	1578 377
440	50	1470 208	1578 378
550	50	1470 209	1578 379
440	25	1470 210	1578 380
550	25	1470 211	1578 381

PRINCIPAL RENEWAL PARTS

Moving Contact.....S# 1224 773
Stationary Contact.....S# 1224 774
Contact Spring.....S# 1221 426
For other parts refer to Renewal Parts Catalog

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