DESCRIPTION • OPERATION • MAINTENANCE

INSTRUCTIONS

SIZE 00 NON-REVERSING STARTER

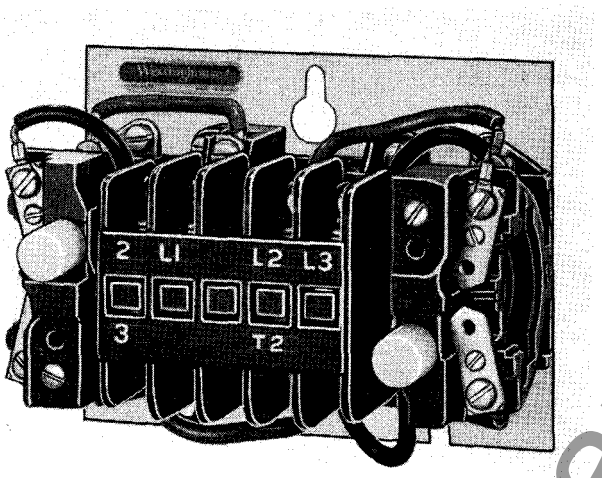


FIG. 1. Size 00 Starter

GENERAL

The Size 00 Starter will give protection against overloads (but not against short circuit currents) when wired in accordance with Fig. 3 and provided with overload heaters selected from the Heater Application Tables.

The starter should be protected against short circuits by fuses not exceeding four times the rated motor current, or a time limit circuit breaker set at not more than four times full load motor current.

STARTER IDENTIFICATION

The starter complete is identified by CAT. NO. or by style number. The CAT. NO. and style number of the complete starter appear on the metal baseplate of the starter.

The coil style no. is marked on the coil itself along with its voltage and frequency rating.

GENERAL DESCRIPTION

Basically this starter is identified as a three pole starter with one normally open interlock as shown in Fig. 3.

The starter is of horizontal slide type construction with standard overload relays mounted on each side of the contactor. This design leads to a small compact unit mounting in a minimum panel space. Extra long life and low contact drop are assured by silver alloy main contacts.

All terminals are readily accessible from the front for straight through wiring.

OVERLOAD RELAY

The overload relay is furnished set for Hand reset operation. The relay may be set for Automatic reset, Hand reset, or Hand reset with no manual means of opening the contacts. The type of operation is determined by the position of the control spring in the notched pushrod; the respective positions (as illustrated in Fig. 2) are indicated by "Auto", "Hand" and "No Stop". The positions are indicated as follows: "Hand", "No Stop" by alignment of spring arm with the ribs on the base, the "Auto" by the spring arm against the upper shoulder of the base. Automatic reset should not be used with 2-wire master switch.

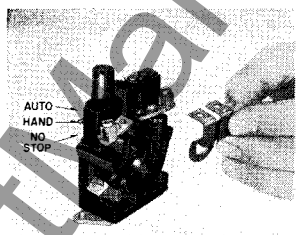


FIG. 2. Thermal Overload Relay, Showing Heater and Installation Method

The overload heaters are shipped in a separate carton. First check the heater code marking (adjacent to mounting holes) against the Heater Application Table. If the room temperature surrounding the motor is the same as that at the starter, the full load current marking of the motor nameplate should come within the current range of the heater. If the room temperature surrounding the motor exceeds that at the starter, assume a decreased motor current of 1% for each degree C difference in temperature and select heaters accordingly. If the room temperature at the starter exceeds that at the motor, assume an increased motor current of 1% for each degree C difference in temperature and select heaters accordingly. Install heater as shown in Fig. 2, making sure that heater mounting screws are tight.

SEPARATE CONTROL CIRCUIT

If it is desired to operate the coil from a separate control circuit, disconnect control lead at "L2" and an upper right overload relay terminal (Fig. 3) and remove. Connect one side of separate control circuit to relay terminal where lead was removed and the other side to isolated terminal on top of left overload relay. To this point, connect terminal "1" of PB station or master switch, in other respects connect per Fig. 3.

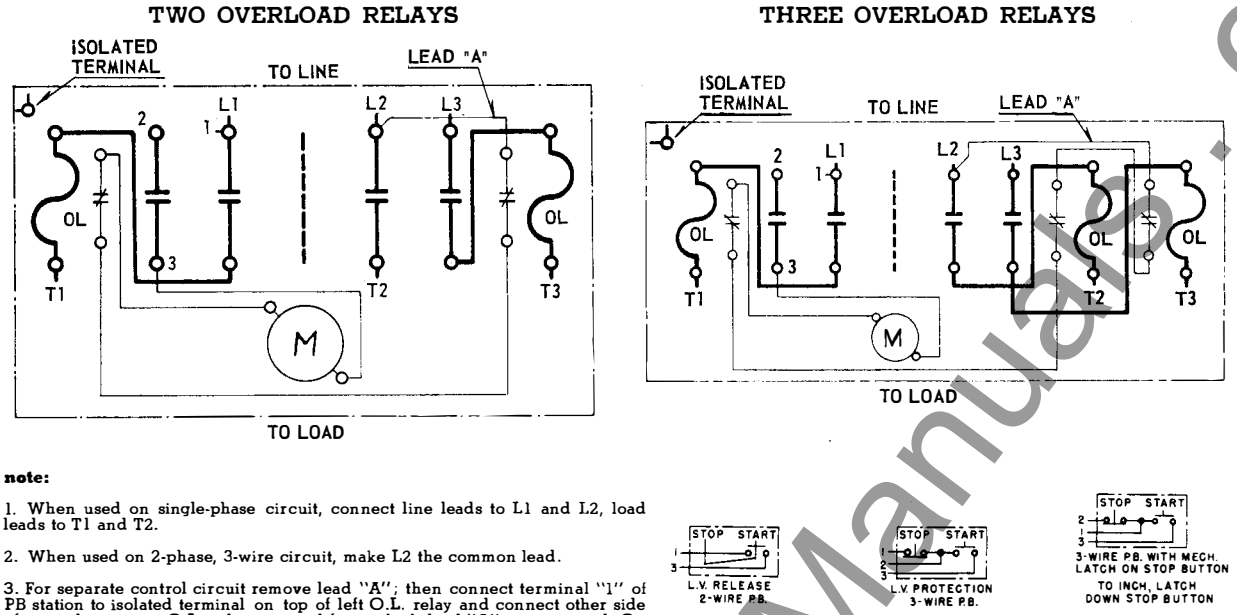
On starters wired for separate control at the factory, connect separate control leads to the terminals marked "1" and "X2".

MAINTENANCE

Do not lubricate the contacts or contact slide mechanism. The silver alloy contacts provided need no dressing throughout their life. Moving contacts and stationary contacts (after removal of terminal screws) are readily removable from the contactor.

To remove contactor coil, remove contactor from metal base plate, remove two screws from back of base, withdraw magnet parts, loosen coil lead screws and remove coil.

The bimetallic disc trip unit of the overload relay has been carefully calibrated at the factory and should not be disturbed. In case of damage, remove complete relay unit and replace with complete unit.



note:

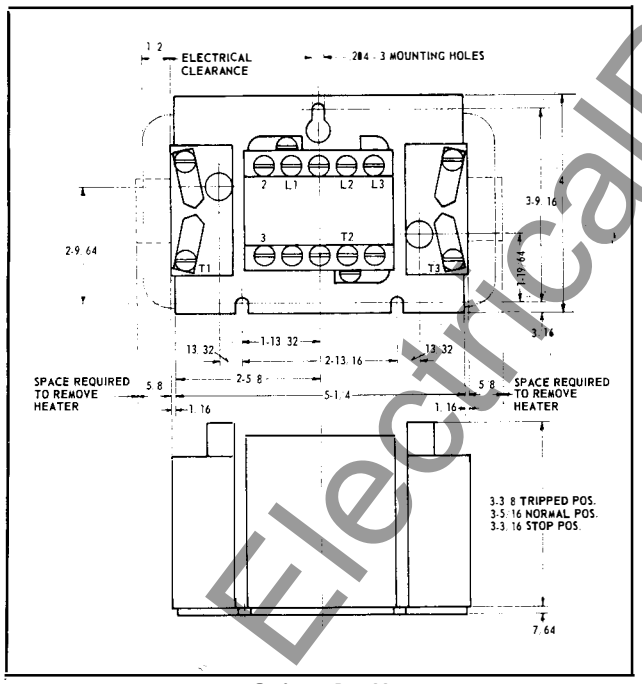
1. When used on single-phase circuit, connect line leads to L1 and L2, load leads to T1 and T2.

2. When used on 2-phase, 3-wire circuit, make L2 the common lead.

3. For separate control circuit remove lead "A"; then connect terminal "1" of PB station to isolated terminal on top of left O.L. relay and connect other side of control circuit to O.L. relay terminal from which lead "A" was removed. On starters wired for separate control at the factory, these terminals are marked "1" and "X2" respectively.

Typical control wiring schematics. P.B. furnished by customer.

FIG. 3. Wiring Diagrams



Outline—Size 00

PRINCIPAL RENEWAL PARTS

Stationary Contact	314C866G03
Moving Contact	314C866G04
Overload Relay Complete	48A3454G04

HEATER APPLICATION TABLE FOR SIZE 00 LINESTARTER

HEATER STYLE NUMBER	HEATER CODE MARKING	TABLE A — OPEN CLASSES 11230, 11210: 125% Overload Protection Full Load Current of Motor (Amperes) @ 40°C	TABLE A — OPEN CLASSES 11230, 11210: Heater Current Rating (Amperes) @ 40°C
1129 372	X .49	.48 to .51	.59
1129 373	Y .55	.52 to .58	.65
1129 374	Z .63	.59 to .66	.73
966 465	AA .71	.67 to .75	.83
966 466	AB .82	.76 to .82	.94
966 467	AC .93	.83 to .94	1.03
966 468	AD 1.0	.95 to 1.07	1.18
966 470	AF 1.2	1.08 to 1.22	1.35
966 471	AG 1.4	1.23 to 1.36	1.53
966 472	AH 1.5	1.37 to 1.51	1.71
966 473	AI 1.7	1.52 to 1.71	1.90
966 474	AK 1.9	1.72 to 1.91	2.14
966 475	AL 2.1	1.92 to 2.18	2.40
966 476	AM 2.5	2.19 to 2.40	2.73
966 477	AN 2.7	2.41 to 2.63	3.01
966 478	AO 3.0	2.64 to 2.90	3.29
966 479	AP 3.4	2.91 to 3.27	3.63
966 480	AR 3.8	3.28 to 3.71	4.10
966 481	AS 4.3	3.72 to 4.14	4.65
966 482	AT 4.8	4.15 to 4.66	5.19
966 483	AU 5.4	4.67 to 5.28	5.84
966 484	AW 6.1	5.29 to 5.98	6.61
966 485	AX 6.8	5.99 to 6.84	7.48
966 486	AY 7.7	6.85 to 7.88	8.56
966 487	AZ 8.5	7.89 to 8.63	9.85
966 488	BA 9.6	8.64 to 9.75	10.8
966 489	BB 11	9.76 to 10.7	12.2

Note: Use Next Lower Code No. Heater for 115% Protection

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