CEBM028400

Shop Manual

960E-2KT

DUMP TRUCK

SERIAL NUMBERS **A50028 & UP**

KOMATSU®

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Fuses (analog sensor voltage)



FIGURE 10-21. FUSES FOR ANALOG SENSOR VOLTAGES, FRONT VIEW

Technical Data

0.5A, 125V, 5 x 20 fuses

Fuses (field regulator)

Technical Data

50A, 690V

Fuses (fuse holder for field regulator)



FIGURE 10-22. FUSE HOLDER FOR FIELD REGULATOR, FRONT VIEW

Technical Data

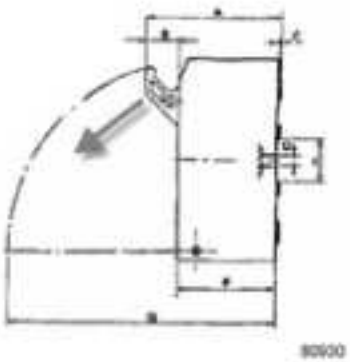


FIGURE 10-23. DOOR OPENS FOR FUSE ACCESS

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Fault Code A317: Operation of brake auto apply valve without a detected response

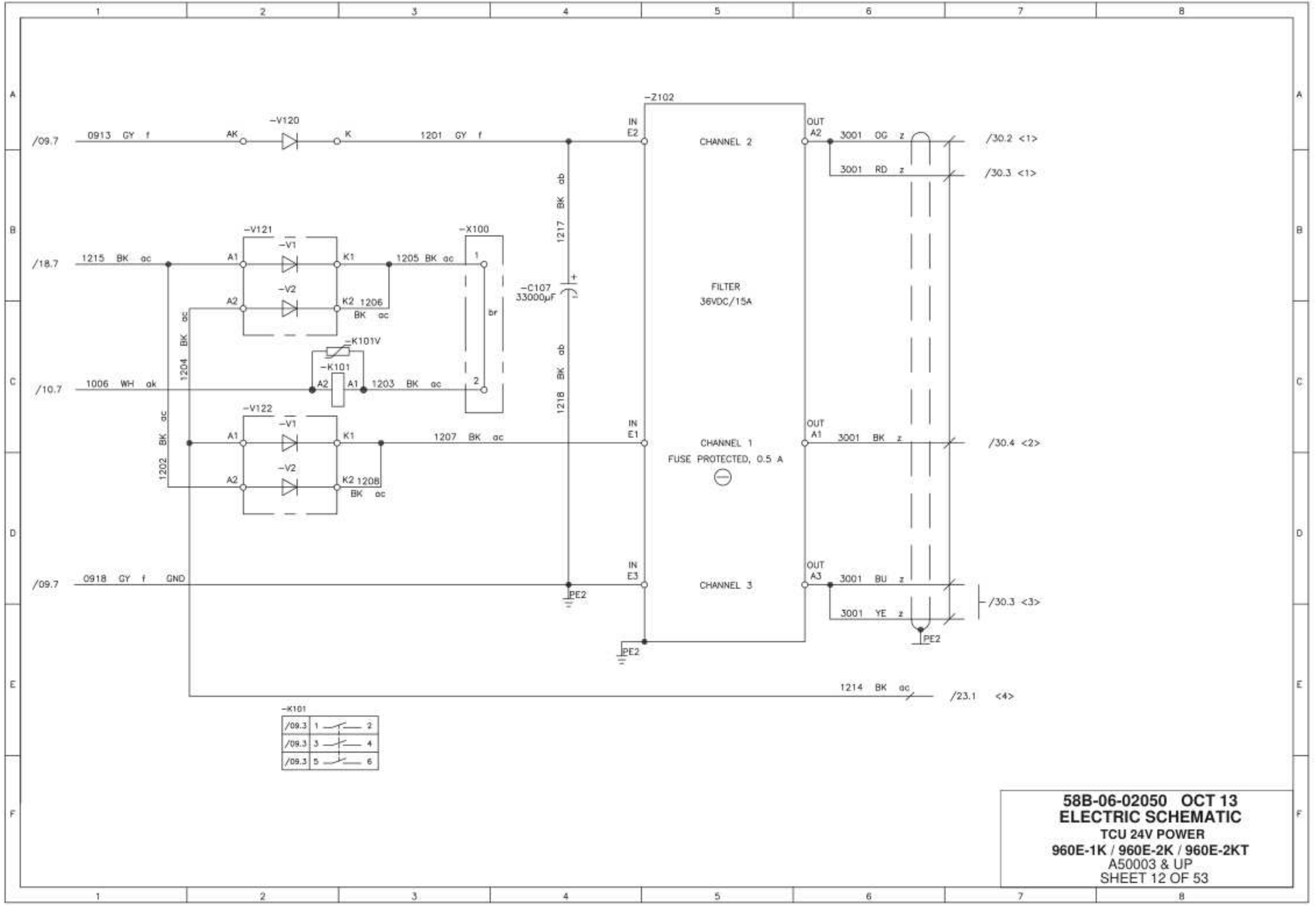
Operator Action	Go to shop now
Fault Code	A317
Description	Operation of brake auto apply valve without a detected response.
Fault Conditions	If keyswitch is on and brake accumulator pressure is not low, sets if operation of brake auto apply valve for 1 second does not cause the service brake pressure switch to operate or the front brake pressure to increase. Park brake release is defined as the closure of the park brake release pressure switch and the opening of the park brake set pressure switch. Resets when park brake is released for 5 seconds.
Operator Alerting System Response	Sound Buzzer Flash IM Warning Indicator Display Operator Action: GO TO SHOP NOW Display Fault Description: BRK AUTO APPLY FLT Display Fault Code: A317
Resulting Problem(s)	Failure of brake auto apply circuit could cause damage to parking brake.
Related Information	A laptop running "IM Realtime Data Monitor" software may be required to resolve this fault.

Table

1. This fault's logic contains more than one parameter, each of which may have its own related fault code(s). This fault may be resolved by resolving the parameter(s) active fault code(s). Refer to the Troubleshooting Instructions for the active parameter fault(s).
2. If there are no active parameter fault codes, then based on the truck's setup while this fault is active, determine which of the parameters in the Table is not shown in its expected state on the IM Realtime Data Monitor program. Refer to the schematic to identify which item(s) may be causing the parameter(s) to be in the unexpected state. Troubleshoot these items.
3. If this fault is not currently active or if no parameters are currently in the unexpected state and the malfunction is still unresolved, then check each of the parameters in the Table for proper functionality. Troubleshoot all item(s) related to the parameter(s) which are found to be malfunctioning.

Parameter	Expected State and/or Related Fault(s)
Auto Brake Apply Solenoid (IM 1R)	Status - Open Load: Unexpected if park brake request and keyswitch are on. But expected if park brake request is off or keyswitch is off. Troubleshoot if inconsistent. Status - Normal: Expected if park brake request and keyswitch are on. Troubleshoot if status is normal with park brake request off or keyswitch off. Status - Shorted to ground: Unexpected. Troubleshoot. Status - Overload: Unexpected. Troubleshoot. 0: normal operation with park brake either on or off. This valve operates only transiently when the park brake is turned on. 1: brake auto apply valve operates for 1.5 seconds after park brake is turned on if the truck is stopped. If moving, it will not operate until truck speed has dropped to 0.8 kph. Fault(s): A215
Service Brake Set by Drive System	0: Siemens reports service brake not set by drive system 1: Siemens reports service brake is set by drive system
Service Brake Set - CAN	0: Siemens reports service brake not set 1: Siemens reports service brake is set

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10. Install both halves of collar (8) over the coupling grid. Ensure that both O-rings are properly seated in the collar grooves. Install and tighten four screws (9) to the standard torque.

NOTE: There is an alignment tab on the inner race of both collar halves to ensure proper positioning over the coupling grid.

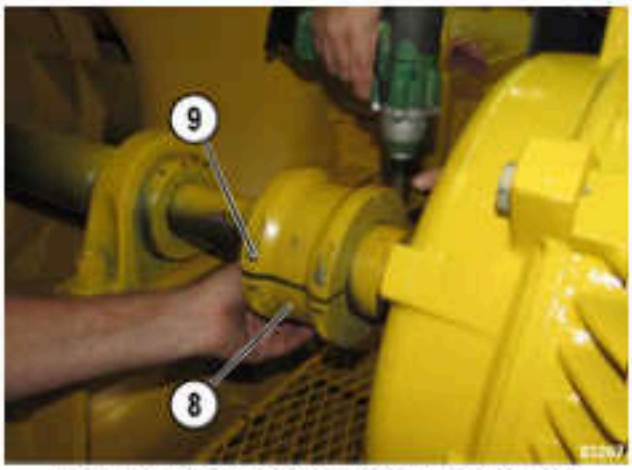


FIGURE 50-34. INSTALLING THE COLLAR

8. Collar 9. Screws

11. Install shaft guard (10). Install four capscrews, washers and nuts (11) that secure the shaft guard to the frame.

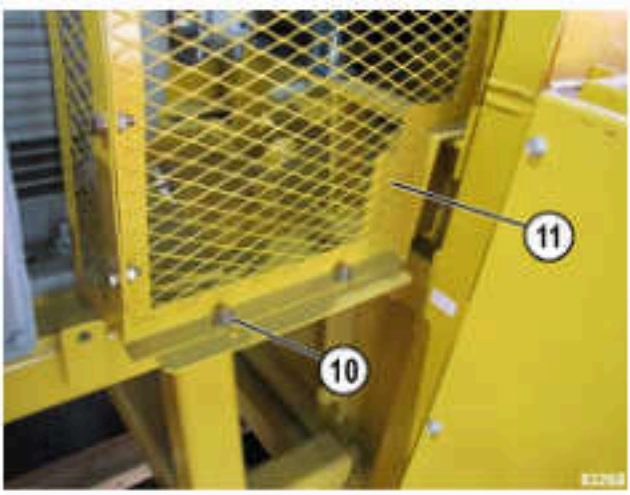


FIGURE 50-35. INSTALLING THE SHAFT GUARD

10. Shaft Guard 11. Capscrew, Washer and Nut

Removing a grid element

NOTE: There are two banks of elements in the grid box. One bank can be accessed from each side of the grid box. Only remove the covers on the appropriate side.

1. Remove 14 capscrews (1) and side cover (2).



FIGURE 50-36. REMOVING THE SIDE COVER

1. Capscrew 2. Side Cover

2. Remove 12 capscrews (3) and top cover (4).

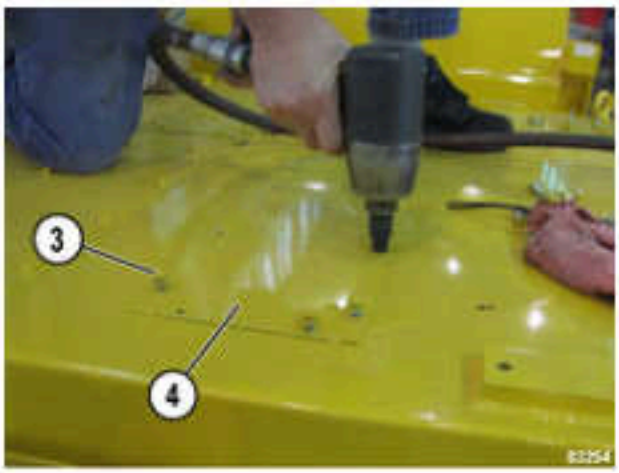


FIGURE 50-37. REMOVING THE TOP COVER

3. Capscrew 4. Top Cover

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Grid box

Device name: M04

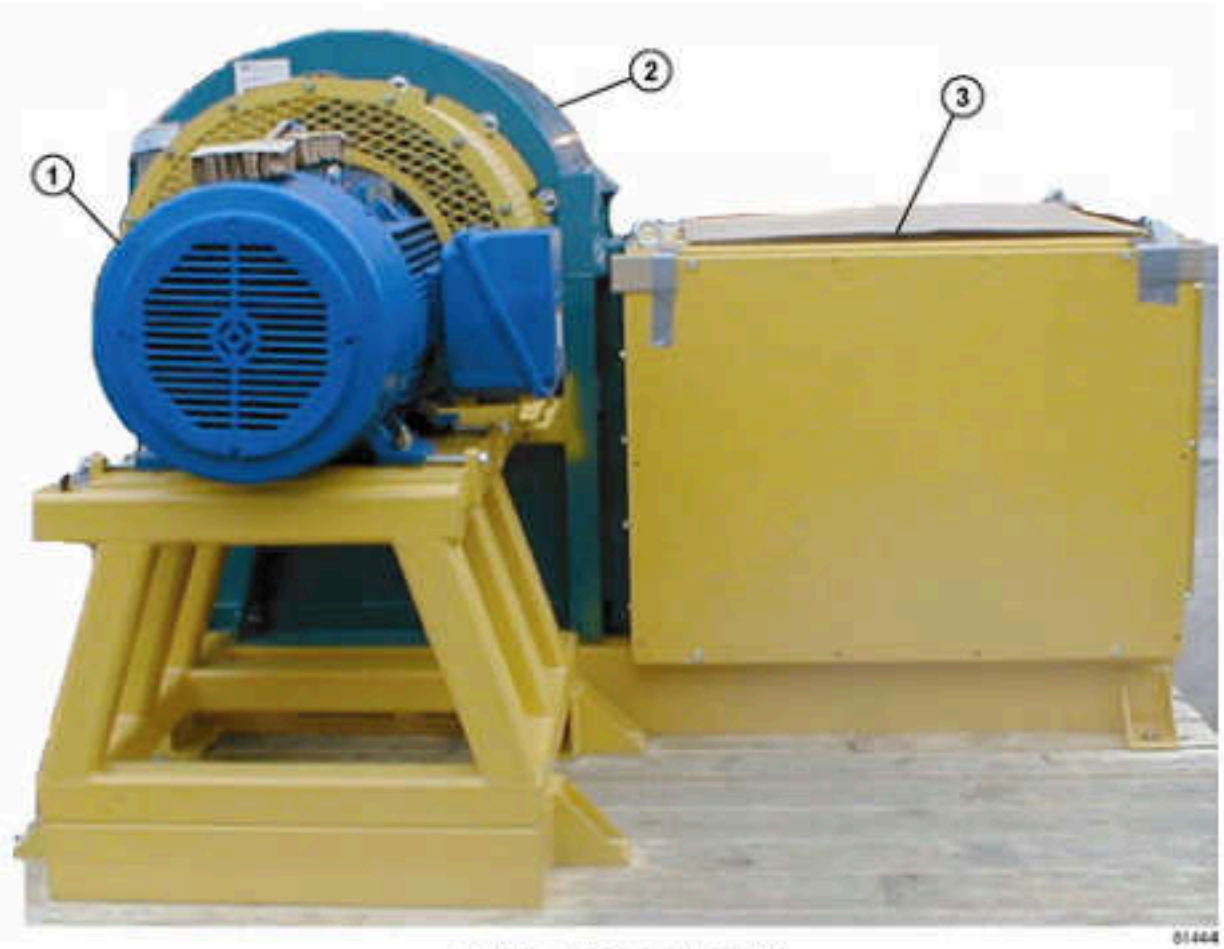


FIGURE 10-90. GRID BOX

1. Motor 2. Blower 3. Resistor Housing

Technical Data

Nominal speed: 1500 rpm

Maximum speed: 1800 rpm

Approx. weight: 7,000 lbs. (entire grid box with blower, motor, and resistors)

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A1	Main Input Rectifier Module	2
A100	TCU (Traction Control Unit), SIBAS 32, Entire SIBAS	15
A101 - A103	Inverter Phase Modules A	4,38
A104	Chopper Phase Modules A	4,38
A107	Field Regulator, IGBT Truck DC/DC 540W	8
A115,A116	Power Supply, Gate Unit 24/24 VDC, 150 W	11
A118	Voltage Transducer, SIBAS 24VDC Bus Monitoring	9
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A800	IGBT Inverter cabinet	1
A900	Trolley Box	50
A901	Reactor Box	50
B101	Water pump 400 L/min, 3.5 BAR	7
C31	Capacitor bank 22.uF, 690VAC	7
C1.1-C1.3	Capacitor, DC Link 3000 uF, 2000 V	3
C107	Capacitor, Support, TCU 33k uF, 63 V	12
C115,C116	Capacitor, Support, Gate Unit PS 33k uF, 63 V	11
C2.1-C2.3	Capacitor, DC Link 3000 uF, 2000 V	2
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F401-F405	Fuse, Control Power 4A,250V	10
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K109	Contactor, crowbar bypass, 250 A	3,18

DEVICE LABEL	DESCRIPTION	PAGE No.
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X102	Terminal Block, Control Panel, 6 terminals	11
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