

ELECTRICAL INFORMATION

HR300

A1.00+

SECTION 1 ELECTRICAL INFORMATION

1.1 Electrical Symbol Diagrams (Rev. A2.00+)

HR300EA10-1

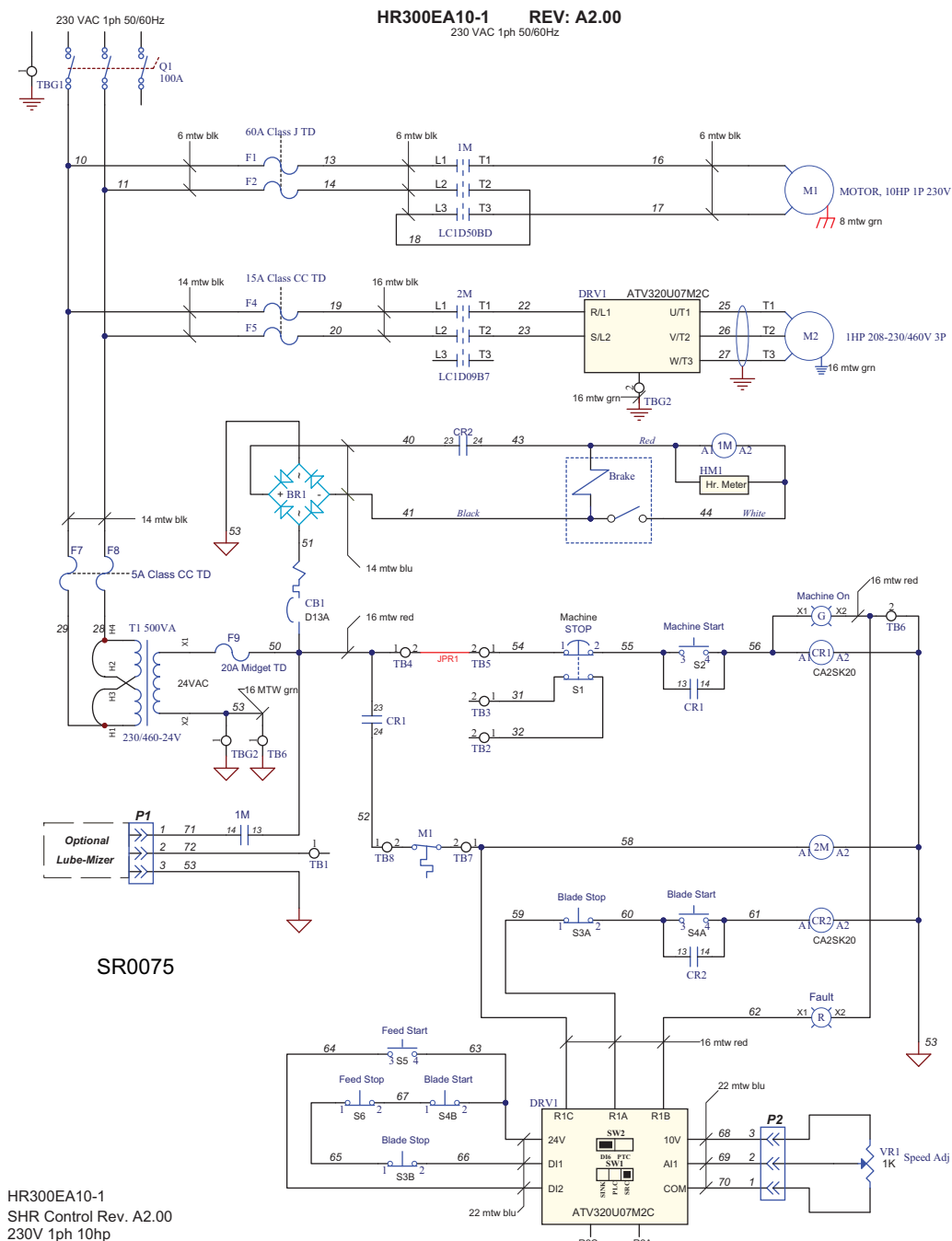


FIG. 1-1 SYMBOL DIAGRAM (HR300EA10-1)

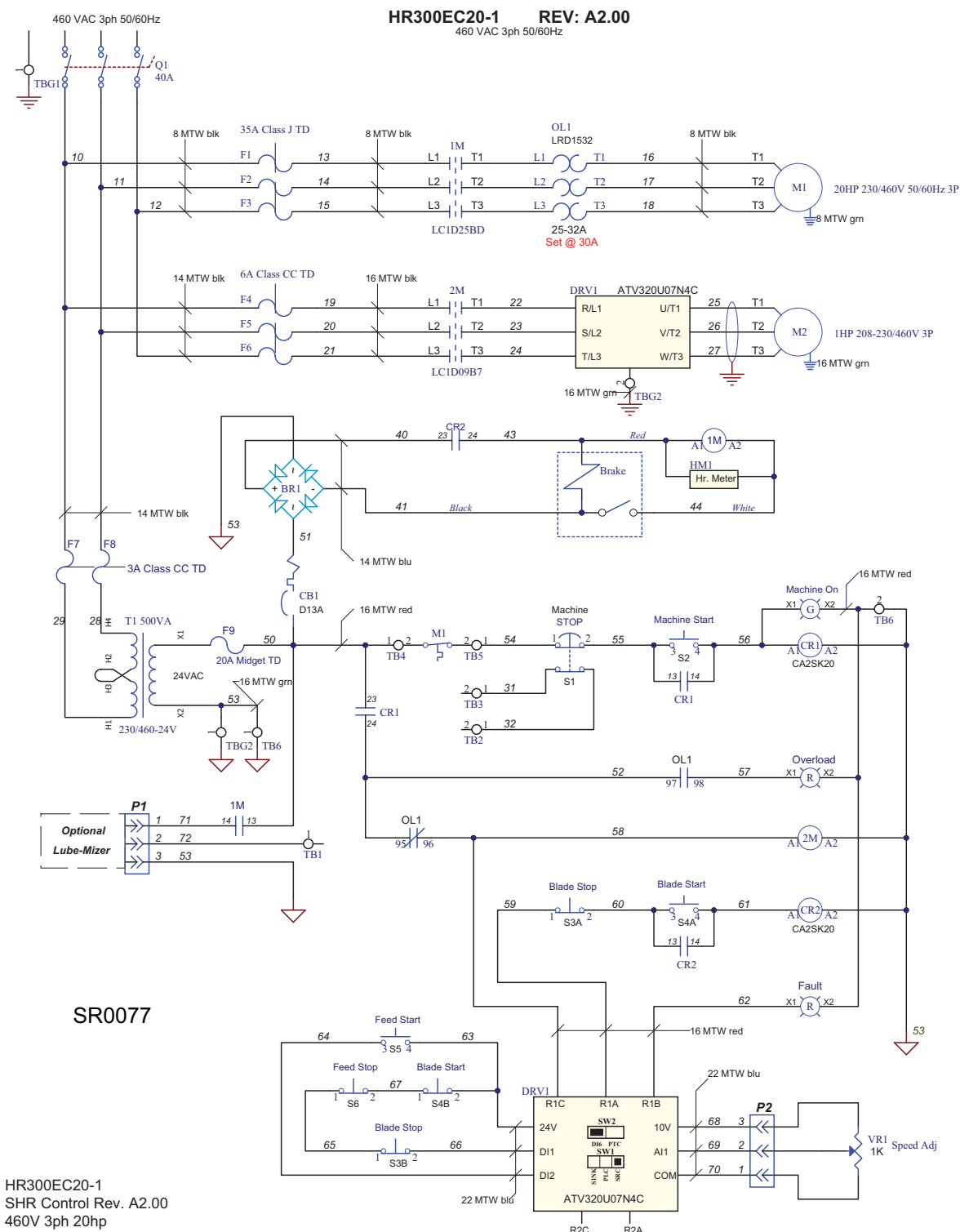
HR300EC20-1

FIG. 1-3 SYMBOL DIAGRAM (HR300EC20-1)

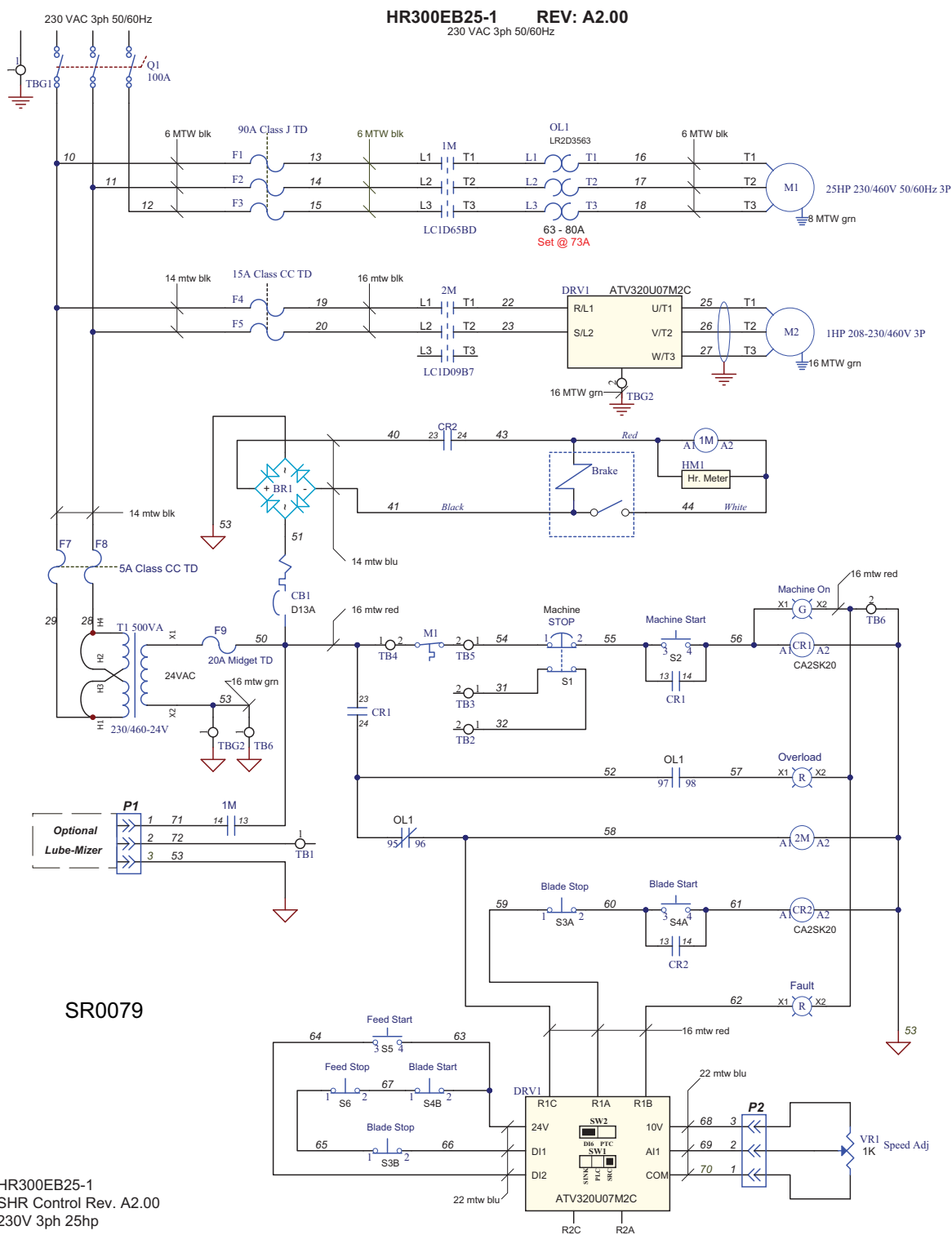
HR300EB25-1

FIG. 1-5 SYMBOL DIAGRAM (HR300EB25-1)

HR300EC25-1

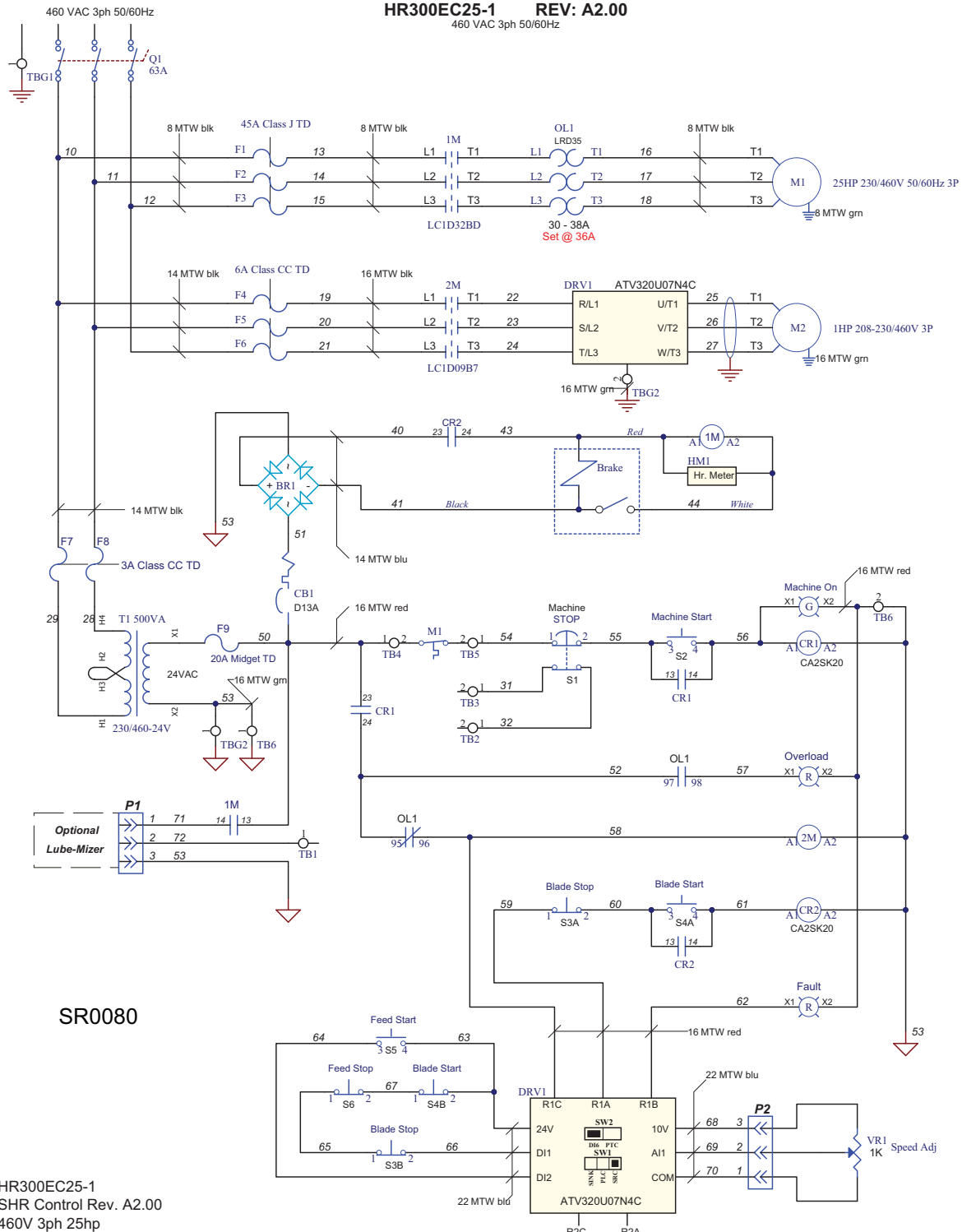


FIG. 1-6 SYMBOL DIAGRAM (HR300EC25-1)

LMS-SHR Lube-Mizer Option

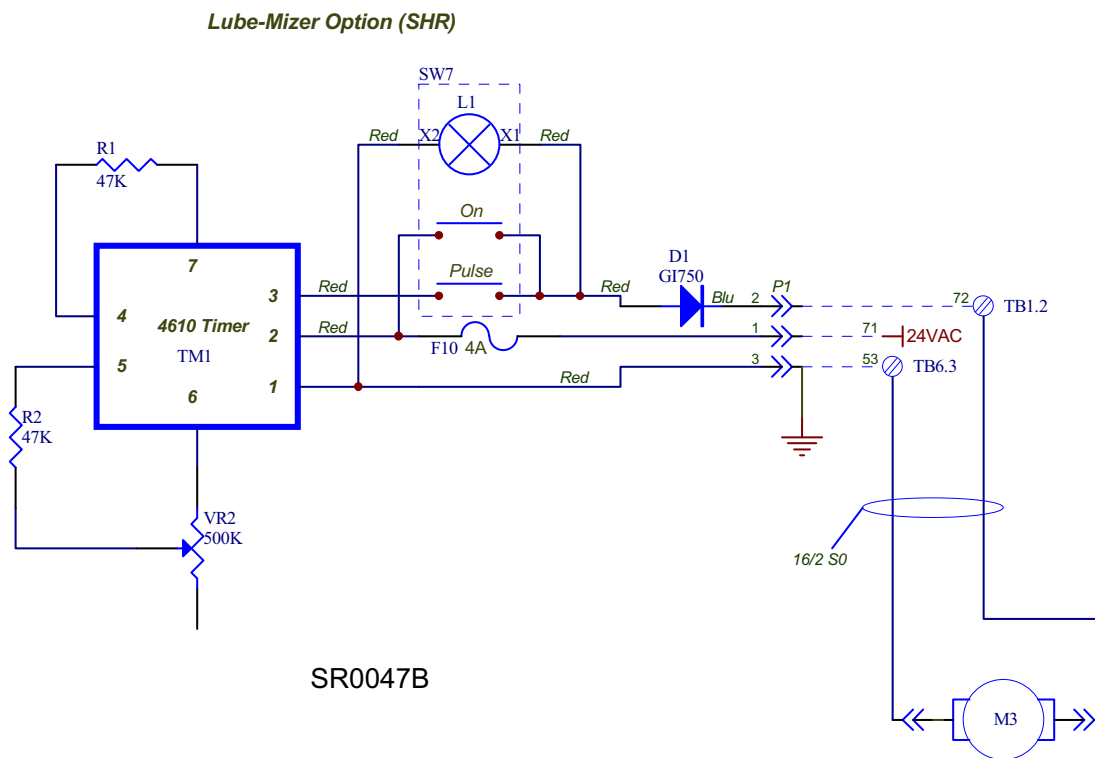


FIG. 1-7 SYMBOL DIAGRAM (LUBE-MIZER)

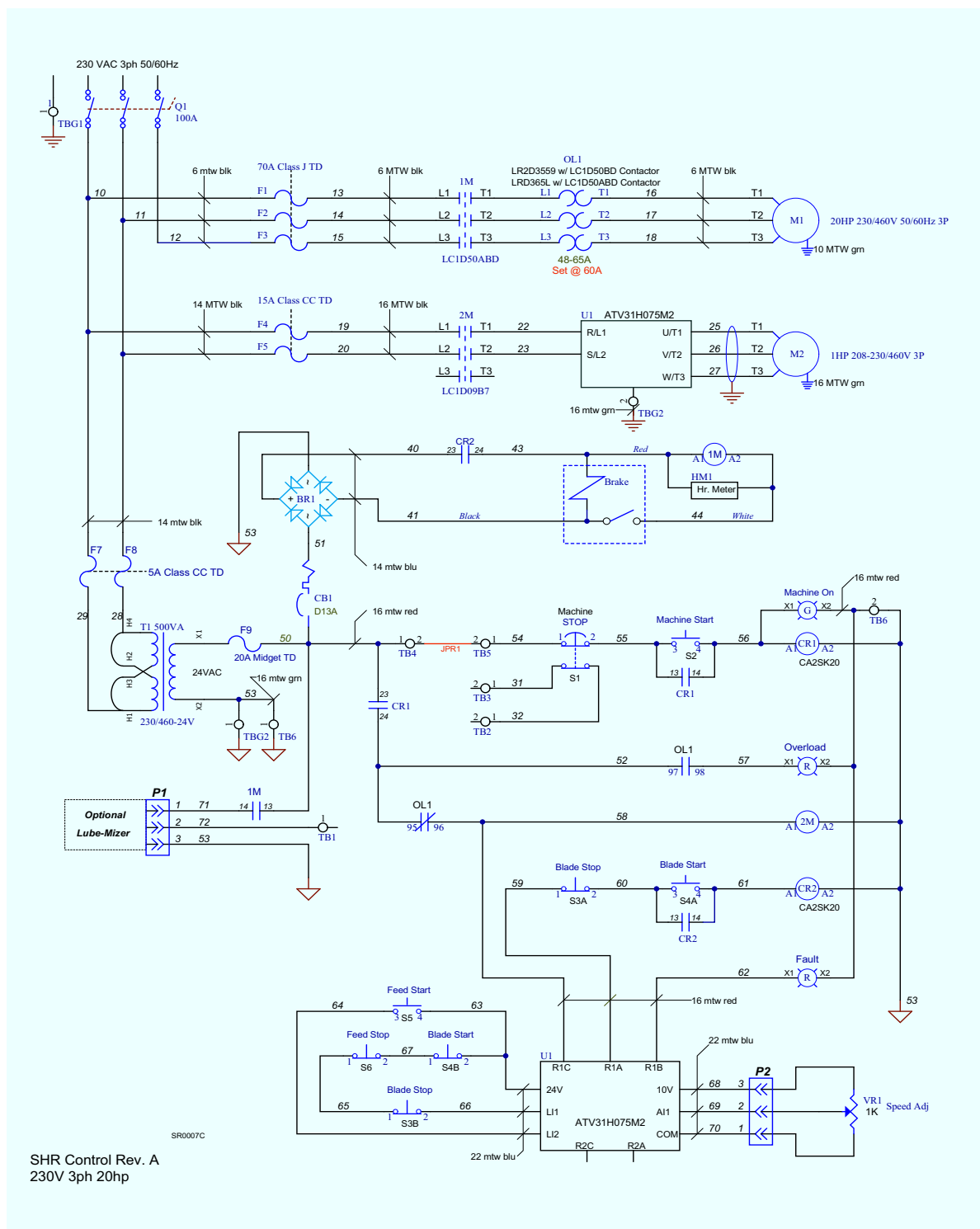
HR300EB20-1

FIG. 1-9 SYMBOL DIAGRAM ()

HR300EC20-1

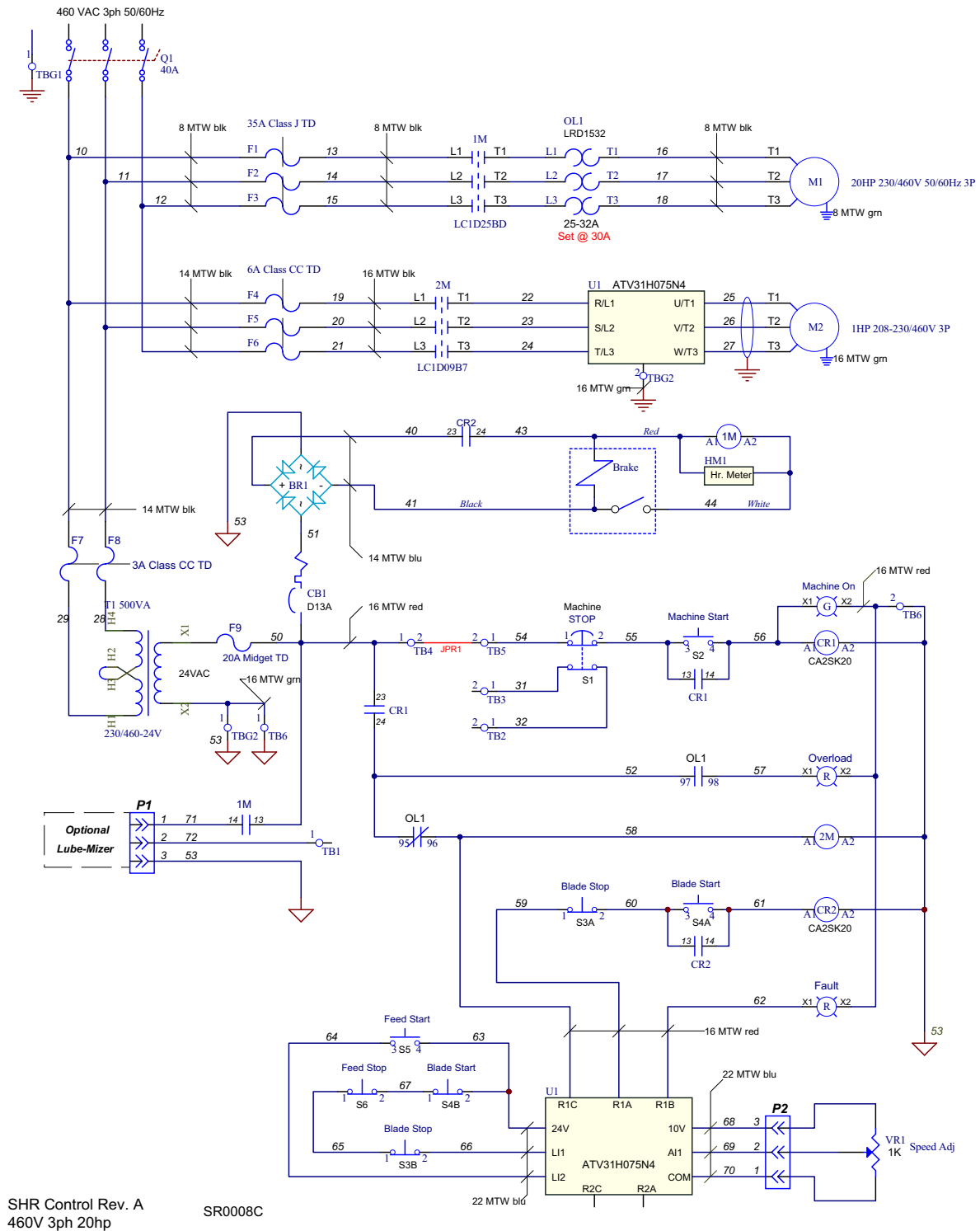


FIG. 1-10 SYMBOL DIAGRAM ()

[illegible]

FIG. 1-11 SYMBOL DIAGRAM ()

LMS-SHR Lube-Mizer Option

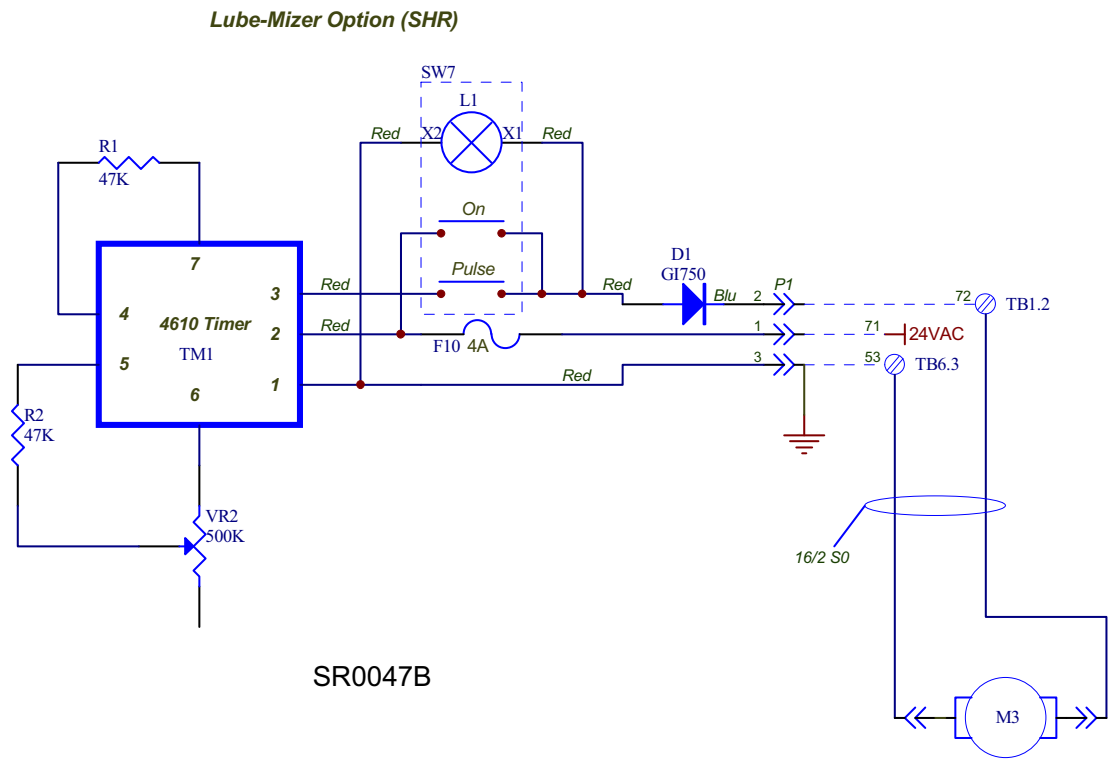


FIG. 1-14 SYMBOL DIAGRAM (LUBE-MIZER)

1.3 Electrical Component List (HR300EC25-1)

Component	Wood-Mizer Part No.	Description
1M	052465	Contact, 3 Pole 24VDC 32A
2M	025290	Contact, 24VAC Coil 3 Pole 9A
BR1	E10456	Rectifier, 200 PIV 35A Bridge
CB1	052463	Breaker, 13A 1 Pole Curve D
CR1, CR2	052464	Relay, 2NO 24VAC Control
D1	052616	Diode Assembly, SHR Lube (LMS Option Only)
F1-F3	052458	Fuse, 45A Class J Delay
F4-F6	052456	Fuse, 6A 600V CCMR Time Delay
F7, F8	052454	Fuse, 3A 600V KLDR Time Delay
F9	052455	Fuse, 20A Midget 250VAC Delay
F10	024150-4	Fuse, 4A ATO Blade Pink (LMS Option Only)
HM1	015401	Hour Meter, 12 Volt DC
M1	038485	Motor, 25HP 1775RPM
M2	047486	Motor, 1HP AC Feed
M3	050029	Pump Assembly, Lube (LMS Option Only)
OL1	052466	Overload Relay, 30-38A Class 10
Q1	050881-1	Disconnect, 63Amp 600V 3P 6mm
	050907-1	Operator, Red/Yellow Pistol Grip 6mm
	050908-1	Shaft, Pistol Grip Disconnect 290mm x 6mm
R1, R2	024591	Resistor Assembly, 47K Yellow Lube Timer (LMS Option Only)
S1	052497	Switch, E-Stop Complete Push-Pull XB5
	050540	Contact, NC ZBE102
S2	052503	Switch, PB Green Flush Illum ZB5
	052502	Switch Body, 22mm Grn LED 1NO 24V XB5
S3/S4	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
	050540	Contact, NC ZBE102 (Qty. 2)
S5/S6	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
SW7	114063	Switch Body, 22mm Clear LED 2NO 24V
	052613	Switch Head, 22mm Illum Green Selector (LMS Option Only)
T1	112655 ¹	Transformer, 500VA 240x480 - 12x24
TM1	052614	Timer Control, Repeat Cycle 24VAC 5 A
TB1-TB5	052461	Terminal Block, 1 Tier Screwless 12GA
TB6	052462	Term Block, 1 Tier/2 Conn Screwless 12GA
TBG1	052525 ²	Terminal Block, 4ga GND
TBG2	052460	Terminal Block, 12GA GND Screwless
U1	052481	AC Drive Assembly, w/Software
VR1	052451	Potentiometer Assembly, 1K SHR Feed Control
VR2	024590	Potentiometer Assembly, Lube-Mizer Control (LMS Option Only)

¹ Was 052453, ECN: 39084

² 052525 replaced 052459 after 8/22/2022 per ECN 38687

1.4 Electrical Component List (HR300EB25-1)

Component	Wood-Mizer Part No.	Description
1M	053604 ¹	Contact, 65A 3P 24VDC D-A Series
2M	025290	Contact, 24VAC Coil 3 Pole 9A
BR1	E10456	Rectifier, 200 PIV 35A Bridge
CB1	052463	Breaker, 13A 1 Pole Curve D
CR1, CR2	052464	Relay, 2NO 24VAC Control
D1	052616	Diode Assembly, SHR Lube (LMS Option Only)
F1-F3	052515	Fuse, 90A Class J Delay
F4, F5	052513	Fuse, 15A 600V CCMR Time Delay
F6	052456	Fuse, 6A 600V CCMR Time Delay
F7, F8	052511	Fuse, 5A 600V KLDL Time Delay (SHR10/SHR20-L/SHR25-L Only)
F9	052455	Fuse, 20A Midget 250VAC Delay
F10	024150-4	Fuse, 4A ATO Blade Pink (LMS Option Only)
HM1	015401	Hour Meter, 12 Volt DC
M1	038485	Motor, 25HP 1775RPM
M2	047486	Motor, 1HP AC Feed
M3	050029	Pump Assembly, Lube (LMS Option Only)
OL1	069636	Overload Relay, 48-65A
Q1	050906-1	Disconnect, 100Amp 3P Non-Fused 6mm
	050907-1	Operator, Red/Yellow Pistol Grip 6mm
	050908-1	Shaft, Pistol Grip Disconnect 290mm x 6mm
R1, R2	024591	Resistor Assembly, 47K Yellow Lube Timer (LMS Option Only)
S1	052497	Switch, E-Stop Complete Push-Pull XB5
	050540	Contact, NC ZBE102
S2	052503	Switch, PB Green Flush Illum ZB5
	052502	Switch Body, 22mm Grn LED 1NO 24V XB5
S3/S4	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
	050540	Contact, NC ZBE102 (Qty. 2)
S5/S6	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
SW7	114063	Switch Body, 22mm Clear LED 2NO 24V
	052613	Switch Head, 22mm Illum Green Selector (LMS Option Only)
T1	112655 ²	Transformer, 500VA 240x480 - 12x24
TM1	052614	Timer Control, Repeat Cycle 24VAC 5 A (LMS Option Only)
TB1-TB5	052461	Terminal Block, 1 Tier Screwless 12GA
TB6	052462	Term Block, 1 Tier/2 Conn Screwless 12GA
TBG1	052525	Terminal Block, 4GA GND Screwless
TBG2	052460	Terminal Block, 12GA GND Screwless
U1	052518-1 ³	AC Drive Assembly, w/Software (ATV320)
VR1	052451	Potentiometer Assembly, 1K SHR Feed Control
VR2	024590	Potentiometer Assembly, Lube-Mizer Control (LMS Option Only)

¹ DIN rail-mount contactor 053604 replaces panel-mount contactor 052516 originally supplied prior to 1/11 due to a change in vendor supply. Replacement of old-style contactor requires 10" DIN rail 024474-10 and one clamp E22707.

² Was 052453, ECN: 39084

³ Replaced 052518 AC Drive Assembly, w/Software for new ATV320 drive (Rev. A2.00).

1.5 Electrical Component List (HR300EC20-1)

Component	Wood-Mizer Part No.	Description
1M	051322	Contactor, 3 Pole 24VDC
2M	025290	Contactor, 24VAC Coil 3 Pole 9A
BR1	E10456	Rectifier, 200 PIV 35A Bridge
CB1	052463	Breaker, 13A 1 Pole Curve D
CR1, CR2	052464	Relay, 2NO 24VAC Control
D1	052616	Diode Assembly, SHR Lube (LMS Option Only)
F1-F3	052506	Fuse, 35A Class J Delay
F4-F6	052456	Fuse, 6A 600V CCMR Time Delay
F7, F8	052454	Fuse, 3A 600V KLDR Time Delay
F9	052455	Fuse, 20A Midget 250VAC Delay
F10	024150-4	Fuse, 4A ATO Blade Pink (LMS Option Only)
HM1	015401 ¹	Hour Meter, 12 Volt DC
M1	038486	Motor, 20HP 1755RPM
M2	047486	Motor, 1HP AC Feed
M3	050029	Pump Assembly, Lube (LMS Option Only)
OL1	052505	Overload Relay, 25-32A Class 10
Q1	050903-1	Disconnect, 40A 3P Non-Fused 6mm
	050907-1	Operator, Red/Yellow Pistol Grip 6mm
	050908-1	Shaft, Pistol Grip Disconnect 290mm x 6mm
R1, R2	024591	Resistor Assembly, 47K Yellow Lube Timer (LMS Option Only)
S1	052497	Switch, E-Stop Complete Push-Pull XB5
	050540	Contact, NC ZBE102
S2	052503	Switch, PB Green Flush Illum ZB5
	052502	Switch Body, 22mm Grn LED 1NO 24V XB5
S3/S4	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
	050540	Contact, NC ZBE102 (Qty. 2)
S5/S6	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
SW7	114063	Switch Body, 22mm Clear LED 2NO 24V
	052613	Switch Head, 22mm Illum Green Selector (LMS Option Only)
T1	052453	Transformer, 208-480V/24V 500VA
TM1	052614	Timer Control, Repeat Cycle 24VAC 5 A (LMS Option Only)
TB1-TB5	052461	Terminal Block, 1 Tier Screwless 12GA
TB6	052462	Term Block, 1 Tier/2 Conn Screwless 12GA
TBG1	052525 ²	Terminal Block, 4ga GND
TBG2	052460	Terminal Block, 12GA GND Screwless
U1	052481	AC Drive Assembly, w/Software
VR1	052451	Potentiometer Assembly, 1K SHR Feed Control
VR2	024590	Potentiometer Assembly, Lube-Mizer Control (LMS Option Only)

¹ Was ENM Corp. #T14BH517BC9 (2/09).

² 052525 replaced 052459 after 8/22/2022 per ECN 38687

1.6 Electrical Component List (HR300EB20-1)

Component	Wood-Mizer Part No.	Description
1M	053601 ¹	Contact, 50A 3P 24VDC D-A Series
2M	025290	Contact, 24VAC Coil 3 Pole 9A
BR1	E10456	Rectifier, 200 PIV 35A Bridge
CB1	052463	Breaker, 13A 1 Pole Curve D
CR1, CR2	052464	Relay, 2NO 24VAC Control
D1	052616	Diode Assembly, SHR Lube (LMS Option Only)
F1, F2	052521	Fuse, 70A Class J Delay
F3	052521	Fuse, 70A Class J Delay
F4, F5	052513	Fuse, 15A 600V CCMR Time Delay
F6	052456	Fuse, 6A 600V CCMR Time Delay
F7, F8	052511	Fuse, 5A 600V KLDR Time Delay
F9	052455	Fuse, 20A Midget 250VAC Delay
F10	024150-4	Fuse, 4A ATO Blade Pink (LMS Option Only)
HM1	015401	Hour Meter, 12 Volt DC
M1	038486	Motor, 20HP 1755RPM
M2	047486	Motor, 1HP AC Feed
M3	050029	Pump Assembly, Lube (LMS Option Only)
OL1	069636 ²	Overload Relay, 48-65A Everlink Thermal
Q1	050906-1	Disconnect, 100Amp 3P Non-Fused 6mm
	050907-1	Operator, Red/Yellow Pistol Grip 6mm
	050908-1	Shaft, Pistol Grip Disconnect 290mm x 6mm
R1, R2	024591	Resistor Assembly, 47K Yellow Lube Timer (LMS Option Only)
S1	052497	Switch, E-Stop Complete Push-Pull XB5
	050540	Contact, NC ZBE102
S2	052503	Switch, PB Green Flush Illum ZB5
	052502	Switch Body, 22mm Grn LED 1NO 24V XB5
S3/S4	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
	050540	Contact, NC ZBE102 (Qty. 2)
S5/S6	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
SW7	114063	Switch Body, 22mm Clear LED 2NO 24V
	052613	Switch Head, 22mm Illum Green Selector (LMS Option Only)
T1	112655 ³	Transformer, 500VA 240x480 - 12x24
TM1	052614	Timer Control, Repeat Cycle 24VAC 5 A (LMS Option Only)
TB1-TB5	052461	Terminal Block, 1 Tier Screwless 12GA
TB6	052462	Term Block, 1 Tier/2 Conn Screwless 12GA
TBG1	052525	Terminal Block, 4GA GND Screwless
TBG2	052460	Terminal Block, 12GA GND Screwless
U1	052518-1 ⁴	AC Drive Assembly, w/Software (SHR10/SHR20-L/SHR25-L Only) (ATV320)
VR1	052451	Potentiometer Assembly, 1K SHR Feed Control
VR2	024590	Potentiometer Assembly, Lube-Mizer Control (LMS Option Only)

¹ DIN rail-mount contactor 053601 replaces panel-mount contactor 025013 originally supplied prior to 1/11 due to a change in vendor supply. Replacement of old-style contactor requires 10" DIN rail 024474-10 and one clamp E22707.

- ² Replaced Square D 48-65A Class 20 Overload Relay 052522 (3/12). Overload Relay 052522 is for use only with 1M contactor 025013 and Overload Relay 069636 is for use only with 1M contactor 053601.
- ³ Was 052453, ECN: 39084
- ⁴ Replaced 052518 AC Drive Assembly, w/Software for new ATV320 drive (Rev. A2.00).

1.7 Electrical Component List (HR300EH20-1)

Component	Wood-Mizer Part No.	Description
1M	051322	Contact, 3 Pole 24VDC
2M	025290	Contact, 24VAC Coil 3 Pole 9A
BR1	E10456	Rectifier, 200 PIV 35A Bridge
CB1	052463	Breaker, 13A 1 Pole Curve D
CR1, CR2	052464	Relay, 2NO 24VAC Control
D1	052616	Diode Assembly, SHR Lube (LMS Option Only)
F1-F3	052506	Fuse, 35A Class J Delay
F4-F6	052456	Fuse, 6A 600V CCMR Time Delay
F7, F8	052454	Fuse, 3A 600V KLDK Time Delay
F9	052455	Fuse, 20A Midget 250VAC Delay
F10	024150-4	Fuse, 4A ATO Blade Pink (LMS Option Only)
HM1	015401	Hour Meter, 12 Volt DC
M1	038486	Motor, 20HP 1755RPM
M2	047486	Motor, 1HP AC Feed
M3	050029	Pump Assembly, Lube (LMS Option Only)
OL1	052505	Overload Relay, 25-32A Class 10
Q1	050903-1	Disconnect, 40A 3P Non-Fused 6mm
	050907-1	Operator, Red/Yellow Pistol Grip 6mm
	050908-1	Shaft, Pistol Grip Disconnect 290mm x 6mm
R1, R2	024591	Resistor Assembly, 47K Yellow Lube Timer (LMS Option Only)
S1	052497	Switch, E-Stop Complete Push-Pull XB5
	050540	Contact, NC ZBE102
S2	052503	Switch, PB Green Flush Illum ZB5
	052502	Switch Body, 22mm Grn LED 1NO 24V XB5
S3/S4	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
	050540	Contact, NC ZBE102 (Qty. 2)
S5/S6	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
SW7	114063	Switch Body, 22mm Clear LED 2NO 24V
	052613	Switch Head, 22mm Illum Green Selector (LMS Option Only)
T1	052773	Transformer, 380/400/415-12/24V 500VA (SHR20-380 Only)
TM1	052614	Timer Control, Repeat Cycle 24VAC 5 A (LMS Option Only)
TB1-TB5	052461	Terminal Block, 1 Tier Screwless 12GA
TB6	052462	Term Block, 1 Tier/2 Conn Screwless 12GA
TBG1	052525 ¹	Terminal Block, 4ga GND
TBG2	052460	Terminal Block, 12GA GND Screwless
U1	052481	AC Drive Assembly, w/Software
VR1	052451	Potentiometer Assembly, 1K SHR Feed Control
VR2	024590	Potentiometer Assembly, Lube-Mizer Control (LMS Option Only)

¹ 052525 replaced 052459 after 8/22/2022 per ECN 38687

1.8 Electrical Component List (HR300EA10-1)

Component	Wood-Mizer Part No.	Description
1M	053601 ¹	Contact, 50A 3P 24VDC D-A Series
2M	025290	Contact, 24VAC Coil 3 Pole 9A
BR1	E10456	Rectifier, 200 PIV 35A Bridge
CB1	052463	Breaker, 13A 1 Pole Curve D
CR1, CR2	052464	Relay, 2NO 24VAC Control
D1	052616	Diode Assembly, SHR Lube (LMS Option Only)
F1, F2	052733	Fuse, 60A Class J Delay
F4, F5	052513	Fuse, 15A 600V CCMR Time Delay
F6	052456	Fuse, 6A 600V CCMR Time Delay
F7, F8	052511	Fuse, 5A 600V KLDR Time Delay
F9	052455	Fuse, 20A Midget 250VAC Delay
F10	024150-4	Fuse, 4A ATO Blade Pink (LMS Option Only)
HM1	015401	Hour Meter, 12 Volt DC
M1	038487	Motor, 10HP 1725RPM Single Phase
M2	047486	Motor, 1HP AC Feed
M3	050029	Pump Assembly, Lube (LMS Option Only)
Q1	050906-1	Disconnect, 100Amp 3P Non-Fused 6mm
	050907-1	Operator, Red/Yellow Pistol Grip 6mm
	050908-1	Shaft, Pistol Grip Disconnect 290mm x 6mm
R1, R2	024591	Resistor Assembly, 47K Yellow Lube Timer (LMS Option Only)
S1	052497	Switch, E-Stop Complete Push-Pull XB5
	050540	Contact, NC ZBE102
S2	052503	Switch, PB Green Flush Illum ZB5
	052502	Switch Body, 22mm Grn LED 1NO 24V XB5
S3/S4	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
	050540	Contact, NC ZBE102 (Qty. 2)
S5/S6	052499	Switch, 2 PBw/Pilot Green Flush Red Extend
	052498	Switch Body, 22mm Red LED 1NO 1NC 24V XB5
SW7	114063	Switch Body, 22mm Clear LED 2NO 24V
	052613	Switch Head, 22mm Illum Green Selector (LMS Option Only)
T1	112655 ²	Transformer, 500VA 240x480 - 12x24
TM1	052614	Timer Control, Repeat Cycle 24VAC 5 A (LMS Option Only)
TB1-TB5	052461	Terminal Block, 1 Tier Screwless 12GA
TB6	052462	Term Block, 1 Tier/2 Conn Screwless 12GA
TBG1	052525	Terminal Block, 4GA GND Screwless
TBG2	052460	Terminal Block, 12GA GND Screwless
U1	052518-1 ³	AC Drive Assembly, w/Software (ATV320)
VR1	052451	Potentiometer Assembly, 1K SHR Feed Control
VR2	024590	Potentiometer Assembly, Lube-Mizer Control (LMS Option Only)

¹ DIN rail-mount contactor 053601 replaces panel-mount contactor 025013 originally supplied prior to 1/11 due to a change in vendor supply. Replacement of old-style contactor requires 10" DIN rail 024474-10 and one clamp E22707.

² Was 052453, ECN: 39084

³ Replaced 052518 AC Drive Assembly, w/Software for new ATV320 drive (Rev. A2.00).

1.9 Component Layout Diagrams

Control Box (HR300EC20-1/HR300EH20-1/HR300EC25-1)

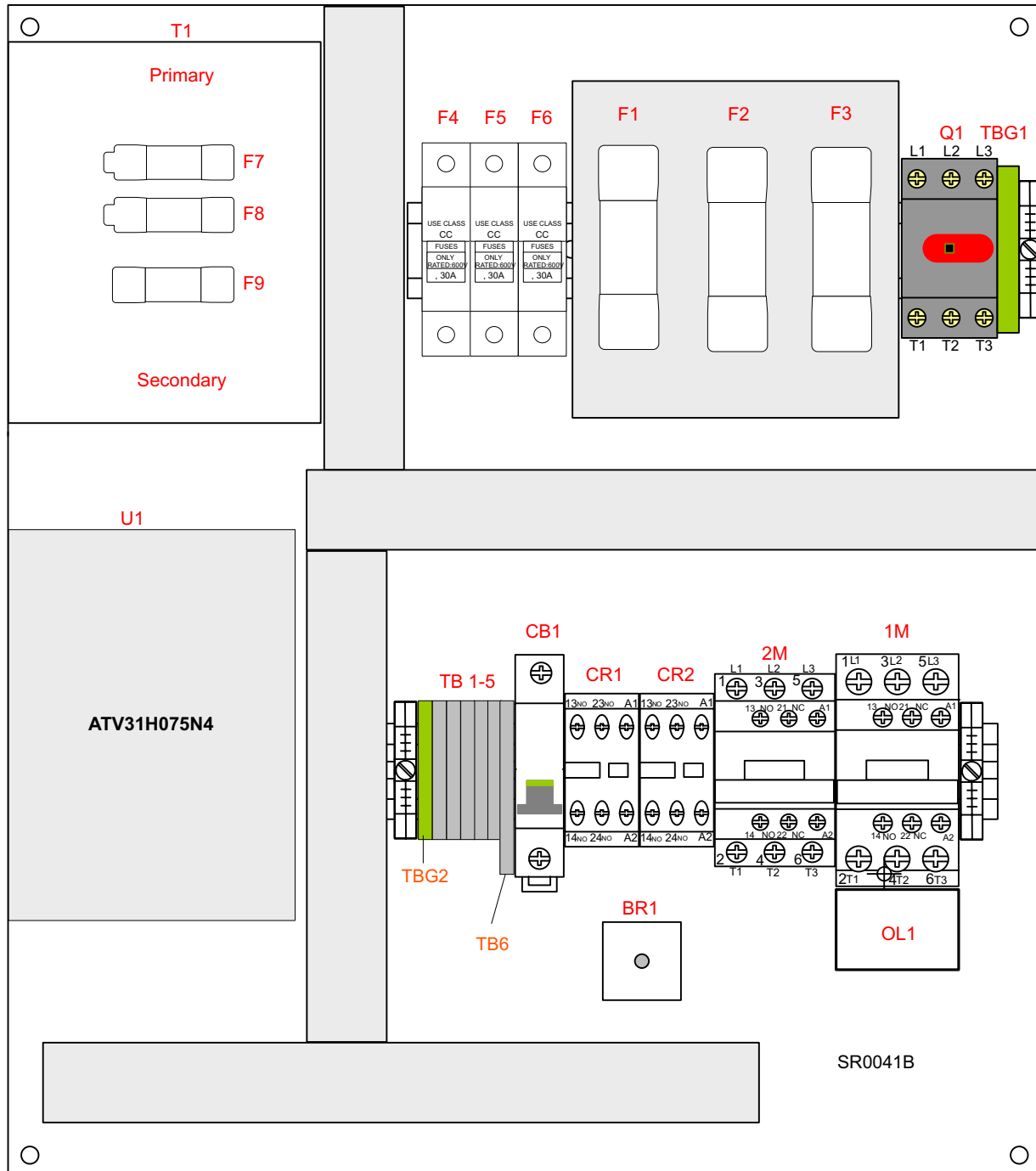


FIG. 1-14

Control Box (HR300EB20-1/HR300EB25-1)

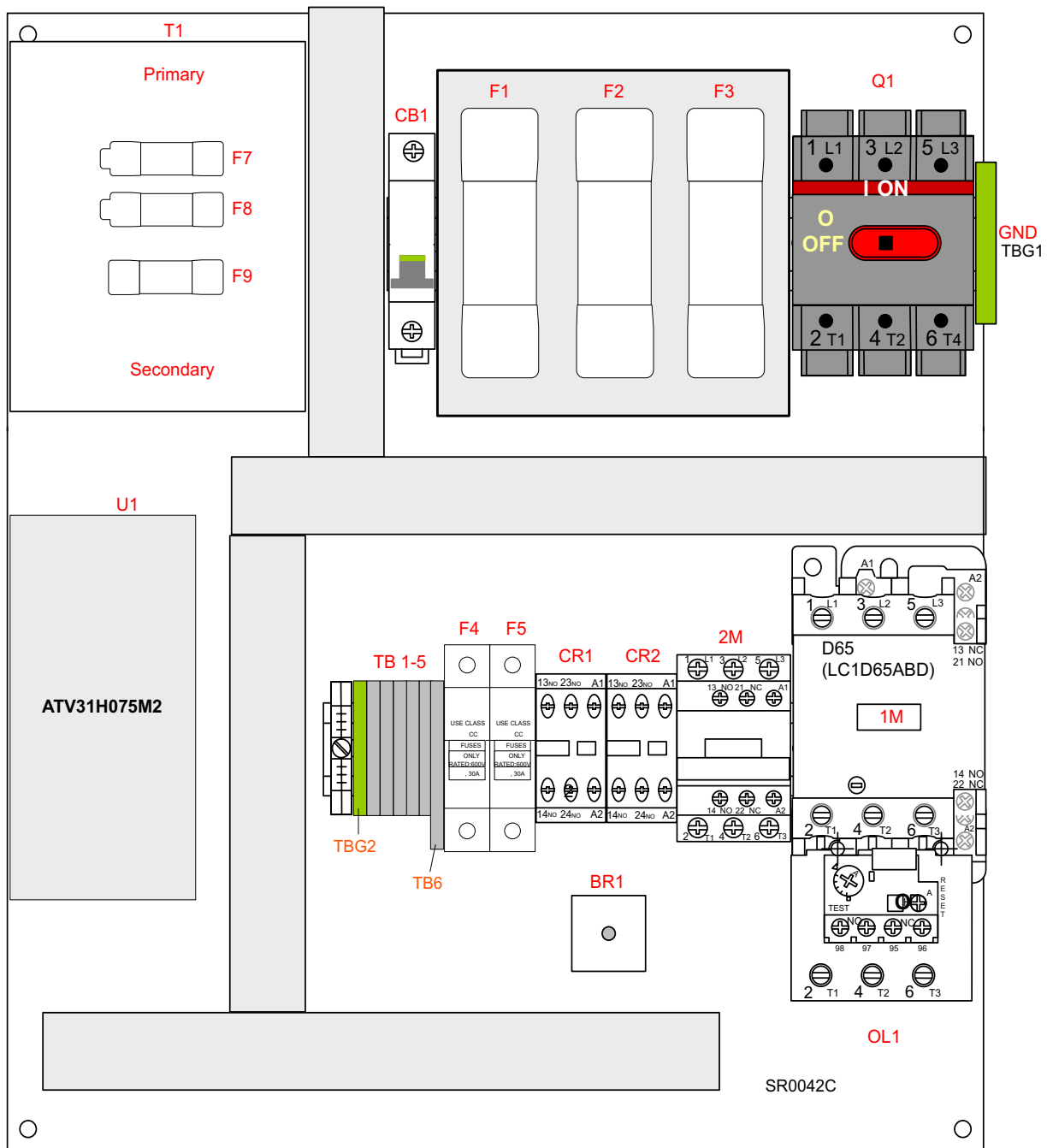


FIG. 1-14

Control Box (HR300EA10-1)

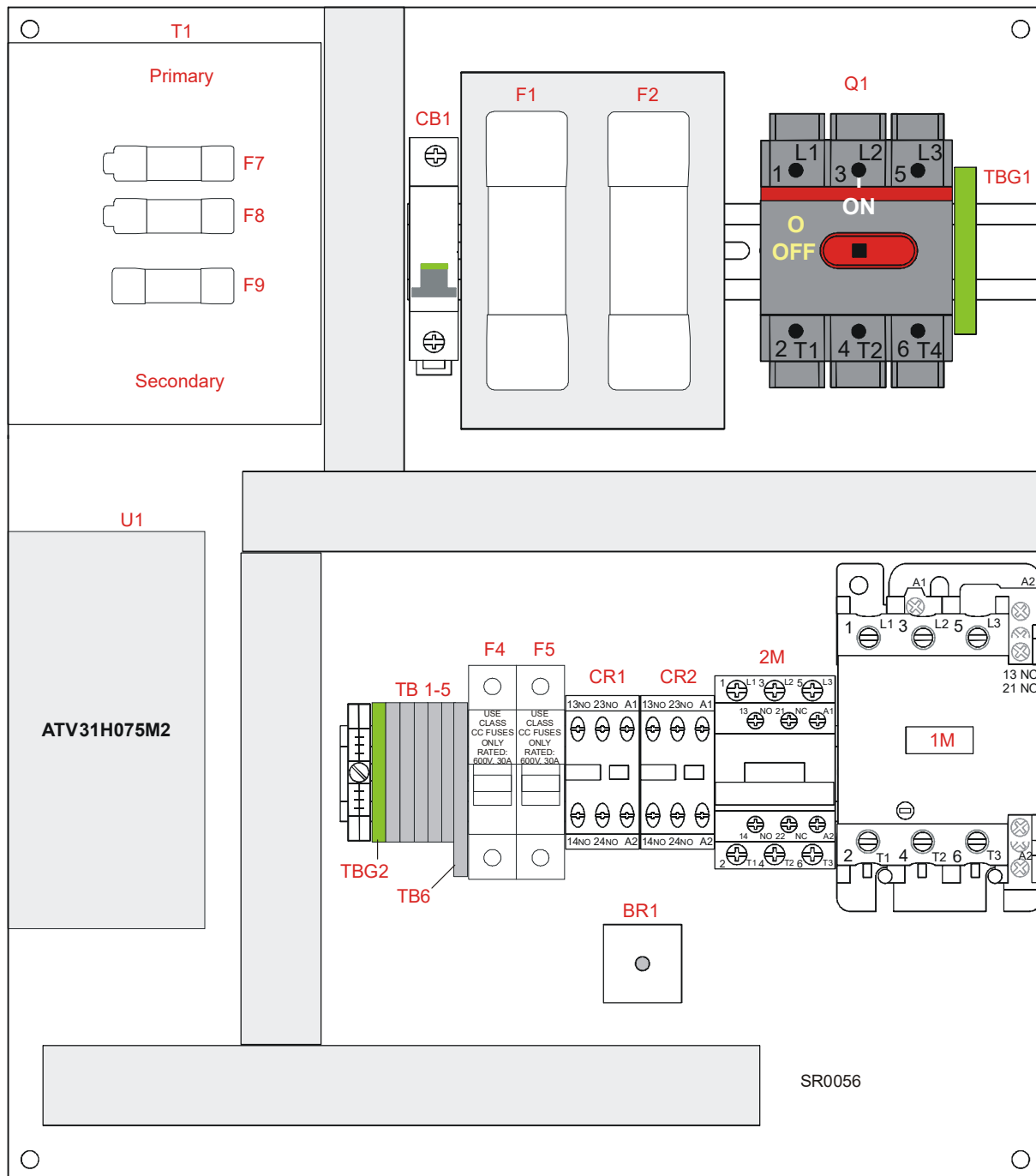


FIG. 1-14

Control Box Door Panel

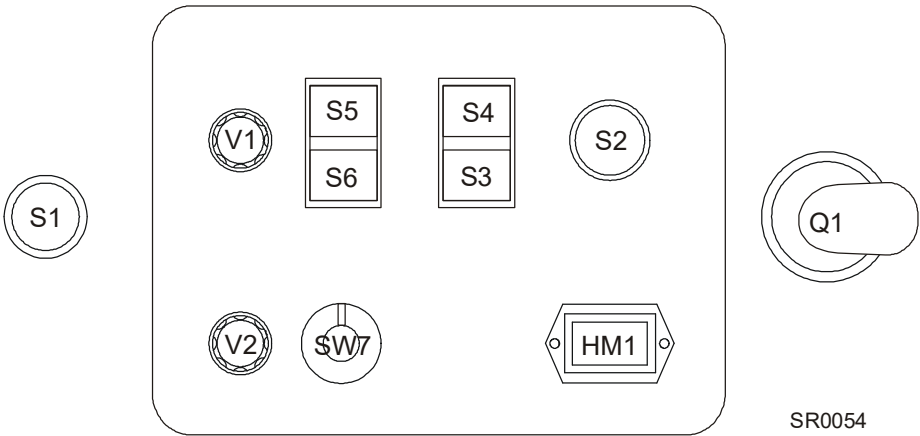


FIG. 1-14