

Specifications



Photo is representative



Eaton 277266

Eaton Moeller® series DILM Contactor, 3 pole, 380 V 400 V 15 kW, 1 N/O, 110 V 50/60 Hz, AC operation, Screw terminals

General specifications

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| PRODUCT NAME | Eaton Moeller® series DILM contactor |
| CATALOG NUMBER | 277266 |
| MODEL CODE | DILM32-10(110V50/60HZ) |
| EAN | 4015082772666 |
| PRODUCT LENGTH/DEPTH | 97 mm |
| PRODUCT HEIGHT | 85 mm |
| PRODUCT WIDTH | 45 mm |
| PRODUCT WEIGHT | 0.428 kg |
| COMPLIANCES | CE Marked |
| CERTIFICATIONS | CSA Std. C22.2 No. 14-05 IEC 60947-4-1 UL 508 EN 60947-4-1 VDE CSA-C22.2 No. 60947-4-1-14 UL CSA File No.: 012528 UL 60947-4-1 IEC/EN 60947-4-1 UL File No.: E29096 CSA Class No.: 2411-03, 3211-04 IEC/EN 60947 VDE 0660 CSA UL Category Control No.: NLDX CE |
| CATALOG NOTES | Contacts according to EN 50012 |
| GLOBAL CATALOG | 277266 |

Product specifications

ELECTRICAL

CONNECTION TYPE FOR AUXILIARY- AND CONTROL-CURRENT CIRCUIT

Screw connection

AMPERAGE RATING

32A

NUMBER OF POLES

Three-pole

VOLTAGE RATING

110 V

10.10 TEMPERATURE RISE

The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.

10.11 SHORT-CIRCUIT RATING

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.12 ELECTROMAGNETIC COMPATIBILITY

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

10.13 MECHANICAL FUNCTION

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

10.2.2 CORROSION RESISTANCE

Meets the product standard's requirements.

10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES

Meets the product standard's requirements.

10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT

Meets the product standard's requirements.

10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS

Meets the product standard's requirements.

10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION

Meets the product standard's requirements.

10.2.5 LIFTING

Does not apply, since the entire switchgear needs to be evaluated.

Resources

[Product Range Catalog
Switching and protecting
motors](#)

CATALOGS

[SmartWire-DT Catalog](#)

[eaton-product-overview-
for-machinery-catalogue-
ca08103003zen-en-us.pdf](#)

CHARACTERISTIC CURVE

[eaton-contactors-switch-
dilm-characteristic-
curve.eps](#)

[eaton-contactors-
component-dilm-
characteristic-curve-
003.eps](#)

[eaton-contactors-switch-
dilm-characteristic-curve-
002.eps](#)

DECLARATIONS OF CONFORMITY

[DA-DC-00004783.pdf](#)

[DA-DC-00004816.pdf](#)

DRAWINGS

[eaton-contactors-
mounting-dilm-
dimensions.eps](#)

[eaton-contactors-
mounting-dilm-
dimensions-002.eps](#)

[eaton-contactors-
dimensions-210t014.eps](#)

[eaton-contactors-contact-
dimensions-210x202.eps](#)

[eaton-general-ie-ready-
dilm-contactor-
standards.eps](#)

[eaton-contactors-dilm-3d-
drawing-009.eps](#)

ECAD MODEL

[ETN.277266.edz](#)

INSTALLATION INSTRUCTIONS

[IL03407014Z2021_09.pdf](#)

INSTALLATION VIDEOS

[WIN-WIN with push-in
technology](#)

MCAD MODEL

[DA-CS-dil_m17_38](#)

[DA-CD-dil_m17_38](#)

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| 10.2.6 MECHANICAL IMPACT | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 INSCRIPTIONS | Meets the product standard's requirements. |
| 10.3 DEGREE OF PROTECTION OF ASSEMBLIES | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 CLEARANCES AND CREEPAGE DISTANCES | Meets the product standard's requirements. |
| 10.5 PROTECTION AGAINST ELECTRIC SHOCK | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS | Is the panel builder's responsibility. |
| 10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS | Is the panel builder's responsibility. |
| 10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH | Is the panel builder's responsibility. |
| 10.9.3 IMPULSE WITHSTAND VOLTAGE | Is the panel builder's responsibility. |
| 10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL | Is the panel builder's responsibility. |
| FREQUENCY RATING | 50-60 Hz |
| OPERATING FREQUENCY | 5000 mechanical Operations/h (AC operated) |
| POLLUTION DEGREE | 3 |
| CLIMATIC PROOFING | Damp heat, cyclic, to IEC 60068-2-30 Damp heat, constant, to IEC 60068-2-78 |
| CONNECTION TO SMARTWIRE-DT | No |
| RATED IMPULSE WITHSTAND VOLTAGE (UIMP) | 8000 V AC |
| UTILIZATION CATEGORY | AC-4: Normal AC induction motors: starting, plugging, reversing, inching AC-1: Non-inductive or slightly inductive loads, resistance furnaces AC-3: Normal AC induction |

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| SYSTEM OVERVIEW | eaton-contactors-dilm-contactor-system-overview.eps |
| WIRING DIAGRAMS | eaton-contactors-contact-dilm-wiring-diagram.eps |

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| | motors: starting, switch off during running |
| CONNECTION | Screw terminals |
| FRAME SIZE | FS2 |
| AMBIENT OPERATING TEMPERATURE - MAX | 60 °C |
| AMBIENT OPERATING TEMPERATURE - MIN | -25 °C |
| AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MAX | 40 °C |
| AMBIENT OPERATING TEMPERATURE (ENCLOSED) - MIN | 25 °C |
| AMBIENT STORAGE TEMPERATURE - MAX | 80 °C |
| AMBIENT STORAGE TEMPERATURE - MIN | 40 °C |
| ASSIGNED MOTOR POWER AT 115/120 V, 60 HZ, 1-PHASE | 2 HP |
| ASSIGNED MOTOR POWER AT 200/208 V, 60 HZ, 3-PHASE | 10 HP |
| ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 1-PHASE | 5 HP |
| ASSIGNED MOTOR POWER AT 230/240 V, 60 HZ, 3-PHASE | 10 HP |
| ASSIGNED MOTOR POWER AT 460/480 V, 60 HZ, 3-PHASE | 20 HP |
| ASSIGNED MOTOR POWER AT 575/600 V, 60 HZ, 3-PHASE | 25 HP |
| CONVENTIONAL THERMAL CURRENT ITH (1-POLE, ENCLOSED) | 90 A |
| CONVENTIONAL THERMAL CURRENT ITH (3-POLE, ENCLOSED) | 36 A |
| CONVENTIONAL THERMAL CURRENT ITH AT 55°C (3-POLE, OPEN) | 42 A |
| CONVENTIONAL THERMAL CURRENT ITH OF MAIN CONTACTS (1-POLE, OPEN) | 100 A |

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| EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID | 6.6 W |
| HEAT DISSIPATION CAPACITY PDISS | 0 W |
| HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID | 2.2 W |
| APPLICATION | Contactors for Motors |
| PRODUCT CATEGORY | Contactors |
| PROTECTION | Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274) |
| ARCING TIME | 10 ms |
| ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT | Screw connection |
| SCREWDRIVER SIZE | 0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver |
| VOLTAGE TYPE | AC |
| DEGREE OF PROTECTION | IP00 |
| NUMBER OF AUXILIARY CONTACTS (NORMALLY CLOSED CONTACTS) | 0 |
| NUMBER OF AUXILIARY CONTACTS (NORMALLY OPEN CONTACTS) | 1 |
| NUMBER OF CONTACTS (NORMALLY CLOSED) AS MAIN CONTACT | 0 |
| NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS) | 1 |
| NUMBER OF MAIN CONTACTS (NORMALLY OPEN CONTACT) | 3 |
| OPERATING TEMPERATURE - MAX | 60 °C |
| OPERATING TEMPERATURE - MIN | -25 °C |
| RATED BREAKING CAPACITY AT 220/230 V | 320 A |
| RATED BREAKING CAPACITY AT 380/400 V | 320 A |

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| RATED BREAKING CAPACITY AT 500 V | 320 A |
| RATED BREAKING CAPACITY AT 660/690 V | 180 A |
| RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX | 110 V |
| RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN | 110 V |
| RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX | 110 V |
| RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN | 110 V |
| CONTACT CONFIGURATION | 1 NO |
| DROP-OUT VOLTAGE | AC operated: 0.6 - 0.3 x UC, AC operated |
| OVERVOLTAGE CATEGORY | III |
| DUTY FACTOR | 100 % |
| EMITTED INTERFERENCE | According to EN 60947-1 |
| INTERFERENCE IMMUNITY | According to EN 60947-1 |
| LIFESPAN, MECHANICAL | 10,000,000 Operations (AC operated) 7,000,000 Operations (Coil 50/60 Hz) |
| PICK-UP VOLTAGE | 0.8 - 1.1 V AC x Uc |
| POWER CONSUMPTION, PICK-UP, 50 HZ | 62 VA, Dual-frequency coil in a cold state and 1.0 x Us 58 VA, Dual-frequency coil in a cold state and 1.0 x Us |
| SAFE ISOLATION | 440 V AC, Between the contacts, According to EN 61140 440 V AC, Between coil and contacts, According to EN 61140 |
| POWER CONSUMPTION, PICK-UP, 60 HZ | 58 VA, Dual-frequency coil in a cold state and 1.0 x Us 62 VA, Dual-frequency coil in a cold state and 1.0 x Us |
| SCREW SIZE | M5, Terminal screw, Main cables M3.5, Terminal screw, |

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| | Control circuit cables |
| POWER CONSUMPTION, SEALING, 50 HZ | 2.1 W, Dual-frequency coil in a cold state and 1.0 x Us |
| POWER CONSUMPTION, SEALING, 60 HZ | 2.1 W, Dual-frequency coil in a cold state and 1.0 x Us 9.1 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz 6.5 VA, Dual-frequency coil in a cold state and 1.0 x Us, at 60 Hz |
| TERMINAL CAPACITY (STRANDED) | 1 x 16 mm ² , Main cables |
| SWITCHING CAPACITY (AUXILIARY CONTACTS, GENERAL USE) | 10 A, 600 V AC, (UL/CSA) 1 A, 250 V DC, (UL/CSA) |
| SWITCHING CAPACITY (AUXILIARY CONTACTS, PILOT DUTY) | A600, AC operated (UL/CSA) P300, DC operated (UL/CSA) |
| TERMINAL CAPACITY (FLEXIBLE WITH FERRULE) | 2 x (0.75 - 2.5) mm ² , Control circuit cables 2 x (0.75 - 10) mm ² , Main cables 1 x (0.75 - 2.5) mm ² , Control circuit cables 1 x (0.75 - 16) mm ² , Main cables |
| SHOCK RESISTANCE | 7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half- sinusoidal shock 10 ms 5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half- sinusoidal shock 10 ms 6.9 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop-mounted, Half- sinusoidal shock 10 ms 3.5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27 when tabletop- mounted, Half-sinusoidal shock 10 ms 10 g, N/O main contact, Mechanical, according to IEC/EN 60068-2-27, Half- sinusoidal shock 10 ms 5.3 g, N/O auxiliary contact, Mechanical, |

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| | according to IEC/EN 60068-2-27 when tabletop-mounted, Half-sinusoidal shock 10 ms |
| TERMINAL CAPACITY (SOLID) | 1 x (0.75 - 16) mm ² , Main cables 1 x (0.75 - 4) mm ² , Control circuit cables 2 x (0.75 - 2.5) mm ² , Control circuit cables 2 x (0.75 - 10) mm ² , Main cables |
| TERMINAL CAPACITY (SOLID/STRANDED AWG) | Single 18 - 6, double 18 - 8, Main cables 18 - 14, Control circuit cables |
| SWITCHING CAPACITY (MAIN CONTACTS, GENERAL USE) | 40 A, Maximum motor rating (UL/CSA) |
| TIGHTENING TORQUE | 1.2 Nm, Screw terminals, Control circuit cables 3.2 Nm, Screw terminals, Main cables |
| RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX | 0 V |
| RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN | 0 V |
| RATED INSULATION VOLTAGE (UI) | 690 V |
| RATED MAKING CAPACITY UP TO 690 V (COS PHI TO IEC/EN 60947) | 384 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-1, 380 V, 400 V, 415 V | 45 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-3, 220 V, 230 V, 240 V | 32 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-3, 380 V, 400 V, 415 V | 32 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-3, 440 V | 32 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-3, 500 V | 32 A |
| RATED OPERATIONAL | 18 A |

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| CURRENT (IE) AT AC-3, 660 V, 690 V | |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 220 V, 230 V, 240 V | 15 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 400 V | 15 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 440 V | 15 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 500 V | 15 A |
| RATED OPERATIONAL CURRENT (IE) AT AC-4, 660 V, 690 V | 12 A |
| RATED OPERATIONAL CURRENT (IE) AT DC-1, 110 V | 40 A |
| RATED OPERATIONAL CURRENT (IE) AT DC-1, 220 V | 40 A |
| RATED OPERATIONAL CURRENT (IE) AT DC-1, 60 V | 40 A |
| RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN) | 32 A |
| RATED OPERATIONAL POWER AT AC-3, 240 V, 50 HZ | 11 kW |
| RATED OPERATIONAL POWER AT AC-3, 380/400 V, 50 HZ | 15 kW |
| RATED OPERATIONAL POWER AT AC-3, 415 V, 50 HZ | 19 kW |
| RATED OPERATIONAL POWER AT AC-4, 220/230 V, 50 HZ | 4 kW |
| RATED OPERATIONAL POWER AT AC-4, 240 V, 50 HZ | 4.5 kW |
| RATED OPERATIONAL POWER AT AC-4, 380/400 V, 50 HZ | 7 kW |
| RATED OPERATIONAL POWER AT AC-4, 415 V, 50 HZ | 7.5 kW |

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| RATED OPERATIONAL POWER AT AC-4, 440 V, 50 HZ | 8 kW |
| RATED OPERATIONAL POWER AT AC-4, 500 V, 50 HZ | 9 kW |
| RATED OPERATIONAL POWER AT AC-4, 660/690 V, 50 HZ | 10 kW |
| RATED OPERATIONAL POWER (NEMA) | 14.9 kW |
| RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX | 690 V |
| RESISTANCE PER POLE | 2.7 mΩ |
| STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS | 2.1 W |
| STRIPPING LENGTH (CONTROL CIRCUIT CABLE) | 10 mm |
| STRIPPING LENGTH (MAIN CABLE) | 10 mm |
| SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MAX | 22 ms |
| SWITCHING TIME (AC OPERATED, MAKE CONTACTS, CLOSING DELAY) - MIN | 16 ms |
| SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MAX | 14 ms |
| SWITCHING TIME (AC OPERATED, MAKE CONTACTS, OPENING DELAY) - MIN | 8 ms |
| SHORT-CIRCUIT CURRENT RATING (BASIC RATING) | 125 A, max. Fuse, SCCR (UL/CSA) 5 kA, SCCR (UL/CSA) 125 A, max. CB, SCCR (UL/CSA) |
| SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 480 V) | 125/70 A, Class J, max. Fuse, SCCR (UL/CSA) 10/100 kA, Fuse, SCCR (UL/CSA) 50/32 A, max. CB, SCCR (UL/CSA) |

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| | 10/65 kA, CB, SCCR (UL/CSA) |
| SHORT-CIRCUIT CURRENT RATING (HIGH FAULT AT 600 V) | 125/125 A, Class J, max. Fuse, SCCR (UL/CSA) 10/100 kA, Fuse, SCCR (UL/CSA) 10/22 kA, CB, SCCR (UL/CSA) 50/32 A, max. CB, SCCR (UL/CSA) |
| SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 400 V | 125 A gG/gL |
| SUITABLE FOR | Also motors with efficiency class IE3 |
| SHORT-CIRCUIT PROTECTION RATING (TYPE 1 COORDINATION) AT 690 V | 63 A gG/gL |
| SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 400 V | 63 A gG/gL |
| SHORT-CIRCUIT PROTECTION RATING (TYPE 2 COORDINATION) AT 690 V | 35 A gG/gL |
| SPECIAL PURPOSE RATING OF BALLAST ELECTRICAL DISCHARGE LAMPS | 40 A (480V 60Hz 3phase, 277V 60Hz 1phase) 40 A (600V 60Hz 3phase, 347V 60Hz 1phase) |
| SPECIAL PURPOSE RATING OF DEFINITE PURPOSE RATING | 32 A, FLA 480 V 60 Hz 3- ph, 100,000 cycles acc. to UL 1995, (UL/CSA) 192 A, LRA 480 V 60 Hz 3- ph, 100,000 cycles acc. to UL 1995, (UL/CSA) |
| SPECIAL PURPOSE RATING OF ELEVATOR CONTROL | 7.5 HP, 200 V 60 Hz 3-ph, (UL/CSA) 7.5 HP, 240 V 60 Hz 3-ph, (UL/CSA) 22 A, 240 V 60 Hz 3-ph, (UL/CSA) 22 A, 600 V 60 Hz 3-ph, (UL/CSA) 20 HP, 600 V 60 Hz 3-ph, (UL/CSA) 27 A, 480 V 60 Hz 3-ph, (UL/CSA) 20 HP, 480 V 60 Hz 3-ph, (UL/CSA) 25.3 A, 200 V 60 Hz 3-ph, |

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| | (UL/CSA) |
| SPECIAL PURPOSE RATING OF REFRIGERATION CONTROL (CSA ONLY) | 180 A, LRA 600 V 60 Hz 3phase; (CSA) 40 A, FLA 480 V 60 Hz 3phase; (CSA) 30 A, FLA 600 V 60 Hz 3phase; (CSA) 240 A, LRA 480 V 60 Hz 3phase; (CSA) |
| SPECIAL PURPOSE RATING OF RESISTANCE AIR HEATING | 40 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA) 40 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA) |
| SPECIAL PURPOSE RATING OF TUNGSTEN INCANDESCENT LAMPS | 40 A, 480 V 60 Hz 3phase, 277 V 60 Hz 1phase, (UL/CSA) 40 A, 600 V 60 Hz 3phase, 347 V 60 Hz 1phase, (UL/CSA) |
| OPERATING TEMPERATURE | -25° to 60°C |
| CONVENTIONAL THERMAL CURRENT ITH AT 40°C (3-POLE, OPEN) | 45 A |
| CONVENTIONAL THERMAL CURRENT ITH AT 50°C (3-POLE, OPEN) | 43 A |
| CONVENTIONAL THERMAL CURRENT ITH AT 60°C (3-POLE, OPEN) | 40 A |
| RATED OPERATIONAL POWER AT AC-3, 440 V, 50 HZ | 20 kW |
| RATED OPERATIONAL POWER AT AC-3, 500 V, 50 HZ | 23 kW |
| RATED OPERATIONAL POWER AT AC-3, 690 V, 50 HZ | 17 kW |
| ACTUATING VOLTAGE | 110 V 50/60 Hz |
| ALTITUDE | Max. 2000 m |
| OPERATING VOLTAGE AT AC, 50 HZ - MIN | 24 V |
| OPERATING VOLTAGE AT AC, 50 HZ - MAX | 690 V |
| OPERATING VOLTAGE AT AC, 60 HZ - MIN | 24 V |
| OPERATING VOLTAGE AT AC, 60 HZ - MAX | 690 V |

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| PROJECT NAME: |
| PROJECT NUMBER: |
| PREPARED BY: |
| DATE: |



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