**Selection Checklist**

Original Instructions

Allen-Bradley by ROCKWELL AUTOMATION

# CENTERLINE 2500 Low Voltage Motor Control Centers and Switchgear Assemblies

Use this checklist to help you configure your CENTERLINE® 2500 Motor Control Center.

Each step that is mentioned in this checklist is described in detail in the CENTERLINE 2500 Low Voltage Motor Control Centers and Switchgear Assemblies Selection Guide, publication 2500-SG001, which is available at the Rockwell Automation Literature Library: https://www.rockwellautomation.com/global/literature-library/overview.page.

| | |
|---|---|
| Customer: | User: |
| Office: | |

## Step 1: Review MCC Technical Specifications

| **Certifications and Markings** | | | | | |
|---|---|---|---|---|---|
| ☐ ABS and ABS Shipboard | ☐ CE Conformance Marked | ☐ China Compulsory Certificate | ☐ DEKRA | ☐ EAC | ☐ RETIE |
| ☐ Other (specify): | | | | | |

## Step 2: Select Network and IntelliCENTER® Options

| **Embedded Network** | | | |
|---|---|---|---|
| EtherNet/IP™ | ☐ No | ☐ Yes[1] | |
| **IntelliCENTER** | | | |
| Compact disc (CD) | ☐ None | ☐ Standard data | ☐ IntelliCENTER software and data |

(1) For IntelliCENTER options, see Networking, Programmable Controller, I/O Compartment, and Miscellaneous Units on page 6.

## Step 3: Select Structure

| **Structure** | | | |
|---|---|---|---|
| Enclosure rating | ☐ IP 42 (standard) | ☐ IP 54 | ☐ IP 20 |
| ArcShield™ (IEC/TR 61641) | ☐ No (standard) | ☐ Yes | |
| Forms of internal separation | ☐ 3b (standard) | ☐ 2b | |
| | ☐ 4b Type 5 | ☐ 4b Type 7 | |
| Mounting configuration | ☐ Single front (standard) | ☐ Double front (back-to-back) | ☐ Add to existing |
| Vertical wireway width | ☐ 200 mm (700 mm total column width) | ☐ 300 mm (800 mm total column width) | |
| | ☐ 400 mm (900 mm total column width) | ☐ 500 mm (1000 mm total column width) | |
| Depth | ☐ 600 mm (single front) | ☐ 800 mm (single front) | |
| | ☐ 1200 mm (double or back-to-back front) | ☐ 1600 mm (double or back-to-back front) | |

The Structure section and Step 3 table continue on the next page.

# Step 3: Select Structure (continued)

| **Structure** (continued) | |
|---|---|
| Ambient temperature, max | _____ °C |
| Altitude | _____ meters |
| External paint | ☐ RAL7032 Pebble Gray (standard) ☐ Other (specify):(1) |
| Internal paint | ☐ Z275 galvanized steel (standard) ☐ High visibility gloss white<br>☐ Other (specify):(1) |
| Master Nameplate | ☐ No<br>☐ Yes (up to five lines; 40 characters maximum per line)<br>Line 1:<br>Line 2:<br>Line 3:<br>Line 4:<br>Line 5: |
| Options | ☐ Space heater with thermostat ☐ Cable supports for vertical wireways<br>☐ Other (specify):(1) |

(1) To provide a more detailed description, use the Notes section that begins on page 8.

# Step 4: Select Power Systems

| **Incoming Power** | | | | |
|---|---|---|---|---|
| Line voltage | ☐ 380V | ☐ 400/415V | ☐ 440/460/480V | ☐ 525/575V |
| | ☐ 690V | | | |
| Frequency | ☐ 50 Hz | ☐ 60 Hz | | |
| System power | ☐ Delta | ☐ Grounded Delta | ☐ Grounded wye | ☐ Grounded wye with impedance |
| Available fault current | _____ kA | | | |
| **Bus** | | | | |
| Withstand/fault ratings | ☐ 50 kA for 1 second | ☐ 50 kA for 3 seconds | ☐ 80 kA for 1 second | ☐ 100 kA for 1 second |
| Horizontal power bus rating | ☐ 800 A | ☐ 1250 A | ☐ 1600 A | ☐ 2000 A |
| | ☐ 2500 A | ☐ 3200 A | ☐ 4000 A | |
| Horizontal power bus material | ☐ Copper, tin plated (standard) | ☐ Copper, unplated | | |
| Neutral bus | ☐ None (standard) | ☐ Full rated | ☐ Half rated | |
| Vertical distribution bus rating | ☐ 300 A (provides 600 A capacity) | | ☐ 600 A (provides 1200 A capacity) | |
| Vertical distribution bus material | ☐ Copper, tin plated (standard) | | ☐ Copper, unplated | |
| Stab openings | **NOTE:** Automatic shutters are included as standard. | | | |
| **Protective Earth (PE)** | | | | |
| Horizontal PE location | ☐ Bottom (standard) | | | |
| Vertical PE conductor for withdrawable units | ☐ Copper, unplated (standard) | | ☐ Copper, tin plated | |
| Vertical PE conductor for customer load | ☐ Copper, unplated (standard) | | ☐ Copper, tin plated | |

# Step 5: Select Unit Designs

| **Unit Configuration–General** | | | | |
|---|---|---|---|---|
| Outgoing cable access | ☐ Top | ☐ Bottom | | |
| Unit type | ☐ Standard withdrawable (standard) | | ☐ Fixed mount | |
| | ☐ Withdrawable with SecureConnect™ | | | |
| Nameplates (white with black lettering) | ☐ Engraved acrylic (standard) | | ☐ Engraved phenolic | |
| **Unit Control Power** | | | | |
| Voltage | ☐ 24V DC | ☐ 110/115/120V AC | ☐ 220/230/240V AC | |
| Source | ☐ Central control power transformer (standard) | | ☐ Line to neutral | ☐ Remote control power source |
| | Individual control transformer: | | | |
| | ☐ 75VA | ☐ 150VA | ☐ 250VA | |
| | ☐ Other (specify):(1) | | | |
| Control terminal blocks location | ☐ Vertical wireway (standard) | | ☐ Top horizontal wireway | |

(1) To provide a more detailed description, use the Notes section that begins on page 8.

**IMPORTANT:** For disconnect selections, see the Main Incoming, Feeder, DOL/DOLR, and Starter Unit sections in Section 6.

# Step 6: Select Unit Types

| **Main Incoming Unit** | | | |
|---|---|---|---|
| Ampere rating | _____ A | | |
| Main incoming types | ☐ Air circuit breaker (ACB) (standard) | ☐ Molded case circuit breaker (MCCB) (standard) | ☐ Main lug (MLO) |
| Main incoming locations | ☐ Left | ☐ Center | ☐ Right |
| | Entry: | | |
| | ☐ Top | ☐ Bottom | |
| | Incoming configuration: | | |
| | ☐ Single main | ☐ Dual main | ☐ Main-tie-main |
| Circuit breaker type | ☐ 3-pole | ☐ 4-pole | |
| | Number of cables per phase: _____ | | |
| | Cable size: _____ | | |
| Main breaker accessories | ☐ Shunt-trip | ☐ Auxiliary contacts QTY:_____ | ☐ Electrical charging device |
| | ☐ Closing release | ☐ Shunt release | ☐ Undervoltage release |
| | ☐ Motorized operation | ☐ Thermography | ☐ Precision metering %:_____ |
| | Communication: | | |
| | ☐ EtherNet/IP | ☐ Other (specify):(1) | |
| Protection | ☐ LSI (standard) | ☐ LI | ☐ LSIG |
| | ☐ DIP switch | ☐ Digital touch screen | ☐ Automatic transfer |
| | ☐ Generator sync | ☐ Load-shedding (tie) | |

(1) To provide a more detailed description, use the Notes section that begins on page 8.

The Step 6 table continues on the next page.

# Step 6: Select Unit Types (continued)

| | | | |
|---|---|---|---|
| **Feeder Unit[1]** | | | |
| Types | ☐ Air circuit breaker (ACB) (standard) | ☐ Molded case circuit breaker (MCCB) (standard) | |
| Disconnect means | ☐ Circuit breaker, thermal magnetic (standard) | ☐ Circuit breaker, electronic | ☐ Fused disconnect |
| | Fuse type: | | |
| | ☐ DIN | ☐ BS88 | |
| Options | ☐ Auxiliary contacts QTY:_____ | ☐ Electrical charging device | ☐ Closing release |
| | ☐ Shunt release | ☐ Motorized operation | ☐ Thermography |
| | ☐ Precision metering %:_____ | | |
| **DOL/DOLR Starter Units[1]** | | | |
| Disconnect means | ☐ Circuit breaker (standard) | ☐ Fused disconnect | |
| | Fuse type: | | |
| | ☐ DIN | ☐ BS88 | |
| Electronic overload relay type | ☐ E100™ | ☐ E300™ | |
| Duty rating | ☐ AC3 (standard) | ☐ AC4 | |
| Protection | ☐ Type 2 (standard) | ☐ Type 1 | |
| **DOL/DOLR Options and Accessories** | | | |
| Pilot lights (light-emitting diode [LED]) | ☐ No (standard) | | |
| | ☐ Yes - If yes, text on legend plate: | | |
| | ☐ On | ☐ Forward | |
| | ☐ Off | ☐ Reverse | |
| | ☐ Fault | ☐ Other (specify):[2] | |
| Push buttons | ☐ No (standard) | | |
| | ☐ Yes - If yes, text on legend plate: | | |
| | ☐ On | ☐ Off | ☐ Reset |
| | ☐ Emergency | ☐ Other (specify):[2] | |
| Selector switch | ☐ No (standard) | ☐ 2-position | ☐ 3-position |
| | Function: _____ | | |
| Reset | ☐ Internal (standard) | ☐ External–door mounted | |
| E100 remote indication display | ☐ No (standard) | ☐ Yes | |
| | If yes, display type: | | |
| | ☐ Without reset button | ☐ With reset button | |
| E300 control stations | ☐ No (standard) | ☐ Yes | |
| | If yes, station type: | | |
| | ☐ Control | ☐ Diagnostic | |
| Auxiliary contacts | Starter: | | |
| | ☐ Normally open QTY:_____ | | |
| | ☐ Normally closed QTY:_____ | | |
| | Circuit breaker: | | |
| | ☐ Normally open QTY:_____ | | |
| | ☐ Normally closed QTY:_____ | | |
| Misc. options | ☐ Ground fault | ☐ Voltage monitoring | ☐ Other (specify):[2] |

(1) Supply a separate load list, which is on page 7. For unique applications, copy this DOL/DOLR section to the Notes section on page 8, and complete as needed.

(2) To provide a more detailed description, use the Notes section that begins on page 8.

The Step 6 table continues on the next page.

# Step 6: Select Unit Types (continued)

| | | | |
|---|---|---|---|
| **Soft Starter Units[1]** | | | |
| Types | ☐ SMC™ Flex (standard) | ☐ Other (specify):[1] | |
| Connection | ☐ Line | ☐ Delta | |
| Disconnecting means | ☐ Circuit breaker (standard) | ☐ Fused (rotary operator) | |
| **SMC Options and Accessories** | | | |
| Pilot lights (LED) | ☐ No (standard)<br>☐ Yes - If yes, text on legend plate:<br>☐ On<br>☐ Off | ☐ Forward<br>☐ Reverse | ☐ Fault<br>☐ Other (specify):[3] |
| Push buttons | ☐ No (standard)<br>☐ Yes - If yes, text on legend plate:<br>☐ On<br>☐ Off | ☐ Emergency<br>☐ Other (specify):[3] | ☐ Reset |
| Selector switch | ☐ No (standard)<br>Function: _____ | ☐ 2-position | ☐ 3-position |
| Human machine interface (HMI) | ☐ No (standard) | ☐ LCD display, full numeric keypad | ☐ LCD display, programmer only |
| Starting mode | ☐ No (standard) | ☐ Pump control | ☐ Braking control |
| Others[2] | | | |
| **PowerFlex® AC Variable Frequency Drive (VFD) Units[2]** | | | |
| PowerFlex model | ☐ 523 | ☐ 525 | ☐ 753 |
| Duty rating | ☐ Normal | ☐ Heavy | |
| Ampere rating | A: _____ | | |
| Kilowatt rating | kW: _____ | | |
| Disconnecting means | ☐ Circuit breaker (standard)<br>☐ Fused (rotary operator) | Fuse type: _____ | ☐ Fused not supplied |
| Handle operator | ☐ Rotary operator (standard) | ☐ Flange operator (2 module, min) | |
| **PowerFlex Unit Options and Accessories** | | | |
| Pilot lights (LED) | ☐ No (standard)<br>☐ Yes - If yes, text on legend plate:<br>☐ On<br>☐ Off | ☐ Forward<br>☐ Reverse | ☐ Fault<br>☐ Other (specify)[3]: |
| Push buttons | ☐ No (standard)<br>☐ Yes - If yes, text on legend plate:<br>☐ On<br>☐ Off | ☐ Emergency<br>☐ Other (specify)[3]: | ☐ Reset |
| Pilot lights (LED) | ☐ No (standard)<br>☐ Yes - If yes, text on legend plate:<br>☐ On<br>☐ Off | ☐ Forward<br>☐ Reverse | ☐ Fault<br>☐ Other (specify)[3]: |

(1) Supply a separate load list, which is on page 7. For unique applications, copy the Soft Starter Units section to the Notes section that begins on page 8, and complete as needed.
(2) Copy this section to the Notes section that begins on page 8, and complete for each unit needed.
(3) To provide a more detailed description, use the Notes section that begins on page 8.

The PowerFlex Unit Options and Accessories Section, and Step 6 table continue on the next page.

# Step 6: Select Unit Types (continued)

| **PowerFlex Unit Options and Accessories** (continued) | | | |
|---|---|---|---|
| Push buttons | ☐ No (standard)<br>☐ Yes - If yes, text on legend plate:<br>☐ On ☐ Emergency ☐ Reset<br>☐ Off ☐ Other (specify):(1) | | |
| Selector switch | ☐ None (standard) | ☐ 2-position | ☐ 3-position |
| | Function: _____ | | |
| Human machine interface (HMI) | ☐ LCD display, full numeric keypad | | ☐ LCD display, programmer only |
| Braking mode | ☐ Pump control | ☐ Braking control | |
| Reactor type | ☐ Line | ☐ Load | |
| EMC filter | ☐ No (standard) | ☐ Yes | |
| **Networking, Programmable Controller, I/O Compartment, and Miscellaneous Units** | | | |
| EtherNet/IP managed switch | ☐ Stratix® 5700 Full firmware | | ☐ Stratix 5700 Lite firmware |
| Network linking devices | ☐ Ethernet to DeviceNet® device<br>☐ Other (specify):(1) | | ☐ Ethernet to PROFIBUS device |
| EtherNet/IP power supply | ☐ Primary (standard) | ☐ Redundant | ☐ Backup |
| I/O compartments | ☐ FLEX™ I/O system | ☐ POINT I/O™ system | ☐ Other (specify):(1) |
| **Miscellaneous Units** | | | |
| Programmable controllers | Number of slots:_____ Power supply:_____<br>Describe what you need:(1) | | |
| Extra space for future units | Describe what you need:(1) | | |
| Distribution panels | ☐ 1 pole QTY:_____ | ☐ 3 pole QTY:_____ | |
| | ☐ 2 pole without residual current detection QTY:_____ | | ☐ 2 pole with residual current detection QTY:_____ |
| | List the circuit loads needed:(1) | | |

(1) To provide a more detailed description, use the Notes section that begins on page 8.

The Step 6 table continues on the next page.

## **Step 6: Select Unit Types** (continued)

| **Load List** | | | | |
|---|---|---|---|---|
| **Unit Type** (For example, DOL, DOLR, SMC, VFD, heater…) | **Unit ID** | **Rating** | **Module Size** | **Misc. Note** |
| | | | | |

# Notes

| **Topic and Page** (For example, PowerFlex Pilot Lights, page 65) | **Notes** |
|---|---|
| | |

The Notes table continues on the next page.

## **Notes** (continued)

| **Topic and Page** (For example, PowerFlex Pilot Lights, page 65) | **Notes** |
|---|---|
| | |

The Notes table continues on the next page.

# **Notes** (continued)

| **Topic and Page** (For example, PowerFlex Pilot Lights, page 65) | **Notes** |
|---|---|
| | |

# Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

| Resource | Description |
|---|---|
| CENTERLINE® 2500 Low Voltage Motor Control Centers Installation Instructions, publication 2500-IN001 | Provides instructions to receive, handle, install, commission, maintain, remove, and store CENTERLINE 2500 motor control centers. |
| IEC Contactor Specifications Technical Data, publication 100-TD013 | Provides technical specifications for the Bulletin Nos. 100 and 104 IEC contactors. |
| Molded Case Circuit Breakers Selection Guide, publication 140G-SG001 | Provides an overview of molded case circuit breakers (MCCBs), and the various frame sizes of the Bulletin 140G breakers that Allen-Bradley offers. |
| Motor Protection Circuit Breaker and Motor Circuit Protector Specifications Technical Data, publication 140M-TD002 | Provides technical specifications for motor protection circuit breakers, and the various frame sizes of the Bulletin 140M breakers that Allen-Bradley offers. |
| E300™/E200 Electronic Overload Relay Technical Data, publication 193-TD006 | Provides technical specifications for the Allen-Bradley® E300 and E200 overload relays for motor control applications, and for the three modules of each relay. |
| E100 Electronic Overload Relay Specifications Technical Data, publication 193-TD013 | Provides technical specifications for the Allen-Bradley E100 electronic overload relays for motor control applications. |
| PowerFlex® 750-series AC Drives Technical Data, publication 750-TD001 | Provides technical specifications for the 750-series AC drives in various frame sizes, and in wall mount, floor mount, and roll out models. |
| ControlLogix® System Selection Guide, publication 1756-SG001 | Provides an overview of the various 1756 Series ControlLogix systems, which provide discrete, drives, motion, process, and safety control. |
| Stratix® 5700 Industrial Ethernet Switch Profile, publication ENET-PP005 | Provides an overview of the features and benefits of the Stratix 5700 industrial Ethernet switch. |
| EtherNet/IP™ Network Devices User Manual, publication ENET-UM006 | Describes how to configure and use EtherNet/IP devices to communicate on the EtherNet/IP network. |
| Ethernet Reference Manual, publication ENET-RM002 | Describes basic Ethernet concepts, infrastructure components, and infrastructure features. |
| System Security Design Guidelines Reference Manual, publication SECURE-RM001 | Provides guidance on how to conduct security assessments, implement Rockwell Automation products in a secure system, harden the control system, manage user access, and dispose of equipment. |
| Industrial Components Preventive Maintenance, Enclosures, and Contact Ratings Specifications, publication IC-TD002 | Provides a quick reference tool for Allen-Bradley industrial automation controls and assemblies. |
| Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1 | Provides general guidelines to install a Rockwell Automation® industrial system. |
| Product Certifications website, rok.auto/certifications. | Provides declarations of conformity, certificates, and other certification details. |

You can view or download publications at rok.auto/literature.

## Rockwell Automation Support

Use these resources to access support information.

| | | |
|---|---|---|
| **Technical Support Center** | Find help with how-to videos, FAQs, chat, user forums, and product notification updates. | rok.auto/support |
| **Knowledgebase** | Access Knowledgebase articles. | rok.auto/knowledgebase |
| **Local Technical Support Phone Numbers** | Locate the telephone number for your country. | rok.auto/phonesupport |
| **Literature Library** | Find installation instructions, manuals, brochures, and technical data publications. | rok.auto/literature |
| **Product Compatibility and Download Center (PCDC)** | Get help determining how products interact, check features and capabilities, and find associated firmware. | rok.auto/pcdc |

## Documentation Feedback

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Rockwell Automation maintains current product environmental information on its website at rok.auto/pec.

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