

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					
<input type="checkbox"/> ABS and ABS Shipboard	<input type="checkbox"/> CE Conformance Marked	<input type="checkbox"/> China Compulsory Certificate	<input type="checkbox"/> DEKRA	<input type="checkbox"/> EAC	<input type="checkbox"/> RETIE
<input type="checkbox"/> Other (specify):					

Step 2: Select Network and IntelliCENTER® Options

Embedded Network	
EtherNet/IP™	<input type="checkbox"/> No <input type="checkbox"/> Yes ⁽¹⁾
IntelliCENTER	
Compact disc (CD)	<input type="checkbox"/> None <input type="checkbox"/> Standard data <input type="checkbox"/> 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	<input type="checkbox"/> IP 42 (standard)	<input type="checkbox"/> IP 54	<input type="checkbox"/> IP 20
ArcShield™ (IEC/TR 61641)	<input type="checkbox"/> No (standard)	<input type="checkbox"/> Yes	
Forms of internal separation	<input type="checkbox"/> 3b (standard)	<input type="checkbox"/> 2b	
	<input type="checkbox"/> 4b Type 5	<input type="checkbox"/> 4b Type 7	
Mounting configuration	<input type="checkbox"/> Single front (standard)	<input type="checkbox"/> Double front (back-to-back)	<input type="checkbox"/> Add to existing
Vertical wireway width	<input type="checkbox"/> 200 mm (700 mm total column width)	<input type="checkbox"/> 300 mm (800 mm total column width)	
	<input type="checkbox"/> 400 mm (900 mm total column width)	<input type="checkbox"/> 500 mm (1000 mm total column width)	
Depth	<input type="checkbox"/> 600 mm (single front)	<input type="checkbox"/> 800 mm (single front)	
	<input type="checkbox"/> 1200 mm (double or back-to-back front)	<input type="checkbox"/> 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	<input type="checkbox"/> RAL7032 Pebble Gray (standard) <input type="checkbox"/> Other (specify): ⁽¹⁾
Internal paint	<input type="checkbox"/> Z275 galvanized steel (standard) <input type="checkbox"/> High visibility gloss white <input type="checkbox"/> Other (specify): ⁽¹⁾
Master Nameplate	<input type="checkbox"/> No <input type="checkbox"/> Yes (up to five lines; 40 characters maximum per line) Line 1: _____ Line 2: _____ Line 3: _____ Line 4: _____ Line 5: _____
Options	<input type="checkbox"/> Space heater with thermostat <input type="checkbox"/> Cable supports for vertical wireways <input type="checkbox"/> 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	<input type="checkbox"/> 380V <input type="checkbox"/> 400/415V <input type="checkbox"/> 440/460/480V <input type="checkbox"/> 525/575V <input type="checkbox"/> 690V
Frequency	<input type="checkbox"/> 50 Hz <input type="checkbox"/> 60 Hz
System power	<input type="checkbox"/> Delta <input type="checkbox"/> Grounded Delta <input type="checkbox"/> Grounded wye <input type="checkbox"/> Grounded wye with impedance
Available fault current	_____ kA
Bus	
Withstand/fault ratings	<input type="checkbox"/> 50 kA for 1 second <input type="checkbox"/> 50 kA for 3 seconds <input type="checkbox"/> 80 kA for 1 second <input type="checkbox"/> 100 kA for 1 second
Horizontal power bus rating	<input type="checkbox"/> 800 A <input type="checkbox"/> 1250 A <input type="checkbox"/> 1600 A <input type="checkbox"/> 2000 A <input type="checkbox"/> 2500 A <input type="checkbox"/> 3200 A <input type="checkbox"/> 4000 A
Horizontal power bus material	<input type="checkbox"/> Copper, tin plated (standard) <input type="checkbox"/> Copper, unplated
Neutral bus	<input type="checkbox"/> None (standard) <input type="checkbox"/> Full rated <input type="checkbox"/> Half rated
Vertical distribution bus rating	<input type="checkbox"/> 300 A (provides 600 A capacity) <input type="checkbox"/> 600 A (provides 1200 A capacity)
Vertical distribution bus material	<input type="checkbox"/> Copper, tin plated (standard) <input type="checkbox"/> Copper, unplated
Stab openings	NOTE: Automatic shutters are included as standard.
Protective Earth (PE)	
Horizontal PE location	<input type="checkbox"/> Bottom (standard)
Wireway PE material	<input type="checkbox"/> Copper, unplated (standard) <input type="checkbox"/> Copper, tin plated

Step 5: Select Unit Designs

Unit Configuration-General			
Outgoing cable access	<input type="checkbox"/> Top	<input type="checkbox"/> Bottom	
Unit type	<input type="checkbox"/> Fully withdrawable (standard)	<input type="checkbox"/> Fixed mount	
	<input type="checkbox"/> Fully withdrawable with SecureConnect™		
Nameplates (white with black lettering)	<input type="checkbox"/> Engraved acrylic (standard)	<input type="checkbox"/> Engraved phenolic	
Unit Control Power			
Voltage	<input type="checkbox"/> 24V DC	<input type="checkbox"/> 110/115/120V AC	<input type="checkbox"/> 220/230/240V AC
Source	<input type="checkbox"/> Central control power transformer (standard)	<input type="checkbox"/> Line to neutral	<input type="checkbox"/> Remote control power source
	Individual control transformer:		
	<input type="checkbox"/> 75VA	<input type="checkbox"/> 150VA	<input type="checkbox"/> 250VA
Control terminal blocks location	<input type="checkbox"/> Other (specify): ⁽¹⁾		
	<input type="checkbox"/> Vertical wireway (standard)	<input type="checkbox"/> 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	<input type="checkbox"/> Air circuit breaker (ACB) (standard)	<input type="checkbox"/> Molded case circuit breaker (MCCB) (standard)	<input type="checkbox"/> Main lug (MLO)
Main incoming locations	<input type="checkbox"/> Left	<input type="checkbox"/> Center	<input type="checkbox"/> Right
	Entry:		
	<input type="checkbox"/> Top	<input type="checkbox"/> Bottom	
	Incoming configuration:		
Circuit breaker type	<input type="checkbox"/> 3-pole	<input type="checkbox"/> 4-pole	
	Number of cables per phase: _____		
Main breaker accessories	Cable size: _____		
	<input type="checkbox"/> Shunt-trip	<input type="checkbox"/> Auxiliary contacts QTY: _____	<input type="checkbox"/> Electrical charging device
	<input type="checkbox"/> Closing release	<input type="checkbox"/> Shunt release	<input type="checkbox"/> Undervoltage release
Protection	<input type="checkbox"/> Motorized operation	<input type="checkbox"/> Thermography	<input type="checkbox"/> Precision metering %: _____
	Communication:		
	<input type="checkbox"/> EtherNet/IP	<input type="checkbox"/> Other (specify): ⁽¹⁾	
Protection	<input type="checkbox"/> LSI (standard)	<input type="checkbox"/> LI	<input type="checkbox"/> LSIG
	<input type="checkbox"/> DIP switch	<input type="checkbox"/> Digital touch screen	<input type="checkbox"/> Automatic transfer
	<input type="checkbox"/> Generator sync	<input type="checkbox"/> 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	<input type="checkbox"/> Air circuit breaker (ACB) (standard)	<input type="checkbox"/> Molded case circuit breaker (MCCB) (standard)
Disconnect means	<input type="checkbox"/> Circuit breaker, thermal magnetic (standard)	<input type="checkbox"/> Circuit breaker, electronic
	<input type="checkbox"/> Fused disconnect	
Fuse type:		
	<input type="checkbox"/> DIN	<input type="checkbox"/> BS88
Options	<input type="checkbox"/> Auxiliary contacts QTY: _____	<input type="checkbox"/> Electrical charging device
	<input type="checkbox"/> Shunt release	<input type="checkbox"/> Motorized operation
	<input type="checkbox"/> Precision metering %: _____	<input type="checkbox"/> Closing release
		<input type="checkbox"/> Thermography
DOL/DOLR Starter Units ⁽¹⁾		
Disconnect means	<input type="checkbox"/> Circuit breaker (standard)	<input type="checkbox"/> Fused disconnect
	Fuse type:	
	<input type="checkbox"/> DIN	<input type="checkbox"/> BS88
Electronic overload relay type	<input type="checkbox"/> E300™	<input type="checkbox"/> E1 Plus™
Duty rating	<input type="checkbox"/> AC3 (standard)	<input type="checkbox"/> AC4
Protection	<input type="checkbox"/> Type 2 (standard)	<input type="checkbox"/> Type 1
DOL/DOLR Options and Accessories		
Pilot lights (light-emitting diode [LED])	<input type="checkbox"/> No (standard)	
	<input type="checkbox"/> Yes - If yes, text on legend plate:	
	<input type="checkbox"/> On	<input type="checkbox"/> Forward
	<input type="checkbox"/> Off	<input type="checkbox"/> Reverse
	<input type="checkbox"/> Fault	<input type="checkbox"/> Other (specify): ⁽²⁾
Push buttons	<input type="checkbox"/> No (standard)	
	<input type="checkbox"/> Yes - If yes, text on legend plate:	
	<input type="checkbox"/> On	<input type="checkbox"/> Off
	<input type="checkbox"/> Emergency	<input type="checkbox"/> Other (specify): ⁽²⁾
Selector switch	<input type="checkbox"/> No (standard)	<input type="checkbox"/> 2-position
	<input type="checkbox"/> 3-position	
Function: _____		
Reset	<input type="checkbox"/> Internal (standard)	<input type="checkbox"/> External-door mounted
E300 control stations	<input type="checkbox"/> No (standard)	
	<input type="checkbox"/> Yes	
If yes, station type:		
	<input type="checkbox"/> Control	<input type="checkbox"/> Diagnostic
Auxiliary contacts	Starter:	
	<input type="checkbox"/> Normally open QTY: _____	
	<input type="checkbox"/> Normally closed QTY: _____	
	Circuit breaker:	
	<input type="checkbox"/> Normally open QTY: _____	
	<input type="checkbox"/> Normally closed QTY: _____	
Misc. options	<input type="checkbox"/> Ground fault	<input type="checkbox"/> Voltage monitoring
		<input type="checkbox"/> 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	<input type="checkbox"/> SMC™ Flex (standard)	<input type="checkbox"/> Other (specify): ⁽¹⁾	
Connection	<input type="checkbox"/> Line	<input type="checkbox"/> Delta	
Disconnecting means	<input type="checkbox"/> Circuit breaker (standard)	<input type="checkbox"/> Fused (rotary operator)	
SMC Options and Accessories			
Pilot lights (LED)	<input type="checkbox"/> No (standard) <input type="checkbox"/> Yes - If yes, text on legend plate: <input type="checkbox"/> On <input type="checkbox"/> Forward <input type="checkbox"/> Fault <input type="checkbox"/> Off <input type="checkbox"/> Reverse <input type="checkbox"/> Other (specify): ⁽³⁾		
Push buttons	<input type="checkbox"/> No (standard) <input type="checkbox"/> Yes - If yes, text on legend plate: <input type="checkbox"/> On <input type="checkbox"/> Emergency <input type="checkbox"/> Reset <input type="checkbox"/> Off <input type="checkbox"/> Other (specify): ⁽³⁾		
Selector switch	<input type="checkbox"/> No (standard)	<input type="checkbox"/> 2-position	<input type="checkbox"/> 3-position
	Function: _____		
Human machine interface (HMI)	<input type="checkbox"/> No (standard)	<input type="checkbox"/> LCD display, full numeric keypad	<input type="checkbox"/> LCD display, programmer only
Starting mode	<input type="checkbox"/> No (standard)	<input type="checkbox"/> Pump control	<input type="checkbox"/> Braking control
Others ⁽²⁾			
PowerFlex® AC Variable Frequency Drive (VFD) Units ⁽²⁾			
PowerFlex model	<input type="checkbox"/> 523	<input type="checkbox"/> 525	<input type="checkbox"/> 753
Duty rating	<input type="checkbox"/> Normal	<input type="checkbox"/> Heavy	
Ampere rating	A: _____		
Kilowatt rating	kW: _____		
Disconnecting means	<input type="checkbox"/> Circuit breaker (standard)	Fuse type: _____	<input type="checkbox"/> Fused not supplied
	<input type="checkbox"/> Fused (rotary operator)		
Handle operator	<input type="checkbox"/> Rotary operator (standard)	<input type="checkbox"/> Flange operator (2 module, min)	
PowerFlex Unit Options and Accessories			
Pilot lights (LED)	<input type="checkbox"/> No (standard) <input type="checkbox"/> Yes - If yes, text on legend plate: <input type="checkbox"/> On <input type="checkbox"/> Forward <input type="checkbox"/> Fault <input type="checkbox"/> Off <input type="checkbox"/> Reverse <input type="checkbox"/> Other (specify): ⁽³⁾		
Push buttons	<input type="checkbox"/> No (standard) <input type="checkbox"/> Yes - If yes, text on legend plate: <input type="checkbox"/> On <input type="checkbox"/> Emergency <input type="checkbox"/> Reset <input type="checkbox"/> Off <input type="checkbox"/> Other (specify): ⁽³⁾		
Pilot lights (LED)	<input type="checkbox"/> No (standard) <input type="checkbox"/> Yes - If yes, text on legend plate: <input type="checkbox"/> On <input type="checkbox"/> Forward <input type="checkbox"/> Fault <input type="checkbox"/> Off <input type="checkbox"/> Reverse <input type="checkbox"/> 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	<input type="checkbox"/> No (standard) <input type="checkbox"/> Yes - If yes, text on legend plate: <input type="checkbox"/> On <input type="checkbox"/> Emergency <input type="checkbox"/> Reset <input type="checkbox"/> Off <input type="checkbox"/> Other (specify): ⁽¹⁾
Selector switch	<input type="checkbox"/> None (standard) <input type="checkbox"/> 2-position <input type="checkbox"/> 3-position Function: _____
Human machine interface (HMI)	<input type="checkbox"/> LCD display, full numeric keypad <input type="checkbox"/> LCD display, programmer only
Braking mode	<input type="checkbox"/> Pump control <input type="checkbox"/> Braking control
Reactor type	<input type="checkbox"/> Line <input type="checkbox"/> Load
EMC filter	<input type="checkbox"/> No (standard) <input type="checkbox"/> Yes
Networking, Programmable Controller, I/O Compartment, and Miscellaneous Units	
EtherNet/IP managed switch	<input type="checkbox"/> Stratix® 5700 Full firmware <input type="checkbox"/> Stratix 5700 Lite firmware
Network linking devices	<input type="checkbox"/> Ethernet to DeviceNet® device <input type="checkbox"/> Ethernet to PROFIBUS device <input type="checkbox"/> Other (specify): ⁽¹⁾
EtherNet/IP power supply	<input type="checkbox"/> Primary (standard) <input type="checkbox"/> Redundant <input type="checkbox"/> Backup
I/O compartments	<input type="checkbox"/> FLEX™ I/O system <input type="checkbox"/> POINT I/O™ system <input type="checkbox"/> Other (specify): ⁽¹⁾
Miscellaneous Units	
Programmable controllers	Number of slots: _____ Power supply: _____ Describe what you need: ⁽¹⁾
Extra space for future units	Describe what you need: ⁽¹⁾
Distribution panels	<input type="checkbox"/> 1 pole QTY: _____ <input type="checkbox"/> 3 pole QTY: _____ <input type="checkbox"/> 2 pole without residual current detection QTY: _____ <input type="checkbox"/> 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.
E1 Plus™ Overload Relay Specifications Technical Data, publication 193-TD011	Provides technical specifications for the Allen-Bradley E1 Plus overload relays for motor control applications, and for the two modules of the relay.
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

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