CIRCUIT BREAKER SIZING REPORT

PROJECT INFORMATION

Project Name:	Industrial Motor Control Panel
Engineer:	John Smith, PE
Date:	2025-11-29 05:00
Report ID:	CBR-20251129_050029
Application:	N/A

CIRCUIT PROTECTION SUMMARY

Parameter	Value	Unit
Continuous Load	N/A	Amps
Recommended Breaker Size	6 AWG	Amps
Voltage	208	Volts
Safety Factor	N/A	
Interrupting Capacity	N/A	kA
Ambient Temperature	40	°C
NEC Compliance	YES	

PROTECTION ANALYSIS

Parameter	Value	Standard
Calculation Method	N/A	NEC 210.20, 430.52
Continuous Load Factor	125%	NEC 210.20(A)
Total Load Current	N/A	Amps
Required Wire Ampacity	N/A	Amps
Short Circuit Capacity	N/A	Per utility
Protection Rating	N/A	kA

RECOMMENDED CIRCUIT BREAKERS

SIEMENS Circuit Breakers

Part Number	Product Line	Price	Interrupting Capacity	Availability
1FK7022-5AK71-1QG0	N/A	$2850.00	N/A	In Stock

ABB Circuit Breakers

Part Number	Product Line	Price	Interrupting Capacity	Availability
M3BP 132SMA 4	N/A	$2650.00	N/A	In Stock

SAFETY CONSIDERATIONS

- Verify available fault current does not exceed breaker interrupting capacity
- Ensure proper coordination with upstream and downstream protective devices
- Consider ambient temperature effects on breaker ratings per manufacturer data
- Install in appropriate enclosure rated for environmental conditions
- Verify proper grounding and bonding of enclosure
- Consider arc flash boundary calculations for personal protective equipment
- Document all calculations and provide stamped engineering drawings