

Evolution E9000* MCC with AFM

Arc Flash Mitigation Units for Low-Voltage Motor Control

Fact Sheet

E9000* with AFM: Even More Protection

GE's E9000* Motor Control Center (MCC) with Arc Flash Mitigation (AFM) units is a new offering for customers and specific applications where additional protection of personnel is essential. The AFM units were designed around lowering the electrical shock hazards for motor control centers.

The AFM unit design includes optional IP20 devices and incidental contact safety barriers in an effort to prevent accidental contact with energized parts during maintenance.

New Level of Arc Flash Mitigation

The E9000 AFM units are designed to reduce the likelihood of exposure to electrical shock and the potential of internal arcing faults from occurring during maintenance. The retractable stab mechanism allows for closed-door racking of the unit, providing added protection to the electrical personnel from the dangers of an arc flash occurrence.

The introduction of a compact NEMA contactor in these AFM units will allow a minimum of IP10 protection with optional IP20 terminal protection for starters using this contactor. Other IP20 protection options are available in starter units including IP20 control power transformer fuses and pilot devices.

Safety. Awareness. Ease of Maintenance.

A safety interlock prevents customers from opening the unit door and racking out the stab when the unit is energized. The visual indicators on the front of the units provide personnel with a clear view of the status of the stab and vertical bus isolation shutter.



AFM Features:

- Two-position closed-door retractable unit stabs
- Automatic operation vertical bus isolation shutter
- Stab and Shutter position indicators on unit doors
- Padlock for racking screw & stab-breaker interlock
- Optional IP20 safety features and incidental contact barriers
- Stab and Door Interlock: prevents opening the unit door when stab is energized.
- Stab and Unit Interlock: prevents user from taking the unit out when stab is energized or, inserting the unit into the bus when stab is extended.
- Racking Screw and Disconnect Interlock: prevents the user from racking the stab in/out of the unit with the disconnect in the "ON" position.



Applicable Standards and Guidelines

- ICS-18
- UL 508, UL 845
- IEEE 1683

Ratings

- Main Bus: 600 - 2500A
- Vertical Bus: 300/600/850A
- Legacy NEMA & Compact NEMA Contactor
- Unit Type: Plug-in only
- Voltage/Short Circuit: 480V/100kAIC & 600V/65kAIC;
600V/100kAIC for fuse switch

Unit Types Available

- Feeders available with molded case circuit breakers or fusible switch
- Surge Protection Devices (SPD) units
- Variable Frequency Drives (VFD)
- Full voltage non-reversing starters (FVNR)
- Full voltage reversing starters (FVR)
- ASTAT soft starters

Other Options

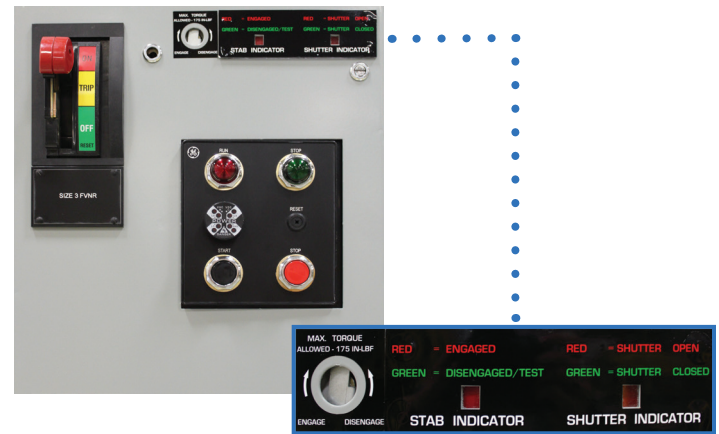
- Voltage Vision-test for absence of voltage
- Remote Racking Device
- Infrared Thermal Scanning Provision
- Motor Guard-motor insulation tester
- Basic motor protection relay with communication†
- Advanced motor protection relay with communication, such as the GE Multilin MM200 and MM300†

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FVNR NEMA Size 3



Sample Unit Sizing†

Unit Type	NEMA Size	C2000 Standard Unit Height (in)	300-Line Standard Unit Height (in)
FVNR	1	12	18
FVNR	2	12	18
FVNR	3	18	24
FVNR	4	24	30
FVNR	5	-	48
FVR	1	18	24
FVR	2	24	30
FVR	3	36	42
FVR	4	36	42

Unit Type	Rating @480V	C2000 Standard Unit Height (in)
ASTAT-BP (integral bypass)	5-30 hp	18
	40-50 hp	24
	60-100 hp	30
ASTAT-XT (external bypass)	5-20 hp	24
	25-50 hp	30
	0.25-5 hp	18
VFD-GP (constant torque)	5-10 hp	24
	10.1-20 hp	30
	20.1-40 hp	36
VFD-FP (variable torque)	0.25-5 hp	18
	5-10 hp	24
	10.1-25 hp	30
CB Feeders	25.1-50 hp	36
	Up to 150 A	12
	Up to 250 A	18
Fusible Feeders	Up to 600 A	24
	30, 60, 100 A	12
Fusible Feeders	200 A	24
	SPD	-

† Heights subject to final configuration

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