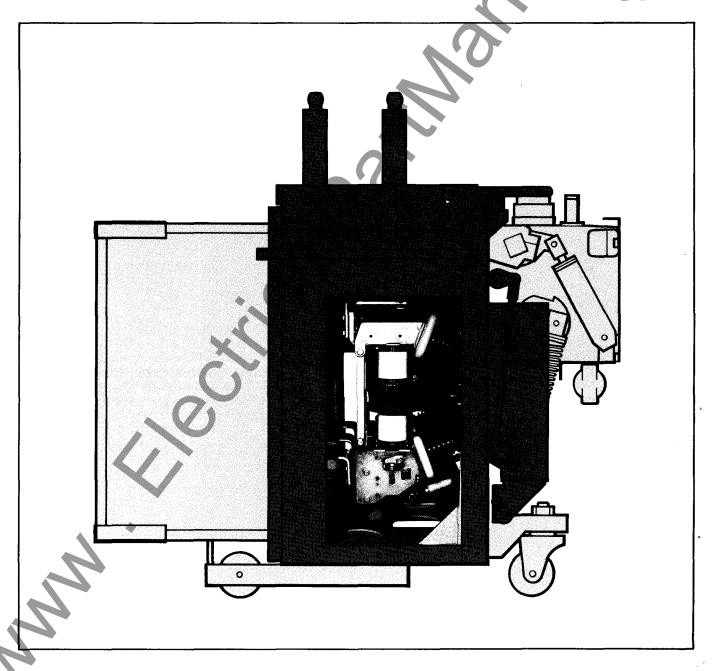
# **SIEMENS**

Inside every outdated air-magnetic circuit breaker is the potential for state-of-the-art vacuum technology.



## SIEMENS

# We've Taken the High

At last, an economical solution to the replacement—upgrading— of your old air magnetic circuit breakers. Siemens now offers a complete replacement vacuum circuit breaker, utilizing your old air-magnetic frame assembly, designed to install as a unit into your existing switchgear cubicle. Convert to reliable, longer-life vacuum circuit breaker operation at only a fraction of total switchgear replacement cost—and, at the same time, move to the Siemens quality line.

Since its introduction in 1976, nearly 50,000 3AF vacuum circuit breakers in service have proven the reliability and efficiency of the Siemens vacuum circuit breaker design. This same quality product is now available for the upgrading of existing air-magnetic circuit breaker installations.

## Vacuum Switching...

Unlike air-magnetic switching, the 3AF operator makes-and-breaks contact in a contained vacuum arc chamber. The result is quicker, "cleaner," safer switching and superior contact life. Siemens vacuum interrupters have recorded main-

tenance-free service of 20 to 30,000 operations at rated continuous current. The 3AF operating mechanism has an equally impressive performance history.

## Operator Assembly...

Years of medium voltage circuit breaker construction experience has produced a rugged, nearly maintenance-free, operator assembly. Heavy steel frame construction, strong upper and lower interrupter supports,



#### CUSTOMER LIST

LONG ISLAND LIGHTING COMPANY (LILCO)

DAYTON POWER AND LIGHT COMPANY

JACKSONVILLE ELECTRIC AUTHORITY

JERSEY CENTRAL POWER AND LIGHT COMPANY

SHERER ELECTRIC COMPANY

BERKSHIRE MEDICAL CENTER

CHAMPION INDUSTRIES

WILAMETTE PAPER COMPANY

BRIGGS AND STRATTON

WHEELING - PITTSBURGH STEEL

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#### RETROFIT LIST

### GE MAGNEBLAST

5KV-250MVA-1200A (AM 4.16) Vertical 5KV-250MVA-2000A (AM 4.16) Vertical 15KV-500MVA-1200A (AM 13.8) Vertical 15KV-750MVA-1200A (AM 13.8) Vertical 15KV-1000MVA-1200A (AM 13.8) Vertical 15KV-750MVA-2000A (AM 13.8) Vertical 15KV-1000MVA-2000A (AM 13.8) Vertical 15KV-750MVA-3000A (AM 13.8) Vertical 15KV-750MVA-3000A (AM 13.8) Vertical 15KV-1000MVA-3000A (AM 13.8) Vertical

### WESTINGHOUSE DH/DHP

5KV- 250MVA-1200A Horizontal 15KV- 500MVA-1200A Horizontal 15KV- 750MVA-1200A Horizontal 15KV-1000MVA-1200A Horizontal

### **ALLIS-CHALMERS**

MC 15KV- 500MVA-1200A Horizontal MC 15KV-1000MVA-1200A Horizontal

(Oil) 38KV-1000MVA-1200A Horizontal (Oil) 38KV-1500MVA-1200A Horizontal

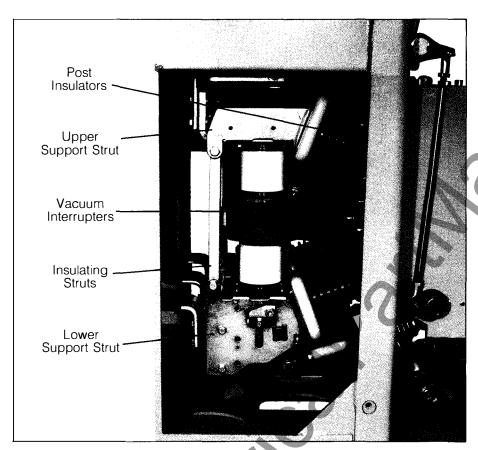
AM150 5KV-250MVA-1200A Vertical AM250 5KV-250MVA-1200A Vertical MAN CORE CORE

## BREAKER RETROFIT CHECKLIST

Customer Order No	REMARK
Breaker Type Breaker Rating Voltage Current MVA	
Check One: Solenoid Operator Stored Energy	0
Control Circuit Schematics Required Voltages Required: Motor Circuit Close Circuit Trip Circuit	
MOC Switch Yes No	
Plunger Interlock	
Required in Useable Condition: Primary studs & insulators required Primary disconnects required Secondary disconnects required  Breaker Width Breaker Height Cubicle Width  Check One: Solenoid Cubicle Stored Energy Cubicle	
Return Removed Parts to Customer Yes No Customer Address	

MAN COR STANDARD CORE

# cost Out of Vacuum Circuit Breaker Conversions.



stress bearing interrupter insulating struts, large post insulators and precision-built motor operating mechanisms have proven durability in 60,000 operations.

### Cost Effectiveness...

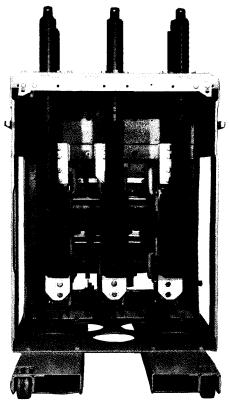
Upgrading from air-magnetic to Siemens vacuum operation will save you money in many ways for many years. Not only does the Siemens upgraded unit allow you to use your existing switchgear, but the ease of conversion reduces costly downtime. The switch to reliable, efficient vacuum operation is no more difficult than removing one breaker and replacing it with another—so why not replace it with the quality and dependability of a Siemens vacuum circuit breaker?

Spread your conversion costs over a period of time. Siemens can upgrade your spare or broken down air-magnetic circuit breakers to vacuum operation. Replace your old circuit breakers as they wear out with these new units and then let Siemens upgrade those—continue until your entire installation

is converted to the high technology of vacuum operation.

After reviewing the advantages of vacuum circuit breaker operation, it's easy to see why you should upgrade your old airmagnetic circuit breakers to this low maintenance, reliable switchgear. After reviewing the 3AF operator design and service record it's easy to see why Siemens is the quality choice for this job.

Siemens has truly taken the fear—and high cost—out of vacuum circuit breaker conversion.



# **SIEMENS**

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