



# EntelliGuard<sup>\*</sup> R Retrofill

Make the Most of  
Your Existing Equipment

**Now Available in 600-5000A**

[geindustrial.com](http://geindustrial.com)

# Retrofill Existing Metal Frame Circuit Breaker Cubicles with an EntelliGuard G Circuit Breaker

EntelliGuard R Retrofill solution available for complete range 600A - 5000A

Aging switchgear can often be a major cause of concern. Add to that the normal wear and tear on low-voltage circuit breakers to create a situation that may lead to a loss of system protection and reliability.

EntelliGuard R retrofill provides a streamlined solution to update your legacy circuit breakers with a new EntelliGuard G circuit breaker, to give your existing switchgear a new lease on life. In addition to providing a host of new features, the EntelliGuard R retrofill solution offers the option:

- to increase reliability and enhance the protection of your existing electrical system without requiring a full system replacement;
- to include the EntelliGuard trip unit for both arc flash protection and selectivity at the same time.

## EntelliGuard R Retrofill Benefits

EntelliGuard R retrofill is 100% interchangeable with GE circuit breakers, and offers:



### Reduced project and labor costs

- Retains existing switchgear structure, conduits, cabling and footprint
- Secondary disconnect wiring connection works without modifications to your switchgear
- Innovative Neutral CT adaptor design allows you to use existing neutral CT in your switchgear
- Maintains UL approvals without additional charges



### Minimized downtime

- Minimal or no cubicle modifications means less time to change out
- Compatible with shutters racking mechanism in existing circuit breaker cubicles
- Interfaces with original cubicle secondary disconnects, position switches and neutral disconnects



### Protection for people and equipment

- GE's exclusive ArcWatch\* technology uses instantaneous zone selective interlocking (I-ZSI) and wave form recognition (WFM), and can reduce arc flash energy to <8 calories per cm<sup>2</sup> without sacrificing selectivity settings. Learn more at [www.geindustrial.com/arcwatch](http://www.geindustrial.com/arcwatch)
- Trip unit and all indicators are visible through the door; through-the-door and remote racking helps reduce exposure to arc flash or electrical shock
- Powerful Trip Unit Toolkit helps simplify the setup and provides easy access to remotely manage, monitor and test breakers



EntelliGuard R Retrofill for AKD5

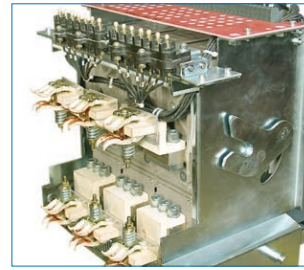


EntelliGuard R Retrofill for AKD6 and AKD8

# EntelliGuard R Retrofill

## Standard Features

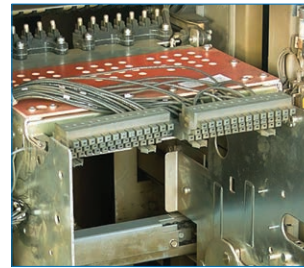
- UL listed
- Increases short circuit rating on AK25 and AKR30S while maintaining UL approval (See chart on page 4.)
- Remote racking using the standard EntelliGuard G racking device
- High quality modern mechanism means a lower maintenance circuit breaker
- Through-the-door racking
- Single finger cluster design generates less heat and provides a solid, reliable connection and reduces number of failure mode points when compared to designs with finger clusters on both the cassette and circuit breaker
- AK retrofills utilize the EntelliGuard G lifting bar
- Easy field wiring of retrofill with GE provided AS-IS drawings
- Pre-punched doors available with or without holes for pilot lights and RELT switch for all stack widths (when applicable) for GE equipment



Single finger cluster design



Trip unit and all indicators are visible through the door



Accessible secondary wiring



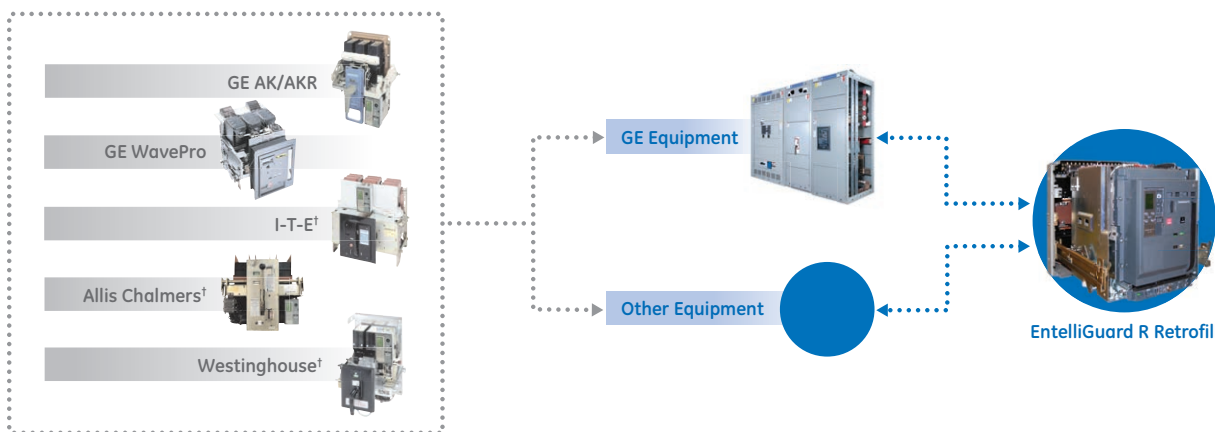
Micro processor-based trip unit technology

## Options

- UL field-installable accessories include:
  - 8 NO/NC auxiliary contacts
  - Coil signaling contacts
  - Close coil and motor operator
  - Bell alarm
  - Shunt trips
  - Undervoltage releases
  - Network interlocks
- EntelliGuard trip unit
  - With ArcWatch technology providing arc flash protection and selectivity at the same time
  - Metering, relaying, Modbus/Profibus, waveform capture
  - Mechanism timing feature
  - Free Trip Unit Toolkit software enables users to manage, monitor, test and customize the parameters. For more information: [www.geindustrial.com/free](http://www.geindustrial.com/free)
  - Ground fault alarm and RELT



EntelliGuard R Retrofill is available for GE and other manufacturer's OEM equipment.



†Contact GE for details on availability

# Available offerings and ratings\*\*

Breaker Details						Interrupting Rating with Inst. "kA"			Interrupting Rating without Inst. "kA"			
Manufacturer	Switchgear Type	Thermal Rating "Max"	Breaker Type	Frame Size	CT Ratings	240V	480V	600V	240V	480V	600V	
GE	Metal-clad	1600A	AL-50+ <sup>#</sup>	1600A	800A, 1000A, 1200A, 1600A	65	65	50	65	65	50	
	AKD	225A	AK-15 <sup>†</sup>	225A	400A (lowest PU @ 75A w/150 RP)	42 <sup>‡</sup>	42 <sup>‡</sup>	42 <sup>‡</sup>	22	22	22	
		1600A	AK-50 <sup>†</sup>	1600A	800A, 1000A, 1200A, 1600A	65	65	50	65	65	50	
	AKD5/OEM	600A	AK-25	600A	400A, 600A	42 <sup>‡</sup>	42 <sup>‡</sup>	42 <sup>‡</sup>	22	22	22	
			AKU-25 <sup>†</sup>			100	100	100	-	-	-	
		1600A	AK-50, AKJ-50, AKS-50	1600A	800A, 1000A, 1200A, 1600A	65	65	50	65	65	50	
			AKU-50 <sup>†</sup> , AKSU-50 <sup>†</sup>			100	100	100	-	-	-	
		2000A	AKT-50, AKJT-50, AKST-50, AKJT-50H	2000A	2000A	65	65	50	65	65	50	
		3000A	AK-75	3000A	3000A	85	65	65	65	65	65	
	4000A	AK-100	4000A	4000A	130	85	85	85	85	85		
	AKD6/OEM	800A	AKR-30, AKR-30H	800A	400A, 600A, 800A	50	42	42	42	42	42	
		1600A	AKR-50, AKR-50H	1600A	1000A, 1200A, 1600A	65	65	50	65	65	50	
		2000A	AKRT-50	2000A	2000A	65	65	50	65	65	50	
		3200A	AKR-75	3200A	3200A	85	65	65	65	65	65	
		4000A	AKR-100	4000A	4000A	130	85	85	85	85	85	
	AKD8/OEM	800A	AKR-30S	800A	400A, 600A, 800A	42 <sup>‡</sup>	42 <sup>‡</sup>	42 <sup>‡</sup>	42 <sup>‡</sup>	42 <sup>‡</sup>	42 <sup>‡</sup>	
			AKRU-30S		800A	100	100	100	-	-	-	
			AKR-30, AKR-30H		50	42	42	42	42	42		
			AKRU-30 <sup>†</sup>		400A, 600A, 800A	100	100	100	-	-	-	
			AKR-30L		65	65	50	65	65	50		
		1600A	AKR-50, AKR-50H	1600A	1000A, 1200A, 1600A	65	65	50	65	65	50	
			AKRU-50 <sup>†</sup>		800A, 1000A, 1200A, 1600A	100	100	100	-	-	-	
			AKRT-50, AKRT-50H		2000A	2000A	65	65	65	65	65	65
			AKR-75		3200A	3200A	85	65	65	65	65	65
			AKR-75H				130	85	85	85	85	85
	4000A	AKR-100	4000A	4000A	130	85	85	85	85	85		
	5000A	AKR-125	5000A	5000A	130	85	85	85	85	85		
	AKD10/OEM/ ENTELLISYS	800A	WPS-08, EGS-08	800A	400A, 800A	42	30	30	30	30	30	
			WPH-08, EGH-08			50	42	42	42	42	42	
			WPX-08, EGX-08			65	65	50	65	65	50	
		1600A	WPS-16, EGS-16	1600A	800A, 1600A	65	50	42	50	50	42	
			WPH-16, EGH-16			65	65	65	65	65	65	
		2000A	WPS-20, EGS-20	2000A	2000A	65	65	65	65	65	65	
		3200A	WPS-32	3200A	3200A	85	65	65	65	65	65	
			WPH-32			130	85	85	85	85	85	
			WPX-32			130	100	85	100	100	85	
		4000A	WPS-40	4000A	4000A	130	85	85	85	85	85	
			WPX-40			130	100	85	100	100	85	
		5000A	WPS-50	5000A	5000A	130	85	85	85	85	85	
	WPX-50		130			100	85	100	100	85		
Westinghouse	DB	600A	DB-25 <sup>†</sup>	600A	400A, 600A	42 <sup>‡</sup>	42 <sup>‡</sup>	42 <sup>‡</sup>	22	22	22	
			DBL-25 <sup>†</sup>			100	100	100	-	-	-	
		1600A	DB-50 <sup>†</sup>	1600A	800A, 1000A, 1200A, 1600A	65	65	50	65	65	50	
			DBL-50 <sup>†</sup>			100	100	100	-	-	-	
			DS-416 <sup>†</sup>		400A, 800A, 1200A, 1600A	65	65	50	65	65	50	

\*Not UL Listed

\*Retrofit offers increased ratings on AK25 and AKR30S with no cubicle modifications required. AK25 was 22KAIC and AKR30S was 30KAIC.

#Replacing manually operated AL-50 ACBs at this time

\*\*For other manufacturers and/or breaker types contact local GE Sales Office.

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