

BROCHURE

Trip Unit evolution

Legacy GE trip unit vs ABB












Trip Unit evolution

								
Trip Unit Type	Power Sensor (PS1)	Type ECS	Type SST	MicroVersaTrip® RMS9		EPIC™ RMS9	MicroVersaTrip® Plus /PM	
Trip Unit Functions								
Products	AK	AK, AKR	AK, AKR	AKR, Power Break	AKR, Power Break	AKR, Power Break	AKR, Power Break	
UL Interchangeable	No	No	No	No	No	No	No	
Local Ampere Metering	No	No	No	No	No	No	Yes	
Communications	No	No	No	No	No	Yes ¹	No / Yes	
Remote Display	No	No	No	No	No	No	No	
General	Trip Targets	Mechanical pop-out target	Mechanical pop-out target	Mechanical pop-out target	Mechanical pop-out target	Mechanical pop-out target	FPU	LCD segments
	Sensor Type	Fixed	Fixed	Fixed or tapped CT	Fixed or tapped CT	Fixed CT (Iron Core)	Fixed CT (Iron Core)	Fixed CT (Iron Core)
	Rating Plug Type	None	None	None	None	Type TR00S0000	Type TR00S0000	Type TR00B0000
	True RMS Sensing	No	No	No	No	Yes	Yes	Yes
	Test Port/Test Kit	No	No	No	No	Yes (Fully compatible w/TVRMS)		Yes (TVRMS2)
	Retrofits MicroVersaTrip Trip Units				Yes	Yes	Yes	Yes
User Interface	Cold Setup	Yes	Yes	Yes	Yes (Rotary switches)	Yes (Rotary switches)	Yes (Rotary switches)	No
	Adjustment Method	Set points	Set points	Set points	Rotary switches	Rotary switches	Rotary switches	4-Key membrane keypad
	LCD Display	No	No	No	No	No	No	Yes (5:1 contrast ratio)
	Positive Indication of Setpoint Entry	Yes	Yes	Yes	Yes (Switches)	Yes (Switches)	Yes (Switches)	No

* Some options require 24VDC additional hardware to enable Metering, Relaying, RELT, ZSI, Modbus to be added to the breaker, equipment cubicle and equipment sections.

¹ Function requires EPIC field programmable unit.

² Function requires POWER LEADER™ or EPIC field programmable unit.

								
Enhanced MicroVersaTrip® Plus / PM	Power+™	MicroVersaTrip® Plus / PM	EntelliGuard® TU AKR, Power Break®, Conv. Kits	EntelliGuard® TU Power Break® II, WavePro	EntelliGuard® TU EntelliGuard® G	Ekip Dip	Ekip Touch	Ekip Hi-Touch
Replaces RMS9 & MicroVersaTrip® II Plus/PM trip units	WavePro / Power Break II	WavePro / Power Break II	AKR & Power Break® circuit breakers and Conv. Kits	Power Break® II and WavePro circuit breakers	EntelliGuard® G circuit breakers, EntelliGuard R Retrofills	Emax2 circuit breakers and Emax 2 Retrofill circuit breakers	Emax2 circuit breakers and Emax 2 Retrofill circuit breakers	Emax2 circuit breakers and Emax 2 Retrofill circuit breakers
No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
No	No	No	Yes (Modbus)	Yes (Modbus)	Yes (Modbus/Profibus)	with Ekip Link	With Ekip com modules	With Ekip com modules
Yes (AKR, AK/AKR Conversion Kits-Only)	No	Capable but not used for breaker	No (Use Enervista Panel PC)	No (Use Enervista Panel PC)	No (Use Enervista Panel PC)	(with Ekip Multimeter)	(with Ekip Multimeter & Ekip Control Panel)	(with Ekip Multimeter & Ekip Control Panel)
LCD segments	Mechanical pop-out target	LCD segments	LCD segments	LCD segments	LCD segments	Leds	LCD segments	LCD segments
Fixed CT (Iron Core)	Fixed CT (Iron Core)	Fixed CT (Iron Core)	Fixed CT (Iron Core)	Fixed CT (Iron Core)	Fixed (Rogowski CT)	Fixed (Rogowski CT)	Fixed (Rogowski CT)	Fixed (Rogowski CT)
Type TR00B0000	Type TR00C0000	Type TR00B0000	Universal (GTP0000U0000)	Universal (GTP0000U0000)	Universal (GTP0000U0000)	1SDA...	1SDA...	1SDA...
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes (TVRMS2)	Yes (TVRMS2)	Yes (TVRMS2)	Yes (GTUTK20)	Yes (GTUTK20)	Yes (GTUTK20)	Ekip T&P	Ekip T&P	Ekip T&P
Yes	Yes	No	Yes (Retrofits MVT, RMS9, EPIC, MVT+, MVT PM)					
Yes (Batteries)	Yes (Rotary switches)	Yes (Batteries)	Yes (Batteries)	Yes (Batteries)	Yes (Batteries)	Yes	with Ekip TT or Programming	with Ekip TT or Programming
5-Key ergonomic keypad	Rotary switches	5-Key ergonomic keypad	5-Key ergonomic keypad	5-Key ergonomic keypad	5-Key ergonomic keypad	Dip switches	Touch screen	Touch screen
Yes (40:1 contrast ratio)	No	Yes (40:1 contrast ratio)	Yes - Large backlit*	Yes - Large backlit*	Yes - Large backlit*	No	Yes - Large backlit*	Yes - Large backlit*
Yes (Values flash until entered)	Yes (Switches)	Yes (Values flash until entered)	Yes (Values flash until saved)	Yes (Values flash until saved)	Yes (Values flash until saved)	Yes (Switches)	Yes	Yes

S= supplied as standard

O= optional

M= module or device needed

C= control panel or connection software needed

Trip Unit evolution

							
Trip Unit Type	Power Sensor (PS1)	Type ECS	Type SST	MicroVersaTrip® RMS9	RMS9	EPIC™ RMS9	MicroVersaTrip® Plus /PM
Trip Unit Functions							
Long-Time (LT) Pickup Indication	Yes	Yes	Yes	LED light	LED light	LED light	PICKUP segment on LCD
LT, LT Delay	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Short Time (ST), ST Delay	Optional	Optional	Optional	Optional	Optional	Optional	Optional
ST I2t In/Out	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Instantaneous	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Ground Fault (GF), GF Delay	Optional	No	Optional	Optional	Optional	Optional	Optional
GF I2t In/Out	No	No	No	I2t STD (no in/out)	Yes	Yes	Yes
Switchable GF (not UL)	No	No	No	No	AKR, AK/AKR Conversion Kits-Only option	AKR, AK/AKR Conversion Kits-Only option	AKR, AK/AKR Conversion Kits-Only option
Zone Selective Interlock	No	No	No	Optional	Optional	Optional	Optional
Directional Zone Selective Interlock	No	No	No	No	No	No	No
Local metering							
Current (A, kA)	No	No	No	No	No	No ¹	Yes
Voltage (V)	No	No	No	No	No	No ¹	No / Yes
Energy (kWh, MWh, GWh)	No	No	No	No	No	No ¹	No / Yes
Non-Volatile Memory	No	No	No	No	No	No ¹	No
Real Power (kW, MW)	No	No	No	No	No	No ¹	No / Yes
Total Power (kVA, MVA)	No	No	No	No	No	No ¹	No / Yes
Frequency (Hz)	No	No	No	No	No	No ¹	No / Yes
Local Protective relays							
Current Unbalance	No	No	No	No	No	Yes ¹	No / Optional
Voltage Unbalance	No	No	No	No	No	Yes ¹	No / Optional
Overvoltage	No	No	No	No	No	No	No / Optional
Undervoltage	No	No	No	No	No	Yes ¹	No / Optional
Power Reversal	No	No	No	No	No	Yes ¹	No / Optional
Power Reversal Direction	No	No	No	No	No	No	No
Fault Current Magnitude/Phase	No	No	No	No	No	No	No

* Some options require 24VDC additional hardware to enable Metering, Relaying, RELT, ZSI, Modbus to be added to the breaker, equipment cubicle and equipment sections.

¹ Function requires EPIC field programmable unit.

² Function requires POWER LEADER™ or EPIC field programmable unit.



Enhanced MicroVersaTrip® Plus / PM **Power+™** **MicroVersaTrip® Plus / PM** **EntelliGuard® TU AKR, Power Break®, Conv. Kits** **EntelliGuard® TU Power Break® II, WavePro** **EntelliGuard® TU EntelliGuard® G** **Ekip Dip** **Ekip Touch II, WavePro** **Ekip Hi-Touch**

PICKUP segment on LCD	LED light	PICKUP segment on LCD	PICKUP segment on LCD	PICKUP segment on LCD	PICKUP segment on LCD	LED light "L"	PICKUP segment on LCD	PICKUP segment on LCD
Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Optional	Optional	Optional	Standard	Standard	Standard	Optional	Optional	Optional
Yes	Yes	Yes	Yes	Yes	Yes	Optional	Optional	Optional
Optional	Optional	Optional	Standard	Standard	Standard	Standard	Standard	Standard
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Yes	Yes	Yes	Yes- I2t, I4t, SGF, Definite Time Slope*	Yes- I2t, I4t, SGF, Definite Time Slope*	Yes- I2t, I4t, SGF, Definite Time Slope*	Optional	Optional	Optional
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Optional	No	Optional	Optional	Optional	Optional	No	Optional	Optional
No	No	No	No	No	No	No	Optional	Yes
Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes
No / Yes	No	No / Yes	Optional (Ph-Ph, Ph-N)	Optional (Ph-Ph, Ph-N)	Optional (Ph-Ph, Ph-N)	No	Optional	Yes
No / Yes	No	No / Yes	Optional	Optional	Optional	No	Optional	Yes
No / Yes	No	No / Yes	Yes	Yes	Yes	No	Yes	Yes
No / Yes	No	No / Yes	Optional	Optional	Optional	No	Optional	Yes
No / Yes	No	No / Yes	Optional	Optional	Optional	No	Optional	Yes
No / Yes	No	No / Yes	Optional	Optional	Optional	No	Optional	Yes
No / Optional	No	No / Optional	Optional	Optional	Optional	No	Optional	Yes
No / Optional	No	No / Optional	Optional	Optional	Optional	No	Optional	Yes
No / Optional	No	No / Optional	Optional	Optional	Optional	No	Optional	Yes
No / Optional	No	No / Optional	Optional	Optional	Optional	No	Optional	Yes
No / Optional	No	No / Optional	Optional	Optional	Optional	No	Optional	Yes
No / Optional	No	No / Optional	Optional	Optional	Optional	No	Optional	Yes
Yes	No	Yes	Yes	Yes	Yes	No	Optional	Yes

S= supplied as standard
 O= optional
 M= module or device needed
 C= control panel or connection software needed










 Trip Unit evolution

							
Trip Unit Type	Power Sensor (PS1)	Type ECS	Type SST	MicroVersaTrip® RMS9	EPIC™ RMS9	EPIC™ RMS9	MicroVersaTrip® Plus /PM
Trip Unit Functions							
Misc.	Overcurrent Trip	No	No	No	No	No	No
	Operations Counter	No	No	No	No	No	No
	UVR, Shunt Trip Targets	No	No	No	No	No	No
	Waveform Recognition Instantaneous	No	No	No	No	No	No
	Status and Event Log with Date Time* (10 Events)	No	No	No	No	No	No
	Thermal Memory	No	No	No	No	No	No
	Waveform Capture*	No	No	No	No	No	No
Enhancements	Zone Selective Interlock Instantaneous*	No	No	No	No	No	No
	Reduced Energy Let Through*	No	No	No	No	No	No
	Suitable with IGF protection for multi-sourced electrical system	No	No	No	Yes	Yes	Yes
	Suitable with MDGF protection for multi-sourced electrical system	No	No	No	No	No	No
	Setup Software	No	No	No	No	No	No
	Health Status Indicator*	No	No	No	No	No	No
	Bell Alarm Target Integral To Trip Unit	No	No	No	No	No	No
	Cloud Connectable (ABB Ability EDCS)	No	No	No	No	No	No

* Some options require 24VDC additional hardware to enable Metering, Relaying, RELT, ZSI, Modbus to be added to the breaker, equipment cubicle and equipment sections.

1 Function requires EPIC field programmable unit.

2 Function requires POWER LEADER™ or EPIC field programmable unit.

								
Enhanced MicroVersaTrip® Plus / PM	Power+™	MicroVersaTrip® Plus / PM	EntelliGuard® TU AKR, Power Break®, Conv. Kits	EntelliGuard® TU Power Break® II, WavePro	EntelliGuard® TU EntelliGuard® G	Ekip Dip	Ekip Touch	Ekip Hi-Touch
Yes	No	Yes	Yes	Yes	Yes	Yes (with Ekip Connect)	Yes	Yes
No	No	Yes	No	Yes	No		N/A	N/A
No	No	No	Standard	Standard	Standard	No	Standard	Standard
No	No	No	Standard	Standard	Standard	Yes (with Ekip Connect)	Standard	Standard
No	No	No	Standard	Standard	Standard	Standard	Standard	Standard
No	No	No	Optional	Optional	Optional	No	Standard	Standard
No	No	No	Optional	Optional	Optional	No	Optional (with S&G or D)	Yes (with S&G or D)
No	No	No	Optional	Optional	Optional	No	Optional	Optional
Yes	Yes	Yes	Yes	Yes	Yes (with NCT adapter for retrofit)	Yes (with NCT adapter for retrofit)	Yes (with NCT adapter for retrofit)	Yes (with NCT adapter for retrofit)
No	No	No	No	No	Yes (with summing CTs)	No	Yes (with summing CTs & MDGF connector)	Yes (with summing CTs & MDGF connector)
No	No	No	Yes	Yes	Yes	No	Yes	Yes
Yes	No	Yes	Standard	Standard	Standard	Standard	Standard	Standard
No	No	No	No	No	Yes	Yes	Yes	Yes
No	No	No	No	No	No	No	Yes	Yes

S= supplied as standard

O= optional

M= module or device needed

C= control panel or connection software needed



—
ABB S.p.A.
ABB SACE Division
Service Low Voltage Products
Via Pescaria, 5
24123 Bergamo - Italy
Phone: +39 035 395.111

www.abb.com