

### DISTRIBUTION SOLUTIONS

# **VD4-AF1** Quantum leap in relentless, hassle-free protection and switching of transformers



ABB offers its new vacuum circuit breaker with servomotor actuation and controlled switching technology up to 38kV, 2500A, 31.5kA and up to 150,000 operations with extremely low inrush, to support your business needs for diverse installations like steel industries applications



#### Protect your assets

- Enables increased lifespan of transformers by more than 10% in e.g. 3 years
- Reduction of hazards due to improved protection range
- Up to 5-to-10-times higher endurance performance than the market standard



#### Maximize your output

- Reduced total cost due to elimination of downtime for breaker overhaul and a lifespan 5 times the market standard, with predictive health indication
- Reduced compensation losses up to 10% while increasing power quality
- Fast and reliable support thanks to ABB's global footprint



#### Optimize your investment

- Elimination of inrush limiting reactors and resistances, leading to significant cost and space savings
- Cost saving by as much as 20%, using same ratings, same interfaces of existing MV substation thanks to optimized footprint equivalent to standard distribution breakers

### **Technical Characteristics**

Type tested according to IEC 62271-100

VD4-AF			
Rated and Insulation voltage		kV	36/38
Withstand voltage (1min)		kV	95
Impulse withstand voltage		kVp	185
Rated frequency		Hz	50-60
Rated normal current		A	2500
Rated breaking capacity and rated short-time withstand current (3s)		kA	31.5
Making capacity		kAp	82
Mechanical endurance		Close-Open operations	150,000
Operating sequence			0-0.3s-CO-15s-CO
Overall dimensions (withdrawable version)	L <sup>P</sup> L <sup>P</sup> L	H mm (inches)	1575 (60)
		W mm (inches)	945 (32)
	ήΠ ΠŲ	D mm (inches)	750 (29,5)
		P mm (inches)	280 (11)
Weight	Fixed	Kg (lbs) (approx.)	230 (507)
	Withdrawable	Kg (lbs) (approx.)	250 (551)

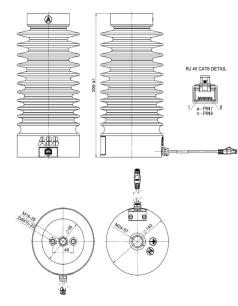
H = Height of the circuit-breaker

W = Width of the circuit-breakerD = Depth of the circuit-breakerP = Pole horizontal centre distance

## **Technical Characteristics of sensor**

Type tested according to IEC 60044-7

Parameters for Application	Value	
Rated primary voltage of application	up to 36 kV	
Sensor Parameters	Value	
Rated primary voltage, U <sub>pn</sub> /U <sub>pr</sub>	33 /√3 kV	
Highest voltage for equipment, U <sub>m</sub>	36 kV	
Rated power frequency withstand voltage	70 kV	
Rated lightning impulse withstand voltage	170 kV	
Rated transformation ratio, $K_n/K_r$ for voltage measurement	10 000:1	
Voltage accuracy class	0.5/3P	
Length of cable	5.5 m	



For more information please contact:

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More product information:	
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