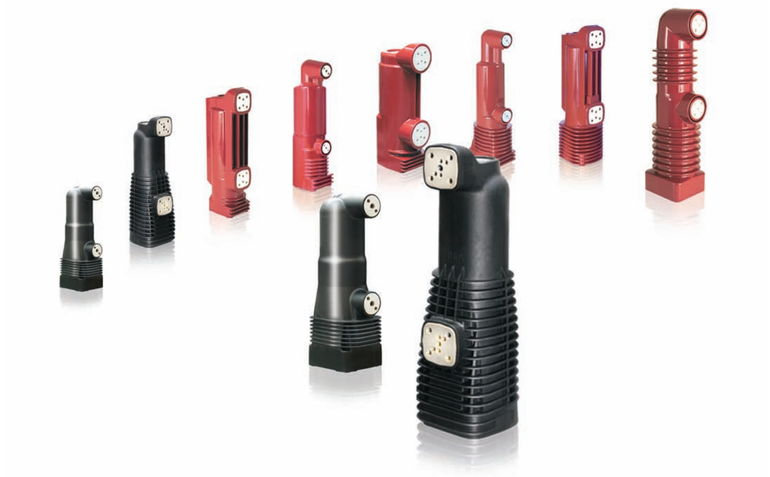
Fascination – Embedded Poles PT from ABB



The latest technologies and manufacturing processes as well as the use of the purest materials ensure high quality standards in series production.
Apart from their outstanding contribution to climate protection, the ABB's Embedded Poles PT provide many other advantages:

- Environmental friendly in production, operation and disposal
- Requirements of IEC standards exceeded
- Improved low-temperature characteristics and enhanced mechanical strength
- High dielectric strength – no further external measures required
- Optimum protection of the vacuum interrupters from moisture, dust and external damage
- Absolute reliability and long life
- Easy assembly on the circuit-breaker
- Highest quality standard, maintenance-free
- Based on vacuum technology, the prevailing switching method in medium voltage worldwide
- Efficient increase of dielectric strength without use of greenhouse gas

Contact

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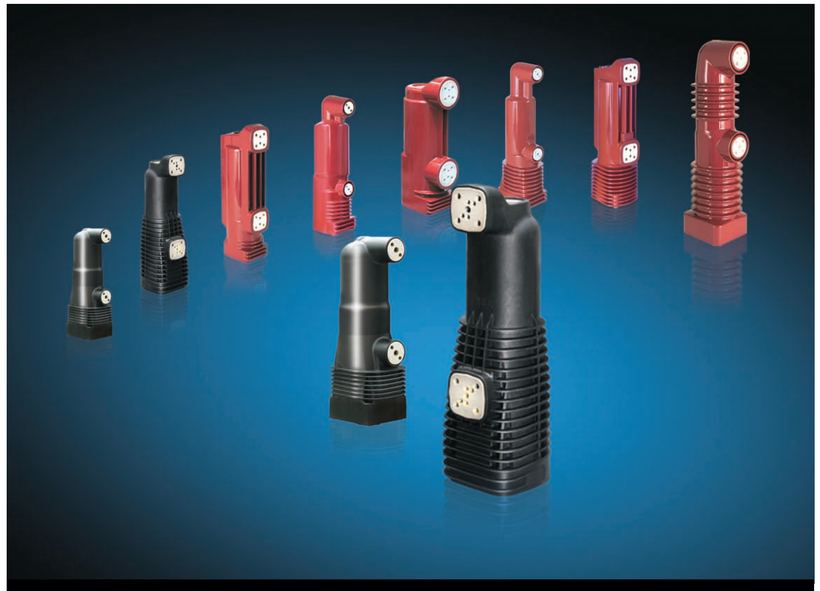
Power and productivity
for a better world™



Embedded Poles – PT

Power and productivity
for a better world™

Embedded Poles to protect our future climate.

Harmony between mankind and the environment is one of the most ambitious goals there are. Everyone has to play their part in upholding the principle of sustainability, preserving the foundations of existence for future generations and combining economic efficiency with social responsibility and resource-conserving growth.

Innovative technologies such as the Embedded Poles from ABB make an indispensable contribution. On the one hand, only these new technologies themselves provide information on the condition of the ecosystem. On the other hand, they help to conserve resources, reduce emissions, continue cycles and set the course for climate protection.

National and international lawmakers have defined standards for more energy efficiency to reduce the burden on the environment and counter climate change.

A detailed life cycle assessment was performed in the early development phase of the PT-Poles, devoting attention to both direct and indirect effects of the pole units on the environment. We are therefore proud to say that the PT Embedded Poles reduce emissions of CO_2 by more than 50 % in comparison with similar poles based on epoxy resin. This is equivalent to savings of over 3,000 t CO_2 each year.

PT – Persuasive technology

Technical data
Embedded Pole type PT1

Electrical Characteristics		1212-25 1712-25	1212-31 1712-31
Rated voltage	kV	12 / 17.5	12 / 17.5
Rated frequency	Hz	50 / 60	
Rated power-frequency withstand voltage (ms)	kV	… 42	
Rated lightning impulse withstand voltage	kV	… 95	
Rated normal current (ms)	A	… 1250	… 1250
Rated short-circuit breaking current (ms)	kA	… 25	31.5
Rated short-circuit making current (peak)	kA	63	80

Mechanical Characteristics		1212-25 1712-25	1212-31 1712-31
Pole weight	kg	4.8	5.6
Contact force	N	2400	3200
Mechanical life CO-ops.		50,000	
Service life	yrs.	30	
CO-ops. at rated short-circuit breaking current		50	
Operating temperature	°C	-30 … +40	

For further details see data and dimension sheet

Embedded Pole type PT2 *

Electrical Characteristics		1220-31 1720-31	1225-31 1725-31	1220-40 1720-40	1225-40 1725-40
Rated voltage	kV	12 / 17.5	12 / 17.5	12 / 17.5	12 / 17.5
Rated frequency	Hz	50 / 60			
Rated power-frequency withstand voltage (ms)	kV	… 42			
Rated lightning impulse withstand voltage	kV	… 95			
Rated normal current (ms)	A	… 2000	2500	… 2000	2500
Rated short-circuit breaking current (ms)	kA	… 31.5	… 31.5	40	40
Rated short-circuit making current (peak)	kA	80	80	100	100

Mechanical Characteristics		1212-40 1712-40	1216-40 1716-40	1220-40 1720-40	1225-40 1725-40
Pole weight	kg	7.0	8.2	9.0	10.2
Contact force	N	3000	3000	4000	4000
Mechanical life CO-ops.		50,000			
Service life	yrs.	30			
CO-ops. at rated short-circuit breaking current		50			
Operating temperature	°C	-30 … +40			

* Pole available soon

Embedded Poles PT – building our customers' success

With over 30 years of experience in vacuum switching technology, ABB supplies vacuum interrupters and pole units for a broad range of applications.

As core components, ABB's Embedded Poles of type PT are used in all areas of power generation, distribution and consumption in industry and buildings. They contribute to the efficient use of energy, and thus not only protect the environment and climate, but also reduce costs for our partners.

The rated data of the poles are matched to the requirements of the application and fulfil the users' high demands in all respects.

Embedded Poles PT with integrated vacuum interrupters are ideally suitable for switching of:
- short-circuit currents
- overhead lines and cables under load and no-load conditions
- transformers and generators under load and no-load conditions
- ripple control systems
- capacitor banks
- motors

The applications for Embedded Poles PT as core components include:
- power plants
- transformer substations
- chemical industry
- steel industry
- automobile industry
- airport power supply
- shipbuilding
- power supply to buildings