



Protection for industrial speed drive

Earth leakage protection B-SI type

"Continuity of service is critical, every time the process stops I lose money".



Acti9 iID B-SI type

The solution to protect my installations with speed drive

Customer story

Fabio is a facility manager. Sometimes, one of its production line stops due to nuisance tripping of an electrical protection connected to speed drives. RCDs are needed to protect people, but he wants to improve also production availability and limit interruption of industrial process being compliant with IEC 61800-5-1 standard.

Production and people availability are important to improve productivity and this is Fabio's mission.

Moreover, industrial environment with high temperatures, humidity, dust, long distance, require some specific electrical protection in order to comply with electrical installation standards.

Finally, all the electrical protection chain need to be coordinated.

Proposed solution

RCCB Acti9 iID B-SI type is designed to:

- **Protect people** against **multifrequency** earth leakage current, generated by speed drive technology that can cause fibrillation and electrocution.
- **Minimize nuisance tripping** thanks to Super Immunized (SI) technology.
- **Be installed in coordination** with other upstream and parallel RCD (refer to Schneider Electric Residual Protection Device guide for coordination tables).
- **Simplify** operation thanks to Acti9 VisiSafe and VisiTrip.
- Adapt to your needs thanks to full range of **accessories and auxiliaries**.
- **Monitor and control** the electrical panel with PowerTag and Smartlink auxiliaries.

Customer benefits

For facility and production manager

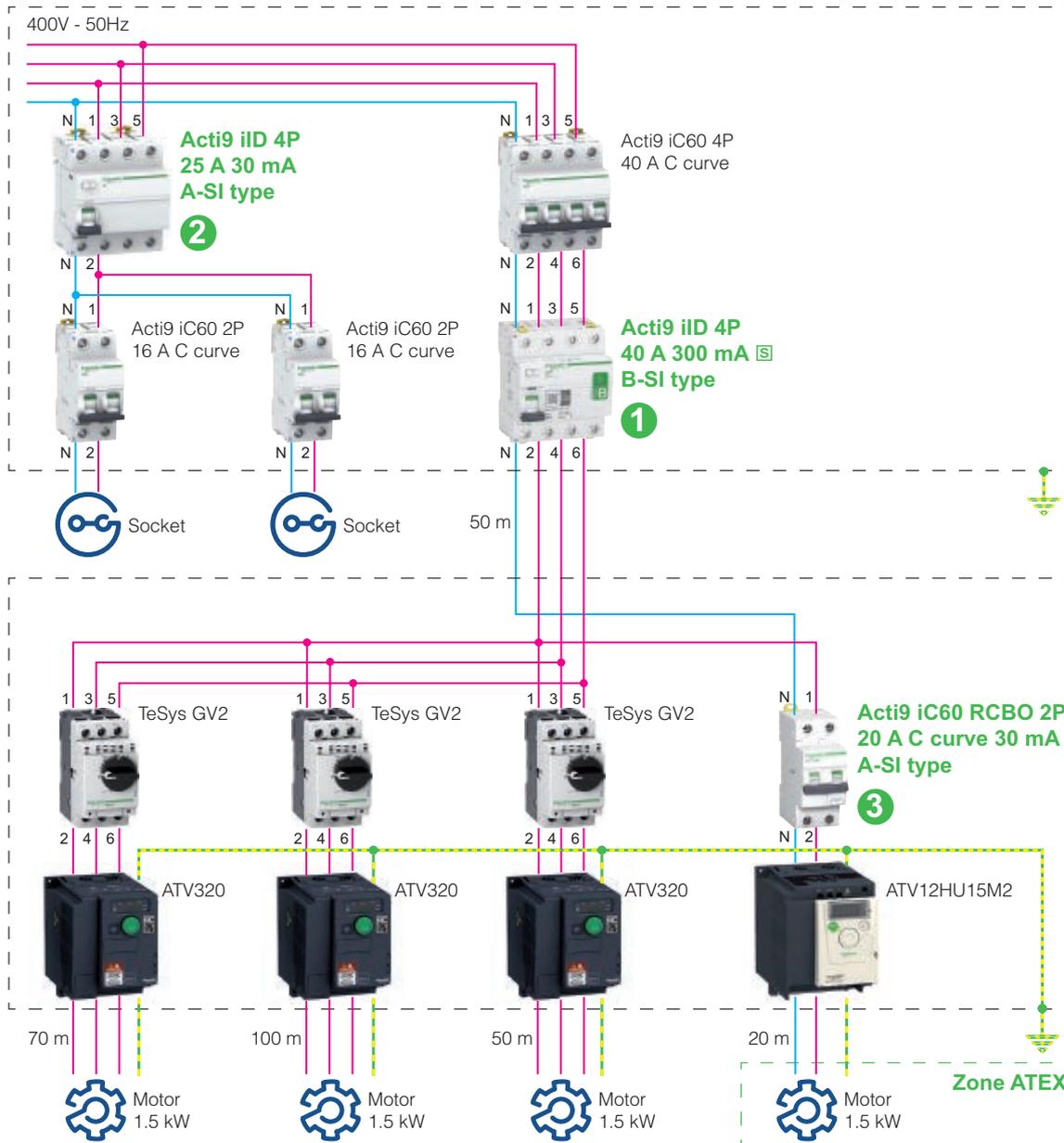
- **Peace of mind:** higher continuity of service and people protection compliant with the mandatory standard.
- **Productivity:** full compatibility with speed drives, even in severe conditions, SI technology is designed to improve availability.

For design office

- **Efficiency:** designed, tested and certified to protect from multifrequency disturbances generated by speed drive in compliance with IEC 61800-5-1 (4.3.10).
- **Savings:** with the cascading and coordination tables you propose the optimum solution for your customer's electrical installation.
- **Adapted:** Acti9 system has a complete range of auxiliaries and accessories, and B-SI type RCCB is compatible with PowerTag and Smartlink which allows you to monitor and control the electrical panel.



Solution diagram for TT system



Note: during design phase, it's essential to define protections to avoid upstream and parallel protection disablement (blinding of upstream and parallel protection due to direct current signal presence). In example above, ①, ②, ③ Residual Current Devices have been defined accordingly and the same should apply to any upstream RCD.

For more information about sensitivity choice, selectivity, coordination of protections and continuity of service, refer to earth leakage protection guide reference CA908066E and associated coordination tables.

Products used

Product	Function	Quantity	Reference
Acti9 iID 4P 25 A 30 mA A-SI type	RCCB for sockets	1	A9R31425
Acti9 iID 4P 40 A 300 mA B-SI type	RCCB for motors & speed drives	1	A9Z65440
TeSys GV2 3P 10 A	Circuit breaker for motor application	3	GV2L14
Altivar ATV320 1.5 kW	Variable speed drive 3 phases	3	ATV320U15N4C
Acti9 iC60 RCBO 2P 20 A C curve 30 mA A-SI type	RCBO for speed drive application	1	A9D27220
Altivar ATV12 1.5 kW	Variable speed drive 1 phase	1	ATV12HU15M2