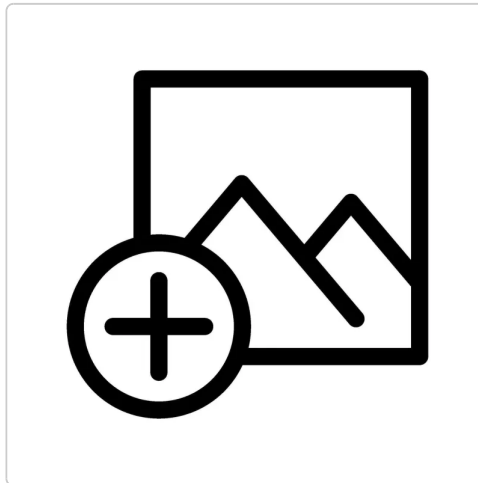
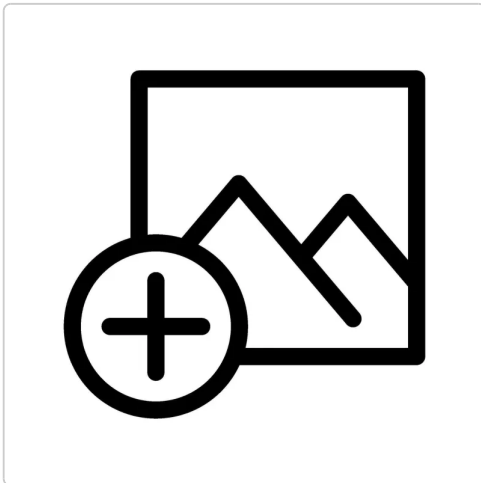


ZAPI – BLE-2 – 96V 350Arms Controller



Reference : ZAP-BLE2-96V-350A

Brand : ZAPI

Options :

No variants

3D Model : Available

EAN-13 : 3762552429186

The ZAPI BLE-2 is a 96 V traction controller designed to drive AC motors in embedded architectures where compact size, environmental protection and control quality matter as much as available current. In this 350 Arms configuration, this 96 V AC motor controller combines an IP65 enclosure, CANopen communication and compatibility with several motor encoder types, making it a coherent base for an integrated electric traction system in industrial vehicles, mobile machinery or retrofit projects.

This ZAPI BLE-2 96V 350Arms controller is intended for integrators looking for a traction controller able to manage a 96 V environment while remaining easy to install in a reduced volume. Its 150 x 200 x 79 mm format, TE Ampseal connector and compatibility with several motor encoder types make it suitable for multiple motor configurations without requiring a complete redesign of the control architecture.

96 V traction system

96 V traction controller for battery, motor and supervision

In an electric traction system, the BLE-2 performs the central role of the motor controller: it converts battery energy into controlled current for the motor and directly influences response quality, smoothness and overall dynamic consistency. The 96 V positioning is especially relevant for applications seeking more useful power than 48 V systems while remaining within a low-voltage embedded architecture. This product should therefore be understood not as a generic speed controller, but as a 96 V traction controller intended for a complete system including battery, motor, control and supervision.

The 350 Arms version addresses integration needs where available current is a key sizing criterion, especially when the controller must remain compact without sacrificing usable power density. The stated continuous power of 6.5 kW makes it suitable for systems where the balance between size, protection and motor control is more strategic than the pursuit of maximum peak power alone. For engineering teams, controller selection must remain consistent with the motor, duty

cycle, cooling resources and current-limiting strategy defined at vehicle or machine level.

Variant data

Product type	Traction controller / AC motor controller
Brand	ZAPI
Model	BLE-2
Source reference	225-035
Nominal voltage	96 V
Max current	350 Arms
Continuous power	6.5 kW
Maximum power	8 kW
Communication	CANopen
Control mode	Analog / CANopen
Compatible motor encoder type	Incremental, Hall, Sin/Cos
Protection rating	IP65
Connector	TE Ampseal
Dimensions	150 x 200 x 79 mm
Target use	Embedded electric traction
Integration positioning	Industrial vehicle, mobile machinery, electric retrofit

Encoder and control

Compatible motor encoder types for multiple AC configurations

One of the BLE-2’s practical strengths lies in its versatility regarding accepted motor encoder types. Compatibility with several encoder technologies opens different scenarios for motor selection and calibration. In practice, this reduces constraints when pairing the controller with an existing motor or with a previously validated powertrain. This flexibility is particularly relevant in projects where the motor choice is not fully fixed from the start, or when commissioning must remain compatible with several integration configurations.

96 V PMSM controller and calibration according to control strategy

This flexibility is especially relevant for qualified searches around a 96 V PMSM controller or a 96 V controller compatible with multiple motor encoder types. This is not a consumer logic, but a precise integration need, often at engineering, prototyping or system validation stage. The product therefore helps preserve flexibility in motor feedback selection without forcing a complete redesign of the control architecture, provided parameter setting and dynamic validation are handled rigorously.

Embedded CANopen

96 V CANopen motor controller for supervision and system communication

The CANopen interface reinforces the BLE-2's system integration logic. A 96 V CANopen motor controller is not selected simply to spin a motor, but to fit within a controlled architecture where commands, states, faults and supervision data are exchanged. This applies equally to embedded traction applications, special-purpose machinery or electrified vehicles requiring structured communication with instrumentation, PLCs, operator interfaces or a wider control strategy.

When bus communication is a selection criterion, the BLE-2 stands out less through a marketing argument than through its ability to integrate more cleanly into a coherent functional chain. For integrators, this helps structure exchanges between traction control, battery management, electrical safety and machine supervision, while keeping the architecture easier to diagnose and commission.

IP65 and packaging

IP65 traction inverter for mobile machinery and exposed environments

The IP65 rating is a useful differentiator for mobile, industrial or exposed applications. An IP65 controller reduces secondary enclosure constraints and simplifies some installation assumptions. It does not remove the need for rigorous work on cable routing, mounting, thermal management or upstream protection, but it improves overall robustness against dust and splashing water.

Integration in industrial vehicles with compact housing and familiar connector

The 150 x 200 x 79 mm format and TE Ampseal connector also add value. A traction controller is not assessed only by voltage and current; mechanical packaging, harness management, access to wiring and repeatability of assembly are equally important. A compact housing and a known connector help integration in constrained compartments, especially in electric conversions and machinery where available space is already heavily occupied by the battery, precharge, main contactor and line protections.

Target applications

Electric retrofit, special vehicles and embedded traction

The BLE-2 fits 96 V traction architectures requiring a compact, communicative controller compatible with several motor feedback strategies. It can suit light industrial vehicles, embedded electric machinery, special platforms or retrofit projects where CANopen supervision and IP65 robustness are required from the design stage. The product becomes fully relevant when integrated within a complete logic including electrical safety, precharge, battery management and motor calibration.

For the integrator, the main benefit lies in combining several requirements without changing controller family: bus communication, feedback compatibility, reduced footprint and current level suited to 96 V low-voltage traction. This versatility reduces breaks between design, prototyping and commissioning. It also helps preserve a clean architecture when a project evolves from simpler control to more structured supervision, or when an initially selected motor must be replaced by another reference compatible with the chosen motor encoder type.

Integration questions

Which controller for a 96 V traction architecture?

Is this controller suitable for a 96 V traction architecture?

Yes, the BLE-2 is positioned as a 96 V traction controller and must be integrated within a complete architecture consistent with the battery, line protections, precharge and selected motor.

Which motor encoder types can be used with this controller?

This configuration supports several motor encoder technologies, making it easier to pair with different AC motor options depending on the chosen control strategy.

Can the BLE-2 be controlled through CANopen?

Yes, the CANopen interface is one of the important elements of this version and is an asset for systems requiring supervision or structured communication.

Why is IP65 important for this type of product?

It improves the controller's ability to be installed in more exposed environments, provided integration remains rigorous from a mechanical, thermal and electrical standpoint.

System validation

The ZAPI BLE-2 96V 350Arms is a solid base for a low-voltage electric traction chain when the project requires compact size, CANopen communication, IP65 protection and compatibility with several motor encoder types. Its value nevertheless depends on the quality of the overall integration: motor selection, 96 V architecture, protections, precharge, harnessing, parameter setting and functional validation before commissioning remain the responsibility of the integrator.

Searches frequently associated with this product: speed controllers, motor controllers, traction inverters, electric motor controller. [See the corresponding category](#)

Product sheet written by **Mathieu S.** and reviewed by the EVEA Distribution technical team — Last update on 09/07/2026.

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