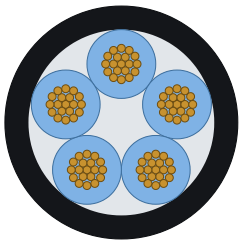
Type 2 to GB/T AC Charging Cable, 32 A Three-Phase

SORIVO Product Series: **Mode 3 AC charging adapter cable** | Rated 32 A / 22 kW | Connectors Type 2 to GB/T 20234.2 | Cable to GB/T 33594-2025 | Nominal length 5 m



- Halogen-free TPU sheath
- XLPO insulation
- Filler / signal core
- Flexible copper conductor, Class 5

Schematic cross-section — not to scale. Overall diameter and core lay-up are defined by the assembly drawing.

APPLICATION

Mode 3 AC charging lead for a Chinese-standard vehicle (BYD, MG, Nio and similar) on a European Type 2 charge point, and the reverse assembly. Rated 32 A — 22 kW three-phase.

CONSTRUCTION

Conductor
Flexible stranded copper, Class 5

Power cores
5 × 6.0 mm² — L1, L2, L3, N, PE

Signal core
Connection-confirmation conductor plus control pilot

Insulation
XLPO

Sheath
Halogen-free TPU, UV-stabilised, black as standard

Connector A
Type 2 to IEC 62196-2

Connector B
GB/T AC connector to GB/T 20234.2

KEY FEATURES

- 5 × 6.0 mm² power cores — the construction 22 kW three-phase requires
- PP ↔ CC connection confirmation converted inside the assembly
- Halogen-free TPU jacket, UV-stabilised, 5 × OD bending radius

STANDARDS

- GB/T 20234.2-2015 — AC charging coupler (GB/T 20234.1-2023 general requirements)
- GB/T 33594-2025 — charging cables for electric vehicles (replaces GB/T 33594-2017)
- GB/T 3956-2008 — conductors of insulated cables
- IEC 62196-2 — Type 2 interface definition (design reference, not a certification)

TECHNICAL PARAMETERS

Rated Current
32 A, both connectors rated to the same current

Rated Voltage
230 V AC single-phase / 400 V AC three-phase system voltage
Type 2 side 480/250 V per IEC 62196-2 · GB/T side 440/250 V per GB/T 20234.2

Rated Power
22 kW three-phase · about 7 kW single-phase

Contacts
7 on each connector

Ambient Temperature
-30 °C to +50 °C

Ingress Protection
IP54 mated, manufacturer-declared

BADGES

32 A	22 kW	5 × 6.0
rated current	three-phase	mm² power cores

CONTACT ASSIGNMENT

Table 1 — The same function on two different interfaces

FUNCTION	TYPE 2 END (IEC 62196-2)	GB/T END (GB/T 20234.2)
Phase conductors	L1, L2, L3	L1, L2, L3
Neutral	N	N
Protective earth	PE	PE
Control pilot	CP, also provides electrical locking	CP
Connection confirmation	PP — proximity pilot with coding resistor	CC — charging connection confirmation
Rated voltage	480 V AC three-phase / 250 V AC single-phase	440 V AC three-phase / 250 V AC single-phase
Rated current steps	13 / 20 / 32 / 63 A (PP coding scale)	16 / 32 / 63 A

The connection-confirmation row is why this cable is a manufactured assembly and not a mechanical adaptor: Type 2 and GB/T confirm the connection on different contacts with different signals, and the charge point reads a specific resistance before it will start. The two interfaces are also physically incompatible.

ELECTRICAL AND MECHANICAL DATA

Table 2 — Assembly ratings, construction and environment

ITEM	VALUE
Rated current	32 A, both ends
Rated power	22 kW three-phase; about 7 kW single-phase
Cable construction	5 × 6.0 mm² power cores plus signal core
Conductor	Flexible copper, Class 5
Insulation	XLPO
Jacket	Halogen-free TPU, UV-stabilised
Jacket colour	Black standard; other colours available

ITEM	VALUE
Contact resistance	≤ 0.5 mΩ
Insulation resistance	≥ 500 MΩ at 500 V DC
Dielectric withstand	2000 V AC, 1 minute
Mechanical life	≥ 10,000 mating cycles
Bending radius	5 × overall diameter
Ambient temperature	-30 °C to +50 °C
Mated protection	IP54, manufacturer-declared

Contact resistance, insulation resistance, dielectric strength and mechanical life are manufacturer test values for the selected construction and are verified against the applicable test requirements.

> **Why five power cores.** 22 kW three-phase needs three phases plus neutral and protective earth — five power conductors, written as 5 × 6.0 mm² plus a signal core. A construction listed as 3 × 6 mm² + 2 × 2.5 mm² has three power cores only and can carry single-phase charging at best, regardless of the designation used.

ROUTINE TESTS

Table 3 — Tests on every assembly

ITEM	SCOPE
Continuity and polarity	100% of assemblies, all seven contacts, against the approved wiring schedule
Insulation resistance	≥ 500 MΩ at 500 V DC between power contacts and PE
Dielectric withstand	2000 V AC for 1 minute between power contacts and PE
Contact resistance	Measured on the finished assembly and compared with the ≤ 0.5 mΩ limit
Function check	PP / CC connection confirmation verified against a charge-point and vehicle simulator
Retention and locking	Latch engagement and cable retention checked; pull test on a sampling basis
Marking	Assembly part number, rating and length marked as agreed on the drawing

Two decisions decide whether a cross-standard lead works. The GB/T part number must be the AC part, GB/T 20234.2 — not the DC part 20234.3 — and the connection confirmation must be converted between the Type 2 PP contact and the GB/T CC contact rather than wired straight through. Confirm the vehicle model and the charge point type before selection, because the assembly is built for a specific combination of the two standards.

Disclaimer. The information in this datasheet is for guidance only and is subject to change without notice. Dimensions and masses are nominal and subject to manufacturing tolerance; confirm against the certificate of the delivered product. This document is uncontrolled once printed or forwarded — the current revision, issued under document number SORIVO-TM-T2GBT-001, governs. © 2026 SORIVO. All rights reserved. The Type 2 interface is defined in IEC 62196-2 and the GB/T interface in GB/T 20234.2; both are interface standards, not certification marks. Mated ingress protection is a manufacturer declaration for the selected connector version.