

KF6520 CONTACT LINE PROTECTION RELAY AND CONTROLLER FOR AC RAILWAY CONTACT LINE

OVERVIEW

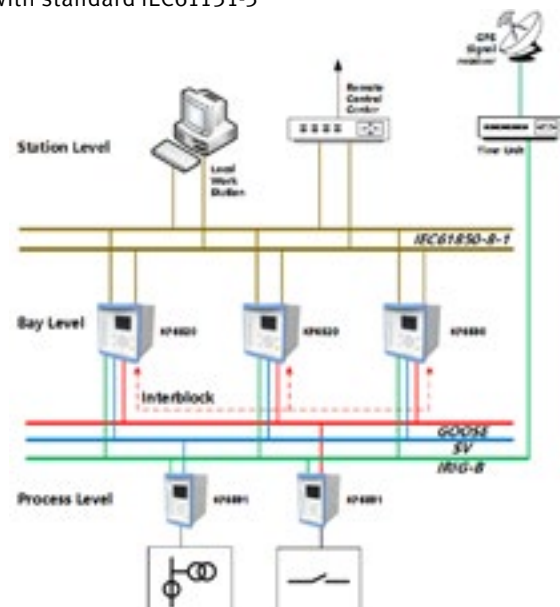
The multifunctional device KF6520 belongs to the KF6500 product family of special products for AC railway contact line systems. It performs protection, controlling, monitoring and measurement functions for AC electric railway contact lines with single or double-phase traction power supply. Capability in accordance with the standard IEC61850.

FUNCTIONS

- Four-zone distance elements with harmonics suppression (21)
- Instantaneous overcurrent element with harmonics suppression (50)
- Three stage definite time overcurrent elements (50)
- Inverse overcurrent elements (51)
- Increment current protection (50D)
- Undervoltage element (27)
- Breaker failure protection (52BF)
- Two-shot automatic reclose (79)
- Protection for switch on to fault
- Fault location for direct feeding system (21FL)
- Inrush restraint (68)
- Harmonic analysis up to 17th
- VT/CT circuit supervision (74VT, 74CT)
- Load monitoring. Record maximum current with voltage during the latest 3 days
- Control and supervision: supports all control and monitoring functions that are required for railway feeder applications
- Event recorder: protection list and warning list up to 127, 16 disturbance records in COMTRADE format which can be analyzed with the KF6503 analysis software
- Time synchronization with IRIG-B
- Communication interface: 2 Ethernet and 2 serial port with matching appropriate protocol, IEC61850/ IEC60870-5-103/104
- Programmable KLogic function in accordance with standard IEC61131-3

IEC61850

- The KF6520 Protection Relay completely supports the MMS & GOOSE service of communication networks and systems in traction substation based on the new standard IEC 61850. All necessary interlocking functions for bay interlocking, as well as overall substation interlocking, can be handled by GOOSE service.
- With optional plug-in card, the KF6520 protection relay can support the GOOSE and SV service based on process-level network.



TECHNICAL DATA

- **Size:** 266x225x244(H×W×D)
266x150x244(H×W×D)
- **Degree of protection:** IP51(housing, IEC 60529)
- **Terminals:** Digital I/O connection 1.5mm²
Analog Input connection 2.5mm²
- **LED indication:** 1× for operation, 1× for warning,
14× programmable
(for communication, protection,
color and control)
- **LCD display:** 80 x 60 (W × H); 320 x 240 pixels
- **Signal input:** 35 channels
- **Signal output:** 10 channels with dry contact
and can be extended to up to
28 channels

- **Accuracy:** Measurement: current, voltage,
frequency, $\leq \pm 0.5\%$
impedance, harmonic, $\leq \pm 3\%$
distance protection: $\leq \pm 5\%$
current and voltage protection:
 $\leq \pm 2.5\%$
Operation time: $\leq \pm 2.5\%$
Binary input: SOE resolution,
max. 2ms
- **Supply voltage:** DC110V~DC220V,+15%~-20%
- **Control voltage:** DC110V or DC220V
- **Environmental conditions:** Temperature: -25°~+55°
Humidity: 5%~95%,
no condensation
- **Production standard:** IEC 60255-1
- **Isolation:** IEC 60255-5
- **EMC** IEC 60255-26, IEC 61000-4
- **EMI** CISPR11, CISPR22
- **Mechanical robustness:** IEC 60255-21

EXTERNAL VIEW



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