

 Press Information

High-voltage contactors TDK adds a mirror contact to the HVC27 series to support functional safety

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TDK Corporation (TSE: 6762) announces the HVC27*MC series—compact high-voltage DC contactors equipped with a mechanically linked, normally-closed auxiliary contact (mirror contact) compliant with IEC 60947-4-1. This enhancement provides precise contact position feedback for safety-critical applications in electric mobility and industrial energy systems. Measuring just 86.5 x 95 x 44 mm and weighing only 530 g, these gas-filled contactors are a reliable, safe, and space-efficient solution for battery disconnect units (BDUs), energy storage systems (ESS), DC fast charging, and uninterruptible power supplies (UPS).

Designed for DC voltages of 1000 V, the HVC27*MC series is available in 300 A, 400 A, and 500 A continuous current versions, with a single-shot capability of up to 900 A at 1000 V in less than 20 ms. The safety component is fully bidirectional with polarity-free main terminals. A hermetically sealed and gas-filled ceramic arc chamber ensures safe disconnection. The normally closed auxiliary contact reliably reports the main contact state, enabling the immediate detection of switching anomalies or failures.

Offered in versions with 12 V or 24 V coil voltage and UL, CE, and UKCA certifications, the contactors are ready for global deployment. Their robust design meets demanding vibration and shock specifications, supporting safe operation in commercial vehicles, industrial machinery, and high-voltage mobility systems. By integrating advanced switching safety in a compact, installer-friendly form, the HVC27*MC helps customers meet growing regulatory and functional safety expectations while optimizing system architecture.

Main applications

- Battery disconnect units
- Energy storage systems (ESS)
- DC fast charging
- Uninterruptible power supplies (UPS)

Main features and benefits

- Single coil with connector
- No coil termination
- Main terminals without polarity (bidirectional)
- Normally closed auxiliary contact (mirror contact, acc. to IEC 60947-4-1)
- RoHS compatible

Key data

Type	Ordering code	Coil voltage (DC) [V]	Continuous current [A]	Temporary overcurrent (1 min) [A]
HVC27-300A-12MCC1	B88269X7920C011	12	300	500
HVC27-400A-12MCC1	B88269X7930C011	12	400	650
HVC27-500A-12MCC1	B88269X7940C011	12	500	750
HVC27-300A-24MCC1	B88269X7950C011	24	300	500
HVC27-400A-24MCC1	B88269X7960C011	24	400	650
HVC27-500A-24MCC1	B88269X7970C011	24	500	750

About TDK Corporation

TDK Corporation (TSE:6762) is a global technology company and innovation leader in the electronics industry, based in Tokyo, Japan. With the tagline “In Everything, Better” TDK aims to realize a better future across all aspects of life, industry, and society. For over 90 years, TDK has shaped the world from within; from the pioneering ferrite cores to cassette tapes that defined an era, to powering the digital age with advanced components, sensors, and batteries, leading the way towards a more sustainable future. United by TDK Venture Spirit, a start-up mentality built on visions, courage and mutual trust, TDK’s passionate team members around the globe pursue better—for ourselves, customers, partners, and the world. Today, the state-of-the-art technologies of TDK are in everything, from industrial applications, energy systems, electric vehicles, to smartphones and gaming, at the core of modern life. TDK’s comprehensive, innovative-driven portfolio includes cutting-edge passive components, sensors and sensor systems, power supplies, lithium-ion and solid-state batteries, magnetic heads, AI and enterprise software solutions, and more—featuring numerous market-leading products. These are marketed under the product brands TDK, EPCOS, InvenSense, Micronas, Tronics, TDK-Lambda, TDK SenseEI, and ATL. Positioning the AI ecosystem as a key strategic area, TDK leverages its global network across the automotive, information and communication technology, and industrial equipment sectors to expand its business in a wide range of fields. In fiscal 2025, TDK posted total sales of USD 14.4 billion and employed about 105,000 people worldwide.

You can download this text and associated images from www.tdk-electronics.tdk.com/en/251217. Further information on the products can be found at www.tdk-electronics.tdk.com/en/hvc_presentation.

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