

VSP-0000IGBT

Series: VSP-000 | Ultra-Fast Semiconductor Protection

The **VSP-0000IGBT** is an advanced, high-speed semiconductor protection fuse engineered specifically for high-power electronic circuits requiring robust short-circuit and precise overload protection. Tailored for IGBT-based inversion and conversion architectures, this premium current-limiting fuse operates seamlessly across both high-voltage AC and DC systems, delivering fast clear times and minimal let-through energy.

Constructed using specialized heavy-duty bolt-mounted BB (Bolt-on) terminals, it optimizes thermal dissipation and guarantees a structurally stable mechanical fitment within demanding industrial environments.

Quick Reference

Voltage Rating:	1000V AC/DC
Current Range:	25A to 630A
Interrupt Rating:	50kA @ 690VAC
Operating Class:	aR / gR
Terminal Style:	BB Bolt-Type
Compatibility:	170M PSC standard

KEY FEATURES

- Ultra-Fast aR Class Performance:** Tailored for advanced semiconductor protection under severe fault conditions.
- Universal Voltage Integration:** Rated flawlessly up to 1000V for high versatility in combined AC/DC systems.
- Robust Interrupting Capacity:** 50kA rating ensures extreme safety windows under massive short circuits.
- Industry Compatibility:** Fully compatible form factor with global 170M PSC standards.

TYPICAL APPLICATIONS

- IGBT protection circuits and high-frequency modules.
- Industrial power converters and heavy rectifiers.
- High-voltage DC/AC power electronics equipment.
- Renewable energy grid inverters and traction drives.
- Battery storage system protection blocks.

ELECTRICAL SPECIFICATIONS & RATINGS

Part Number	Rated Voltage	Rated Current (I_n)	Interrupting Rating	Operating Class	Standard Compliance
VSP-0000IGBT-25A	690V-1000V AC/DC	25A	50kA @ 690VAC / 10kA @ 800VDC	aR / gR	CE, UL, cUL, TUV, RoHS
VSP-0000IGBT-50A		50A		aR / gR	

Part Number	Rated Voltage	Rated Current (I_n)	Interrupting Rating	Operating Class	Standard Compliance
	690V-1000V AC/DC		50kA @ 690VAC / 10kA @ 800VDC		CE, UL, cUL, TUV, RoHS
VSP-0000IGBT-100A	690V-1000V AC/DC	100A	50kA @ 690VAC / 10kA @ 800VDC	aR / gR	CE, UL, cUL, TUV, RoHS
VSP-0000IGBT-200A	690V-1000V AC/DC	200A	50kA @ 690VAC / 10kA @ 800VDC	aR / gR	CE, UL, cUL, TUV, RoHS
VSP-0000IGBT-250A	690V-1000V AC/DC	250A	50kA @ 690VAC / 10kA @ 800VDC	aR / gR	CE, UL, cUL, TUV, RoHS
VSP-0000IGBT-400A	690V-1000V AC/DC	400A	50kA @ 690VAC / 10kA @ 800VDC	aR / gR	CE, UL, cUL, TUV, RoHS
VSP-0000IGBT-630A	690V-1000V AC/DC	630A	50kA @ 690VAC / 10kA @ 800VDC	aR / gR	CE, UL, cUL, TUV, RoHS

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Terminal Configuration	BB Bolt-on structural design for reliable busbar mating.
Operating Temperature Range	-40°C to +125°C (with appropriate ambient derating consideration)
Storage Environment	Temperature: -40°C to +70°C Relative Humidity: 5% to 70% non-condensing
Environmental Directives	Fully compliant with RoHS, REACH, and PF substance free directives.
Quality Standards	Manufactured under premium BSI certified IATF16949 and ISO9001 quality infrastructure.

APPLICATION ENGINEERING NOTES

- Time-Current Characteristic Curve Adjustment:** High speed fuses are calculated using the formula I^2t parameters to guarantee proper insulation coordination with semiconductor valves. For pure DC applications, please verify the system time constant ($L/R \leq 1ms$) to remain within calibrated parameters.
- Installation Torque:** Ensure clean flat busbar interfaces. Avoid introducing torsional stress onto the ceramic body component housing during structural bolt connection tightening.

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For specific customized parameters, drawings or official quotes, contact support at en.vicfuse.com.