

ELECTRICAL SAFETY
POWER QUALITY
ENERGY MANAGEMENT



Voltage Dip Compensators - E950 Series

Designed to comply with SEMI F47 standard

- Complies with MID EN50470 Class B
- Build in Modbus RTU
- 2 tariffs energy counter
- Measurement of THD harmonics

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Device Features

- Voltage dips/sags protection
- Comply to SEMI F47 standard
- Comply with ITIC / CBEMA
- Batteryless, Maintenance free solution
- Fast response in milliseconds
- Compact and easy to retrofit
- Available with 110, 120, 208 & 230Vac single phase

Typical Applications

- Control Contactors and Relays
- Motor Starter Circuits
- Continuous Factory Control processes
- Semiconductor equipment processes
- Data Center critical infrastructures
- Instrumentation Systems
- Industrial PLC Controls
- Plastic Extrusion Processes
- Beverage and Bottling processes
- Material handling systems

Product Description

The reliability of electrical power is a major concern for critical industries like semiconductor plants, production factories and data centers where milliseconds of voltage dips can cause millions of dollars of losses. Most plants can ride through such voltage dips by virtue of their mechanical and electrical inertia. However, this is not the case for electrical contactors and relays that are used to control the motors, machinery and production tools; any contactors' contact drop can cause the plant to shut down. Products reworks, plant restart, and material scraping could be very costly and time-consuming.

Eetarp Voltage Dip Compensator E950 series is designed to maintain the control voltage during voltage sags and effectively keep the plant running without being affected by the voltage dip with compliance with Semi F47 standards.

Multi-Functional Monitoring Relay (VME421H)

The voltage relays of the VME421H series are designed to monitor the under voltage and over voltage in AC and DC systems. The voltages are measured as root mean square values, and any over or under voltage that exceeds the threshold will trigger the alarm contact relay with the present response delay. Due to adjustable response times, and installation-specific characteristics, it was implemented in the E940 series panel as the sensors to trip the circuits for 50% and 80% barriers as specified in SEMI F47 standard.



Technical Specification & SEMI F47 Standard

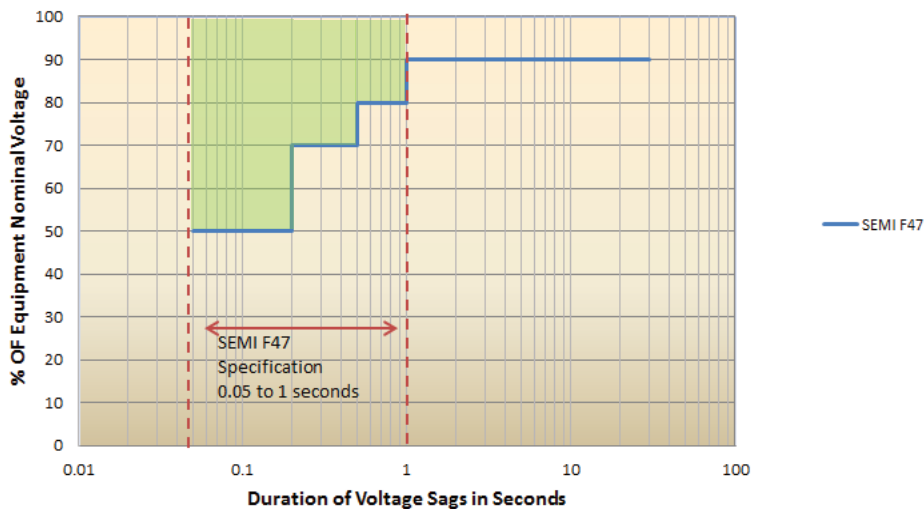
Voltage Dip Compensators / E950 Series	
AC Input Supply	
Input voltage	110/120/208/220/230Vac
Maximum Surge Current	550A
Rate power	1kVA / 3kVA / 5kVA
AC Output Supply	
Output voltage	+/- 10% of rated voltage
Rate power	1kVA / 3kVA / 5kVA
Wave shape	Sinusoidal
Dip Duration Timer	
Maximum Uptime	50% dips, 7s
Setting	20ms steps

SEMI F47 Standard

SEMI F47 is an industry-standard for voltage sag immunity. SEMI F47 requires that equipment tolerate voltage sags on their ac power line. Specifically, they must tolerate sags to 50% from 50ms up to 200ms, sags to 70% for up to 0.5 seconds, and sags to 80% for up to one second.

The green zone represents the operation area where no equipment faults must occur due to voltage sags on the supply. The "no-fault" window is from 50ms to 1 second with maximum voltage dips up to 50% of the nominal supply voltage.

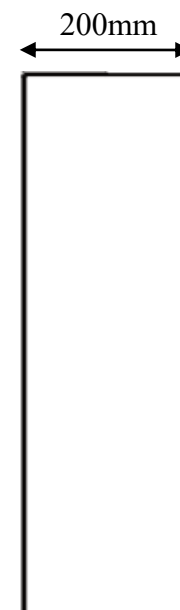
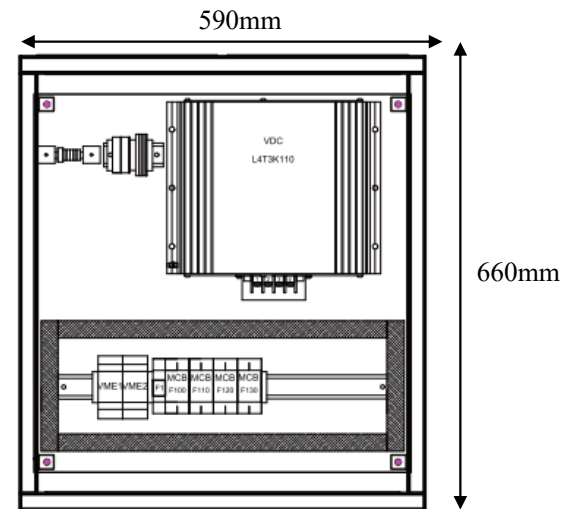
SEMI F47 Standard



Dimensions & Ordering Code

Ordering Code for E950

E	Fixed Product Code
9	Fixed Code
X	0 = DB installed without VDC 5 = DB installed with VDC
X	Reserved
-	
X	1 = 120 Vac 2 = 208 Vac 3 = 220 Vac 4 = 230 Vac 5 = 110 Vac
X	1 = VDC 1 kVA 2 = VDC 3 kVA 3 = VDC 5 kVA
X	Reserved
-	
X	Number of Bender VME in DB
X	Reserved
X	Reserved



EEPL-CAT-E950-rev01

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