PRODUCT DEEP-DIVE

The Sage Relay.

The relay that doesn't add labor — and doesn't need UL 924 / 1008 hardware.

A small factory-programmed module that converts a standard LED luminaire into a central-battery-powered emergency fixture. Wired internally, similar to a battery pack — and like a battery pack, doesn't need the UL 924 / 1008 ALCR hardware that inverter and generator architectures require. Wires downstream of the driver — dimmer-agnostic by design.

6 SR-SERIES VARIANTS	90 min EMERGENCY RUNTIME
None ALCR HARDWARE NEEDED	UL 924 LISTING

WHAT IT DOES

One module. AC normal. DC emergency.

A Sage Relay sits inside (or beside) a standard LED luminaire. In normal operation, the luminaire runs from the building's AC power as usual. When AC fails, the relay instantly switches the LED board to a low-voltage DC feed from a Sage central battery cabinet, keeping the fixture on at a programmed brightness for the full 90-minute NFPA emergency duration.

The relay senses line voltage on the normal-mode feed. Loss of line voltage triggers the DC source within milliseconds — fast enough to clear NEC's 10-second-max-dark window without a generator. When AC returns, the relay switches back. The transition is cleaner than what inverter or generator architectures can do — no dark window, no fixture flash, no re-strike.

INSIDE THE FIXTURE

Wired internally, similar to a battery pack.

The relay mounts inside the fixture's driver enclosure — the “belly pan” — alongside the LED driver. An electrician pulls the pan, taps the wires going to the LED boards, lands the line-voltage sense wire, and lands the DC feed from the cabinet. Seven wires, total.

THE MOTION

Same as a battery pack

Battery packs live in the same belly pan. They have more wires and a battery hanging off. The install motion — pull the pan, land wires, button up — is identical. Sage Relays don't add labor.

THE CONNECTIONS

Seven wires, mapped

Line-voltage sense in. Normal-mode wiring through to the LED board. DC feed from the central battery. Output to the LED at programmed emergency wattage. Wiring diagrams ship with every relay and are published per-product on sageem.co.

THE HAND-OFF

Where the relay lands

Sage Luminaires ship from Sage with the relay pre-installed — no field labor. SR-series modules install in most third-party LED fixtures, in the field by the EC, or upstream at the fixture manufacturer's assembly line where coordinated.

THE ARCHITECTURAL EDGE

No UL 924 / 1008 ALCR hardware required.

Inverter and generator architectures need an external UL 924 / UL 1008-listed ALCR (Automatic Load Control Relay) on every dimmable emergency circuit. The ALCR is what keeps the emergency lighting at full output when the normal-mode dimmer is cutting power — code requires it for those architectures. It's a separately-installed box, a component to maintain, and a point of failure on every emergency circuit.

Sage Relays don't need the ALCR — and neither do battery-pack architectures. The Sage Relay wires in downstream of the fixture driver, so the dimmer signal (upstream of the driver) never reaches the emergency path. The DC feed from the cabinet drives the LED at programmed emergency wattage directly, bypassing the dimmer and any building-controls signal entirely. Dimmer-agnostic by architecture.

Net effect on the BOM: every dimmable emergency circuit that would otherwise need an ALCR (~$200/unit + install labor + a service point) doesn't. The savings scale with the number of dimmable emergency circuits on the project, not fixture count — one ALCR can cover

multiple fixtures on the same circuit, but every circuit needs one.

THE SR-SERIES

Six variants. Sized to host-fixture wattage class.

Different LED fixtures draw different amounts of normal-mode power. The SR module has to be sized to its host. Six variants cover the practical range from compact decorative fixtures to industrial high-bay.

CODE	APPLICATION	NORMAL W	EMERGENCY W	OUTPUT VOLTAGE
SR1	Compact luminaires Smallest footprint. Linear, slim, and architectural compact fixtures.	10–70 W	5–22 W (factory adjustable)	5–22 VDC (V3)
SR2	Small-to-medium luminaires Standard variant — covers the bulk of medium architectural fixtures.	10–70 W	5–20 W	Auto-sense to 54 V (V1 27–54, V2 5–41, V3 5–22)
SR3	Downlights · 2×2 / 2×4 lay-in panels · flat-panel LED Widest voltage range. Catches almost any panel or downlight driver.	10–70+ W	5–22 W	Auto-sense to 100 V (V1 27–54, V2 5–41, V3 5–22)
SR6	Downlights · 2×4 lay-in panels · J-box mount applications Same SR3 voltage envelope, narrower output, J-box mount available.	10–70 W	5–20 W	Auto-sense to 54 V
SR7	High-bay fixtures Up to 4-channel output. Industrial, warehouse, retail high-bay.	50–400+ W	15–60 W (factory adjustable)	V1 60–210 VDC · optional 347 / 480 VAC input (HV)
SR03	Highest-power applications CHX channels and FL flange screw mount options. Heavy-duty industrial.	Per lumen requirement	Factory adjustable	V1 27–64 V · V2 27–86 V · V3 27–126 V

Specifiers and agents don't self-select SR variants. Sage engineering matches each fixture in the project schedule to the correct SR + quantity, documented in the submittal package.

HOW SAGE PICKS THE VARIANT

Engineering as a service.

The specifier doesn't pick the SR variant. The agency doesn't pick the SR variant. The contractor never sees the specific SR number until the submittal lands.

Sage's workflow:

1. Customer submits the project fixture schedule (or just spec sheets — Sage will pull the electrical profiles).
2. Sage engineering matches every emergency-mode fixture to the correct SR variant by host-fixture normal-mode wattage, voltage, and emergency-output requirement.
3. Quantity per variant is summed and rolled into the bill of materials. Central-battery cabinet sizing falls out of the same calculation.
4. Submittal package documents every SR by code with the host fixture it pairs to. The contractor sees a one-to-one mapping.

SYSTEM COMPATIBILITY

Every Sage Relay works with every Sage cabinet, every Sage fixture.

There's no compatibility chart to read, no pairing lookup, no “will this SR work with the Volta or only the Keystone” question. Every Sage Relay variant works with every Sage central battery cabinet and every Sage fixture line. Pick the cabinet that fits the load, pick the relay sized to the host fixture, install the fixture you want — the system is designed end-to-end as one.

Sage engineering still does the variant sizing on every project — host-fixture wattage and

voltage drive which SR variant ships — but the architecture itself is universal.

WHERE IT FITS VS BATTERY PACKS

Same install motion. Centralized power upstream.

Battery packs put the energy at the fixture, with the per-fixture maintenance cycle that comes with it. Sage Relays draw from a single Sage cabinet powering the whole building — same install motion at the fixture; one service window upstream instead of hundreds.