

Most advanced air-cooled  
UV LED curing solutions

# Accelerate<sup>®</sup> FC-200 Series

Bringing high quality digital printing  
to single-pass narrow format applications

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Innovative air-cooled UV LED  
technology for efficient ink curing

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Compact form factor to simplify  
integration process

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Variable power adjustment  
for greatest flexibility

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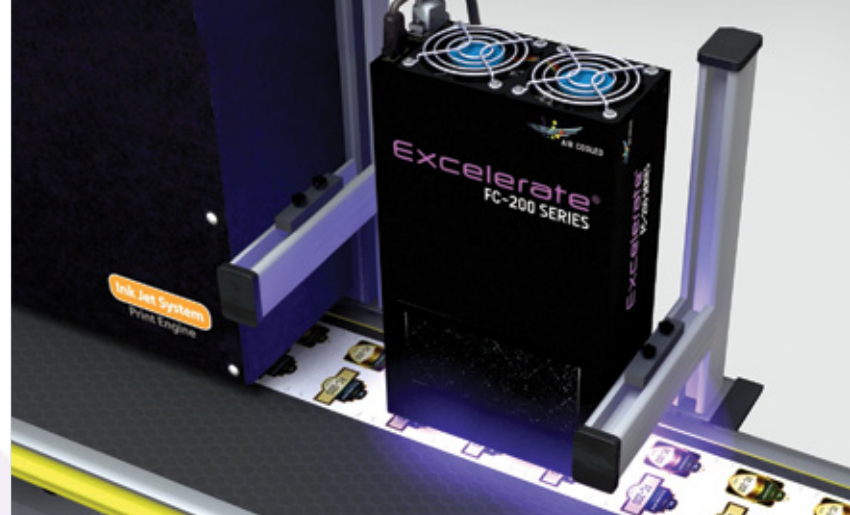
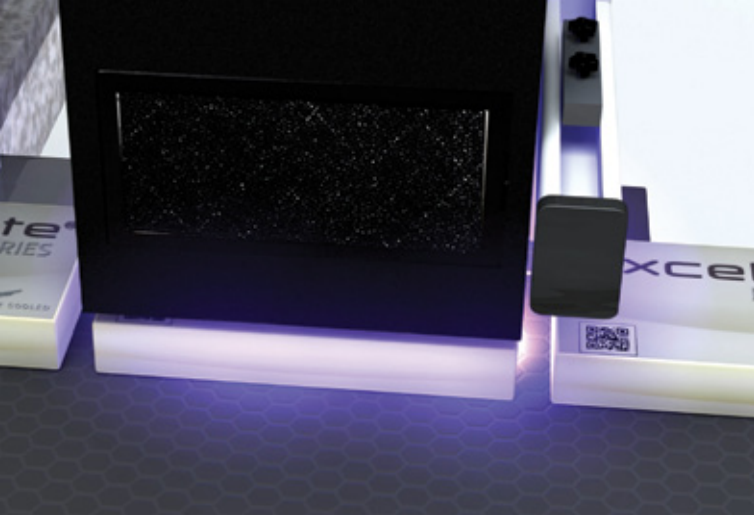
Highest irradiance air-cooled  
solution available on the market with  
>9 watts/cm<sup>2</sup> at 2mm working distance

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Turn-key solution with superb  
performance and ease of use

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# Unmatched in the narrow format digital printing industry

The Excelerate® FC-200 Series is designed with leading integrators in mind, offering the most advanced and innovative full cure, air-cooled, UV LED curing solutions in a compact design. The Excelerate® FC-200 Series is the industry's next generation of UV LED curing solutions for the single-pass narrow format digital print market. With a 36mm effective curing area, these systems are ideal for use in packaging, labelling, pharmaceutical and product printing applications.

The Excelerate® FC-200 Series is easily integrated, reduces maintenance costs, and enables complete control and reliability to achieve the highest print quality possible. The family of products provides solutions that are ideal for multiple applications and varying print speeds of 60 meters/minute and above.

**With the use of UV LED technology, leading integrators of industrial and commercial print applications can take advantage of:**

- Long lifetime, with 4 – 5x more lifespan than arc lamp solutions
- Instant on/off switching with no warm-up required
- No infra-red (IR), allowing for printing on heat sensitive substrates
- No need for internal or external mechanical shutters
- Elimination of mechanical attenuators by controlling optical output intensity
- Reduced total cost of ownership (TCO) with less downtime, lower electrical power consumption, and no optical lamp inventory
- Environmentally friendly solution with no mercury or ozone emissions and small carbon footprint

**The FC-200 Series offers:**

- Highest irradiance to attain exceptional ink curing and higher operational efficiency
- True air-cooled UV LED technology, providing full cure for UV inks on a wide variety of substrates
- Compact form factor for easy integration into new or existing UV printing systems
- Complete system solution with UV LED head, power supply and cable connections
- Exceptional control to achieve highest print quality possible
- Lowered operational costs, utilizing less energy, maintenance and production floor space
- Longer life, higher productivity and minimal downtime
- 5,000 hours LED module guarantee



# Highest irradiance, air-cooled and compact UV LED Curing Solutions

## Highest Irradiance

The ability to achieve high quality print depends not only on the ink jet head, but also on the curing process and ink polymerization chemistry. Being that irradiance and dosage are directly correlated to this curing, a higher irradiance results in a more efficient ink polymerization or UV ink cure. The Excelerate® FC-200 Series provides exceptional performance by delivering the highest irradiance UV LED air-cooled solutions available on the market with more than 9 watts/cm<sup>2</sup> at a 2mm working distance. It also provides consistent and uniform illumination in the print direction. This ensures efficient UV curing for strong ink adhesion on a variety of substrates, while supporting high-resolution print quality at fast speeds.



Harnessing a state-of-the-art thermal management solution, the Excelerate® FC-200 Series offers fully air-cooled UV LED curing solutions that presents customers with significant advantages over liquid-cooled systems:

- Easy integration with reduced costs – no need to install a separate fluid handling system for the UV LED coolant
- Better utilization of floor space with the elimination of large chillers or heat exchangers
- Simplified maintenance and system reliability due to the elimination of complex thermo-mechanical chillers, and no coolant levels to check
- No risk of expensive repairs to the printer or extensive down-time due to coolant leakage, condensation, cooling system failure or spills

## Compact Design

The small form factor of the Excelerate® FC-200 Series allows customers to seamlessly integrate a UV LED curing system into existing UV printers. It can be used as a versatile drop-in replacement for arc lamps or water-cooled UV LED systems, enabling high printing speeds without the need for any coolant or chillers. The versatile solution achieves significantly more efficient electrical to optical conversion than arc lamps while using less real estate. The Excelerate® FC-200 Series further simplifies design and integration by eliminating the need for internal or external shutters and mechanical attenuators, through the instant on/off control and optical output intensity control.



## Environmentally Friendly

The Excelerate® FC-200 Series are cost effective, highly efficient UV LED curing solutions that are eco-friendly. These systems have reduced energy consumption, zero mercury content or ozone emissions, and a small carbon footprint, all while offering integrators longer life, consistent performance and increased efficiency and productivity. With the absence of ozone emissions, the requirements for ventilation and cooling are alleviated, thereby resulting in a safer occupational environment.



What the FC-200 Series offers	How integrators benefit
UV LED curing	Extended lifetime with higher energy efficiency, resulting in lower maintenance costs and less downtime. Enhanced reliability ensures consistent performance over the life of the product.
Highest irradiance (>9 watts/cm <sup>2</sup> )	Supports high printing speeds without compromising print quality. Effectively cures ink at lower temperatures to ensure adhesion on a variety of substrates, including heat sensitive materials.
Innovative air-cooled technology	Easy integration with reduced costs and no need for tubing, coolant, or external chillers/heat exchangers. Provides better utilization of production floor space while minimizing maintenance requirements and reducing risk of down-time due to leaks, water splash or spills.
Compact design	Seamless integration into existing UV ink-based applications, offering greater overall efficiency while using less space. Drop-in replacement for arc lamps and liquid-cooled UV LED systems.
Environmentally friendly	Dramatically lower energy consumption with no mercury content or ozone emission. Reduced carbon footprint while reaping benefits of longer life, higher productivity and safer work environments.
Instant on/off	Extended lifetime of UV curing lamp and lower operational costs by enabling LEDs only when curing is required. Eliminates need for warm-up time or external shutters.
Variable power adjustment	Absolute control of optical output intensity to achieve the desired cure and finishes. Turn-key solution provides out-of-box usage, more flexibility and a simplified system with elimination of mechanical attenuators.
Integrated e-stop	Facilitates integration into printers by simplifying implementation with the inclusion of safety circuitry in the power supply.

### UV LED head specifications

Wavelength	405nm
Active LED lines/ irradiation window	36mm curing area; FC-200: 3 lines; FC-201: 6 lines
Dimensions	340 x 190 x 90mm (13.19" x 7.48" x 3.54")
Weight	FC-200: ~4.2kg (~9.2lbs); FC-201: ~6.3kg (~14lbs)
Interface control	PLC
Operating temperature	10°C – 40°C, 80% max. (non-condensing)

### Controller specifications

Operating supply voltage	200-240 Volts AC, 50-60Hz
AC power control	on/off toggle switch
Maximum supply current	9A
Dimensions	435 x 332 x 133mm (17.13" x 13.06" x 5.25")
Weight	~8.1kg (~18lbs)
Operating temperature	10°C – 40°C, 80% max. (non-condensing)



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