

The new UniJet series UV LED high power modules

For the printing industry

UV LED modules are used for curing UV reactive inks, lacquers and coatings, as well as UV adhesives and potting compounds. Typical applications include inkjet printing processes and surface coatings or finishes. Ushio has decades of experience and invests continuously in research and development. With the new UV LED UniJet series, the company offers a further optimised product portfolio. The modules are characterised by a compact and lightweight design, dimmability, peak irradiance, stability and homogeneous radiation distribution as well as a service life of over 10,000 hours. All modules are available with different UV doses and intensities and in various standard sizes.

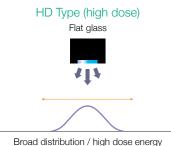
UniJet E series UV LED

UniJet E series

Specially designed for pinning and 3D printing processes. HD (high dose) versions with high accumulation of UV irradiance over a wider area, HC (high condensing) versions for high peak irradiance through line-shaped focusing of the UV radiation. Flexible and optimised linking of individual modules with excellent homogeneity of light distribution, even at the point of connection between modules.

Features

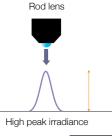
- 10-100% dimmable
- Optimised linking through frameless design
- ◆ Available in HD and HC version



The broad radiation distribution/high UV dose is suitable for processes and applications, that require fast UV curing.



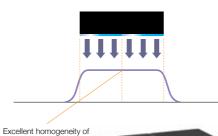
HC Type (high condensing)



High UV concentration due to optical rod lens. Particularly suitable for larger distances with low scattering of radiation.



Modules can be connected







Technical data E series Standard type (Sd)

E series		HD		HC			
Standard type (Sd)	E075Sd HD E110Sd HD		E075Sd HC	E110Sd HC		
Window size (mm)	ize (mm) 75x17 108x17 76xØ10				109xØ10		
Length (mm)		78	111	78 111			
Depth (mm)		33					
Height (mm)		134.	5	143.2			
	365 nm	8.4 (WD=0 mm) / 3.	.5 (WD=5 mm) *1	6.0 (WD=5 mm) *1			
Peak irradiance (W/cm²)	385 nm	10.8 (WD=0 mm) / 4	1.6 (WD=5 mm) *1	7.2 (WD=5 mm) *1			
	395 nm	12.1 (WD=0 mm) / 5	5.1 (WD=5 mm) *1	8.5 (WD=5 mm) *1			
	405 nm	12.1 (WD=0 mm) / 5	5.1 (WD=5 mm) *1	8.5 (WD=5 mm) ^{*1}			

Technical data E series High-power type (Hi)

E series		HD		HC			
High-power type (Hi)	E075Hi HD E110Hi HD		E075Hi HC	E110Hi HC		
Window size (mm)		75x17	108x17	76xØ10 109xØ10			
Length (mm)		78	111	78 111			
Depth (mm)		33					
Height (mm)		134.	5	148.8			
	365 nm	7.1 (WD=0 mm) / 5.	.0 (WD=5 mm) *1	5.2 (WD=5 mm) *1			
Peak irradiance (W/cm²)	385 nm	8.1 (WD=0 mm) / 5.	.3 (WD=5 mm) *1	6.4 (WD=5 mm) *1			
	395 nm	9.1 (WD=0 mm) / 6.	0 (WD=5 mm) *1	7.2 (WD=5 mm) *1			
	405 nm	9.1 (WD=0 mm) / 6.	.0 (WD=5 mm) *1	7.2 (WD=5 mm) *1			

^{*1} WD=Working distance. Reference value based on measurement by Ushio.

The High-power type has a 50% higher UV dose and is therefore particularly suitable for applications that require a higher curing energy such as low migration inks.

UniJet iC and iIII series UV LED

UniJet iC series

Particularly lightweight and air-cooled modules for final curing applications. Due to their compact size and reduced weight, these LED modules are particularly suitable for applications on print carriages.

Feature:

- ◆ Intensity of up to 14.5 W/cm² at a working distance of 5 mm
- ◆ 10-100% dimmable
- Compact design, lightweight
- Optimised linking through frameless design



Technical data

iC series		i075C	5C i150C i225C		i300C	i375C			
Window size (mm)		73x29	73x29 148x29 223x29		298x29	373x29			
Length (mm)		78	152	227	302	377			
Depth (mm)				60					
Height (mm)		230							
	365 nm	12.0 (WD=0 mm) / 9.5 (WD=5 mm) ¹¹							
Peak irradiance (W/cm²)	385 nm	16.5 (WD=0 mm) / 13.0 (WD=5 mm) *1							
	395 nm	18.0 (WD=0 mm) / 14.5 (WD=5 mm) ^{*1}							

^{*1} WD=Working distance. Reference value based on measurement by Ushio.

UniJet illl series

Air-cooled modules with high intensity and dose. Low intensity loss even at longer working distances.

Features

- ◆ Intensity of up to 17.4 W/cm² at a working distance of 5 mm
- Less than 20% intensity loss up to a working distance of 15 mm
- Reduced operating noise due to temperature-controlled cooling
- ◆ 14-100% dimmable



Technical data

	i075III	i150III	i225III	i300III	i375III	i450III	i525III	i600III	i675III	i750III	
	75x40 150x40 225x40 300x40 375x40 450x40 525x40 600x40 675x						675x40	750x40			
	77	77 152 227 302 377				452	527	602	677	752	
Depth (mm)		136									
Height (mm)		270									
365 nm	11.0 (WD=0 mm) / 9.5 (WD=5 mm) ⁻¹										
385 nm	17.0 (WD=0 mm) / 17.4 (WD=5 mm) ¹¹										
395 nm	17.0 (WD=0 mm) / 17.4 (WD=5 mm) ⁻¹										
	385 nm	75x40 77 365 nm 385 nm	75x40 150x40 77 152 365 nm 385 nm	75x40 150x40 225x40 77 152 227 365 nm 385 nm	75x40 150x40 225x40 300x40 77 152 227 302 365 nm 11.0 (W	75x40 150x40 225x40 300x40 375x40 77 152 227 302 377 13 27 365 nm 11.0 (WD=0 mm) / 1 385 nm 17.0 (WD=0 mm) / 1	75x40 150x40 225x40 300x40 375x40 450x40 77 152 227 302 377 452 136 270 365 nm 11.0 (WD=0 mm) / 9.5 (WD=5 nm) 385 nm	75x40 150x40 225x40 300x40 375x40 450x40 525x40 77 152 227 302 377 452 527 136 270 365 nm 11.0 (WD=0 mm) / 9.5 (WD=5 mm) '1 385 nm 17.0 (WD=0 mm) / 17.4 (WD=5 mm) '1	75x40 150x40 225x40 300x40 375x40 450x40 525x40 600x40 77 152 227 302 377 452 527 602 136 270 365 nm 11.0 (WD=0 mm) / 9.5 (WD=5 mm) *1 385 nm 17.0 (WD=0 mm) / 17.4 (WD=5 mm) *1	75x40 150x40 225x40 300x40 375x40 450x40 525x40 600x40 675x40 77 152 227 302 377 452 527 602 677 136 270 365 nm 11.0 (WD=0 mm) / 9.5 (WD=5 mm) '1 385 nm 17.0 (WD=0 mm) / 17.4 (WD=5 mm) '1	

^{*1} WD=Working distance. Reference value based on measurement by Ushio.

UniJet iIV series

By using highly efficient components, it was possible to achieve energy-saving operation while at the same time reducing the size of the modules. Due to their high intensity and high dose, the modules can be used instead of water-cooled models or conventional UV lamps.

Features

- Intensity of up to 18.5 W/cm² at a working distance of 5 mm
- Achieves approx. twice the UV dose compared to the less expensive iC series
- Lightweight and compact design
- Reduced operating noise due to temperature-controlled cooling
- 15-100% dimmable



Technical data

ilV series		i075IV	i150IV	i225IV	i300IV	i375IV	i450IV	i525IV		
Window size (mm)		75x52	150x52	225x52	300x52	375x52	450x52	525x52		
Length (mm)		77	152	227	302	377	452	527		
Depth (mm)		136								
Height (mm)		256.4								
	365 nm	13.5 (WD=0 mm) / 13.0 (WD=5 mm) *1								
Peak irradiance (W/cm²)	385 nm	17.0 (WD=0 mm) / 16.0 (WD=5 mm) *1								
	395 nm	19.5 (WD=0 mm) / 18.5 (WD=5 mm) ¹¹								

^{*1} WD=Working distance. Reference value based on measurement by Ushio.

Further information

For more information on our new UniJet UV LED series, visit our website or contact us directly.

Developing Solutions Together

Ushio is a partner that listens to your ideas and requirements. Let us optimise your processes according to your specifications and expectations. Use our expertise to develop a tailor-made solution that matches your needs.



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Intended use: Specifically designed and exclusively approved for use in industrial applications that require a particularly high UV output