



500 W Fiber to Free Space Isolator

● Description

GKER's High Power Fiber to Free Space Isolator (HPFSI) is the best choice for high power industrial pulse fiber lasers. A newly designed isolator can handle 500W average laser power and at competitive cost. It also can be integrated with GKER's patented SteadiBeam™ and SeasonBeam™ technologies to achieve thermal lensing-free beam quality and temperature insensitive high isolation.

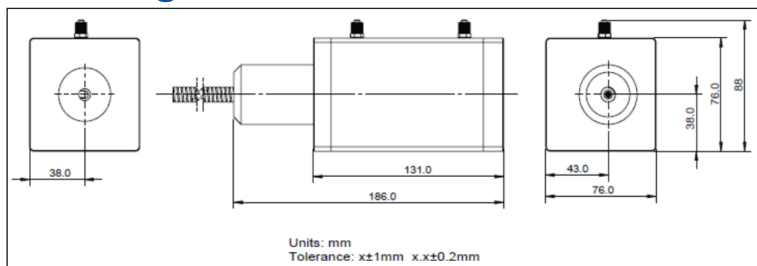
● Specifications

Optical Parameter	Unit	Value
Operating Wavelength (λ_c)	nm	1064 ± 30
Max. Insertion Loss at 23 °C, at λ_c	dB	0.4
Typ. Isolation at 23 °C, at λ_c	dB	38
Min. Isolation at 23 °C, at λ_c	dB	30
Min. Isolation at all temperature, at λ_c	dB	20
Min. Return Loss	dB	50
Nominal Output Beam Diameter ($1/e^2$) ¹	mm	2.0 ± 0.2
Beam Circulatory	%	> 90
M ² Degradation	%	< 10
Max. Average Optical Power	W	500
Max. Peak Power for ns pulse	kW	50
Beam offset	mm	± 0.5
Pointing Error	mrad	2.5
Astigmatism	ZR	< 0.25

Fiber and Conditions	Unit	Value
Fiber Type	-	specified by ordering info
Cooling	-	Water
Water Quality	-	Purified or Distilled Water
Flow Rate	L / min	1.5 - 2.5
Water Pressure	Mpa	≤ 0.3
Water Temperature	-	≥ 5 °C above Dew Point
Water PH Value	-	Temperature
Reverse Power Handling	W	5.6 - 7.9
Operating Temperature	°C	200 W Continuous
Storage Temperature	°C	+ 10 to + 50 - 10 to + 60

¹Optional beam expander available for different beam diameter.

● Package Dimensions



● Ordering Information

GK-HPFSI-500-①-②-③-④

①: Wavelength

06 - 1064 nm

SS - Specify

②: Jacket Type

10 - 10 mm Armoured Cable

SS - Specify

③: Fiber Length

6 - 6.0 m

S - Specify

④: Fiber Type

1 - Nufern BD-S100/120/360-STN

2 - Nufern LMA-GDF-20/400-M

S - Specify