

EFC8 - Φ8 Endcaped Fiber Cable

None Direct Water Cooling
(NDWC) version available, no
special request on water quality!



EFC8-Q

At the input and output fiber end face in high power (hundreds, thousands even dozens of thousand watts) laser, the energy density can be very high. When the laser radiation couple into the fiber end face, there is high risk of fiber burning or surface degradation.

An end cap at the end face of fiber is a good solution for above issue - an 8mm diameter end cap spliced to the fiber can greatly increase the diameter of the beam spot, which is a very effective method to lower the power density. On the surface of the end cap, a high damage threshold AR coating is coated, while on the other side of the fiber, a high efficient cladding power stripper (CPS) is added, and it's epoxy free.

Features:

- 100% QBH compatible.
- Fiber spliced to 8mm end cap, passed tensile test, +20G vibration test and high/low temp. recycling test.
- A cladding power stripper (CPS) is integrated near the end cap, featured in high stripping efficiency, low loss in fiber core, epoxy free and cooling the fiber.
- High damage threshold AR coating on the surface of end cap.

Applications:

- High power Fiber Laser
- High Power solid state Laser and fiber coupled diode Laser

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Specifications

Optical parameters		Specifications
Operating wavelength range		900-1100nm
Transmit efficiency		>98% (typical >99%)
Cladding power stripper		Stripping efficiency>15dB
AR coating		Reflection rate at all wavelength range<0.2%
Fiber type	LMA DC fiber	20/400DCF,25/400DCF, cladding dia. up to 600um
	BD fiber	50/360,100/360,200/360 0.22NA etc.
Mean power		<5kW
Back reflection		≤ 500W (CW)
Fiber & end cap concentricity		≤ 50um
Mechanical parameters		Specifications
Single/Double connectors		Single (can be used for input or output) or double connectors
Water flow rate		≥1.7L/min
Water connector		MS-5H-6, water hose (O.D.6mm,I.D.4mm)
Cable configuration		O.D. 10mm (with yellow PVC), with inner Teflon tube (O.D. 6mm, I.D.4mm)
Cable length		Armored calbe lengths 5m, 10m, 15m, 20m etc. (can be customized)
Protection window on end cap		Assembled on the EFC8, replaceable
Accessories for single connector version only		
A01		bare fiber length: 1.0-1.5m
A02		500mm Interlock wires outside of the armored cable
A03		With M20 gland to mount on laser box (Panel wall size<Φ20x6mm)

Remark:

*The thicker fiber cladding diameter is, the higher pull force it can bear.

Ordering Information:

Please describe your request as following:

Fiber laser app., QBH in 20/400 fiber of 15m armor and 2m bare fiber, totally 17m. 5Kw power.

and drop us mail to sales@lasfiberio.com for further help.

Fiber type		Code
Double Cladding Fiber	20/400 DCF	LD420
	25/400 DCF	LD425
	30/400 DCF	LD430
	30/600 DCF	LD630
Beam Delivery Fiber	200/240 0.22NA	B220
	50/360 0.22NA	B305
	100/360 0.22NA	B310
	200/360 0.22NA	B320
	300/360 0.22NA	B330
	200/500 0.22NA	B520