



Dragon™ 6000W High Power Laser Cable (Dragon Series)

Rev11

Description

AFR's Dragon™ 6000W product provides QBH compatible connector for high power fiber lasers up to 6000 W. Technologies incorporated in the products include cladding mode stripping, indirect water cooling, protective window and safety interlock.

Key Features

- Low Transmission Loss
- High Power Handling
- High Reflection Power Endurance
- Indirect Water Cooling
- Safety Interlock

Applications

- Fiber Laser Output Connector
- High Power Laser Coupling Cable

Specifications

Optical Parameter	Unit	Value
Operation Wavelength	nm	900 - 1100
Fiber Core Diameter	µm	20 - 400
Numerical Aperture (NA)	-	≤0.22
Max. Transmission Loss	%	2
Max. Power Handling	W	6000
Max. Stripping Cladding Power	W	500
Backward Power Handling	W	500
Max. Z-position Tolerance	µm	50
Fiber Concentricity	µm	≤50
Max. Angular Deviation	mrad	20

Cooling Water Requirements

Flow Rate	L/min	1.5 - 3.0
Max. Water Pressure	Mpa	0.8
Water Temperature	°C	10 - 25
Water PH Value	-	5.6 - 7.9
Water Hose Diameter	mm	ID/OD=4/6

Others

Mechanical Interface	-	Compatible with the Standard QBH Interface
Armor Cable Diameter	mm	13.3
Storage Temperature	°C	-20 to +70

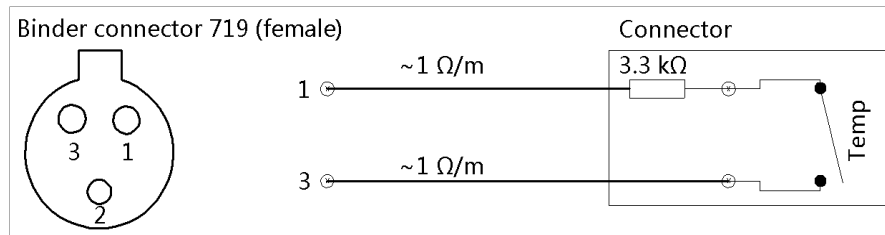
Safety Interlock

Interlock Circuit Resistance

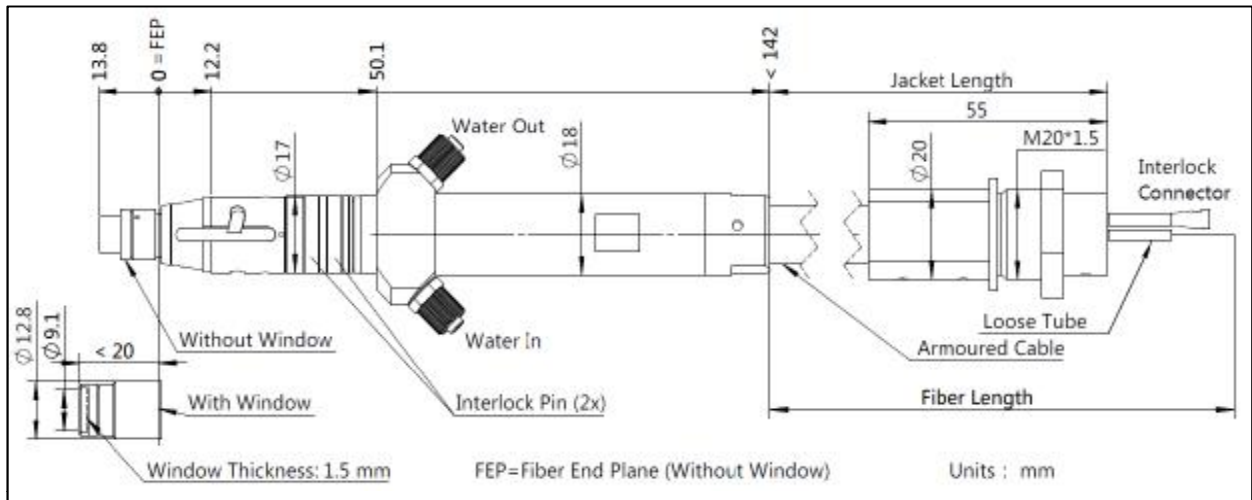
$3.3\text{k}\Omega \pm 5\% + 2\Omega/\text{m fiber}$

Thermoswitch Limit

$70^\circ\text{C} \pm 5^\circ\text{C}$, Reset temp $>30^\circ\text{C}$



Package Dimensions



Ordering Information

Dragon-①-②②②②-③③③-④④-⑤⑤-⑥

①: Handling Power

②②②②: Wavelength

③③③: Fiber Core

1 - 1000 W

0915 - 915 nm

020 - 20 μm

150 - 150 μm

2 - 2000 W

1064 - 1064 nm

025 - 25 μm

200 - 200 μm

3 - 3000 W

1080 - 1080 nm

050 - 50 μm

300 - 300 μm

6 - 6000 W

100 - 100 μm

400 - 400 μm

④④: Jacket Length

⑤⑤: Fiber Length

⑥: Cable End Package

15 - 15 m

16 - 16 m

S - Standard

XX - XX m

XX - XX m

N - None