



Dragon 15 kW High Power Laser Cable (Dragon Series)

Rev 11C

Description

AFR's Dragon 15 kW Laser Cable provides QBH compatible connector for high power fiber lasers up to 15 kW. Technologies incorporated include cladding mode stripping, indirect water cooling and safety interlock.

Key Features

- Low Insertion Loss
- High Power Handling
- High Backward Power Handling
- Indirect Water Cooling
- Safety Interlock

Applications

- Fiber Lasers
- Fiber Coupling

Specifications

Parameter	Unit	Value
Operation Wavelength	nm	945 ± 50 or 1080 ± 30
Numerical Aperture (NA)	-	≤ 0.22
Max. Transmission Loss of Fiber Core	%	2
Max. Power Handling	kW	8 - 15
Max. Peak Power	-	Max. 50 kW @ 1 ms
	-	Max. 1 MW @ 50 ns
Max. Stripping Cladding Power	-	1 kW for 10 min
	-	500 W Continuously
Max. Z-Position Tolerance	μm	± 50
Max. Angular Deviation	mrاد	10

Cooling Water Requirements

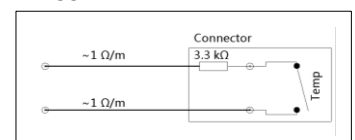
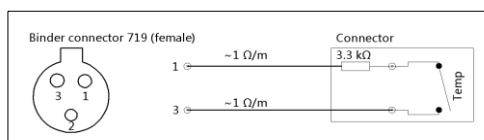
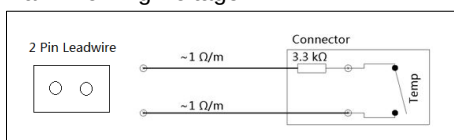
Flow Rate	L/min	1.5 - 3.0
Max. Water Pressure	MPa	0.8
Water Temperature	°C	10 - 45
Water Hose Diameter	mm	ID/OD = 4/6

Others

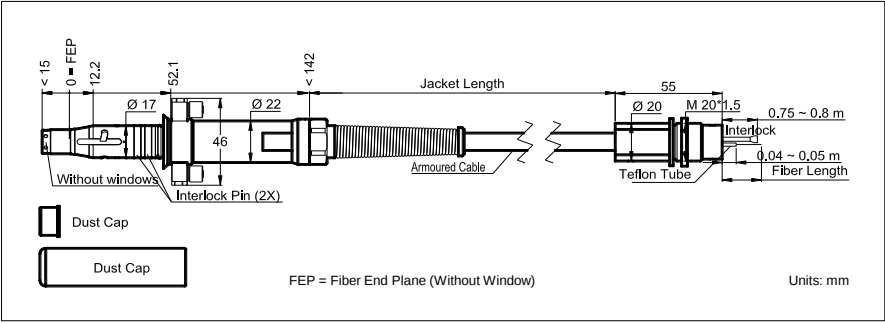
Mechanical Interface	-	Compatible with the Standard QBH Interface
Type of Cable Gland	-	Metal
Min. Fiber Tensile Load	N	5
Operating Temperature	°C	+ 5 to + 50
Storage Temperature	°C	- 20 to + 70

Safety Interlock

Interlock Circuit Resistance	3.3 kΩ ± 5% + 2 Ω/m fiber
Thermo-Switch Limit	70 °C ± 5 °C, Reset temp. < 30 °C
Max. Working Voltage	- 33 V



Package Dimensions



Ordering Information

Dragon-①①-②②②②-③③③-④④-⑤-⑥⑥-⑦-⑧-⑨⑨⑨⑨⑨

①①: Handling Power

10 - 10 kW

15 - 15 kW

SS - Specify

②②②②: Wavelength

0945 - 945 nm

1080 - 1080 nm

SSSS - Specify

③③③: Fiber Type

007 - BrightCore YZ042 50/70/360, 0.22 NA

008 - BrightCore YZ050 100/140/250, 0.12 NA

009 - BrightCore 100/120/200, 0.15 NA

010 - Nufern 50/70/360, 0.22 NA

011 - Nufern 100/120/360, 0.22 NA

SSS - Specify

④④: Jacket Length

10 - 10 ± 0.2 m

15 - 15 ± 0.2 m

20 - 20 ± 0.2 m

SS - Specify

⑤: Fiber Length

1 - ≥ 1 m

2 - ≥ 2 m

S - Specify

⑥⑥: Armoured Cable

13T - 13 mm, TPU

13P - 13 mm, PVC

⑦: Cable End Package

B - Binder Connector Type

P - 2-Pin Leadwire

N - None

⑧: Window Option

N - Without Window

⑨⑨⑨⑨⑨: Package Type

HPD11 - Type HPD11