



## Dragon 30 kW Q+ Compatible High Power Laser Cable (Dragon - UPD+ Series)

Rev 11

### Description

AFR's Dragon 30 kW product provides Q+ compatible connector for high power fiber lasers up to 30 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 Laser
- Fiber Coupling

### Specifications

Parameter	Unit	Value
Operation Wavelength	nm	1080 ± 30
Fiber Core Diameter	µm	100, 150, 200 or Specify
Numerical Aperture (NA)	-	0.22
Max. Transmission Loss of Fiber Core	%	2
Max. Power Handling	kW	30
Max. Peak Power	-	Max. 1 mW @ 50 ns
Max. Stripping Cladding Power	-	1.5 kW for 10 min 1 kW Continuously
Max. Z-Position Tolerance	µm	± 80
Max. Angular Deviation	mrad	10

### Cooling Water Requirements

Min. Flow Rate	L/min	4.0
Max. Water Pressure	Mpa	0.8
Water Temperature	°C	10 - 45
Water Hose Diameter	mm	ID/OD=6/8

### Others

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

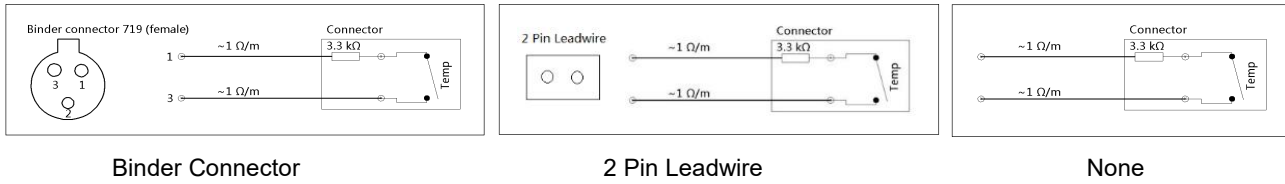
## Safety Interlock

Interlock Circuit Resistance

Thermoswitch Limit

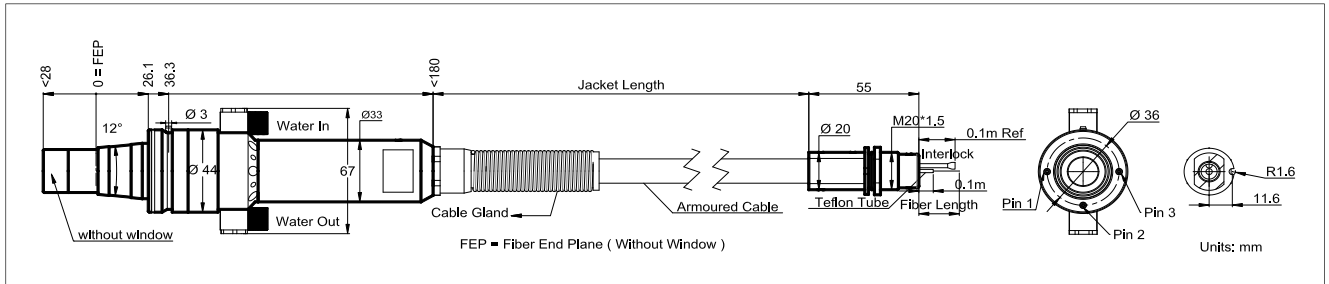
Max. Working Voltage

3.3 kΩ ± 5% + 2 Ω/m Fiber  
70 °C ± 5 °C, Reset temp < 30°C  
33 V



## Package Dimensions

UPD+2



## Ordering Information

**Dragon-①①-②②②②-③③③③-④④④④-⑤⑤⑤⑤-⑥⑥⑥⑥-⑦⑦⑦⑦-⑧⑧⑧⑧-⑨⑨⑨⑨⑨⑨**

①①: Handling Power

10 - 10 kW

20 - 20 kW

30 - 30 kW

SS - Specify

②②②②: Wavelength

1080 - 1080 nm

SSSS - Specify

③③③: Fiber Type

008 - Brightcore 100/140/250, NA0.12

011 - Nufern BD-S100/120/360-STN NA0.22

022 - YOFC SI 100/120/360, NA0.22

030 - YOFC SI 150/170/360-22/540, NA0.22

031 - Nufern BD-S150/180/660-STN, NA0.22

032 - YOFC SI200/220/360-22/650E, NA0.22

033 - Nufern BD-S200/220/360-STN, NA0.22

SSS - Specify

④④: Jacket Length

10 - 10 m

20 - 20 m

SS - Specify

⑤⑤⑤⑤: Fiber Length

1 - 1 m

2 - 2 m

S - Specify

⑥⑥⑥: Armoured Cable

13T - 13.3 mm, TPU

13P - 13.3 mm, PVC

⑦⑦: Cable End Package

B - Binder Connector

P - 2 Pin Leadwire

N - None

⑧⑧: Window Option

N - Without Window

⑨⑨⑨⑨⑨⑨: Package Type

UPD+2 - Type UPD+2