Advanced Fiber Resources (HK), Ltd.

Dragon 1940nm 600W High Power Laser Cable (Dragon Series)

Spec Review No.: SR35193 Date: Jun. 17, 2026

Description

AFR's Dragon 1940nm 600W product provides QBH compatible connector for high power fiber lasers up to 600W. Technonogies 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 Backward Power Handling
- Indirect Water Cooling
- Safety Interlock

Applications

- Fiber Laser Output Connector
- High Power Laser Coupling Cable

Specifications

Optical Parameter	**Unit**	**Value**
Operation Wavelength	nm	1940
Max. Transmission Loss of Fiber Core*	%	2
Surface Quality of EndCap(Effective Aperture: > 90%)[1]	/	φ ≤ 1.6 mm，MIL0 - 0 φ > 1.6 mm，MIL10 - 5
Max. Power Handling*	W	600
Min.Cladding Power Stripping Efficiency*	%	85
Backward Power Handling*	W	500
Max. Z-Position Tolerance	μm	80
Max. Angular Deviation	mrad	20

[1]Surface Quality is inspected under 20X microscope

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

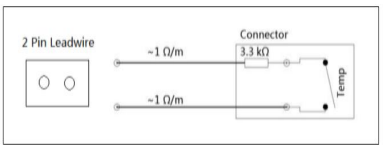
Others		
Mechanical Interface	-	Compatible with the Standard QBH Interface
Type of Cable Gland	-	Metal
Max. Fiber Tensile Load*	N	5
Max. Cable Tensile Load*	N	50
Storage Temperature	°C	- 20 to + 70
Operating Temperature	°C	+ 5 to + 50
Short Term (4h) Bend Radius[2]	cm	≥ 10
Long Term Bend Radius[2]	cm	≥ 15

[2]For Fiber Cladding Diameter ≤ 400um

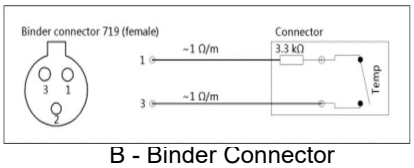
*Refer to Qualification Test Report or assuranced by design

Safety Interlock

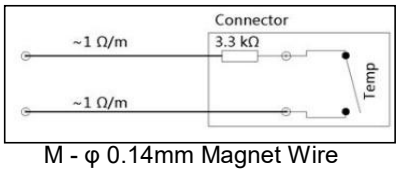
Interlock Circuit Resistance		3.3k Ω ± 5% + 2 Ω/m fiber
Thermo-Switch Limit		70 °C ± 5 °C, Reset temp. < 30 °C
Max. Working Voltage	-	33 V



P1 - XH 2.54 - 2P



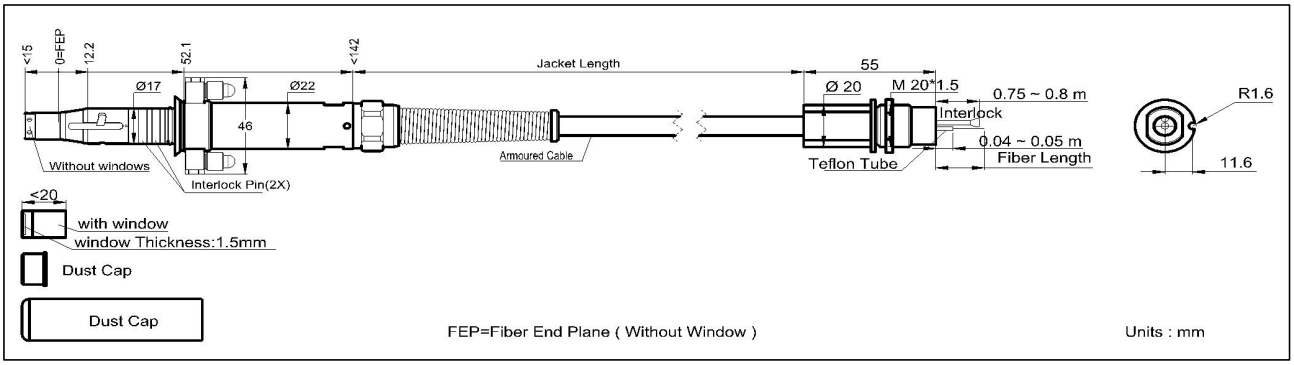
B - Binder Connector



M - φ 0.14mm Magnet Wire

Package Dimensions

HPD47



Ordering Information

Dragon-①①-②②②②②-③③③-④④-⑤-⑥⑥⑥-⑦-⑧-⑨⑨⑨⑨⑨

①①: Handling Power
0.6 - 600 W
SS - Specify

②②②②: Wavelength
1940 - 1940 ± 30nm
S - Specify

③③③: Fiber Type
073 - YOFC SI 200/220/360-22/540 (DC)
SSS - Specify

④④: Jacket Length
03 - 3 ± 0.2 m
SS - Specify

⑤: Fiber Length
1 - ≥ 1 m
S - Specify

⑥⑥⑥: Armoured Cable
13P - 13.3mm PVC
13T - 13.3mm TPU

⑦: Cable End Package
P1 - XH 2.54 - 2P
B - Binder Connector
M - φ 0.14mm Magnet Wire

⑧: Window Option
Y - With Window
N - Without Window

⑨⑨⑨⑨⑨: Package Type
HPD47 - Type HPD47