

FIBER OPTIC CABLE

Product Specifications

40V-11XX76BAYO-XX/XP

Issue Date: 06/08/2022

Revision: 9

40V-Series Activate™ PowerPipe™ Copper/Fiber Hybrid Cable Tight Buffer / Riser Design



Scope

This document establishes the specification requirements for composite cables consisting of a copper twisted-pair cable and a tight buffered distribution fiber optic cable combined under one common UV resistant jacket.

Applications

Premise communication applications indoor or outdoor in duct. Copper pairs suitable for use in all Class 4 fault-manage power systems such as Pulse Power, Digital Electricity and other smart transfer systems.

Applicable Documents & Standards

- •TIA/EIA FOTP Standards 455
- •Color Coding of Fiber Optic Cables per TIA/EIA-598
- •Meets CMR/FT4
- •Compliant with ANSI/TIA-568-C.3 standard
- •Compliant with NEC CL4 for fault managed power transmission

Construction Details (Copper Leg)

- •Conductor: 12, 14, 16, or 18 AWG stranded bare copper
- •Insulation Material: FR-PVC
- •Nominal Insulation Thickness: See table on page 2. •Nominal Insulation Diameter: See table on page 2.
- Color Code: Black/Red, Black/White, Black/Green, Black/Blue, Black/Yellow, Black/Brown, Black/Orange and Red/White
- •Inner Jacket Color: Green

Construction Details (Fiber Leg)

- •Tight Buffered Fiber: 4F, 6F or 8F SM (OS2)
- •Dimension: 900 μm
- •Color Code: Blue, Orange, Green, Brown, Gray, White, Red and Black
- •Cable Strength: Water swellable aramid yarns are pulled in with tight-buffered fibers under the jacket.
- •Inner Jacket Material: FR-PVC
 •Inner Jacket Color: Yellow
- •Surface Print:

REMFO 11-SERIES FIBER OPTIC CABLE XX(No. of Fibers)-SM OS2 BIF INDOOR/OUTDOOR REMEE PRODUCTS CORP. MM/YY (Month & Year of Mfg.) OFNR C(ETL)US MADE IN THE USA (Lot #) Sequential Footage Marking

Overall Construction Details

- •Construction Type: Copper cable and fiber cable are pulled in under a common jacket.
- •Jacket Material: FR-PVC
- Overall Sheath Color: UV-Yellow
- •Surface Print:

ACTIVATE™ by REMEE PowerPipe™ 40V-SERIES FIBER OPTIC CABLE XX (No. of Fibers)-SM OS2 BIF (No. of Pairs) (AWG size) OUTDOOR MM/YY (Month & Year of Manufacture) MADE IN THE USA (Lot #) + Sequential Footage Marking

Electrical Details (Pairs)

Maximum Operating Voltage: 300 Volts, rms. Nominal Mutual Capacitance: 35.0 pF/ft @ 1 kHz Upper Limit Capacitance: 40.0 pF/ft @ 1kHz Nominal Impedance, C to C: 100 Ohms Nominal D.C.R.: See Table on Page 2

All warranty information can be viewed at WWW.REMEE.COM

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Nominal Cable Dimensions & Weights										
Remee Products Part Number	Number of Conductors and AWG	D.C.R. Ω/Mft	Nom. Dia. Over Insul. (in.)	Nom Dia. Over Jkt. (Copper, in.)	Number of Fibers	Nom Dia. Over Fiber Jkt. (in.)	Nominal Overall Dimensions in.	Nominal Overall Dimensions mm	Weight lb/1000ft	Weight Kg/km
40V-110476BAYO-16/1P	1P 16	4.39	0.089	0.218	4	0.195	0.278 x 0.473	7.1 x 12.0	66.6	99.1
40V-110476BAYO-18/1P	1P 18	5.80	0.074	0.188	4	0.195	0.248 x 0.443	6.3 x 11.3	59.0	87.9
40V-110676BAYO-16/2P	2P 16	4.39	0.089	0.283	6	0.210	0.343 x 0.553	8.7 x 14.0	96.3	143
40V-110676BAYO-16/2P	2P 16	4.39	0.089	0.283	8	0.225	0.343 x 0.568	8.7 x 14.4	98.9	147
40V-110676BAYO-18/2P	2P 18	5.80	0.074	0.237	6	0.210	0.297 x 0.507	7.5 x 12.9	82.5	123
40V-110676BAYO-18/2P	2P 18	5.80	0.074	0.237	8	0.225	0.297 x 0.522	7.5 x 13.3	85.1	127
40V-110876BAYO-16/3P	3P 16	4.39	0.089	0.319	8	0.225	0.397 x 0.604	9.6 x 15.3	122	182
40V-110876BAYO-18/3P	3P 18	5.80	0.074	0.280	8	0.225	0.340 x 0.565	8.6 x 14.4	104	155
40V-110876BAYO-16/4P	4P 16	4.39	0.089	0.390	6	0.210	0.450 x 0.660	11.4 x 16.8	145	215

Fiber Type (P/N)	Maximum Attenuation dB/km				Overfill Launch Min Bandwidth (MHz-km)		EMBc (MHz-km)	Gigabit Ethernet Mini- mum Link Distance (Meters)		10 Gigabit Ethernet Minimum Link Dis- tance (Meters)	
	850 nm	1300 nm	1310 nm	1550 nm	850 nm	1300 nm		850 nm	1300 nm	850 nm	1300 nm
SM OS2 G.652.D/G.657.A1 BIF (76B)*	N/A	N/A	0.40	0.30	N/A	N/A	N/A	N/A	5000	N/A	10000

^{*} G.652d&G.657.A1 (76B) Mandrel Radius of 10mm, 1 turn at 1550nm with an induced attenuation of ≤0.50dB (76U is Corning Ultra)& 76B is Pyrsmian Bendbright)

Measured attenuations on shipping reels will not exceed the nominal values by 0.75 dB/km

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Mechanical & Environmental Performance

•Maximum Tensile Load

4 Fiber:

Installation: 1405N/315lbf Long Term: 455N / 102lbf

6 & 8 Fiber:

Installation: 1610N/362lbf Long Term: 535N / 120lbf

•Minimum Bending Radius Loaded : 20 x Diameter Unloaded: 10 x Diameter

 Crush Resistance 100 N/cm

•Impact Resistance (min.) 25 Impacts

•Flexing $\pm 90^{\circ}$ (min.) 25 Cycles

•Temperature Rating

Operation : -40° C to $+70^{\circ}$ C Installation : -20°C to +55°C* Storage : -40° C to $+70^{\circ}$ C

*Must be the temperature of the cable

Warranty Information

All warranty information can be viewed at www.remee.com. This product is RoHS compliant and is directive 2002/95/EC. It is the sole responsibility of the user to have the most current specification. Specifications are subject to change without notice.

Preparation for Shipment

The cable shall be packaged to preclude the inducement of damage due to handling and transportation, and shall be in accordance with the best commercial practices available. Shipping containers shall be constructed as to eliminate any possible damage to the cables due to shipment.

Note: While Remee Products Corp. has made every reasonable effort to ensure the accuracy of the information in this document. Remee Products Corp. reserves the right to make any adjustments to the information contained herein at any time without notice. Remee Products Corp. expressly disclaims all implied warranties regarding the information contained herein, including but not limited to, any implied warranties of merchantability or fitness for particular purpose. The dimensions in this documents are for reference purposes only and are subject to change without notice.

Spec Approval (Custom Designs Only)

Your signature constitutes that you have read and agreed to this specification sheet and upon confirmation of your order. The Remee Wire & Cable warranty is an integral part of this specification. This item may be non-cancelable and non-returnable.

Signature:	Date:	

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