# FURUTECH









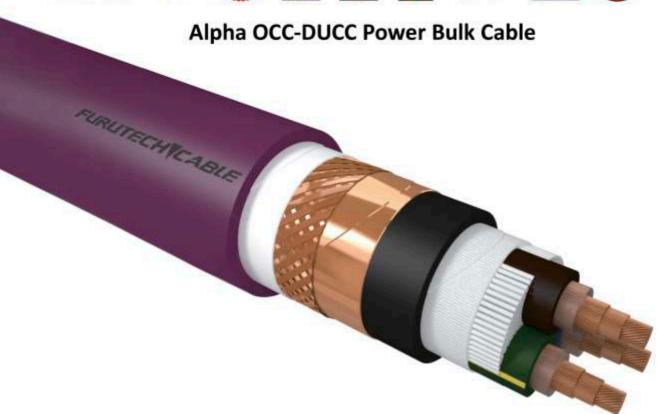












DPS-4.1(40M/Reel)

Furutech's α (Alpha) OCC-DUCC is one of a select few of conductors that Furutech engineers have found to excel in sound reproduction. α (Alpha) OCC -DUCC is constructed using a combination of DUCC Ultra Crystallized High Purity Copper and Furutech's world famous Pure Transmission α (Alpha)-OCC.

Furutech DUCC Ultra Crystallized High Purity Copper -- supplied and regulated with strict quality control by Mitsubishi Materials Industries -- is one of the best conductors Furutech engineers have found for signal transmission. (MMI is the leading manufacturer of the highest-purity oxygen-free copper in the world) Mitsubishi process this extremely pure oxygen-free copper with new technology that optimally aligns the crystals while reducing the number of crystal-grain boundaries resulting in a tremendously efficient

conductor.

Straight OCC's benefits are its larger "fibrous" crystals in which one dimension is longer than the other two so as to create as few crystal junctions as possible. Thus, OCC's sensitivity to directionality; one path exhibits the least resistance. Furutech's world famous Pure Transmission α-OCC is the result of further processing with the Alpha Super Cryogenic and Demagnetizing treatment.

However, DUCC purity goes a significant step further. Mitsubishi Materials designed the new conductor to optimally align the copper crystal grain structure in addition to reducing crystal grain boundaries. As a result, DUCC is less sensitive to directionality than OCC.

# **Construction and Material**

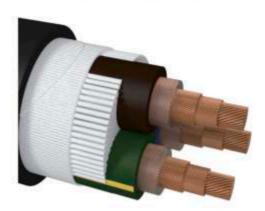
ltem		Specification	
	Material	Alpha-OCC + α-DUCC (7N Class)	
Conductor	Construction	Inner - 79/0.18α-OCC (Right rotate)	
	( pcs / mm )	Middle - 37/0.18α-DUCC (Left rotate)	
		Outer - 42/0.18α-DUCC (Right rotate)	
	Diameter ( mm )	2.75 Approx.	
	Size	11AWG / 4.02 Sq.mm	
	Inner Material	Audio Grade FEP (Fluoropolymer)	
Insulation	Outer Material	Audio Grade P.E.(Brown / Green / Blue)	
	Diameter ( mm )	5.75	
Twisting	Method	3 Cores Twisted Together	
Fillers		Cotton Filler	
Barrier Layer		Non-Woven Fabric wrap	
Inner Sheath	Material	Audio Grade Flexible PVC (Black)	
		Nano-Ceramic / Carbon particle compound	
	Diameter ( mm )	14.0	
Shield	Method	Cu-Foil + Braided OFC + Paper	
Sheath	Material	Audio Grade Flexible PVC (Purple)	
	Nom. Thickness ( mm )	1.2	
Overall Diameter ( mm )		17.0 Approx.	

# **Electrical Properties**

Item		Specification	Test Method	
Max. Conductor Resistance	$\Omega$ / km	4.5	JISC3005 6	20°C
Min. Insulation Resistance	MΩ·km	>2500	JISC3005 9.	1 20°C
Dielectric Strength	V / 1 min.	AC 3000	JISC3005 8	

### Cable Construction image:

## Enlarged conductor strand image

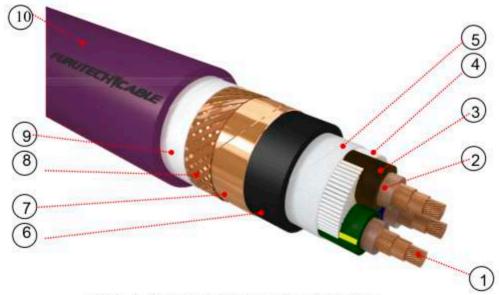




### Cross Sectional View



- Conductors :(79 inner Alpha-OCC 0.18mm and 37+42 outer Alpha DUCC 0.18mm strands) X 3 cores
- 2 Insulation(1): Audio Grade Fluoropolymer Layer
- 3 Insulation(2): Special Audio Grade PE (Brown/Green/Blue)
- 4 Fillers:Cotton Filler
- 5 Barrier Layer: Non-Woven Fabric wrap
- 6 Inner Sheath: Audio Grade RoHS Compliant Vibration Suppression PVC
- 7 Shield 1: Coppor Foil wrap
- 8 Shield-2:9x24 0.12mm copper wire stranded braid
- 9 Barrier Layer: Paper wrap
- 10 Outer Sheath : Audio Grade RoHS Compliant Ultra Flexible Pb free PVC(Purple)



DPS -4.1 Power Cable Construction

# Make a More Powerful Connection with Furutech!

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Product name	Product Introduction	JAN CODE
DPS-4.1 - 40	Power Bulk Cable	