# United OUTDOOR FIBER OPTIC CABLE





### **Cable Description**

The fibers, either of single-mode or multimode type, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. A steel wire sometimes sheathed with polyethylene (PE) for cable with high fiber count, locates in the center of core as strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. The cable core is filled with the filling compound to protect it from water ingress, over which a thin PE inner sheath is applied. After the CSA is longitudinally applied over the inner sheath, the cable is completed with a PE outer sheath.

### **Cable Cross Section**



PE Outer Sheath, Anti Rodent CSA (Corrugated Steel Armored) Water – Blocking Material PE Inner Sheath Strength Member Cable Filling Compound Tube Filling Compound Loose Tube Fiber

### **Application**

Aerial, Duct, Direct Buried





# UCSYPDMXX



### **Cable Characteristics**

- Accurate fiber excess length ensures good performance of tensile strength and temperature
- High strength loose tube that is hydrolysis resistant and special tube filling compound ensure a critical protection of fiber
- Crush resistance and flexibility.
- The following measures are taken to ensure the cable watertight:
  - 1. Single steel wire used as the central strength member
    - 2. Special Loose tube filling compound
    - 3. Complete cable core filling
    - 4. APL moisture barrier
    - 5. CSA moisture-proof
    - 6. Water-blocking material
- Bending Radius:
  - Static: 10D (Diameter of cable) Dynamic: 20D (Diameter of cable)

### **Part Number Information**

#### UCSYPDMXX

X = Type of Fiber Core (as Below Table) X = Fiber Count (2 ~ 216)

X	Type Of Fiber Core
050	GIMM50
062	GIMM62
550	Max Band 550MM
150	Max Band 150MM
300	Max Band 300MM
100	LCMM100
200	LCMM200
50H	HBGIMM50
62H	HBGIMM62
FL	FLWPSM
09	MCSM
HC	HCLSDSSM
LH	LEAHCPDSSM
DS	DSSM
PD	PDSSM

### **Cable Information**

Corrugated Steel Armored Cable Y Sheath Double Jacket

# Ummet outdoor



# UCSYPDMXX



### **Cable Parameters**

Cable Type (Increased by 2 fiber)	Fiber Count	PE Sheathed Steel Wire mm	Loose Tube Size mm	Tubes	Fillers	Cable Diameter mm	Cable Weight kg/km
UCSYPDMXX	4-6	/	1.5/2.1	1	5	14.0	221
UCSYPDMXX	8-12	/	1.5/2.1	2	4	14.0	221
UCSYPDMXX	14-18	/	1.5/2.1	3	3	14.0	221
UCSYPDMXX	20-24	/	1.5/2.1	4	2	14.0	221
UCSYPDMXX	26-30	/	1.5/2.1	5	1	14.0	221
UCSYPDMXX	32-36	/	1.5/2.1	6	0	14.0	221
UCSYPDMXX	38-42	2.6	1.5/2.1	7	1	15.7	220
UCSYPDMXX	44-48	2.6	1.5/2.1	8	0	15.7	220
UCSYPDMXX	50-60	2.6	2.0/2.6	5	1	14.2	220
UCSYPDMXX	62-72	2.6	2.0/2.6	6	0	14.2	220
UCSYPDMXX	74-84	4.5	2.0/2.6	7	1	16.8	308
UCSYPDMXX	86-96	4.5	2.0/2.6	8	0	16.8	308
UCSYPDMXX	98-108	6.1	2.0/2.6	9	1	18.9	365
UCSYPDMXX	110-120	6.1	2.0/2.6	10	0	18.9	365
UCSYPDMXX	122-132	8.0	2.0/2.6	11	1	21.5	463
UCSYPDMXX	134-144	8.0	2.0/2.6	12	0	21.5	463
UCSYPDMXX	146-216					21.5	448

Steel Wire: 2 mm ~ 2.25 mm Strength Long/Short Term: 1000 / 3000 N Crush Resistance: 3000N / 100 mm

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# UCSYPDMXX



## Mechanical requirements and methods of fiber cable

Tensile strength	Maximum working tensile: 3000N, conform to IEC 794-1-E1
Crush	Short term, 3000N/100mm, conform to IEC 794-1-E3
	Long term, 1000N/100mm, conform to IEC 794-1-E3
Impact	Conform to IEC 794-1-E4
Repeated bending	Conform to IEC 794-1-E6
Torsion	Conform to IEC 794-1-E7
Flexing	Conform to IEC 794-1-E8
Kink	Conform to IEC 794-1-E10
Cable bend	Conform to IEC 794-1-E11
Vibration	Conform to IEC 794-1
Water penetration	Conform to IEC 794-1-F5B
Spark test voltage	Spark test voltage of cable outer jacket will be no less than 8kV AC
Abrasion	Conform to IEC 794-1-E2A
Temperature requirement	Operation⊡: -40°C ~ +70°C Installation⊡: -40°C ~ +70°C
	Storage/transportation □: -40°C ~ +70°C
Temperature cycling test	Conform to IEC 794-1-F1

### **Mechanical specifications**

	Material	PE		
Inner sheath	Thickness	nominal: 1.0 mm		
Moisture barrier	Material	water blocking material		
Armoring	Material	PSP		
		nominal:0.15 mm corrugated steel tape		
	Ihickness	nominal:0.05 mm coating (each side)		
	Material	PE		
Outer sheath	Thickness	nominal: 2.0 mm		

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