PRODUCT BOOK

Applications
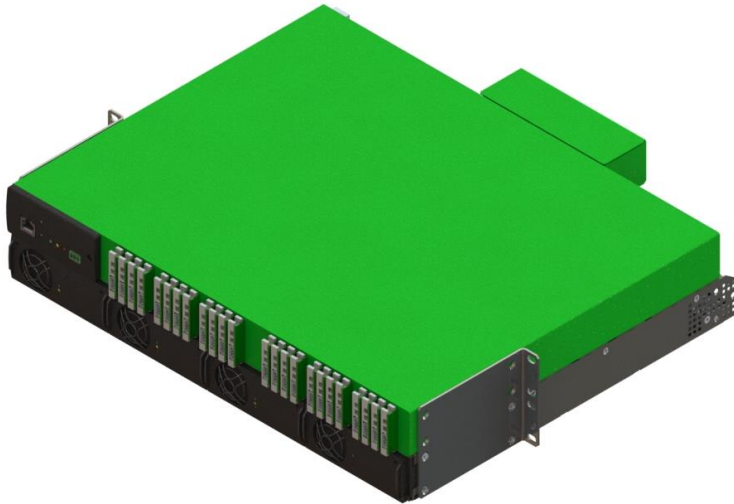
Wi-Fi

CCTV

5G / Small Cell

Lighting

KT-DDN-HE

Product Classification

The KelTech DDN Headend is a component of a DDN system, which utilizes hybrid cable systems to enable the delivery of both power and data to remote locations. If a fault occurs between the Headend and a DDN Remote Receiver (such as a person contacting the conductors or a loose connection), power is disconnected; preventing fire, equipment damage and personal injury. The headend is capable of taking either an AC or a DC input and can provide up to 12kW of power.

The headend complies with the newly published NEC 70 classification of Fault Managed Power Systems (FMPS) as a Class 4 power system and is certified as a limited power source per IEC 62368-1. This allows installation using standard multi-conductor cabling, typically without ducting (conduit), while conforming to standard electrical regulations for Building installations (Note: Always follow local codes).
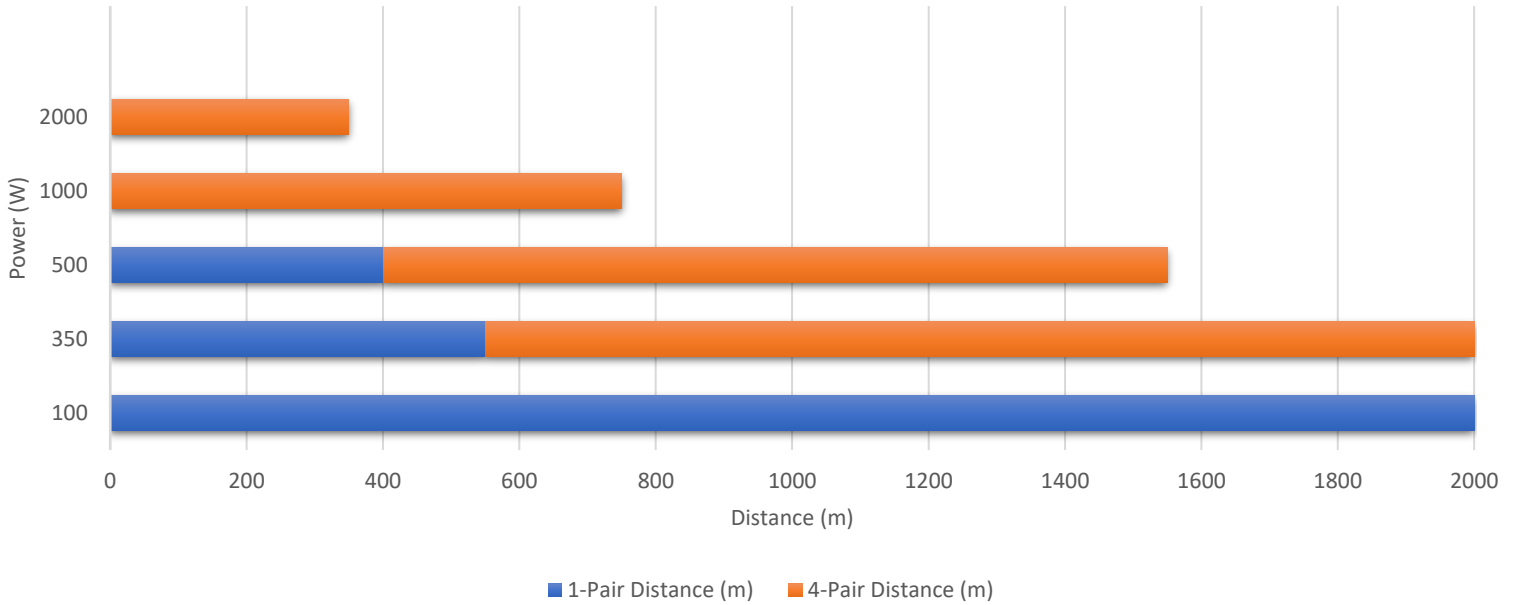
Features

Product Type	Headend	Operating Temperature	-20°C to 50°C
Product Brand	DDN	Ingress Protection	IP20
Input Voltage	100-272 VAC / 48 VDC	Humidity	5-95% Non-condensing
Input Current (Max)	18.2 A RMS per power module	Dimensions	449 x 494 x 88.9 mm
Output Voltage	315-350 V (336 V Nominal)	Weight fully populated	17.69 kg
Output Power (Max)	12 kW	Safety	IEC 62368-1
Output Voltage	48V	EMC	EN 55032 (CISPR 32) - Class A
Output Channels	24	Communication	Ethernet
Channel Current (Max)	3.0 A	Other	CE, RoHS

Power Delivery Capability
KT-DDN-HE*

Legend: ■ 1-Pair Distance (m) ■ 4-Pair Distance (m)

(Chart: Power (W) vs Distance (m))
- Y-axis: Power (W) — 100, 350, 500, 1000, 2000
- X-axis: Distance (m) — 0 to 2000

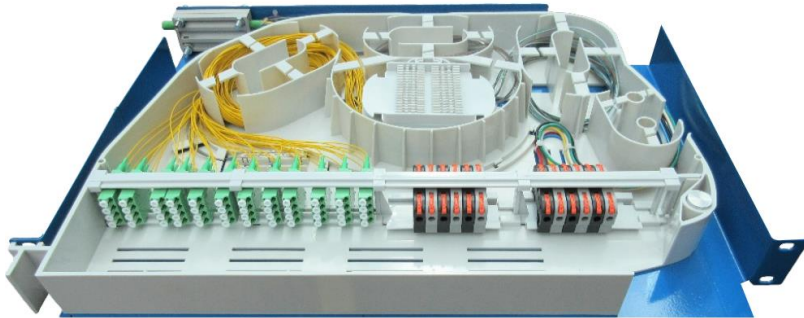* Based on $1.5mm^2$ conductors

Dimensions

2U / 88.9mm

449mm

Applications

Wi-Fi

CCTV

5G / Small Cell

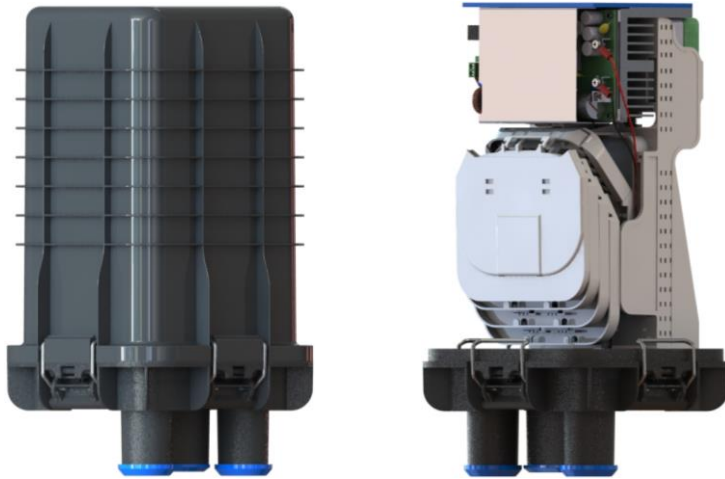Lighting

KT-DDN-PACT-ODF-H

Product Classification

The KelTech KT-DDN-PACT-ODF-H is a key component of Dual Distribution Networks, enabling the combination of both power and fibre optics into singular Hybrid Cables. The distribution frames compact 1U form factor enables high-density racks, minimizing space requirements. Up to 144F fibres can be spliced in the frame, with space for up to 12 copper pairs to be terminated. Up to four individual cables can be terminated to the distribution frame.

Features

Product Type	Distribution Frame	Splice Trays	15 x Cable Diameter Without Tension
Product Brand	DDN	Splices per Tray	20 x Cable Diameter Under max, Tension
Dimensions	485 x 42 348 mm 1U, 19" Rack Compatible	Splicing Type	-20 to +50 °C
Cable Ports	4	Splicing Capacity	2000 N Max
Fibre Type	Loose Ribbon, Ribbon, Tight-	PLC Splitter	$1000N/100mm$ Max 15mins IEC 60794-1-2-E3
	Buffer, Hybrid Fibre G652, G657 A1-A2	Adapter Plate	5 J, 3 Impacts, R=300 mm IEC 60794-1-2-E4
Fibre Adapter Type	36 x Duplex SC , 36 x Quad LC	Mounting	19" Rack Mount
Copper Size	$2.5mm^2$ Max.	Panel Style	Swing
Copper Pairs	12 Max.	Network Area Type	Core | Distribution | Drop

Applications

📶	Wi-Fi	📹	CCTV
📊	5G / Small Cell	💡	Lighting

KT-ENC-GEMINI-520

Product Classification

The Gemini-520 is a compact, all-in-one Hybrid Enclosure - enabling the distribution and termination of Dual Distribution Networks. The enclosure has the capacity to splice up to 72 Fibers, with space for up to 3 PLC Optical Splitters. A single Digital Electricity pair can be terminated inside the enclosure, with space to splice through up to 7 additional pairs.

Up to 300W of power can be delivered from the enclosure at 48VDC, with space for up to 16 drop cables to be connected. With high efficiencies of up to 95.6%, the product is capable of operating at temperatures between -40C and +55C. The enclosure features an ingress protection rating of IP68, allowing this product to suit both underground and above ground deployments. The product is available with pre-connectorized drop-cables for quick and easy installation.

Features

Product Type	Hybrid Enclosure	Cable Ports	1 x Oval, 2 x Round
Product Brand	DDN	Cable Sealing Type	Compressed Mechanical Seal
Product Series	Gemini	Loop Through	Uncut / Midspan
Material	ABS + Graphene/ABS + FST3403T	Splicing Capacity	84 Fibre Maximum
Ingress Protection	IP68 (EN60529, IEC60529)	Splices per Tray	28
Output Power	300W	Splice Trays	3
Output Voltage	48V	PLC Splitter	2 x 32 Way / 1 x 64 Way
Operating Temperature	-40°C - +55°C	Adapter Plate	2 x SC
Installation	Underground/Aerial/Pole*	Dimensions	132 x 18 x 15cm
	* Accessories sold separately		

Power Availability for
KT-ENC-GEMINI-520
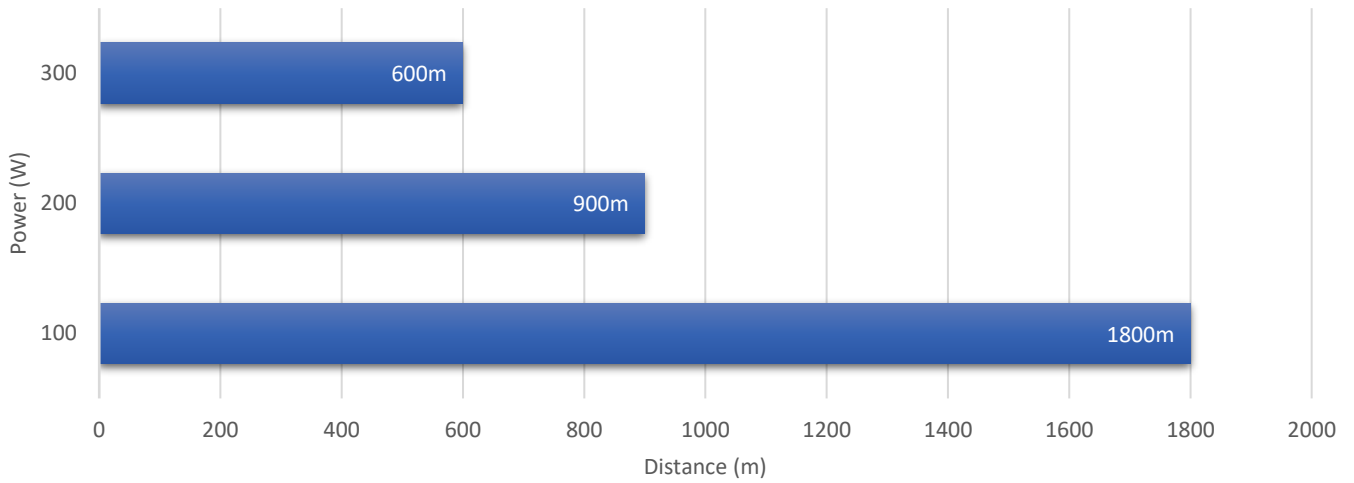
Ports

Cable Size mm	OMNIA Port Type	Seal Type	Max Capacity	Product Code
1.5 - 3.8	Round Port	16 Way Round	16 Cables	MR-16SK
3.8 - 6.5	Round Port	8 Way Round	8 Cables	MR-8SK
6.5 - 9	Round Port	4 Way Round	4 Cables	MR-4SK
6.5 - 7.5	Round Port	6 Way Round	6 Cables	MR-6SK
9 - 15	Round Port	1 Way Round	1 Cables	MR-1SK
1.5 – 8	Oval Port	8-way Grommet	8 Cables	OM-8SK
4 - 8	Oval Port	2-way Grommet	2 Cables	OM-4SK
4 - 8	Oval Port	10-way Grommet	10 Cables	OM-4+2SK
8 - 12.5	Oval Port	2-way Grommet	2 Cables	OM-12SK
15 - 20	Oval Port	1-way Grommet	2 Cables	OM-20SK

Applications

Wi-Fi

CCTV

FTTH

Lighting

KT-ENC-GEMINI-FD0

Product Classification

The Gemini-FD0 is a compact, all-in-one Hybrid Enclosure - enabling the distribution and termination of Dual Distribution Networks. The enclosure, typically is used to connect FTTH drop cables to the distribution network – can also be used to terminate and distribute SELV circuits (BS-7671). This is ideal for connecting and powering low-power applications such as Lighting, CCTV and Wi-Fi.

The enclosure supports Mid-span fibres and facilitates the use of pre-connected fibre cables. There is storage space for a 1 x PLC Splitter in the interchanged splice tray or base of the closure. Up to 2 x SC or 4 x LC adapters can be inserted into the ports within the splice tray. Two terminal blocks, allow for the connection of up to 5 electrical devices.

Features

Product Type	Hybrid Enclosure		Cable Sealing Type	Compressed Mechanical Seal
Product Brand	DDN		Loop Through	Uncut / Midspan
Product Series	Gemini		Splicing Capacity	8 Fibre Maximum
Material	ABS + Graphene/ABS + FST3403T		Splices per Tray	12
Ingress Protection	IP68 (EN60529, IEC60529)		Splice Trays	1
Operating Temperature	-40°C - +55°C		PLC Splitter	1 x 2 Way / 1 x 4 Way
Installation	Underground/Aerial/Pole*		Adapter Plate	2 x SC
Cable Ports	1 x Oval		Dimensions	114 x 103 x 178mm

* Accessories sold separately

Ports
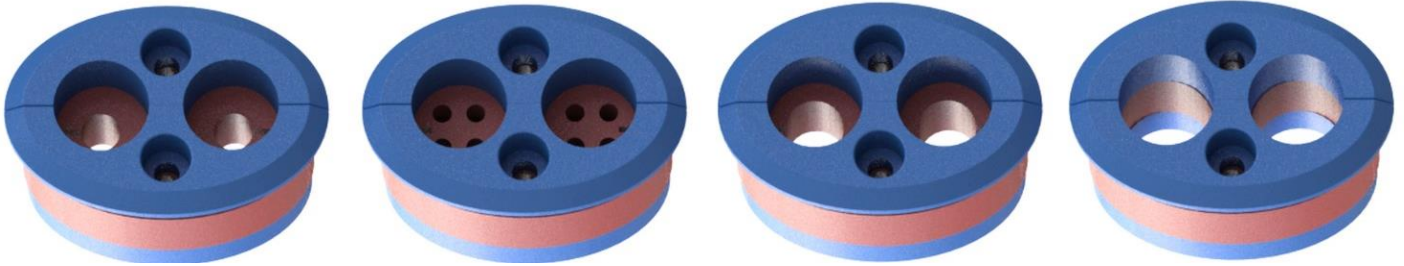
Cable Size mm	OMNIA Port Type	Seal Type	Max Capacity	Product Code
1.5 – 8	Oval Port	8-way Grommet	8 Cables	OM-8SK
4 - 8	Oval Port	2-way Grommet	2 Cables	OM-4SK
4 - 8	Oval Port	10-way Grommet	10 Cables	OM-4+2SK
8 - 12.5	Oval Port	2-way Grommet	2 Cables	OM-12SK
15 - 20	Oval Port	1-way Grommet	2 Cables	OM-20SK
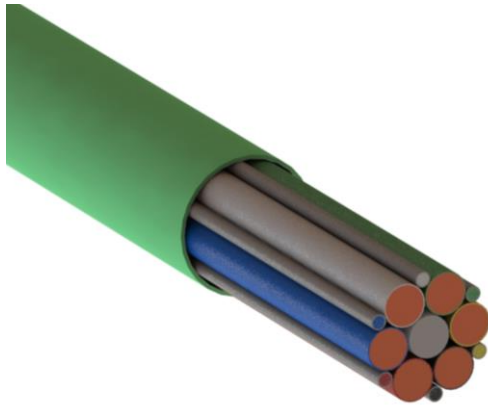
Applications

Wi-Fi		CCTV	
5G / Small Cell		Lighting	

KT-DDN-CB-3P-1M-12F

Product Classification

The KelTech KT-DDN-CB-3P-1M-12F is a Hybrid Capable, used to deliver Dual Distribution Networks (DDN). The cable is available in a range of configurations. This variation, contains 3-pairs of copper conductors - $1mm^2$ in size. The cable also contains 12 Fibres, contained within 6 buffer tubes. The cable also consists of a glass reinforced plastic central strength member. This cable is suitable for blowing installation method.

Features

Product Type	Cable	Min. Bending Radius	15 x Cable Diameter Without Tension
Product Brand	DDN		20 x Cable Diameter Under max, Tension
Fibre Count	6 (6x1) | 12 (6x2) | 36 (6x6)	Operating Temperature	-20 to +50 °C
Buffer Tube Diameter	0.9 mm	Installation Tension	2000 N Max
Copper Count	6	Crush	1000N/100mm Max 15mins IEC 60794-1-2-E3
Cross-sectional Area	1.0 mm^2	Impact	5 J, 3 Impacts, R=300 mm IEC 60794-1-2-E4
GRP Diameter	2.3mm	Temperature Cycling	-25 to +60 °C IEC 60794-1-2-F1
Cable Diameter	7.7mm	Voltage Rating	500V
Cable Weight	100 Kg/Km	Other	Suitable for Blowing