Alston systems

PRODUCT CATALOG

About Us

Alston Systems is an ICT, Security and Energy Savings Products Manufacturer. Our wide ranging product portfolio includes Communications and Network Cables and Components, Active products, Power Solutions, CCTV Solutions, LED lighting and Solar Energy Products.

Incorporating high level management and scientific work flow to achieve balanced development of scale, operational effectiveness and capacity-building, Alston Systems brings to you solutions engineered to the highest technical standards and tested by rigorous world class benchmarks.

Our corporate offices are located in USA and the UAE, and our state-of-the-art manufacturing hubs are located in Turkey, Taiwan and China. All our factories and suppliers are ISO 9001:20000 certified at the minimum with other relevant certificates, allowing us to ensure and maintain the highest levels of quality in our products.

We work with a worldwide network of Authorized Distributors through whom Alston Systems products are readily available at very competitive prices. All our distributors are required to maintain adequate stock in order to cater to local requirements.

Production Facilities

Production Line: As a leading manufacturer, the firm has invested heavily on high-tech systems for research and development to make sure Alston Systems delivers the highest quality and most advanced products. Our production capacity of copper cables reaches 80,000kft a month.

Quality Control: To ensure the highest standards of product quality combined with optimal manufacturing capacity, our QA/QC department performs rigorous quality control on all materials, spare parts and throughout the entire production process to ensure the highest quality of every component. Our products undergo a series of tests by industry leading testing apparatus such as UX-300 energy X-ray spectrum instrument (RoHS testing instrument), salt-fog cauterization test machine, coat thickness test machine, electronic chromatic machine and marble detection flat-roof machine.

R&D Team: This core group is comprised of experienced, specialized and innovative engineers to serve you from schematics to mass production. This team is constantly focused on developing and improving products that best serve the current and future market demands and specifications.

Skillful staff: All our staff are trained consistently with the latest techniques to upgrade their skill sets. They are empowered with rich craftsmanship, knowledge and a strong sense of quality and self-inspection.

Continuous Improvement & New Product Development

We are dedicated to continuously finding new ways to improve our products and services to better meet our customers' needs. We are firmly committed to new product development and monitor the industrial landscape closely to develop products that offer innovative solutions for a range of varying situations.

"No Defect on Products, No Claim from Customers" is the goal we pursue. We will continue following international standards and best practices to provide our customers with high quality products.

Warranty Policy

25 Years Warranty Policy is available through our network of approved Installers and Integrators for all our Cabling Products. Alston Systems guarantees that all products are sold and installed with the best quality and service, approved for the country for which they are purchased and are

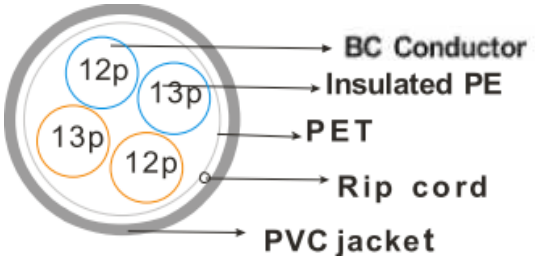
1. Free of mechanical defects
2. Free of electrical defects
3. Free of optical defects
4. Tested at production

Warranty Coverage: Technical parameters of the products specified in the company documentation, installation guide or the standards appropriate to each product in priority as written for a Basic Warranty Time. System Warranty Time is twenty-five (25) years and the warranty time starts from the date specified in the Warranty Certificate.

Certification

Delta EC
ISO/IEC 11 801:2002(Ed.2.0), including amendments A1:2008 and A2:2010 IEC 61156-5:2009 (Ed.2.0)
EN 50173-1:2007, including amendments A1:2008 and FprAB: 2010 EN 50173-2:2007 including; amendment A1:2010
EN 50173-1:2011 ANSI/TIA-568-C.2:2089 ISO/IEC 11 801 2nd edition: 2002 ISO/MEC 11801 amendment 2:2010 UL
TIA/EIA-568-B.2 CMX/CM l_e\/el ETL
ANSI/TIA-568-C.2
TIA/EIA-568-B.2

Table of Contents



Alston Systems Cat.3 UTP LSOH Multipair installation cable meets or exceeds ANSI/TIA/EIA 568A, ISO/IEC 11801& 60332-1, EN 50173 specifications. This range of unscreened cables is designed to support Cat.3 Link and Channel performance, with internationally defined physical and electrical performance up to 16MHz. All cables are compliant with RoHS.

Construction

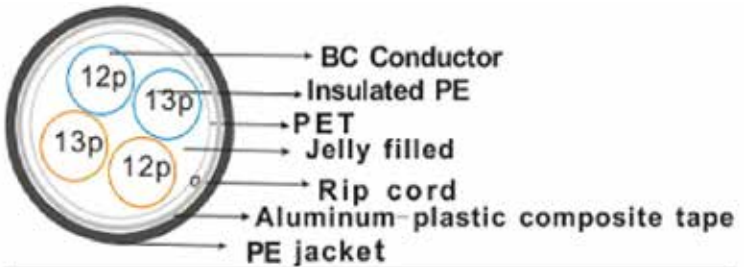
Conductor	24 AWG Soft Plain Copper				
Insulation	Polyethylene with color marking on Primary cores for easy identification				
Color Code	White/Blue	Red/Blue	Black/Blue	Yellow/Blue	Violet/Blue
	White/Orange	Red/Orange	Black/Orange	Yellow/Orange	Violet/Orange
	White/Green	Red/Green	Black/Green	Yellow/Green	Violet/Green
	White/Brown	Red/Brown	Black/Brown	Yellow/Brown	Violet/Brown
	White/Grey	Red/Grey	Black/Grey	Yellow/Grey	Violet/Grey
Sheath	Nominal Diameter	0.8mm ± 1.5mm / 25Pairs			
Additional Components	Overall Cable covered with Protective Tape				
	Cable is supplied without ripcord unless specified by the customer				

Physical Characteristics

Maximum Pulling Force	300N
Minimum Bending Radius	≥ 10D(with load); ≥ 15D(without load)
Nominal Weight	160Kg/km
Operating Temperature	-20°C ~ +60°C
Installation Temperature	0°C ~ + 50°C

ORDERING INFORMATION

Part No	Description
303310042	Alston Systems, Cat3 Multipair Indoor Cable 4 Pair, PVC 500 MTRS, Grey
303310052	Alston Systems, Cat3 Multipair Indoor Cable 5 Pair, PVC 500 MTRS, Grey
303310062	Alston Systems, Cat3 Multipair Indoor Cable 6 Pair, PVC 500 MTRS, Grey
303310102	Alston Systems, Cat3 Multipair Indoor Cable 10 Pair, PVC 500 MTRS, Grey
303310252	Alston Systems, Cat3 Multipair Indoor Cable 25 Pair, PVC 500 MTRS, Grey
303310502	Alston Systems, Cat3 Multipair Indoor Cable 50 Pair, PVC 500 MTRS, Grey
303311002	Alston Systems, Cat3 Multipair Indoor Cable 100 Pair, PVC 500 MTRS, Grey



Alston Systems Cat.3 Outdoor jelly filled telephone cables are primarily designed for the interconnection of various buildings in a campus environment. These cables are suitable for installation in outdoor ducts. In addition these cables may be used for the interconnection of other communication and control equipment or low level signaling applications. UV-blocking compounds also aid in protecting the cable from light. This range of unscreened cables is designed to support Cat.3 Link and Channel performance, with internationally defined physical and electrical performance up to 16MHz.

Technical Parameters

Conductor	AWG	24
	Structure	1/0.486±0.008mm
	Outer Diameter	0.486mm
	Material	BC
Insulation	Thickness	0.26mm(Nominal)
	O.D.	1.05±0.05mm
	Material	HDPE
	Color	(SEE Color of insulation table)
Filler	Type	Jelly Filled
Shield	Tape	PET
	Material	RIP CORD
	Tape	Al
Jacket	Thickness	1.2mm(Nominal)
	O.D.	22.5±1.0mm
	Material	PE
	Color	Black

Color of Insulation

No.	Non Stripe	Non Stripe	No.	Non Stripe	Non Stripe	No.	Non Stripe	Non Stripe	No.	Non Stripe	Non Stripe	No.	Non Stripe	Non Stripe
1	White	Blue	6	Red	Blue	11	Black	Blue	16	Yellow	Blue	21	Purple	Blue
2	White	Orange	7	Red	Orange	12	Black	Orange	17	Yellow	Orange	22	Purple	Or-ange
3	White	Green	8	Red	Green	13	Black	Green	18	Yellow	Green	23	Purple	Green
4	White	Brown	9	Red	Brown	14	Black	Brown	19	Yellow	Brown	24	Purple	Brown
5	White	Grey	10	Red	Grey	15	Black	Grey	20	Yellow	Grey	25	Purple	Grey

Electrical Performance

Item	Parameter
Conductor Resistance	≤97.8Ω/1000m
Insulation Resistance	≥3000MΩKm(DC500V Charged 1Min)
Voltage Endurance	DC 1000V/min
Core-core Resistance Unbalance	≤2.5%

High Frequency Performance

Item / Freq	NEXT ≥dB	SRL dB≥	SKEW ≤ns/100m	IL ≤dB/100M	NOTE
1MHz	39.1	N/A	50	4.2	TIA Cat 3 Channel
4MHz	29.3			7.3	
8MHz	24.3			10.2	
10MHz	22.7			11.5	
16MHz	19.3			14.9	

Item / Freq	NEXT ≥dB	SRL dB≥	SKEW ≤ns/100m	ATTN ≤dB/100M	NOTE
1MHz	44.3	12.0	45	2.6	100M TEST Promised 10% line of parameter variation (unqualified)
4MHz	35.3	12.0		5.6	
8MHz	30.8	12.0		8.5	
10MHz	29.3	12.0		9.7	
16MHz	26.2	10.0		13.1	

ORDERING INFORMATION

Part No	Description
304330043	Alston Systems, Cat3 Outdoor Cable 4 Pair, Jelly filled, PE 500 MTRS
304330053	Alston Systems, Cat3 Outdoor Cable 5 Pair, Jelly filled, PE 500 MTRS
304330063	Alston Systems, Cat3 Outdoor Cable 6 Pair, Jelly filled, PE 500 MTRS
304330103	Alston Systems, Cat3 Outdoor Cable 10 Pair, Jelly filled, PE 500 MTRS
304330253	Alston Systems, Cat3 Outdoor Cable 25 Pair, Jelly filled, PE 500 MTRS
304330503	Alston Systems, Cat3 Outdoor Cable 50 Pair, Jelly filled, PE 500 MTRS
304331003	Alston Systems, Cat3 Outdoor Cable 100 Pair, Jelly filled, PE 500 MTRS

Alston System Cat.3 unshielded patch panels comply with ANSI/TIA/EIA 568A, ISO/IEC 11801, EN 50173 specifications. The complete module complies with EU ROHS directive. The construction is in standard 1U 19″ size, suitable for all 19″ rack installations. The main metal frame and rear back cover are made of SECC material, with a thickness of over 1.0mm. The products are 4P4C terminal block for 25ports, and 8P8C for 50 ports type and come in black or light gray color.

Physical Characteristics:

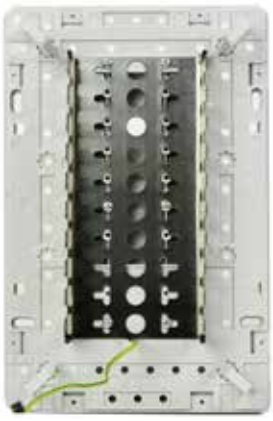
- Jack: Phosphor bronze
- 3µ inch gold plating over nickel in contact area
- DC : 30µ inch phosphor bronze or tin plated over nickel

Application:

- 10BASE-T Ethernet
- Supports all voice systems

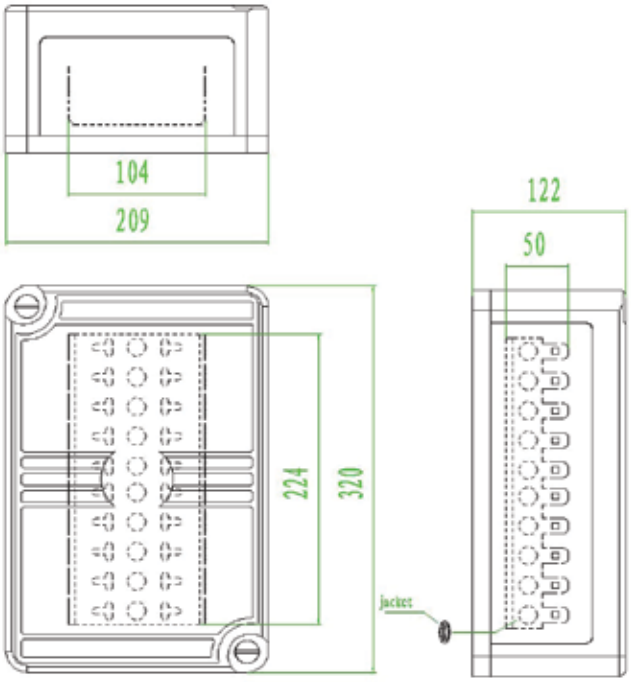
ORDERING INFORMATION

Part No	Description
331130253	Cat3 Voice Patch Panel, 25 Port
331130503	Cat3 Voice Patch Panel, 50 Port



Alston Systems Indoor Connection Box is an adaptable plastic box designed to contain various back mount frames and mountings for ancillary components. The base has generous provisions for fixing of cable tie anchors, jumper rings, earth posts and connector

Technical Drawings
100 Pair Indoor DB Box



20 Pair indoor DB Box (UK Type)

20 pair Distribution Box (UK Type), with Mounting Frame, w/out Module, Measurement - L:170mm, W:120mm, H:55mm ABS (UL V0) Material

50 Pair indoor DB Box (UK Type)

50 pair Distribution Box (UK Type), with Mounting Frame, w/out Module, Measurement - L:208mm, W:159mm,H:90mm ABS (UL V0) Material

100 Pair indoor DB Box

100 pair Distribution Box (UK Type), with Mounting Frame, w/out Module, Measurement - L:319mm, W:209mm,H:122mm ABS (UL V0) Material

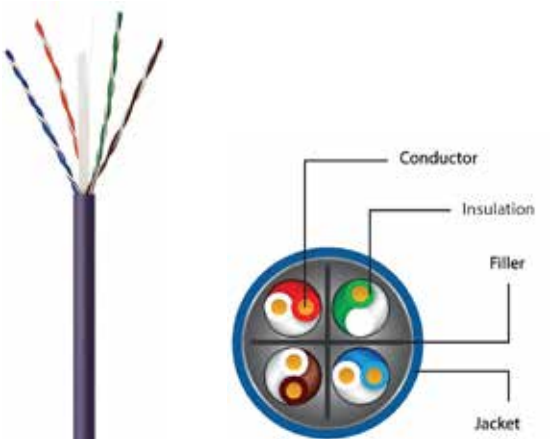
Material of Plastic Parts – ABS-VO-UL94, Grey
Material of contact pins – 1mm Silver-Plated Bronze

Disconnection modules

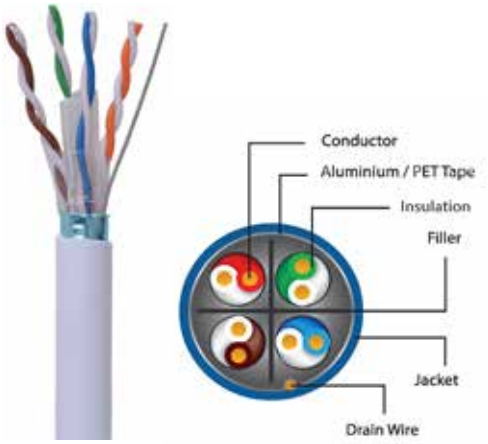
Environment	
Environment Condition	-40ºC to 90 ºC
Operation Condition	-20ºC to 80 ºC
Atmospheric Pressure	70-106KPA
Relative Humidity	<85%
Mechanical Specifications	
Pulling-out force	≥25N
Diameter of connection wire	22AWG-26AWG
Insulation resistance between the reed terminators	≥10GΩ
Contact resistance	≥1mΩ
Dielectric Strength	2KV eff
Impulse Voltage resistance	3.6KV(8/20)
Operating Voltage for basic insulation	210Vdc, 150V eff TNV
Pollution Class	II
Insulation material class	I
Transient over Voltage for basic insulation	2.5KV
Current carrying capacity, disconnection module, connection	10KA/5KA
IDC re-termination	≥200 cycles
Number of test cord insertions	≥750
Transmission performance	≥TIA 566B CATEGO
Material and Package	
Plastic Components	PBT (UL94V-0)
Contact material	Phosphor bronze (Qsn6, 5-0.1)
Contact plating	Silver plating 20 uinch
Specifications	10 pairs
IDC Type	Disconnection type
Dimension (HXWXD)	124mm x21mm x40 mm

ORDERING INFORMATION

Part No	Description
811000202	Alston Systems, Indoor Distribution Box, 20Pair, Grey Color
811000502	Alston Systems, Indoor Distribution Box, 50 Pair, Grey Color
811001002	Alston Systems, Indoor Distribution Box, 100 Pair, Grey Color
811002002	Alston Systems, Indoor Distribution Box, 200 Pair, Grey Color
821000106	Alston Systems, Indoor Distribution Box, 10 Pair, White



Cat.6 UTP Cable 4 Pairs

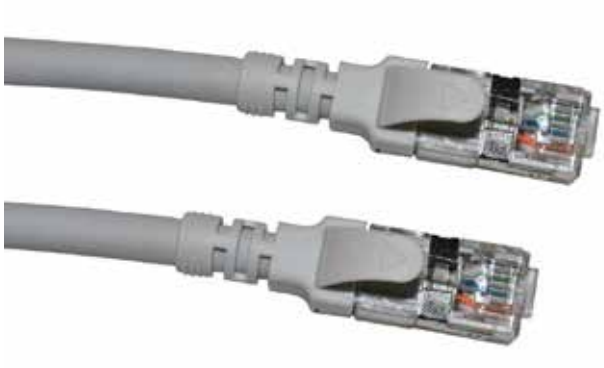


Cat.6 F-UTP Cable 4 Pairs

Alston Systems Category 6 components comply with requirements as per standards ANSI/TIA 568-C.2, ISO/IEC 11801 ED.2 and EN 50173-1m. This confirms that the complete Category 6 Channel meets corresponding protocols & communication standards.

Standard Compliances

- ISO /IEC 11801:2002(Ed.2.0) including amendments A1:2008 and A2"2010
- IEC 61156-5:2009 (Ed2.0)
- EN 50173-1:2011, EN50173-2:2007 including amendment A1:2010, ANSI/TIA-568-C.2:2009



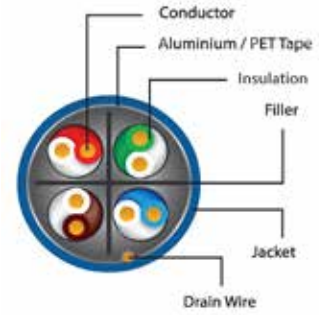
Application

- IEEE 802.3:1000BASE-T (Gigabit Ethernet), 100BASE-TX, 10BASE-T
- ANSI/TIA/EIA-854:1000BASE-TX
- 155 Mb/s, 1.2 Gb/s ATM
- ANSI X3.263:100 Mb/s, IEEE 802.3af DTE Power (POE)
- 4/16 Mb/s Token ring, Digital Video, Broadband and baseband Analog Video

Features and Benefits

Tape design engineered for smaller overall diameter and ease of installation. Characterized and tested to 250MHz. Positive PSACR up to 300MHz for future bandwidth requirements. Unique product specific packaging for ease of identification. Every master reel is tested to ensure electrical performance compliance. Print legend contains footage marking from 305M to 0M or 500M to 0M. ROHS complaint, UL Listed & ETL/ EC Verified.

Alston Systems Category 6 F-UTP cables are recommended to be used in conduits to avoid any possible interference. They can be used for network connectivity, telephony systems, instrumentation and other low voltage circuits that require anti-interference.



Cat.6 SF-UTP Cable 4 Pairs

Electrical Performance

Meet IEC 61156-5 ED.2.0 Category 5e Horizontal Cable Parameters

Freq. (MHz)	Ins. Loss (db/100m)	RL (db)	Pair to Pair (db/100m)		Power Sum (db/100m)		Po. Delay (ns/100m)
			Next	Elfext	Next	Elfext	
	Max.	Min.	Min.	Min.	Min.		
1	-	20	-	-	-	-	-
4	3.8	23	66.3	56.0	66.3	53.0	552.0
10	6.0	25	60.3	48.0	57.3	45.0	545.4
16	7.6	25	57.2	43.9	54.2	40.9	543.0
20	8.5	25	55.8	42.0	52.8	39.0	542.0
31.25	10.7	23.6	52.9	38.1	49.9	35.1	540.4
62.5	15.5	21.5	48.4	32.1	45.4	29.1	538.6
100	19.9	20.1	45.3	28.0	42.3	25.0	537.6
200	29.1	18	40.8	22.0	37.8	19.0	536.5
250	33.0	17.3	39.3	20.0	36.3	17.0	536.3

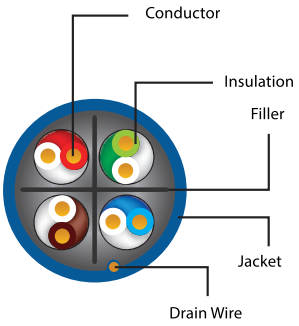
Technical Parameters

Capacitance unbalance (max) @0.8 or 1 KHz (pF/km)		1600
DC Resistance (max).˚/k m @ 20°C		95
Resistance unbalance within a pair (max). (%)		2
Resistance unbalance between pairs (max)(%)		4
Delay Skew (max.) ns/100m @20°C		45
Mean input impedance @ 100MHZ		100 ±5°
Dielectric Strength:	Min	Min
	1.0kVdc or 0.7kVac	2 . 5 k V d c or1.7kVac
	for 1 min.	for 2 secs

ORDERING INFORMATION

Part No	Description
301100061	Category 6 U/UTP Installation Cable, 23 AWG 305 m box, PVC, Blue
301100062	Category 6 U/UTP Installation Cable, 23 AWG 305 m box, PVC, Grey
301100064	Category 6 U/UTP Installation Cable, 23 AWG 305 m box, PVC, Green
301200061	Category 6 F/UTP Installation Cable, 23 AWG 305 m box, PVC, Blue
301200062	Category 6 F/UTP Installation Cable, 23 AWG 305 m box, PVC, Grey
301200064	Category 6 F/UTP Installation Cable, 23 AWG 305 m box, PVC, Green
301300061	Category 6 SF/UTP Installation Cable, 23 AWG 305 m box, PVC, Blue
301300062	Category 6 SF/UTP Installation Cable, 23 AWG 305 m box, PVC, Grey
301300064	Category 6 SF/UTP Installation Cable, 23 AWG 305 m box, PVC, Green
302100061	Category 6 U/UTP Installation Cable, 23 AWG 305 m box, LSZH, Blue
302100062	Category 6 U/UTP Installation Cable, 23 AWG 305 m box, LSZFI, Grey
302100064	Category 6 U/UTP Installation Cable, 23 AWG 305 m box, LSZFI, Green

Alston Systems Category 6 UTP Outdoor cables are designed to be installed in PVC ducts in an outdoor environment. This carries the same electrical performance as normal Cat6 UTP cable with PVC sheath.



Standard Compliances

- IEC 61156-5:2009 (Ed2.0)
- ANSI/TIA/EIA-568-B.2-1 Cat.6
- Delta EC,ETL

Application

For horizontal network and voice application in a structured cabling system including IEEE802.3 1000 Base-T, 100 Base-Tx, 10 Base-T 1000 Base-Tx (ANSI/TIA/EIA-854-2001), 155Mb/s ATM, 4/16 Mb/s Token ring etc.

Features and Benefits

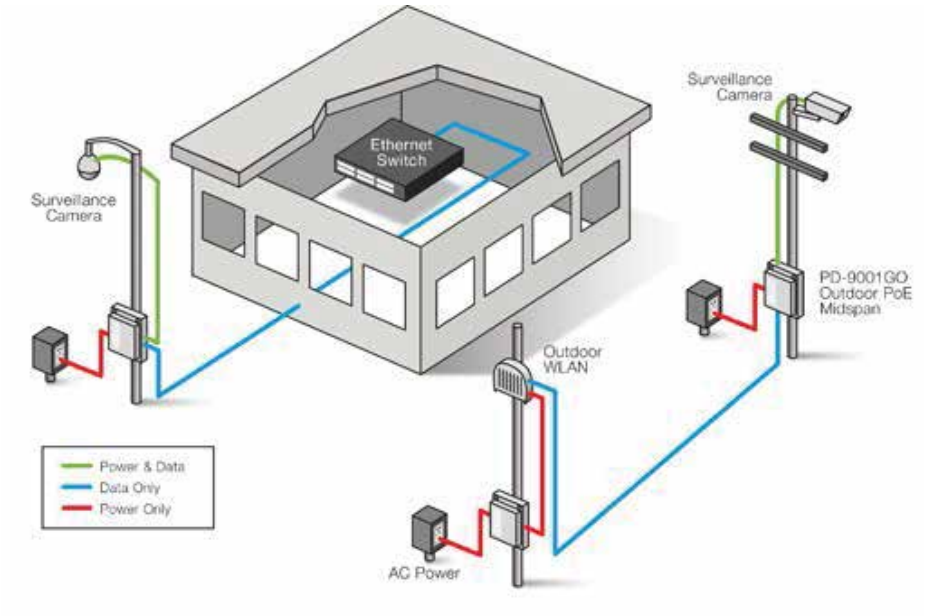
- Tape design engineered for smaller overall diameter and ease of installation
- Characterized and tested to 250MHz
- Positive PSACR up to 300MHz for future bandwidth requirements
- Unique product specific packaging for ease of identification
- Every master reel is tested to ensure electrical performance compliance
- Print legend contains footage making from 305M to 0M or 500M to 0M
- ROHS complaint, UL Listed & ETL/ EC Verified

Cable Construction

Solid bare copper conductors insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit. A cross filler is cabled in between to separate the 4pairs insulated conductors Overall jacket with PE compound.

Cable description

CONDUCTOR	Size - 23 AWG Type - Solid bare copper Diameter (mm - 0.55±0.01)
INSULATION	Type - PE Diameter (mm)- 0.973± 0.05 Min. Thickness (mm) - 0.186
PAIRS - Color Code	Pair 1 - Blue / White - blue strip Pair 2 - Orange / White - orange strip Pair 3 - Green/White - green strip Pair 4 - Brown / White - brown strip
CENTRAL ELEMENT	Type - PE cross separator
JACKET	Type - PE Overall Diameter (mm) - 6.1 ± 0.3



Technical Data - Physical

Cold Blend Test	-20 ± 2, X 4hrs no. crack	
Dielectric strength	AC 1.7 KV for 2S.	
Insulation	Before Aging	After Aging
Min. Tension strength (psi)	2400	75% B. Aging (100, X 48hrs)
Min elongation (%)	300	75% B. Aging (100,X48hrs)
Jacket		
Min,Tension strength (psi)	2400	85% B. Aging (100, X 168hrs)
Min elongation (%)	300	50% B. Aging (100. X 168hrs)
Min. bending radius (mm)	180	
Max. pulling tension (lbs)	40	
Installation temperature	0,to+50,	
Operating temperature	-10t t o +50t	
Packing	05/500/1000m on a wooden drum overall wrapped over by PE ylm	

Electrical Performance

MEETS IEC 61156-5 ED.2.0 Category 6 Horizontal Cable Parameters

Freq. (MHz)	Ins. Loss (db/100m)	RL (db)	Pair to Pair (db/100m)		Power Sum (db/100m)		Po. Delay (ns/ IOOm)
			Next	Elfext	Next	Elfext	
	Max.	Min.	Min.	Min.	Min.		
1	-	20	-	-	-	-	-
4	3.8	23	66.3	56.0	66.3	53.0	552.0
10	6.0	25	60.3	48.0	57.3	45.0	545.4
16	7.6	25	57.2	43.9	54.2	40.9	543.0
20	8.5	25	55.8	42.0	52.8	39.0	542.0
31.25	10.7	23.6	52.9	38.1	49.9	35.1	540.4
62.5	15.5	21.5	48.4	32.1	45.4	29.1	538.6
100	19.9	20.1	45.3	28.0	42.3	25.0	537.6
200	29.1	18	40.8	22.0	37.8	19.0	536.5
250	33.0	17.3	39.3	20.0	36.3	17.0	536.3

Technical data -Electrical

Conductorresistance (7100m @ 20 J	Max.	9.5	
DC resistance unbalance (%)	Max.	4	
Pair-to-ground capacitance unbalance (pF/km)	Max.	1600	
Delay skew (ns/100m)	Max.	45	4lf,250MH z
Insertion Loss (dB/IOOm)	Max.	,82*'f + 0.0169* f +0.25/'f	1 L f t 250MH z
Pair to Pair NEXT (dB/IOOm)	Min.	75.3 -15 * log(f)	1 .f.250MH z
PowerSum pr-pr NEXT (dB/IOOm)	Min.	72.3 -15 * log(f)	1 t f t 250MFI z
ELFEXT (dB/IOOm)	Min.	68 - 20 * log(f)	1 L f t 250MH z
PowerSum ELFEXT (dB/100m)	Min.	65 - 20 * log(f)	1 L f t 250MH z
Return Loss (dB)	Min.	20 + 5 * log(f)	1 t f t 250MFI z
Propagation Delay (ns/IOOm)		25	lO.f^OMH z
Input Impedance (°)	Max.	25 - 7 * log(f / 20)	20.f1250MH z
		534 + 36 H	1 .f,250MH z

ORDERING INFORMATION

Part No	Description
301400063	Category 6 U/UTP PE Sheath Outdoor Installation Cable 23 AWG 305 m Box, Black

Alston Systems 180° unshielded keystone jack comes with a classic design. The dual type IDC accepts 22-26 AWG solid cables and it can be easily terminated with 110 or Krone tools. It supports T568 A&B wiring for better connectivity & stable performance.

Specifications

- Meets ANSI/TIA/EIA-568-B.2-1 requirements
- Meets ISO/IEC 11801

Material

- Housing: FR and IR PCB (fire-retardant and impact -resistant polycarbonate) UL 94V-0
- Pin contacts: phosphor bronze alloy plated with 50 micro-inch of gold IDC: for 22-26 AWG cable

Environmental Conditions

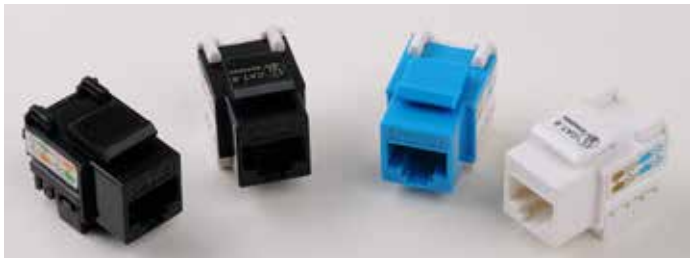
- Storage temperature: -40°C - +70°C (-40°F to +158°F)
- Operating temperature: -10°C - +60°C (+14°F to +140°F)
- Relative humidity: 93%

Electrical Characteristics

- 230VAC/115VAC
- Meets UL 1863
- Current rating: 1.5 A max
- Voltage rating: 150 V max
- Insulation resistance: 500 MOhm min at 100 V DC
- Dielectric withstand voltage: 1000 V AC RMS, 60Hz for 1 min
- Contact resistance: 20 MOhm max
- IDC Contact resistance: 2,5 MOhm max

ORDERING INFORMATION

Part No	Description
321110066	Cat.6 90° Shielded Keystone Jack, Dual Type IDC, White
321110063	Cat.6 90° Shielded Keystone Jack, Dual Type IDC, Black



This series keystone jacks work together with high speed cables, cords and panels to provide optimal performance. It comes with a universal colored wiring label which meets T568A/B wiring scheme.

Specifications

- Meets ANSI/TIA/EIA-568-B.2-1 requirements .
- Meets ISO/IEC11801

Material

- Housing: FR and IR PCB (fire-retardant and impact-resistant polycarbonate) UL 94V-0
- Pin contacts: phosphor bronze alloy plated with 50
- micro-inch of gold IDC: for 22-26 AWG cable

Environmental Conditions

- Storage temperature: -40°C - +70°C (-40°F to +158°F)
- Operating temperature: -10°C - +60°C (+14°F to +140°F)
- Relative humidity: 93%

Electrical Characteristics

- 230VAC/115VAC
- Meets UL 1863
- Current rating: 1.5 A max
- Voltage rating: 150 V max
- Insulation resistance: 500 MOhm min at 100 V DC
- Dielectric withstand voltage: 1000 V AC RMS, 60Hz for 1 min
- Contact resistance: 20 MOhm max
- IDC Contact resistance: 2,5 MOhm max

ORDERING INFORMATION

Part No	Description
321100066	Cat.6 90° Unshielded Keystone Jack, Dual Type IDC, White
321100063	Cat.6 90° Unshielded Keystone Jack, Dual Type IDC, Black

UK Type PVC Faceplates

UK Type Metal Faceplates

Alston Systems Face Plate comes with single, double and quad led-out terminals of UK and US designs for universal acceptance. Modules are snap in type and a label holder is provided for easy identification at user end.

Features

- Secures to any surface, drywall, baseboard, and even modular furniture
- Available in PVC and Metal finish
- 100% compatible with standard wall (face) plates
- Keystone jacks can be snapped in and out easily
- Comes in models to accommodate 1/2/3/4 inserts and shuttered dust cover
- Comes with hidden mounting screws and clear outlet ID labels
- Apply UL-94V-0 high-impact, fire-retardant ABS resin

ORDERING INFORMATION

Part No	Description
310100016	Face Plate, Right-angle, 45°Entry, 86*86, Snap-In,w/- Shutter, 1 -Port, white, PVC
310100026	Face Plate, Right-angle, 45°Entry, 86*86, Snap-In,w/- Shutter, 2-Port, white, PVC
310100046	Face Plate, Right-angle, 45°Entry, 86*146, Snap-n, w/- Shutter, 4-Port, white, PVC
310200016	Face Plate, Right-angle, 90°Entry, 86*86, Snap-In,w/- Shutter, 1-Port, white, PVC
310200026	Face Plate, Right-angle, 90°Entry, 86*86, Snap-In,w/- Shutter, 2-Port, white, PVC
310200046	Face Plate, Right-angle, 90°Entry, 86*146, Snap-n, w/- Shutter, 4-Port, white, PVC
311100016	Face Plate, Bevel, 45°Entry, 86*86, Snap-In, w/- Shutter, 1-Port, white, PVC
311100026	Face Plate, Bevel, 45°Entry, 86*86, Snap-In, w/- Shutter, 2-Port, white, PVC
311100046	Face Plate, Bevel, 45°Entry, 86*146, Snap-n, w/- Shutter, 4-Port,whte, PVC
311200016	Face Plate, Bevel, 90°Entry, 86*86, Snap-n, w/- Shutter, 1-Port, white, PVC
311200026	Face Plate, Bevel, 90°Entry, 86*86, Snap-n, w/- Shutter, 2-Port, white, PVC
311200046	Face Plate, Bevel, 90°Entry, 86*146, Snap-n, w/- Shutter, 4-Port,whte, PVC

Alston Systems fly leads are designed for end to end optimal performance to the network. Different colors are provided for easy identification of data drops in a multi network environment.

PATCH CORD UTP

Cable

- Conductor: 7 copper wires Ø0.20 mm (0.008″), 24 AWG
- Insulation: High Density Polyethylene (HDPE)
- Diameter of insulated conductor: 0.98 ± 0.05 mm (0.039″ ± 0.002″)
- Number of pairs: 4
- Color of twisted pairs: blue-white/blue, orange-white/ orange, green-white/green, brown-white/brown

Plugs

- 2 pieces RJ-45 8P8C, category 6, for patch cable
- Contact: 1.27 micron (50 micro inches) gold plated copper alloy
- Latch guard Material: PVC

ORDERING INFORMATION

Part No	Description
36116005X	Cat.6, UTP patch cord, molded, snag proof, 0,5m Lgt., PVC "X" denotes color
36116001X	Cat.6, UTP patch cord, molded, snag proof, 1M lgt, PVC "X" denotes color
36116002X	Cat.6, UTP patch cord, molded, snag proof, 2m lgt, PVC "X" denotes color
36116003X	Cat.6, UTP patch cord, molded, snag proof, 3m lgt, PVC "X" denotes color
36136001X	Cat.6, S/FTP patch cord, molded, snag proof, 1M lgt, PVC "X" denotes color
36136002X	Cat.6, 5/FTP patch cord, molded, snag proof, 2m lgt, PVC "X" denotes color
36136003X	Cat.6, S/FTP patch cord, molded, snag proof, 3m lgt, PVC "X" denotes color
36136005X	Cat.6, S/FTP patch cord, molded, snag proof, 5m lgt, PVC "X" denotes color

SHIELDED PATCH CORD STP

Cable

- Conductor: 7 copper wires Ø0.20 mm (0.008″), 24 AWG
- Insulation : High Density Polyethylene (HDPE)
- Diameter of insulated conductor: 0.98 ± 0.05 mm (0.039″ ± 0.002″)
- Number of pairs :4
- Color of twisted pairs: blue-white/blue, orange-white/
- orange, green-white/green, brown-white/brown
- Grounding wire: 0.20 mm/7 tinned copper
- Jacket: PVC 06,8±O,2 mm

Plugs

- 2 pieces RJ-45 8P8C, category 6, for patch cable, shielded
- Contact: 1.27 micron (50 micro inches) gold plated copper alloy
- Latch guard Material: PVC, grey

ORDERING INFORMATION

Part No	Description
36216005X	Cat.6, UTP patch cord, molded, snag proof, 0,5m length, LSZH "X" denotes color
36216001X	Cat.6, UTP patch cord, molded, snag proof, 1M length, LSZH "X" denotes color
36216002X	Cat.6, UTP patch cord, molded, snag proof, 2m length, LSZH "X" denotes color
36216003X	Cat.6, UTP patch cord, molded, snag proof, 3m length, LSZH "X" denotes color
36236001X	Cat.6, S/FTP patch cord, molded, snag proof, LSZH, 1 m length "X" denotes color
36236002X	Cat.6, S/FTP patch cord, molded, snag proof, LSZH, 2m length "X" denotes color
36236003X	Cat.6, S/FTP patch cord, molded, snag proof, LSZH, 3m length "X" denotes color
36236005X	Cat.6, S/FTP patch cord, molded, snag proof, LSZH, 5m length "X" denotes color

Patch panel, 48 ports

Shielded Patch Panel, 48 ports

Alston Systems Category 6 Shielded Patch Panel System is scientifically engineered to provide superior Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) protection for data security. It provides a higher level of security to sensitive networks in areas such as government, healthcare and manufacturing.

Specifications

- Meets 550 Mhz certification
- Meets ANSI/TIA/EIA-568-B.2 Category 6 requirements
- Meets Tl A/EIA TSB-40
- Meets ISO/IEC Generic Cabling Standard 11801:2002 ed.2.0
- Meets CENELEC Generic Cabling Standard EN50173 - 1:2002

Material

- Housing : ABS 94V-0
- IDC: PC UL94V-0
- PCB: FR-4 1.6 mm (0.06") thick, 2 layers
- Contacts: 0.35 mm (0.014") phosphor bronze with 1.27 micron (50 micro inches) gold plating on contact area
- Metal housing : 1.6 mm (0.06") thick metal

Electrical Characteristics

- Dielectric Strength -1000V RMS for 1 min
- Current Rating -1.5 Amp Max.
- Insulation Resistance - 10 M° M in.
- Contact Resistance - 2m° per contact
- Temperature Range - -10°C to 60°C
- Humidity -10% 90%: non condensing
- Voltage Rating - 72 Vdc Max
- Insulation Resistance -500 Ohms(min)@ 500 Vdc
- Current Rating -I.SAmax

Physical Characteristics

- JACK - Phosphor bronze, 50µ inch gold plating over nickel in contact area
- DC - l00µ inch nickel plated over Phosphor Bronze
- Shielded Cover - 50-60µ inch nickel plated over phosphor bronze

Applications

- 1000BASE-TX Gigabit Ethernet
- 1000BASE-T Gigabit Ethernet
- 100BASE-TX Fast Ethernet
- 10BASE-T Ethernet Video, Voice & Data applications

Construction Characteristics

- Modern design and mounting simplicity
- Color marking of conductors according to T568B and T568A
- Numeral marking of ports on the front side of the panel
- Color and numeral marking of IDC modules on the rear side
- Space for additional marking
- Hyperline patch cord usage provides the best connection
- IDC Dual contacts provide minimal crosstalk
- 110 type punch down tool is used for cable termination

ORDERING INFORMATION

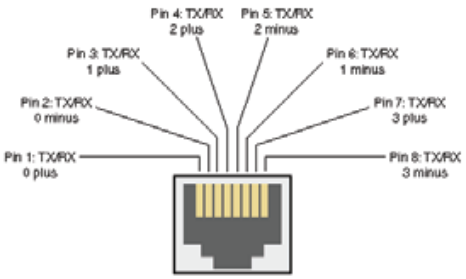
Part No	Description
331160163	Category 6 Patch Panel 16 Port RJ-45, Unshielded, Black
331160243	Category 6 Patch Panel 24 Port RJ-45, Unshielded, Black
331160483	Category 6 Patch Panel 48 Port RJ-45, Unshielded, Black
332160243	Category 6 Modular Patch Panel, 24 Port, 1U, Black
332160483	Category 6 Modular Patch Panel, 48 Port, 2U, Black

ORDERING INFORMATION

Part No	Description
331260243	Cat.6 shielded Patch Panel, Dual Type IDC, 24 ports, black
332160483	Cat.6 Shielded Patch Panel, Dual Type, IDC, 48 Ports, Black



Alston Systems offers jacks in a variety of styles and configurations. Being an end terminal device, we have designed them to meet today's increasing demand for information flow with greater bandwidth requirements.



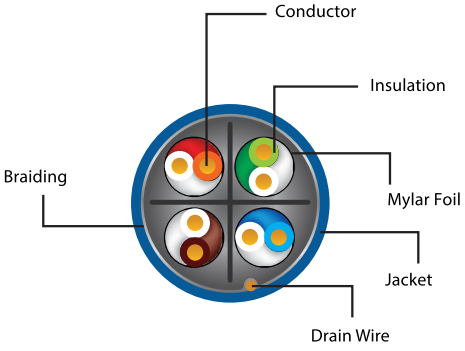
About RJ Connectors

- A Registered Jack (RJ) is a standardized physical network interface with jack construction and wiring pattern—for connecting telecommunications or data equipment to a service provided by a local exchange carrier or long distance carrier.
- The registered jack designation describes a wiring pattern and not just the physical geometry of the connectors; inspection of the connector will not necessarily show which registered jack wiring pattern is used. The same modular connector type can be used for different registered jack connections.
- The RJ45 physical connector is standardised as the IEC 60603-7 8P8C modular connector with different "categories" of performance, with all eight conductors present. A similar standard jack once used for modem/data connections, the RJ45S, used a "keyed" variety of the 8P8C body with an extra tab that prevents it mating with other connectors; the visual difference compared to the more common 8P8C is subtle, but it is a different connector. The original RJ45S [6][7] keyed 8P2C modular connector had pins 5 and 4 wired for tip and ring of a single telephone line and pins 7 and 8 shorting a programming resistor, but is obsolete today.
- Electronics catalogs commonly advertise 8P8C modular connectors as "RJ45". An installer can wire the jack to any pin-out or use it as part of a generic structured cabling system such as ISO/IEC 15018 or ISO/IEC 11801 using 8P8C patch panels for both phone and data. Virtually all electronic equipment which uses an 8P8C connector (or possibly any 8P connector) will document it as an "RJ45" connector.

ORDERING INFORMATION

Part No	Description
320100056	Cat.5 Unshielded RJ45 Connector, Clear color
320200056	Cat.5 Shielded RJ45 Connector, Clear color
320100066	Cat.6Unshielded RJ45 Connector, Clear color
320200066	Cat.6 Shielded RJ45 Connector, White, Clear color
32019000X	RJ45 Hood

Cat 6A S-FTP Cable 4 Pairs



Features and Benefits

- Ideal solution for 10 Gigabit Ethernet
- Individual pair shielding to provide EMI protection
- Provides positive PSACR beyond 600 MHz (cat 7),1G MHz \(Cat 7A)
- Every master reel is tested to ensure electrical performance compliance
- Print legend contains footage marking from 305M to 0M or 500M to 0M
- Unique product specific packaging for ease of identification
- ROHS complaint
- Cat 7: EC Verified

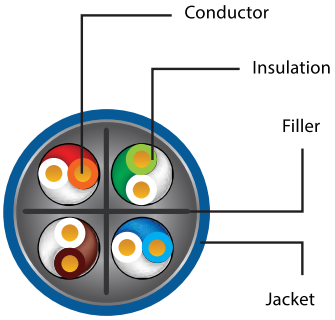
Standard Compliance

- IEC 61156-5:2009 (Ed2.0)
- EN 50173-1:2011, EN 50173-2:2007amendment 2: 2010 .
- ANSI/TIA-568-C.2:2009

Application

- 2.4/1.2 Gb/s ATM
- IEEE 802.3an : 10G BASE-T (10G Gigabit Ethernet) supporting100 meters
- 3D imaging
- Digital Video
- Broadband and baseband Analog Video

Cat 6A UTP Cable 4 Pairs

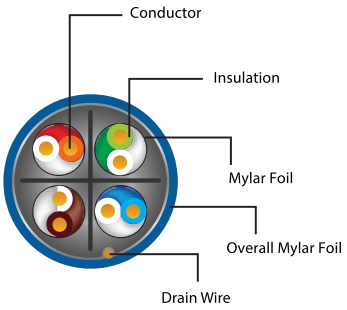


Technical details

Capacitance unbalance (max) @0.8 or 1 KHz (pF/km) : 1600
DC Resistance (max).°/k m @ 20ºC : 95
Resistance unbalance within a pair(max). (%) : 2
Resistance unbalance between pairs (max)(%) : 4
Mean input impedance @ 100MHZ : 100 ±5°
Dielectric Strength

Min	Min
1 .OkVdc or 0.7kVac for 1 min	2.5kVdc or 1.7kVac for 2secs

Cat 6A F-FTP Cable 4 Pairs

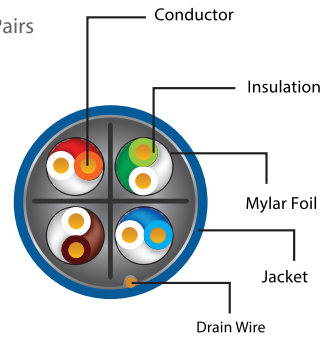


Electrical Performance

Meet IEC 61156-5 ED.2.0 Category 7A Horizontal Cable Parameters

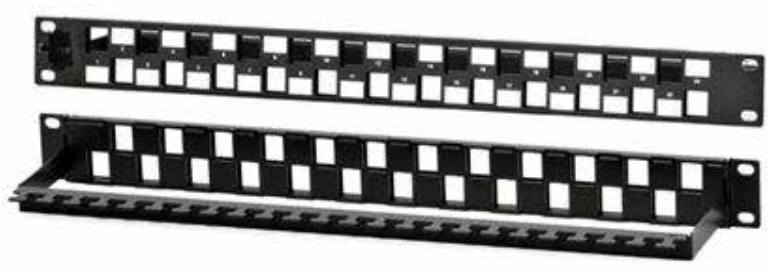
Freq. (MHz)	Ins. Loss (db/100m)	RL (db)	Pair to Pair (db/100m)		Power Sum (db/100m)		Po. Delay (ns/100m)
			Next	Elfext	Next	Elfext	
	Max.	Min.	Min.	Min.	Min.		
1	-	20	-	-	-	-	-
4	3.8	23.0	66.3	56.0	63.3	53.0	552.0
10	5.9	25.0	60.3	48.0	57.3	45.0	545.4
16	7.5	25.0	57.2	43.9	54.2	40.9	543.0
20	8.4	25.0	55.8	42.0	52.8	39.0	542.0
31.25	10.5	23.6	52.9	38.1	49.9	35.1	540.4
62.5	15	21.5	48.4	32.1	45.4	29.1	538.6
100	19.1	20.1	45.3	28..0	42.3	25.0	537.6
200	27.6	18.0	40.8	22.0	37.8	19.0	536.5
250	31.1	17.3	39.3	20.0	36.3	17.0	536.3

Cat 6A U-FTP Cable 4 Pairs



ORDERING INFORMATION

Part No	Description
301100611	Category 6A U/UTP 23AWG Solid Cable PVC Jacket, 305 Meter/Roll, Blue Color
302100611	Category 6A U/UTP 23AWG Solid Cable LSZH Jacket, 305 Meter/Roll, Blue Color
301600611	Category 6A S/FTP 23AWG Solid Cable 40% Braiding PVC Jacket, 305 Meter/Roll, Blue Color
302600611	Category 6A S/FTP 23AWG Solid Cable 40% Braiding LSZH Jacket, 305 Meter/Roll, Blue Color
301400611	Category 6A F/FTP 23AWG Solid Cable PVC Jacket, 305 Meter/Roll, Blue Color
302400611	Category 6A S/FTP 23AWG Solid Cable LSZH Jacket, 305 Meter/Roll, Blue Color



Alston Systems 180° 19″ snap in modular patch panels are designed for mounting in racks and cabinets. 24 or 48 ports can be populated as per customer requirements.

Construction Characteristics

- Modern design and mounting simplicty
- Numeral marking of ports on the front side of the panel
- Color and numeral marking of IDC modules on the rear side
- Space for additional marking

Material

- Metal housing : 16 mm (0.06″) thick metal

Packing Contains

- Alston Systems modular patch panel, unshielded keystone jack & cable manager

Mechanical Specifications

- 483.00mm x 44.5mm (1U) x 133.2mm (wxhxd)

ORDERING INFORMATION

Part No	Description
331261243	Cat6A, 24 port unshielded modular snap in jack panel, Black
331261483	Cat6A, 48 port unshielded modular snap in jack panel, Black

Alston Systems 180° unshielded keystone jack accepts 22-26 AWG solid cables and it can be easily terminated with 110 or Krone tools. It supports T568 A&B wiring standards.

ORDERING INFORMATION

Part No	Description
322100616	Cat6A, (10G) keystone jack RJ-45, Unshielded, white
322100613	Cat6A, (10G) keystone jack RJ-45, Unshielded, Black



Alston Systems Patch cord is ideal for use in a performance demanding high speed 10 Gigabit Ethernet Network (10GbE) and very compatible with 10/100/1000 third party Ethernet switch.

Features

- Meets or exceeds Cat6A requirements when full product system is used
- 50-micron gold plated RF male to male
- PVC, Low smoke Zero Halogen & Outer Sheath are available
- 24 AWG stranded bare copper conductor for U-UTP,26 AWG Stranded bare copper conductor for F-FTP
- ROHS Complaint
- Specified to 500MHz
- Suitable for 10G BASE-T, 10 Gigabit Ethernet Applications

Technical Specifications

- Relative humidity: 93% noncondensing
- Retention : 50N for 60 + 5s
- Insertion / extraction life: 750 min
- Tensile Strength : >20 N per wire
- Insulation resistance at 100 V DC: 500 Mohm min
- Dielectric withstand voltage (contact to contract): 1000 V DC or VAC
- Dielectric withstand voltage (contract to test panel) 1500 V DC or V AC
- Contact resistance: 20 Mohm

Cable

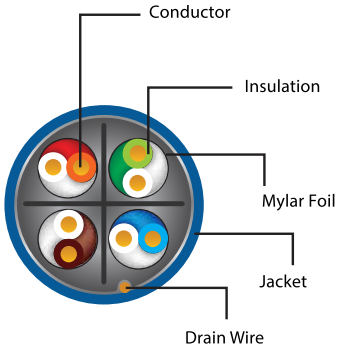
- Conductor: 7 Copper wires 0.20mm (0.008”),24 AWG
- Insulation: High Density Polyethylene (HDPE)
- Diameter of insulated conductor: 0.98 0.05mm (0.039” + 0.002”)
- Number of pairs: 4
- Color of twisted pairs: blue-white/blue, orange-white/orange, green-white/green, brown-white/brown

Standards

- Meet TIA/EIA-568-B.2-10 category 6A
- Meet FCC,Part 68, Subpart F

ORDERING INFORMATION

Part No	Description
36116101X	Cat6A, UTP patch cord, molded, with snag proof, 1M length
36116102X	Cat6A, UTP patch cord, molded, with snag proof, 2M length
36116103X	Cat6A, UTP patch cord, molded, with snag proof, 3M length
36136101X	Cat6A, S/FTP patch cord, molded, with snag proof, 1M length
36136102X	Cat6A, S/FTP patch cord, molded, with snag proof, 2M length
36136103X	Cat6A, S/FTP patch cord, molded, with snag proof, 3M length
36216105X	Cat6A, U/UTP patch cord, molded, with snag proof, LSZH, 0.5M length
36216101X	Cat6A, U/UTP patch cord molded, with snag proof, LSZH, 1M length



Features and Benefits

- Extremely high bandwidth of 600MHz (Cat 1), 1G Mhz (Cat 7A)
- Indicidual pair shielding to provide EMI protection
- Highest signal to noise ration to reduce related downtime and network errors
- Provides positive PSACR beyond 600 MHz (cat 7), 1G MHz (Cat 7A)
- Every master reel is tested to ensure electrical performance compliance
- Print legend contains footage marking from 305M to 0M or 500M to 0M
- Unique product specific packaging for ease of identification
- ROHS complaint
- Cat 7: EC Verified

Electrical Performance

Meet IEC 61156-5 ED.2.0 Category 7AHorizontal Cable Parameters

Freq. (MHz)	Ins. Loss (db/ 100m)	RL (db)	Pair to Pair (db/100m)		Power Sum (db/100m)		Po. Delay (ns/100m)
			Next	Elfext	Next	Elfext	
	Max.	Min.	Min.	Min.	Min.		
1	--	20	-	-	-	-	-
4	33.7	23.0	75.0	75.0	75.0	75.0	552.0
10	5.8	25.0	75.0	75.0	75.0	72.3	545.4
16	7.3	25.0	75.0	71.2	75.0	68.2	543.0
20	8.2	25.0	75.0	69.3	75.0	66.3	542.0
31.25	10.3	23.6	75.0	65.4	75.0	62.4	540.4
62.5	14.6	21.5	75.0	59.4	75.0	56.4	538.6
100	18.5	20.1	75.0	55.3	72.4	52.3	537.6
200	26.5	18.0	70.9	49.3	67.9	46.3	536.5
250	29.7	17.3	69.4	47.3	66.4	44.3	536.3

Standard Compliance

- ISO / IEC 11801 2nd Edition: 2002
- ISO/IEC 11801 amendment 2:2010
- IEC 61156-5:2009 (Ed2.0)
- EN 50173:2007
- IEC 61156-5:2009 (Ed.2.0)
- Cat7A

Application

- 2.4/1.2 Gb/s ATM
- IEEE 802.3an : 10G BASE-T (10G Gigabit Ethernet) supporting 100 meters
- 3D imaging
- Digital Video
- Broadband and baseband Analog Video

Technical details

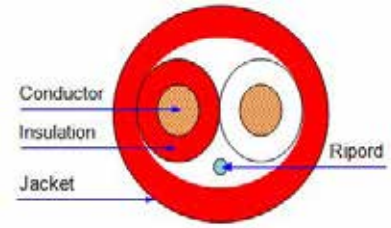
- Capacitance unbalance (max) @0.8 or 1 KHz (pF/km) :1600 DC
- Resistance (max).°/k m @ 20®C : 95
- Resistance unbalance within a pair(max). (%): 2
- Resistance unbalance between pairs (max)(%) : 4
- Mean input impedance @ 100MHZ : 100 ± 5°
- Dielectric Strength

Min	Min
1 .OkVdc or 0.7kVac for 1 min.	2.5 dcor1.7kVac for 2 secs

ORDERING INFORMATION

Part No	Description
301100711	Category7U-UTP Installation Cable, 23AWG305 Meter/Roll PVC, Blue Color
301400711	Category7F-UTP Installation Cable, 23AWG305 Meter/Roll PVC, Blue Color
301500711	Category7U-UTP Installation Cable, 23AWG305 Meter/Roll PVC, Blue Color
301600711	Category7SU-UTP Installation Cable, 23AWG305 Meter/Roll PVC, Blue Color

2C x 14AWG / 2C x 16AWG Security & Commercial Audio Cable



Alston Systems Security and Commercial Audio cable, 2cx14AWG / 2Cx16AWG bare copper conductors with polyolefin insulation and PVC jacket with ripcord.

Applications & Features

- Security Systems, Intercom / PA Systems, Sound / Audio Systems, Power Limited Controls and Single Line Telephones
- Length Available –100 Meters & above upon request

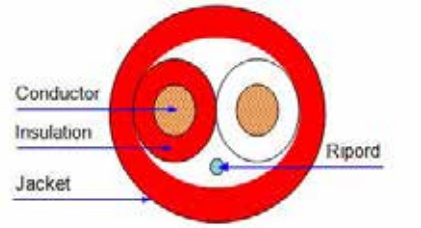
Technical Specification

	C/AWG	2C/14	2C/16
Conductor	Structure	7/0.6±0.02mm	19/0.3±0.01mm
	O.D.	1.8mm	1.5mm
	Material	Bare Copper	Tinned Copper
Insulation	Thickness	0.27mm (Nominal)	0.25mm (Nominal)
	O.D.	2.4±0.1mm	2.0±0.1mm
	Material	SR-PVC	PP
	Color	Red, White	Red, White
Individually Shield	Drain	26/0.254mm, TC	
	Tape	Al-Foil	
Jacket	Thickness	0.5mm (Nominal)	0.5mm (Nominal)
	O.D.	6.0±0.3mm	5.2±0.3mm
	Material	PVC	PVC
	Color	Red	Red
	Marking	Every 2 feet	Every 2 feet
Temperature Rating		60°C	60°C
Voltage Rating		30V	30V
Flammability:		Comply to VW-1	Comply to VW-1

ORDERING INFORMATION

Part No	Description
AS-2C14-2619	Alston Systems, 2Cx14AWG Security and Commercial Audio Cable
AS-2C16-2620	Alston Systems, 2Cx16AWG Security and Commercial Audio Cable

2C x 18AWG / 2C x 22AWG Security & Commercial Audio Cable



Alston Systems Security and Commercial Audio cable, 18 AWG, 2 stranded / 22AWG+E+A)x2P bare copper conductors with polyolefin insulation and PVC jacket with ripcord.

Applications & Features

- Security Systems, Intercom / PA Systems, Sound / Audio Systems, Power Limited Controls and Single Line Telephones
- Length Available –100 Meters & above upon request

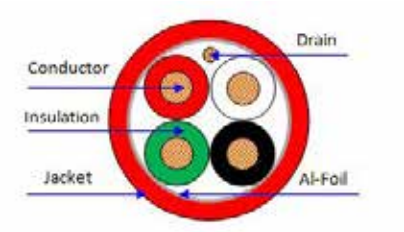
Technical Specification

	C/AWG	2C/18	2C/22
Conductor	Structure	7/0.45±0.01mm	7/0.254±0.01mm
	O.D.	1.35mm	0.76mm
	Material	Bare Copper	Tinned Copper
Insulation	Thickness	0.25mm (Nominal)	0.25mm (Nominal)
	O.D.	1.9±0.1mm	1.3±0.1mm
	Material	PP	PP
	Color	Red, White	(Red, White) (Black, Green)
Shield	Drain	21/0.18mm,TC	7/0.203mm, TC
	Tape	Al-Foil	Al-Foil
Jacket	Thickness	0.5mm (Nominal)	0.5mm (Nominal)
	O.D.	5.0±0.3mm	4.5±0.2mm
	Material	PVC	PVC
	Color	Red	Red
	Marking	Every 2 feet	Every 2 feet
Temperature Rating		60°C	60°C
Voltage Rating		30V	30V
Flammability		Comply to VW-1	Comply to VW-1

ORDERING INFORMATION

Part No	Description
AS-2C18-2623	Alston Systems, 2Cx18AWG Security and Commercial Audio Cable
AS-2C22-2625	Alston Systems, 2Cx22AWG Security and Commercial Audio Cable

4C x 14AWG / 4C x 16AWG Security & Commercial Audio Cable



Alston Systems Security and Commercial Audio cable, 16 AWG / 18 AWG, 4 stranded bare copper conductors with polyolefin insulation and PVC jacket with ripcord.

Applications & Features

- Security Systems, Intercom / PA Systems, Sound / Audio Systems, Power Limited Controls and Single Line Telephones
- Length Available –100 Meters & above upon request

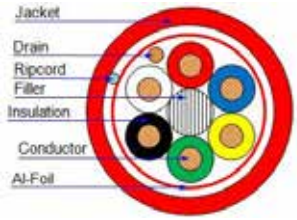
Technical Specification

Conductor	**C/AWG**	**4C/16**	**4C/18**
	Structure	19/0.3±0.01mm	7/0.45±0.01mm
	O.D.	1.5mm	1.35mm
	Material	Bare Copper	Bare Copper
Insulation	Thickness	0.25mm (Nominal)	0.25mm (Nominal)
	O.D.	2.0±0.1mm	1.9±0.1mm
	Material	PP	SR-PVC
	O.D.	Red, White, Black, Green	Red, White, Black, Green
Shield	Drain	34/0.18mm, TC	21/0.18mm,TC
	Tape	Al-Foil	Al-Foil
Jacket	Thickness	0.5mm (Nominal)	0.5mm (Nominal)
	O.D.	6.0±0.3mm	5.8±0.3mm
	Material	PVC	PVC
	Color	Red	Red
	Marking	Every 2 feet	Every 2 feet
Temperature Rating		60°C	60°C
Voltage Rating		30V	30V
Flammability:		Comply to VW-1	Comply to VW-1

ORDERING INFORMATION

Part No	Description
AS-4C16-2621	Alston Systems, 4Cx16AWG Security and Commercial Audio Cable
AS-4C18-2623	Alston Systems, 4Cx18AWG Security and Commercial Audio Cable

6C x 18AWG Security & Commercial Audio Cable



Alston Systems Security and Commercial Audio cable, 18 AWG, 6 stranded bare copper conductors with polyolefin insulation and PVC jacket with ripcord.

Applications & Features

- Security Systems, Intercom / PA Systems, Sound / Audio Systems, Power Limited Controls and Single Line Telephones
- Length Available –100 Meters & above upon request

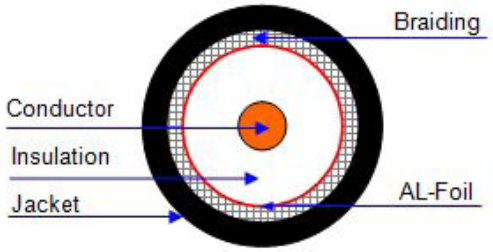
Technical Specification

Conductor	**C/AWG**	**6C/18**	**22**
	Structure	7/0.254±0.01mm	7/0.254±0.01mm
	O.D.	1.35mm	0.76mm
	Material	Bare Copper	Tinned Copper
Insulation	Thickness	0.25mm (Nominal)	0.25mm (Nominal)
	O.D.	1.9±0.1mm	1.3±0.1mm
	Material	PP	PP
	Color	Red, White, Black, Green, Yellow, Blue	Red, White, Black, Green, Yellow, Blue
Shield	Drain	21/0.18mm, TC	
	Tape	Al-Foil	
Jacket	Thickness	0.5mm (Nominal)	0.45mm (Nominal)
	O.D.	6.9±0.3mm	5.0±0.3mm
	Material	PVC	PVC
	Color	Red	Red
	Marking	Every 2 feet	Every 2 feet
Temperature Rating		60°C	60°C
Voltage Rating		30V	30V
Flammability:		Comply to VW-1	Comply to VW-1

ORDERING INFORMATION

Part No	Description
AS-6C18-2624	Alston Systems, 6Cx18AWG Security and Commercial Audio Cable
AS-6C22-2611	Alston Systems, 6Cx22AWG Security and Commercial Audio Cable

RG-6 Co-axial Cables



Alston Systems RG6, RG59 coaxial cable is used to connect audio/video equipment, such as TVs, DVD players and satellite receivers. This cable offers F-connectors on both ends for easy installation.

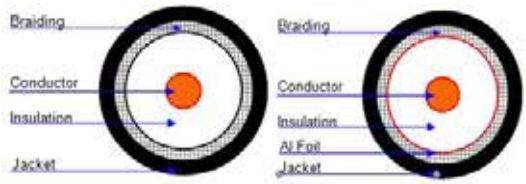
Characteristics

Inner Conductor	Structure	1/1.02±0.02mm
	O.D.	1.02mm
	Material	CCS
Insulation	Thickness	1.77(Nominal)
	O.D.	4.57±0.15mm
	Material	FPE
	Color	White
Filler	Type	Jelly Filled
Shield	Tape	Al Foil
	Braiding	0.16mm, AL , 85%
Jacket	Thickness	0.75mm(Nominal)
	O.D.	6.86±0.2mm
	Material	PVC
	Color	Black

Technical Specification

Description	**Specifications**		**Notes**
Characteristic Impedance	Ω	75±3	
Capacitance	PF/M	52±3	
Attenuation (db/100M) (20°C)	55 MHz	5.25	Maximum Attenuation 5%
	211 MHz	10.00	
	450 MHz	14.40	
	500 MHz	15.30	
	600 MHz	16.70	
	750 MHz	18.50	
	950 MHz	21.30	
	1000 MHz	22.00	
Return Loss	55~300 MHz	>20dB	
	300~1000MHz	>18dB	

RG-59 Co-axial Cables



Characteristics

Inner Conductor	Structure	1/0.81±0.01mm
	O.D.	0.81mm
	Material	BC
Insulation	Thickness	1.44mm(Nominal)
	O.D.	3.66±0.1mm
	Material	FPE
	Color	Natural
Shield	Braiding	0.127mm ,BC, Coverage 95%
Jacket	Thickness	0.97mm(Nominal)
	O.D.	6.1±0.2mm
	Material	PVC
	Color	Black

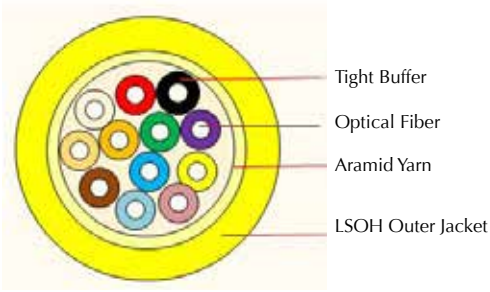
Technical Specification

Description	**Specifications**		**Notes**
Characteristic Impedance	Ω	75±3	
Capacitance	pF/M	54±3	
Attenuation (db/100M) (20°C)	5 MHz	2.39	Maximum Attenuation 3%
	10 MHz	3.34	
	50 MHz	7.37	
	100 MHz	10.39	
	200 MHz	14.65	
	400 MHz	21.31	
	700 MHz	27.24	
	900 MHz	30.81	
Return Loss	1000 MHz	32.45	
	5~300 MHz	>20dB	

ORDERING INFORMATION

Part No	Description
304006123	Alston Systems, RG6 BC 1.02mm, 96% ALUMINUM BRAIDING, PVC JACKET, 500 MTR
304059113	Alston Systems, RG59 BC 0.81mm, 96% BC BRAIDING, PVC JACKET, 500 MTR
304059123	Alston Systems, RG59 BC 0.81mm, 96% ALUMINUM BRAIDING, PVC JACKET, 500 MTR

Tight Tube Non-Metallic Cable - Indoor



Alston Systems Indoor type tight coated optical cables are applied to indoor installations. These types of cables are designed for indoor applications and also to protect the optical fiber form unexpected mechanical, environmental and rodent conditions. Qualification and acceptance tests are performed to assure the optical cable's performance and durability in several environments.

Features / Benefits

- Indoor and Fiber counts up to 12
- Cable Type – OS2/OM1/OM2/OM3/OM4
- Unitube w/glass yarn or Aramid Yarn strength member, LSOH
- Light weight
- High tensile strength design
- Completely dry core design
- Small diameter
- Colored fiber for quick identification

Applications

- Building interconnection
- Campus
- Local Area Network

Identification of Optical Fiber and Loose Tube

No	1	2	3	4	5	6	7	8	9	10	11	12
Fiber	Blue	Orange	Green	Red	Yellow	Violet	Brown	Black	White	Grey	Turquoise	Pink

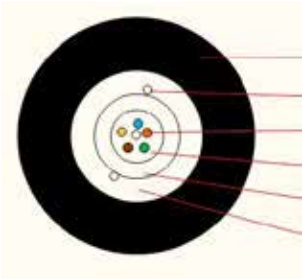
Mechanical & Environmental Characteristics

Tensile Strength (IEC 60794-1-2-E1)	Max – 1000N, Opr – 600N
Bending Radius(mm) (IEC 60794-1-2-E11)	Dynamic - 20xD, Static - 10xD
Crush Resistance (IEC 60794-1-2-E3)	500N
Impact Resistance (IEC 60794-1-2-E4)	50N
Operation Temperature (IEC 60794-1-2-F1)	Installing -30 +60 (°C), Operating -40 +80 (°C)
Water Penetration (IEC 60794-1-2 F5)	24 hour, 1 meter No leakage

ORDERING INFORMATION

NO OF FIBERS	9/125(OS2)	62.5/125 (OM1)	50/125 (OM2)	50/125 (OM3)	50/125 (OM4)
4	50311048	50331048	50321048	50341048	50351048
6	50311068	50331068	50321068	50341068	50351068
8	50311088	50331088	50321088	50341088	50351088
12	50311128	50331128	50321128	50341128	50351128

Unitube Unarmored Cable – Indoor / Outdoor



Designed for indoor/outdoor applications to protect the optical fiber from unexpected mechanical and environmental conditions. Qualification and acceptance tests are performed to assure the optical cable's performance and durability in several environments.

Features / Benefits

- Indoor & Outdoor Type, Fiber counts up to 12
- Cable Type – OS2/OM1/OM2/OM3/OM4
- Unitube w/glass yarn or Aramid Yarn strength member, PE/LSOH
- Lightweight
- High tensile strength design
- Dry core design
- Small diameter
- Colored fiber for quick identification
- UV resistance for the outer sheath

Applications

- Building interconnection
- Campus
- Local Area Network

Dimensions of cable constructions

Fiber count	Structure	Fibers per tube	Cable diameter(mm)
4	unitube	4	5.9±0.5
6	unitube	6	5.9±0.5
8	unitube	8	5.9±0.5
12	unitube	12	5.9±0.5

Cable performance

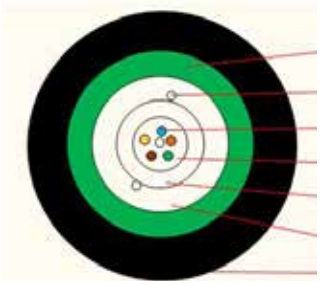
Item		Parameters
Loose tube	Material	PBT
	Color	White
Strength member	Material	glass yarn / Aramid yarn
Outer jacket	Material	LSOH/PE
		Black
Min. bending radius	Static	10 times cable diameter
	Dynamic	20 times cable diameter
Repeating bending	Load:150N;number of cycles:30 No obvious addition attention, no fiber break and no cable damage.	
Tensile performance	Short term	800N IEC60794-1-2-E1
	Long term	300N IEC60794-1-2-E1
Crush	Short term	1000N/100mm IEC60794-1-2-E3
	Long term	300N/100mm IEC60794-1-2-E3
Torsion	Load□150N; number of cycles:10; twist angle:±180 No obvious addition attention, no fiber break and no cable damage.	
Impact	Impact energy□450g×1m; radius of hammer head:12.5mm; number of impact: 20 No obvious addition attention, no fiber break and no cable damage	
Cable attenuation		≤ 0.36dB/km at 1310nm, ≤ 0.22dB/km at 1550nm

ORDERING INFORMATION

Note:506xxxxxx-Denotes LSOH Sheath

NO OF FIBERS	9/125 (OS2)	62.5/125 (OM1)	50/125 (OM2)	50/125 (OM3)	50/125 (OM4)
4	505130043	505330043	505230043	505430043	50351048
6	505130063	505330063	505230063	505430063	50351068
8	505130083	505330083	505230083	505430083	50351088
12	505130123	505330123	505230123	505430123	50351128

Unitube Armored Cable – Outdoor



Applied to outdoor and directly buried installations - Designed for outdoor and direct buried type application and also to protect the optical fiber from unexpected mechanical and environmental conditions. Qualification and acceptance tests are performed to assure the optical cable's performance and durability in several environments.

Features / Benefits

- Outdoor & Direct buried Type, Fiber counts up to 12
- Cable Type – OS2/OM1/OM2/OM3/OM4
- Unitube w/glass yarn or Aramid Yarn strength member, PE/LSOH
- Light weight
- High tensile strength design
- Dry core design
- Small diameter
- Colored fiber for quick identification
- UV resistance for the outer sheath

Applications

- Building interconnection
- Campus
- Local Area Network

Dimensions of cable constructions

Fiber count	Structure	Fibers per tube	Cable diameter (mm)
4	Unitube	4	7.7±0.5
6	Unitube	6	7.7±0.5
8	Unitube	8	7.7±0.5
12	Unitube	12	7.7±0.5

Cable performance

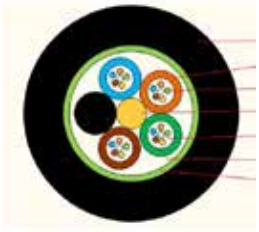
Item		**Parameters**
Loose tube	Material	PBT
	Color	White
Strength member	Material	Glass yarn
armoured	Material	Plastic coated Steel tape
Outer jacket	Material	MDPE
	Color	Black
Min. bending radius	Static	10 times cable diameter
	Dynamic	20 times cable diameter
Repeating bending	Load:150N;number of cycles:30 No obvious addition attention, no fiber break and no cable damage.	
Tensile performance	Short term	800N IEC60794-1-2-E1
	Long term	300N IEC60794-1-2-E1
Crush	Short term	1000N/100mm IEC60794-1-2-E3
	Long term	300N/100mm IEC60794-1-2-E3
Torsion	Load:150N; number of cycles:10; twist angle:±180 No obvious addition attention, no fiber break and no cable damage	
Impact	Impact energy:450g×1m; radius of hammer head:12.5mm; number of impact: 20 No obvious addition attention, no fiber break and no cable damage.	
Cable attenuation		≤ 0.36dB/km at 1310nm, ≤ 0.22dB/km at 1550nm

ORDERING INFORMATION

Note:508xxxxxx-Denotes LSOH Sheath

NO OF FIBERS	9/125 (OS2)	62.5/125 (OM1)	50/125 (OM2)	50/125 (OM3)	50/125 (OM4)
4	507130043	507330043	507230043	507470043	507570043
6	507130063	507330063	507230063	507470063	507570063
8	507130083	507330083	507230083	507470083	507570083
12	507130123	507330123	507230123	507470123	507570123

Multitube Armored Direct Buried Cable – Outdoor



Direct buried and/or duct type installation for highly reliable industrial applications. Designed for outside applications, and specifically to protect the optical fiber from unexpected mechanical and environmental conditions. Qualification and acceptance tests are performed to assure the optical cable's performance and durability in several environments.

Features / Benefits

- Fiber counts up to 288
- Cable Type – OS2/OM1/OM2/OM3/OM4
- Multitube, steel armored w/central steel wire strength member PE sheath
- High tensile strength design
- Fibers per loose tube 1-12
- Gel filled cable core for water resistance
- Dry core design is also possible for water resistance
- uponcustomer request
- Suitable for duct applications
- Colored fiber for quick identification
- UV resistance for the outer Sheath
- High fiber count to diameter ratio
- Ripcord for easy strip outer sheath

Applications

- Telecommunication applications
- Video applications
- Distribution
- Long Haul Communication and
- Metropolitan Communication Systems

Cable performance

Item		Parameters
Loose tube	Material	PBT
	Color	Full color
Filler	Material	PE
	Color	Black
CSM	Material	Phosphating steel wire
Armored	Material	Plastic coated steel tape
Outer jacket	Material	MDPE
	Color	Black
Min. bending radius	Static	10 times cable diameter
	Dynamic	20 times cable diameter
Repeating bending	Load:150N;number of cycles:30 No obvious addition attention, no fiber break and no cable damage.	
Tensile performance	Short term	1500N IEC60794-1-2-E1
	Long term	600N IEC60794-1-2-E1
Crush	Short term	1000N/100mm IEC60794-1-2-E3
	Long term	300N/100mm IEC60794-1-2-E3
Torsion	Load:150N; number of cycles:10; twist angle:±180 No obvious addition attention, no fiber break and no cable damage.	
Impact	Impact energy□450g×1m; radius of hammer head:12.5mm; number of impact: 20 No obvious addition attention, no fiber break and no cable damage.	
Cable attenuation		≤ 0.36dB/km at 1310nm, ≤ 0.22dB/km at 1550nm

Dimensions of cable constructions

Fiber count	Structure	Fibers per tube	Cable diameter (mm)	Cable weight (kg/km)
6	1+5	6	9.2 ±0.5	76
12	1+5	6	9.2 ±0.5	76
18	1+5	6	9.2 ±0.5	77
24	1+5	6	9.2 ±0.5	77
30	1+5	6	9.2 ±0.5	78
36	1+6	6	9.6 ±0.5	91
48	1+5	12	10.0±0.5	88
60	1+5	12	10.0 ±0.5	89
72	1+6	12	10.7 ±0.5	112
84	1+7	12	11.4 ±0.5	121
96	1+8	12	12.0 ±0.5	132
108	1+9	12	12.6 ±0.5	144
120	1+10	12	13.2 ±0.5	156
132	1+11	12	13.9 ±0.5	171
144	1+12	12	14.5 ±0.5	185

ORDERING INFORMATION

NO OF FIBERS	9/125 (OS2)	62.5/125 (OM1)	50/125 (OM2)	50/125 (OM3)	50/125 (OM4) (OM4)
4	507170043	507370043	507270043	507470043	507570043
6	507170063	507370063	507270063	507470063	507570063
8	507170083	507370083	507270083	507470083	507570083
12	507170123	507370123	507270123	507470123	507570123
24	507170243	507370243	507270243	507470243	507570243
36	507170363	507370363	507270363	507470363	507570363
48	507170483	507370483	507270483	507470483	507570483
72	507170723	507370723	507270723	507470723	507570723
96	507170963	507370963	507270963	507470963	507570963
144	507171443	507371443	507271443	507471443	507571443

Note:508xxxxxx-Denotes LSOH Sheath

Multitube Double Armored Direct Buried Cable – Outdoor

Direct buried and/or duct type installation for highly reliable industrial applications. Designed for outside applications and specifically to protect the optical fiber from unexpected mechanical and environmental conditions. Qualification and acceptance tests are performed to assure the optical cable's performance and durability in several environments.

Features / Benefits

- Fiber counts up to 288
- Cable Type – OS2/OM1/OM2/OM3/OM4
- Multitube, steel armored w/double Sheath, PE
- High tensile strength design
- Fibers per loose tube 1-12
- Gel filled cable core for water resistance
- Dry core design is also possible for water resistance upon customer request
- Suitable for duct application
- Colored fiber quick identification
- UV resistance for the outer Sheath
- High fiber count to diameter ratio
- Ripcord for easy strip outer sheath

Applications

- Telecommunication applications
- Video applications
- Distribution
- Long Haul Communication and
- Metropolitan Communication Systems

Dimensions of cable constructions

Fiber count	Structure	Fibers per tube	Loose tube diameter(mm)	CSM diameter /pad diameter(mm)	Thickness of Inner jacket (mm)	Thickness of outer jacket(mm)	Cable diameter(mm)	Cable weigh (kg/km)
6	1+6	6	1.8±0.1	1.8 /1.8	1.0±0.1	1.7±0.1	12.6 ±0.5	160
12	1+6	6	1.8±0.1	1.8 /1.8	1.0±0.1	1.7±0.1	12.6±0.5	160
18	1+6	6	1.8±0.1	1.8 /1.8	1.0±0.1	1.7±0.1	12.6 ±0.5	161
24	1+6	6	1.8±0.1	1.8 /1.8	1.0±0.1	1.7±0.1	12.6 ±0.5	161
36	1+6	6	1.8±0.1	1.8 /1.8	1.0±0.1	1.7±0.1	12.6 ±0.5	162
48	1+6	12	2.0±0.1	2.0 /2.0	1.0±0.1	1.7±0.1	13.6±0.5	187
60	1+6	12	2.0±0.1	2.0/2.0	1.0±0.1	1.7±0.1	13.6±0.5	187
72	1+6	12	2.0±0.1	2.0 /2.0	1.0±0.1	1.7±0.1	13.7±0.5	189
84	1+7	12	2.0±0.1	2.2/2.7	1.0±0.1	1.7±0.1	14.4±0.5	211
96	1+8	12	2.0±0.1	2.2 /3.3	1.0±0.1	1.7±0.1	15.0±0.5	226
108	1+9	12	2.0±0.1	2.2/3.9	1.0±0.1	1.7±0.1	15.6 ±0.5	242
120	1+10	12	2.0±0.1	2.4/4.5	1.0±0.1	1.7±0.1	16.2 ±0.5	262
132	1+11	12	2.0±0.1	2.4 /5.2	1.0±0.1	1.7±0.1	16.9 ±0.5	281
144	1+12	12	2.0±0.1	2.4/5.8	1.0±0.1	1.7±0.1	17.5±0.5	299

Cable performance

Item		Parameters
Loose tube	Material	PBT
	Color	Full color
Filler	Material	PE
	Color	Black
CSM	Material	Phosphating steel wire
Moisture barrier	Material	Plastic coated aluminum strip
Inner jacket	Material	PE
	Color	Black
Outer armoured	Material	Plastic coated steel tape
Outer jacket	Material	PE
	Color	Black
Min. bending radius	Static	12.5 times cable diameter
	Dynamic	25 times cable diameter
Repeating bending	Load□150N;number of cycles:30 No obvious addition attention, no fiber break and no cable damage.	
Tensile performance	Short term	3000N The addition attention≤0.1dB□fiber strain ≤0.3%
	Long term	1000N No obvious addition attention, No obvious strain
Crush	Short term	3000N/100mm The addition attention≤0.1dB
	Long term	1000N/100mm No obvious addition attention
Torsion	Load□150N; number of cycles:10; twist angle:±180 No obvious addition attention, no fiber break and no cable damage.	
Impact	Impact energy□450g×1m; radius of hammer head:12.5mm; number of impact: 20 No obvious addition attention, no fiber break and no cable damage.	
Cable attenuation		≤ 0.36dB/km at 1310nm, ≤ 0.22 dB/km at 1550nm

ORDERING INFORMATION

NO OF FIBERS	9/125 (OS2)	62.5/125(OM1)	50/125(OM2)	50/125 (OM3)	50/125 (OM4)
4	507190043	507390043	507290043	507490043	507590043
6	507190063	507390063	507290063	507490063	507590063
8	507190083	507390083	507290083	507490083	507590083
12	507190123	507390123	507290123	507490123	507590123
24	507190243	507390243	507290243	507490243	507590243
36	507190363	507390363	507290363	507490363	507590363
48	507190483	507390483	507290483	507490483	507590483
72	507190723	507390723	507290723	507490723	507590723
96	507190963	507390963	507290963	507490963	507590963
144	507191443	507391443	507291443	507491443	507591443
172	507191723	507391723	507291723	507491723	507591723
216	507192163	507392163	507292163	507492163	507592163
244	507192443	507392443	507292443	507492443	507592443

Note:508xxxxxx-Denotes LSOH Sheath

Characteristic of Optical Fiber G652D

Item		Unit	Specification
			G. 652D
Mode field diameter	1310nm	μm	9.2 ± 0.4
	1550nm	μm	10.4 ± 0.8
Cladding diameter		μm	125.0 ± 1
Cladding non-circularity		%	≤1.0
Core concentricity error		μm	≤0.5
Coating diameter		μm	242 ± 7
Coating/cladding concentricity error		μm	≤12
Cable cut-off wavelength		nm	≤ 1260
Attenuation Coefficient	1310nm	dB/km	≤0.35
	1550nm	dB/km	≤0.21
Proof stress level		kpsi	≥100

Other parameters meet standard ITU-T G.652

Characteristic of Optical Fiber OM1

Item		Unit	Specification
			OM1
Core diameter		μm	62.5±2.5
Cladding diameter		μm	125.0 ± 1.0
Cladding non-circularity		%	≤1.0
Core concentricity error		μm	≤1.5
Coating diameter		μm	245 ± 10
Coating/cladding concentricity error		μm	≤12
Bandwidth	850nm	MHz·km	≥ 160
	1300nm	MHz·km	≥ 500
Attenuation Coefficient	850nm	dB/km	≤3.0
	1300nm	dB/km	≤1.0
Proof stress level		kpsi	≥100

Other parameters meet standard IEC 60793-2-10

Characteristic of Optical Fiber OM2

Item		Unit	Specification
			OM2
Core diameter		μm	50±2.5
Cladding diameter		μm	125.0 ± 1.0
Cladding non-circularity		%	≤1.0
Core concentricity error		μm	≤1.5
Coating diameter		μm	245 ± 10
Coating/cladding concentricity error		μm	≤12
OFL Bandwidth	850nm	MHz·km	≥ 500
	1300nm	MHz·km	≥ 1000
Attenuation Coefficient	850nm	dB/km	≤2.8
	1300nm	dB/km	≤0.9
Proof stress level		kpsi	≥100

Other parameters meet standard IEC 60793-2-10

Characteristic of Optical Fiber OM3

Item		Unit	Specification
			OM3
Core diameter		μm	50±2.5
Cladding diameter		μm	125.0 ± 1.0
Cladding non-circularity		%	≤1.0
Core concentricity error		μm	≤1.5
Coating diameter		μm	245 ± 10
Coating/cladding concentricity error		μm	≤12
OFL Bandwidth	850nm	MHz·km	≥ 1500
	1300nm	MHz·km	≥ 500
Attenuation Coefficient	850nm	dB/km	≤2.4
	1300nm	dB/km	≤0.6
Proof stress level		kpsi	≥100

Other parameters meet standard IEC 60793-2-10

Characteristic of Optical Fiber OM4

Item		Unit	Specification
			OM4
Core diameter		μm	50±2.5
Cladding diameter		μm	125.0 ± 1.0
Cladding non-circularity		%	≤1.0
Core concentricity error		μm	≤1.5
Coating diameter		μm	245 ± 10
Coating/cladding concentricity error		μm	≤12
OFL Bandwidth	850nm	MHz·km	≥ 3500
	1300nm	MHz·km	≥ 500
Attenuation Coefficient	850nm	dB/km	≤2.4
	1300nm	dB/km	≤0.6
Proof stress level		kpsi	≥100

Other parameters meet standard IEC 60793-2-10

Environmental performance

Item	Standard	Parameters
Operation temperature	IEC 60794-1-2 F1	-20°c~+70°c
Water penetration	IEC 60794-1-2-F5	Water level:1m, sample: 3m, After 24h, no water ingress.

Length Marking On The Cable

The outer sheath will be marked in one meter intervals as follows;
Alston Systems, < Year of manufacturing > < number and type of fiber > < length marking in meter>

Color of Sheath and Material

Inner/ Outer sheath materials are HFFR-MDPE-HDPE and outer sheath color is black. Other color can be applied in customer request

Packing

Shipment will be done with non-returnable wooden drums with protection.

SR2C2 Rack mount fiber optic patch panel is a wiring device used to terminate, protect and organize the fiber optic cables and optical fibers in fiber optic communication networks. The fiber patch panel is in a standard 19 inch size and the typical color of the rack mounted fiber patch panel is black or white. The adapter interface can be ST, SC, FC, LC, etc. Optional fiber pigtails and related accessories are also available.

Features

- Rack mount 19" standard
- Cold-rolled steel sheet
- Versatile panel with extendable double sliding rails for smooth movement
- 2RU height patch panel contains 4 x adapter plates
- Electrostatic powder coated surface for a beautiful appearance
- Comprehensive accessory kit for cable entry and fiber management
- Patch cord bend radius guides minimize macro bending
- Different adapter interface including ST, SC, FC, LC, etc
- Stacked splice trays offer flexible fiber splicing capacity
- Full assembly (loaded) or empty panel

Application

- Premise data network cabling and installations
- Central office locations for telecom applications
- Head-end location for CATV applications
- Termination of interconnect cables at entry or intermediate cross connects
- Termination of horizontal cables, cross connection or backbone cables to jumper cables
- Suitable for fusion splicing, direct termination and pre-terminated cables

SR Rack-Mount Enclosures

Description	Maximum Capacity			Part NO.
	Adapter(SC/LC/FC/ST)	Adapter Plates	Splice Tray	
SR 2U empty	96/96/72/72	4	4	SR2C2

Packing information

Description	SR2C1
Product Dimension	430*328*1U
Packing Dimension	490*370*50
Master Carton Dimension	510*390*50
Master Carton Capacity	5PCS

ORDERING INFORMATION

Part No	Description
5203010123	12 Port SC Simplex, FO Patch Panel, with Main body / Cable management kit/Adaptor
5203020123	12 Port SC Duplex, FO Patch Panel, with Main body / Cable management kit/ Adaptor
5203010243	24 Port SC Simplex, FO Patch Panel, with Main body / Cable management kit / Adaptor
5203020243	24 Port SC Duplex, FO Patch Panel, with Main body / Cable management kit/ Adaptor
5203020483	48 Port SC Duplex, FO Patch Panel, with Main body / Cable management kit/Adaptor
5201010123	12 Port ST Simplex, FO Patch Panel, with Main body / Cable management kit/ Adaptor
5201010243	24 Port ST Simplex, FO Patch Panel, with Main body / Cable management kit/ Adaptor
5204010123	12 Port LC Simplex, FO Patch Panel, with Main body / Cable management kit/ Adaptor
5204010243	24 Port LC Simplex, FO Patch Panel, with Main body / Cable management kit/Adaptor
5204020123	12 Port LC Duplex, FO Patch Panel, with Main body / Cable management kit /Adaptor
5203020243	24 Port LC Duplex, FO Patch Panel, with Main body / Cable management kit/Adaptor
5203020483	48 Port LC Duplex, FO Patch Panel, with Main body / Cable management kit./Adaptor
5201010123	12 Port FC Simplex, FO Patch Panel, with Main body / Cable management kit/ Adaptor
5201010243	24 Port FC Simplex, FO Patch Panel, with Main body / Cable management kit/Adaptor

SR2C2 Rack mount fiber optic patch panel is a wiring device used to terminate, protect and organize the fiber optic cables and optical fibers in fiber optic communication networks. The fiber patch panel is in a standard 19 inch size and the typical color of the rack mounted fiber patch panel is black or white. The adapter interface can be ST, SC, FC, LC, etc. Optional fiber pigtails and related accessories are also available.

Features

- Rack mount 19" standard
- Cold-rolled steel sheet
- Versatile panel with extendable double sliding rails for smooth movement
- 2RU height patch panel contains 4 x adapter plates
- Electrostatic powder coated surface for a beautiful appearance
- Comprehensive accessory kit for cable entry and fiber management
- Patch cord bend radius guides minimize macro bending
- Different adapter interface including ST, SC, FC, LC, etc
- Stacked splice trays offer flexible fiber splicing capacity
- Full assembly (loaded) or empty panel

Application

- Premise data network cabling and installations
- Central office locations for telecom applications
- Head-end location for CATV applications
- Termination of interconnect cables at entry or intermediate cross connects
- Termination of horizontal cables, cross connection or backbone cables to jumper cables
- Suitable for fusion splicing, direct termination and pre-terminated cables

SR Rack-Mount Enclosures

Description	Maximum Capacity			Part NO.
	Adapter(SC/LC/FC/ST)	Adapter Plates	Splice Tray	
SR 2U empty	96/96/72/72	4	4	SR2C2

Packing information

Description	SR2C2
Product Dimension	430*328*2U
Packing Dimension	490*370*50
Master Carton Dimension	510*390*50
Master Carton Capacity	5PCS

ORDERING INFORMATION

Part No	Description
5203010483	48 Port SC Simplex, FO Patch Panel, with Main body / Cable management kit / Adaptor
5203020963	96 Port SC Duplex, ODF, with Main body / Cable management kit/Adaptor
5201010483	48 Port ST Simplex, FO Patch Panel, with Main body / Cable management kit/Adaptor
5204010483	48 Port LC Simplex, FO Patch Panel, with Main body / Cable management kit/Adaptor
5204020963	96 Port LC Duplex, ODF, with Main body / Cable management kit./Adaptor
5207010483	48 Port FC Simplex, ODF, with Main body / Cable management kit/Adaptor

CR12D4 Rack mount fiber optic patch panel is a wiring device used to terminate, protect and organize the fiber optic cables and optical fibers in fiber optic communication networks. The fiber optic patch panel is in a standard 19 inch size, 4U up to 288 ports(LC) .Typical color of the rack mounted fiber patch panel is black or white. The adapter interface can be ST, SC, FC, LC, etc. Optional fiber pigtails and related accessories are also available.

Features

- Modular design for 19 " standard optical distribution frame
- Material: 1.2mm cold-rolled metal with nice static painting
- Modular design cassette contains adapter plate, splice tray & fiber storage space 3 in 1
- Fiber guide kits offers good protection on fiber cable movement
- Enough space for fiber accessing and splicing
- Patch cord bend radius guides minimize macro bending
- Large capacity, suitable for datacenter and regional cabling management
- Transparent front panel window, easy to inspect the connection status
- Pigtails pre-installed and stored in the tray

Application

- Premise data network cabling and installations
- Central office locations for telecom applications
- Head-end location for CATV applications
- Termination of interconnect cables at entry or intermediate cross connects
- Termination of horizontal cables, cross connection or backbone cables to jumper cables
- Suitable for fusion splicing, direct termination and pre-terminated cables

CR Rack-Mount Enclosures

Description	Maximum Capacity			Part NO.
	Adapter(SC/LC/FC/ST)	Adapter Plates	Splice Tray	
CR 4U empty	144/288/144/144	12	12	CR12D4

Packing information

Description	CR12D4
Product Dimension	439*452.5*4U
Packing Dimension	560*490*240
Master Carton Dimension	560*490*240
Master Carton Capacity	1PCS

ORDERING INFORMATION

Part No	Description
5203010963	96 Port SC Simplex, ODF, with Main body / Cable management kit / Adaptor
5203021443	144 Port SC Simplex, ODF, with Main body / Cable management kit/Adaptor
5201010963	96 Port ST Simplex, ODF, with Main body / Cable management kit/Adaptor
5202021443	144 Port ST Simplex, ODF, with Main body / Cable management kit./Adaptor
5204021443	144 Port LC Duplex, FO Patch Panel, with Main body / Cable management kit./Adaptor
5204022883	288 Port LC Duplex, ODF, with Main body / Cable management kit./Adaptor
5207010963	96 Port FC Simplex, ODF, with Main body / Cable management kit/Adaptor
5207021443	144 Port FC Simplex, ODF, with Main body / Cable management kit./Adaptor

Fiber Optic Patch Cords




Alston Systems Fiber Optic patch cords are used to connect high speed networks like Gigabit Ethernet. All patch cords are 100% factory tested to ensure performance to TIA/EIA-568-B-2, ISO 11801:2002 and EN 50173-1 standards. Complete connector range of SC, ST, LC, FC, MTRJ and different mode of fiber cables are available upon request.

Features and Benefits

- SC,LC,ST,FC and MTRJ connectors
- Low smoke zero halogen (LSZH) cable in aqua or purple color
- 900 pm tight buffer
- OM2 fibre conforms to ITU-651, TIA/EIA 492AAAC
- Simplex and duplex assemblies
- Duplex assemblies available with clips (SC and LC)
- Different connector performance range for specific application
- Armoured option also available

Applications

- For use in 10 Gb/s high speed LAN networks over a 300 m indicative
- Link length at 850 nm (SX) wavelength using a laser launch
- For use in 1 Gb/s high speed LAN networks over a 1000 m indicative
- High speed and legacy networks including Gigabit Ethernet, Fast Ethernet
- Data centers Premises cabling in data networks including backbone, riser and horizontal

ORDERING INFORMATION

Patch Chord	9/125	50/125	62.5/125	50/125 OM3
SC-SC UPC,1M	5103121017	5103321018	5103221018	5103421014
LC-SC UPC,1M	5106121017	5106321018	5103221038	5106421014
LC-LC UPC,1M	5104121017	5104321018	5104221018	5104421014
SC-SC UPC,3M	5103121037	5103321038	5103221038	5103421034
LC-SC UPC,3M	5107121037	5106321038	5106221038	5106421034
LC-LC UPC.3M	5104121037	5104321038	5104221038	5104421034

Patch Chord	9/125	50/125	62.5/125	50/125 OM3
SC-SC APC,1M	5103121017A	5103321018A	5103221018A	5103421014A
LC-SC APC,1M	5106121017A	5106321018A	5103221038A	5106421014A
LC-LC APC,1M	5104121017A	5104321018A	5104221018A	5104421014A
SC-SC APC,3M	5103121037A	5103321038A	5103221038A	5103421034A
LC-SC APC,3M	5107121037A	5106321038A	5106221038A	5106421034A
LC-LC APC.3M	5104121037A	5104321038A	5104221038A	5104421034A



Alston system manufactures fiber optic adapters with very high quality standards. Polymeric caps are provided to protect adaptors against dust. Single mode connectors come in Blue and Multimode connectors come in Beige as standard color codes.

SC Type Fiber Optical Adapter

MTRJ Type Fiber Optical Adapter

LC Type Fiber Optical Adapter

ST Type Fiber Optical Adapter

FC Type Fiber Optical Adapter

ORDERING INFORMATION

Adapter Type	SC-SC-UPC	SC-FC-UPC	ST-ST-UPC	ST-SC-UPC
Part No	5303211009	5309211009	5301211009	5302211009
	5303111001	5309111001	5301111001	5302111001

Adapter Type	SC-SC-APC	SC-FC-APC	ST-ST-APC	ST-SC-APC
Part No	5303211009A	5309211009A	5301211009A	5302211009A
	5303111001A	5309111001A	5301111001A	5302111001A

ORDERING INFORMATION

Adapter Type	FC-FC-UPC	LC-LC-UPC	DLC-DLC-UPC	MTRJ-UPC
Part No	5307211009	5304211009	5304221009	5315221009
	5307111001	5304111001	5304121001	

Adapter Type	FC-FC-APC	LC-LC-APC	DLC-DLC-APC	MTRJ-APC
Part No	5307211009A	5304211009A	5304221009A	5315221009A
	5307111001A	5304111001A	5304121001A	



Alston Systems premium range pigtails are manufactured with high quality standards and suitable for telecom, data center and other critical applications. SC, ST, FC, LC and MTRJ connector combinations are available. APC types are available on special request.

		Single Mode			Multi Mode			
Cord	Type	ST 9/125	SC 9/125	FC 9/125	ST 50/125, 62.5/125	SC 50/125 ,62.5/125	FC 50/125, 62.5/125	SC &LC 50/125
Ferrule Outer Diameter		2.5mm						
Connector	Boot Color	PC :Blue APC : Green			Black	Beige	Black	Grey
	Ferrule	Zirconia						
	Spring	Stainless Steel					SP3	
	C-ring	SK5M						
	Ring	Brass						
	Crimping ring	Aluminium						
	Boot	Elastomer	Keyflex	Santropen	Elastomer	Keyflex	Santropen	Keyflex
	Dust Cap	LD PE			PE	LD PE	LD PE	LD PE
	Coupling Device	Brass	PBT	Brass	Brass	Brass	Brass	PBT
	Frame	Brass	PBT	PBT	Brass	PBT	PBT	PBT
	Washer	Brass						
	Cable	9/125 ; LSZH Jacket			LSZH Jacket		LSZH Aramind& Jacket	
	Length	1 m						
	Insertion Loss	<0.3dB			<0.4dB			
	Return Loss	> 45 dB			> 45 dB			
	Endface Radius	10 mm < R < 25 mm			10 mm < R < 25 mm			
	Apex Offset	< 50 um			< 50 mm			
Operating Temperature		-40°C to +85°C (- 40°F to 185°F)						

ORDERING INFORMATION

Note: SM - Single Mode ; MM - Multi Mode

Part No	Adapter Type
540111101P1	Alston Systems, SM Pigtail, 9/125 , ST/PC , 1m
540311101P1	Alston Systems, SM Pigtail, 9/125 , SC/PC , 1m
540711101P1	Alston Systems, SM Pigtail, 9/125 , FC/PC , 1m
540411101P1	Alston Systems, SM Pigtail, 9/125 , LC/PC , 1m
540131101P9	Alston Systems, MM Pigtail, 50/125 , ST/PC , 1m
540121101P9	Alston Systems, MM Pigtail, 62.5/125 , ST/PC , 1m
540331101P9	Alston Systems, MM Pigtail, 50/125 , SC/PC , 1m
540321101P9	Alston Systems, MM Pigtail, 62.5/125 , SC/PC , 1m
540731101P9	Alston Systems, MM Pigtail, 50/125 , FC/PC , 1m
540721101P9	Alston Systems, MM Pigtail, 62.5/125 , FC/PC , 1m
540341101P9	Alston Systems, MM Pigtail, 50/125 , SC/PC , 10G
540441101P4	Alston Systems, MM Pigtail, 50/125 , LC/PC , 10GIg

Alston Systems fiber optic outdoor splice enclosures are designed for easy assembly and cable re-entry. Max 6 * 24 core splice trays support up to 144 cores. This type of enclosure is available for aerial and outdoor manhole applications.

ORDERING INFORMATION

Part No	Adapter Type
5600000483	FO Splice closure w/6 cable ports (3 IN, 3 OUT), 48 cores, black
5600000723	FO Splice closure w/6 cable ports (3 IN, 3 OUT), 72 cores, black
5600000963	FO Splice closure w/6 cable ports (3 IN, 3 OUT), 96 cores, black
56000001443	FO Splice closure w/6 cable ports (3 IN, 3 OUT), 144 cores, black
56000001923	FO Splice closure w/6 cable ports (3 IN, 3 OUT), 192 cores, black

Wall Mount Box

Alston Systems wall mount fiber optic box is used for direct termination of fiber cables. It comes with a modular adaptor plate in which end users can choose their own selection of connector type depending on the application. It offers multiple cable entry and exit solutions for both loose tube and armored cables.

ORDERING INFORMATION

Part No	Description
5503010123	12 Port SC type, Simplex without adapter
5503020123	12 Port SC type, Duplex without adapter
5503010243	24 Port SC type, Simplex without adapter
5503020233	24 Port SC type, Duplex without adapter
5503010483	48 Port SC type, Simplex without adapter
5503020483	48 Port SC type, Duplex without adapter

FTTH Fiber Optical Cable - The typical bow-type drop optical cable includes central optical fiber(s) with 2 KFRP or 2 steel wires as the strength members placed on both sides, LSZH sheath is extruded outside.

FTTH Flat Drop Cable – Indoor / Outdoor

Features

- Choice of fibre types IN/OD
- Individually colored optical fibres
- Notched construction for easy stripping
- White LSZH jacket for internal use

Applications

- Internal FTTH applications horizontal and riser
- Clipping to surfaces including skirting boards

Optical fiber characteristics (FPC G.657A FIBER)

Category	Description		Specifications
			G.657A1
Optical Specifications	Attenuation	@1310nm	≤0.40dB/km
		@1550nm	≤0.30dB/km
	Zero Dispersion Wavelength		1300~1322nm
	Zero Dispersion Slope		≤0.092ps/(nm2.km)
	Dispersion	@1310nm	≤3.5 ps/nm.km
		@1550nm	≤18 ps/nm.km
	Polarization Mode Dispersion(PMD)		≤0.2ps/km1/2
Geometric Specifications	Mode Field Diameter	@1310nm	8.6±0.4μm
	Cladding Diameter		125±1μm
	Coating Diameter		250μm
	Core/Cladding Concentricity Error		≤0.6μm

Structure and technical parameters

Cable Type	Cable Size(mm)	Cable Weight(Kg/km	Tensile Strength Short Term(N)/ fiber strain(%)	Crush Resistance Long/Short Term (N/100mm	Bending Radius Static/Dynamic(mm)	Storage, operating Temperature(°c)
Indoor KFRP strength member FTTH cable-2G657A	(2.0±0.1)×(3.1±0.1)	8.0±0.5	40/80	500/1000	15/30	-20~+60
IN/OD steel wire strength member FTTH cable-2G657A	(2.0±0.1)×(3.1±0.1)	9.0±0.5	100/200	1000/2200	15/30	-20~+60

Standard Reel Length: 2000m; Other lengths available on request

ORDERING INFORMATION

Part No	Description
500111028	Alston Systems, 2 Core SM 9/125 FTTH Indoor LSZH
509111028	Alston Systems, 2 Core SM 9/125 FTTH IN/OD Steel Armoured, LSZH

FTTH – Fiber Terminal Box

Alston Systems, FTTH, Fiber Terminal Box is designed for use in residential, small and large businesses premises. The unit houses a single splice tray and allows fibers from internal or external cables to be spliced to pigtails for connection to the optical network unit. The unit can be quickly installed within a home, office or communication room environment. Internal or external cable can enter the unit from the bottom of the box or through the wall. The box is light and compact, especially suitable for protective connection of fiber cables and pigtails in FTTH environment.

FTTH, Fiber Optic Terminal box - Indoor

Features

- Main body made by ABS & PC
- Available in 2 & 4 Port
- Indoor use, widely used in FTTH, CATV, Telecommunication & Local Area Network
- Fiber Terminal Box is standard 86 Type terminal box
- Can be Installed SC, LC Adaptors
- Cable around the tray can be fusion fiber or cold welded with pigtails
- Splice organizer maximum 2 cores
- Environmental Temperature: - 25°C to 40°C

Application

- Widely used in FTTH access network.
- Telecommunication Networks
- CATV Networks
- Data communications Networks
- Local Area Networks

ORDERING INFORMATION

Part No	Description
5799824023	Alston Systems, FTTH, Terminal Box, 2Ports, Dimension mm(86.5 W*86.4 H*23 D) - Indoor
5799824043	Alston Systems, FTTH, Terminal Box, 4ports , Dimension mm(150 W*110 H*30 D) - Indoor

FTTH, Fiber Optic Terminal box - Outdoor

Features

- Industry Standard User Interface, made of high impact plastic.
- Can accommodate 1x8 & 1X16 PLC splitter.
- Anti-UV, Ultra violet resistant and rainfall resistant.
- Up to 24 FTTH drops.
- Wall and pole mountable.
- 4 inlet ports, 24 outlet ports.

ORDERING INFORMATION

Part No	Description
5799824023	Alston Systems, FTTH, Terminal Box 4 Ports, Dimension mm(210 W*140 H*40 D) – Indoor / Outdoor use
5799824043	Alston Systems, FTTH, Terminal Box 16 Ports, Dimension mm(260 W*320 H*90 D) – Indoor / Outdoor use

Fast Ethernet Media Converter

Gigabit Media Converter

10/100M PoE (PD/PSE)
Media Converter

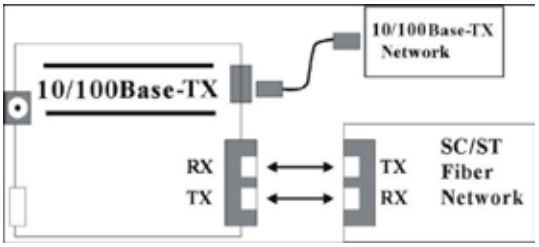
Media converters are making the bound from simple conversion devices to intelligent parts of your network. Media converters are used to convert copper to optical-fiber cabling, and vice versa. But they can also be used to switch from multimode to single mode fiber, thus extending the fiber network considerably. They continue to offer a cost-effective means for deploying fiber without requiring the to upgrade of switches, routers and other IT infrastructures, and they have enabled IT managers to merge mixed cable types seamlessly and cost-effectively into existing network fabrics.

Fast Ethernet Media Converters 10/100

Overview

- The 10/100 Base-TX to 100 Base-FX fast Ethernet converter, Multi-mode SC/ST Fiber Connector of Single-mode SC/FC/ST Fiber Connector
- Six LEDs display instant status monitoring for power, TX Fdx, FX(Link /Act), Fx100, Tx100.

Basic Network Connection



Basic Network Connection

LED	Color	Function
FX 100	Green	Lit when 100 Base-FX operation
FX LINK / ACT	Green	Lit when fiber cable connection with remote device is good, blinks when any FX traffic is present
POWER	Green	Lit when +5V power is available
FDX/COL	Green	Lit when Full Duplex Mode is enables, blinking when collision is present
TX 100	Green	Lit when 100Base-TX operation
TX LINK /ACT	Green	Lit when TP cable connection with remote device is good, blinks when any TX traffic is present

Fiber Optic Information &Fiber Optic detail

Connector	SC/ST	SC	SC	SC	SC	SC
Fiber Type	Multi-mode	Single-mode	Single-mode	Single-mode	Single-mode	Single-mode
Wavelength	850/1310nm	1310nm	1310nm	1310nm	1550nm	1550nm
Distance	2KM	25KM	40KM	60KM	80KM	100KM
Min TX PWR	-20.0dBm	-15.0dBm	-8.0dBm	-3.0dBm	-10.0dBm	-6.0dBm
Max TX PWR	-12.0dBm	-7.0dBm	-3.0dBm	-1.0dBm	-5.0dBm	-1.0dBm
Sensitivity	-31.0dBm	-32.0dBm	-33.0dBm	-36.0dBm	-35.0dBm	-36.0dBm
Link Budget	11.0dBm	-15.0dBm	-25.0dBm	-33.0dBm	-25.0dBm	-30.0dBm

Single Fiber Information

Connector	**SC**	**SC**	**SC**
Fiber Type	Single-mode	Single-mode	Single-mode
Wavelength	1310/1510 nm	1310/1510 nm	1310/1510 nm
Distance	20KM	40KM	60KM
Min TX PWR	-13.0dBm	-8.0dBm	-3/-8.0dBm
Max TX PWR	-6.0dBm	-3.0dBm	1/-2.0dBm
Sensitivity	-36.0dBm	-36.0dBm	-36.0dBm
Link Budget	-23.0dBm	-28.0dBm	33/28.0dBm

Technical Specifications

Standards	IEEE802.3u Fast Ethernet 10/100 Base -TX and 100 Base-FX
Connectors	RJ45-UTP and Fiber SC or ST Multimode RJ45 and SC/ST connector Single mode RJ45 and SC Connector
LED	POWER, FX100, FX Link /Act, TX Fdx, TX Link/Act, TX 100
Data Transfer Mode	10/100Mbps
Duplex Mode	Full or Half Duplex Mode
Power requirement	AC 100-260V DC 1A@+5V
Ambient Temperature	0 to 70°C
Humidity	5% to 90°/c
Dimensions	External Power 26 x 71 x 97 mm (HxWxD)
Cable	UTP - Cat5e / Cat6 / Cat6A Fiber - Multimode 50/125, 62.5/125 or 100/140 um Fiber - Single mode 8.3/125, 8.7/125, 9/125 or 10/124 um

ORDERING INFORMATION

Part No	Description
801100201	Alston Systems, Media Converter SC SM 9/125, 10/100 2KM
801102001	Alston Systems, Media Converter SC SM 9/125, 10/100 20KM
801102501	Alston Systems, Media Converter SC SM 9/125, 10/100 25KM
801104001	Alston Systems, Media Converter SC SM 9/125, 10/100 40KM
801106001	Alston Systems, Media Converter SC SM 9/125, 10/100 60KM
801108001	Alston Systems, Media Converter SC SM 9/125, 10/100 80KM
801110001	Alston Systems, Media Converter SC SM 9/125, 10/100 100KM
802200201	Alston Systems, Media Converter SC MM 62.5/125, 10/100 2KM
802300201	Alston Systems, Media Converter SC MM 50/125, 10/100 2KM

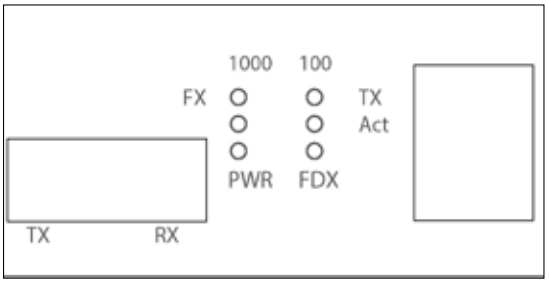
Gigabit Media Converters 10/100/1000

Media converters are making the bound from simple conversion devices to intelligent parts of your network. Media converters are used to convert copper to optical-fiber cabling, and vice versa. But they can also be used to switch from multimode to single mode fiber, thus extending the fiber network considerably. They continue to offer a cost-effective means for deploying fiber without requiring the upgrade of switches, routers and other IT infrastructures, and they have enabled IT managers to merge mixed cable types seamlessly and cost-effectively into existing network fabrics

Overview

- IEEE802.3z/AB 1000 Mbps Gigabit Ethernet supports two types of media for network connections such 10/100/1000Base-T and 1000 Base-SX/LX. The media converter is designed with a switch controller and buffer memory that connects two types of segments to operate smoothly. With an Internal Power unit, it provides good stability and reliability.

LED Description



Front View of Gigabit Converter

TP 100	Lit when TP speed is 100 Mbps
TP1000	Lit when TP Speed is 1000 Mbps
TP Act	Lit when TP connection is good, Blinks when TP data is transmitting
TP FDX	Lit when TP full-duplex mode is active, Off when TP half-duplex mode is active, Blinks when collision signal is present.
FX Act	Lit when TP connection is good, Blinks when TP data is transmitting
PWR	Lit when +5V power is coming up

Fiber Optic Information &Fiber Optic detail

Connector	**SC**	**SC**	**SC**	**SC**	**SC**
Fiber Type	Multi-mode	Single-mode	Single-mode	Single-mode	Single-mode
Wavelength	850	1310nm	1310nm	1550nm	1550nm
Max Distance	62.5pm: 224m 50pm: 550m	20KM	40KM	60KM	80KM
Min TX PWR	-11.0dBm	-9.0dBm	-4.0dBm	-8.0dBm	-3.0dBm
Max TX PWR	-6.0dBm	-5.0dBm	-1.0dBm	-1.0dBm	-1.0dBm
Sensitivity	<-18.0dBm	<-21.0dBm	<-24.0dBm	<-25.0dBm	<-25.0dBm
Link Budget	7.0dBm	12.0dBm	20.0dBm	17.0dBm	22.0dBm

Technical Specifications

Standards	IEEE802.3z/AB 10/100/1000 Base-T 1000 Base-SX/LX
UTP Cable	Cat5e or Cat6 cable upto 100m
Fiber Cable	1000SX : 50/125, 62.5/125pm multi-mode 1000LX : 9/125 pm single mode
LED	TP Act, Fdx, 100, 1000 Power, FX Act
Data Transfer Mode	2000 Mbps for full duplex at 1000 Mbps speed
TP Flow Control	N Way auto generation
Fiber Flow Control	N Way at full duplex mode
Power requirement	220V (175-260V)AC, 50Hz
Ambient Temperature	0 to 70°C
Humidity	5% to 90%
Dimensions	30 x110 x 140 mm (HxWxD)

ORDERING INFORMATION

Part No	Description
801102010	Alston Systems, Media Converter SC SM 9/125, 10/100/1000 20KM
801104010	Alston Systems, Media Converter SC SM 9/125, 10/100/1000 40KM
801106010	Alston Systems, Media Converter SC SM 9/125, 10/100/1000 60KM
801108010	Alston Systems, Media Converter SC SM 9/125, 10/100/1000 80KM
802200210	Alston Systems, Media Converter SC MM 62.5/125, 10/100/1000 550MTR

10/100M POE (PD) Media Converter

PoE-PD is a 10/100Base-TX to 100Base-FX media converter, which allows two types of network segments to be connected easily. The DC/DC powered PoE media converter is a Powered Device (PD) which combines data transferred over a fiber optic link with DC/DC converter, accepting power from IEEE802.3af Power Sourcing Equipment (PSE) over CAT5 UTP cable (cable length up to 100meters / 330feet.

Overview

- 10/100Base-TX UTP to 100Base-FX fiber media convention
- IEEE802.3af PoE PD compatible
- Built-in DC/DC power supply
- choice of SC, BiDi or LC connectors for multimode and single mode

Technical Specifications

Data rates	10/100 Mbps (802.3 10Base-T/802.3u 100Base-T) 100 Mbps (100Base-FX)
Input Power (Over Ethernet) requirements	Input Voltage 37V to 57V
Current consumption	150mA max
Pin Assignment and Polarity	4/5 vs 7/8 or A vs 3/6, non-polarity
Environmental Conditions	Operating temperature:0°C to 50°C Cooling: free air convection Storage temperature:-20°Cto +85°C Operating Humidity : 90% max, noncondensing
Case Material	Iron
Case color	Black
Connectors	LAN Shielded RJ-45
Packing details	200g approx. / uni, Dimensions:71(W) x 27(H) x 94(L) (mm)

10/100M PoE (PSE) Media Converter

PoE-PSE is a 10/100Base-TX to 100Base-FX media converter, which allows two types of network segments to be connected easily. Compliant with IEEE802.3af standard, the AC/DC powered PoE media converter is a Power Sourcing Equipment (PSE) which combines data transferred over a fiber optic link with 48V (or other voltage) power supply, providing power to an IEEE802.3af powered device (PD) over a CAT5 UTP cable (cable length up to 100meters / 330feet.

Overview

- 10/100Base-TX UTP to 100Base-FX fiber media conversion
- IEEE802.3af PoE PSE compatible
- Built-in AC/DC power supply
- Over-current protection
- Choice of SC, BiDi or LC connectors for multimode and single mode
- DIP switch to set different configurations
- LFP (Link Fault Pass-through) support

Technical Specifications

Data rates	10/100 Mbps (802.3 10Base-T/802.3u 100Base-T), 100Mbps (100Base-FX)
Input Power requirements	Input voltage 100 VAC to 240 VAC Input frequency 47 Hz to 63 Hz
Pin Assignment and Polarity	4/5 (V+),7/8 (V-)
Environmental Conditions	Operating temperature:0°C to 50°C Cooling: free air convection Storage temperature:-20°Cto +85°C Operating Humidity : 90% max, noncondensing
Case Material	Iron
Case color	Black
Packing details	540g approx. / unit Dimensions:110(W) x 40(H) x 140(L) (mm)

ORDERING INFORMATION

Part No	Description
803400201	Alston Systems, 10/100M PoE (PD) Media Converter
803500201	Alston Systems, 10/100M PoE (PSE) Media Converter

14 Port Media Converters Chassis

Overview

- 2U Un-management Converter Chassis.
- The system introduced here is capable of housing up to 14 media converters, each of which offers one channel media conversion solution
- 10/100BaseTX -100BaseFX
- 100BaseTX - 100BaseFX
- 10/100BaseTX -100BaseFX (WDM, single-mode)
- 100BaseTX -100BaseFX (WDM, single-mode)

Product Features

- House Up To 14 Media Converters
- Standard 19" Rackmountable Size, 2U
- Non-Stop Operation & Minimal Downtime
- Media Converters and Power Supplies With Fan are Hot-Swappable

Adequate Ventilation

- Provides one Cooling Fan on the left and one Cooling Fan one the right side
- Ventilation Holes on Each Side

Power Redundancy & Isolation

- Two high quality internal power supplies provided for load-sharing purpose.
- Load sharing mechanism: If one power supply should fail, the redundant power supply is capable of taking over immediately
- Converter bay power isolation ensures each bay is electrically isolated from each other
- Fuses on PCB for each converter bay
- Fuse on each power supply

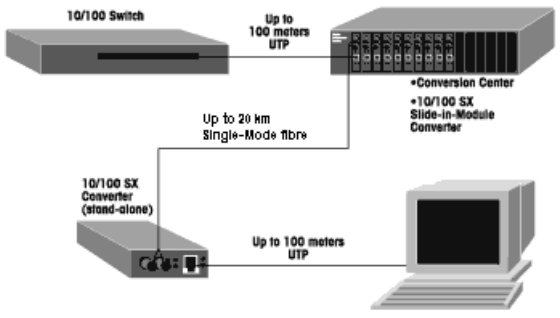
Specifications

- Chassis System: Capacity Sixteen bays for housing up to 14 media converters
- Power: Two power supplies provided, hot-swappable
- Cooling: Two power supplies with fans One fan on the left and the other one on the right side of the chassis
- Dimensions: W440 mm × D276 mm × H90 mm Standard 19" size, 2 U
- Power Supply: Power Input 110~240Vac, 50~60Hz or -48Vdc
- Operating Temperature: 0°C to 40° C (32°F to 104°F)
- Storage Temperature: -25°C to 70°C (-13°F to 158°F)

Package Content:

- 2U Un-Management Converter Chassis
- Two power supplies installed on the chassis
- AC power cord
- User's Manual
- Accessories: rack mount screws, brackets, & bracket screws

Typical Application:

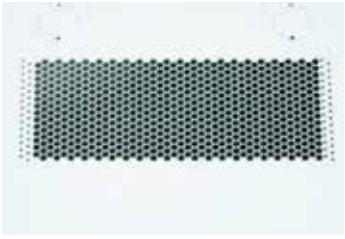


ORDERING INFORMATION

Part No	Description
800000141	Alston Systems, 14 Port Un-management Media Converter Chassis
800000161	Alston Systems, 16 Port Un-management Media Converter Chassis

Alston Systems wall mount cabinets are designed to fit all 19" active / passive devices for smaller networks. They usually come in 4U, 6U, 9U, 12U, 15U and 18U height with 600x450mm or 600x550mm configurations, for single and double sections respectively, in black color finish. Special sizes can be met based on customer requirements. All accessories such as fan units, power distribution units, fix shelves, LED light and cage nuts need to be ordered separately.

Removable side panels
(side locks optional)



Lockable fan holes and
cable entry

Features

- Welded Frame, Reliable Structure
- Adjustable feet, heavy duty castors are optional
- Removable side panels and side lock are optional
- Knock out hole for entering cable on both of top cover and bottom panel
- Turning angle of front door over 180 degrees
- Turning angle of front door over 180 degrees
- 19" Standard Installations
- 120mm fan optional
- Standing or wall mounting installations

Load Capacity

- 60 Kg

Material

- SPCC Cold Rolled Steel Thickness mounting profile 1.5/1.2mm

Surface Finish

- Frame: Degreasing, Phosphoric, Powder Coat

Standard

- Compliant with ANSI/EIA RS-310-D, DIN 41497 Part1, IEC297-2 DIN41494 Part7 GB/TB3047, 2-92 Standard

Degree of Protection

- IP20

Definition of Body Color

Oranment Strip Color	Body Color
Light Red	Black RAL 9004
Light Blue	Gray RAL 7035

ORDERING INFORMATION

(Wall Mounted cabinets - Single Section with Front Glass Door)

Model No	Part No	Width	Depth	Height
4U	401040643	600	450	280
6U	401060643	600	450	368
9U	401090643	600	450	501
12U	401120643	600	450	635
15U	401150643	600	450	769
18U	401180643	600	450	901
22U	401220643	600	450	1082
27U	401270643	600	450	1304

Features

- Double section Welded Frame, Reliable Structure
- 19" Standard Installations
- Easy operation and maintaining at the back
- Removable side panels and side lock are optional, easy installation and maintenance
- Knockout hole for entering cable on both of top cover and bottom panel
- Turning angle of front door is over 180 degrees
- Turning angle of rear door is above 90 degrees
- 120mm fan optional
- Standing or wall mounting installations

Load Capacity

- 60 Kg

Material

- SPCC Cold Rolled Steel Thickness mounting profile 1.5/1.2mm

Surface Finish

- Frame: Degreasing, Phosphoric, Powder Coat

Standard

- Comply with ANSI/EIA RS-310-D, DIN 41497 Part1, IEC297-2 DIN41494 Part7 GB /TB3047,2-92 Standard

Adjustable mounting profiles

Side door lock (optional)

Oranment Strip Color	Body Color
Light Red	Black RAL 9004
Light Blue	Gray RAL 7035

ORDERING INFORMATION

(Wall Mounted Cabinets - Dual Section With Front Glass Door Black Color)

Model No	Part No	Width	Depth	Height
6U	402060653	600	550	368
9U	402090653	600	550	501
12U	402120653	600	550	635
15U	402150653	600	550	769
18U	402180653	600	550	901
22U	402220653	600	550	1082

AlstonSystems offers an entire range of data cabinets such as server cabinets, wall / floor mount cabinets, power distribution units, IP based PDUs, UPS etc., towards a Data Center Facility Solution. Additionally, Alston Systems introduces physical security to the server cabinet access by IP based biometric handle locks. Protection of physical assets is regarded to be as important as protecting the data stored or processed on those active equipments. Accessories like fans, castors and levelling feet come with the cabinet pack. Additional accessories like fix shelf, keyboard tray, LED light, blank cover, cable management and numeric/biometric access control systems can be ordered along with the standard pack.

Oranment Strip Color
Light Red
Light Blue
Body Color
Black RAL 9004
Gray RAL 7035

Standard

Complant with ANSI/EIA RS-310-D, DIN 41497 Part1, IEC297-2 DIN41494 Part7 ETSI Standard

Features

- Exquisite design with precision measurement and craftsmanship
- Blue Zinc mounting profiles, free of static
- Toughened glass front door with obliquely vented door border and three section vented rear door
- Adjustable feet and heavy duty castors are available simultaneously
- Cable entry on the top cover and bottom panel with adjustable sizes
- Optional installation of plinth to enable cabinets fixation, under base entry cable entry/ ventilation
- Removal side panel for easy maintenanace

Load Capacity

- Static Loading : 800Kg (with adjustable feet)

Degree of Protection

- IP20

Material

- SPCC cold rolled steel
- Thickness of Steel, Mounting profile : 2.0mm; Tray: 2.0mm ; Mounting angle : 1.5mm

Surface Finish

- Frame : Degreasing, Phosphoric, Powder Coat
- Others : Degreasing, Phospohoric, Powder Coat

ORDERING INFORMATION

(Network Server Cabinets With Front Glass Door Black Color)

Model No	Part No	Width	Depth	Height
18	413180663	600	600	986
	413180683		800	
	413186103		1000	
22U	413220663	600	600	1166
	413220683		800	
	413226103		1000	
27U	413270663	600	600	1388
	413270683		800	
	413276103		1000	
32U	413320663	600	600	1610
	413320683		800	
	413326103		1000	
37U	413370663	600	600	1833
	413370683		800	
	413376103		1200	

Model No	Part No	Width	Depth	Height
42 U	413420663		600	2055
	413420683	600	800	
	413426103		1000	
	413426123		1200	
	413420863		600	
	413420883	800	800	
	413428103		1000	
	413428123		1200	
47U	413470663		600	2277
	413470683	600	800	
	413476103		1000	
	413476123		1200	
	413470863		600	
	413470883	800	800	
	413478103		1000	
	413478123		1200	

Features

- Welded frame with high intensity
- 19" Standard Installation with adjustable dimensions
- Blue Zinc mounting profiles, free of static
- Exquisite design with precision measurement and craftsmanship
- Hexagonal rectangular high-density vented front door(patent) & rear door enabled equipiment protection, verification and reliable operation with turning angle above 120 degree and ventilation rate above 71 %
- Bottom with cable entrance, optional cover to close
- Side doors with locks for protection
- Advance moon shaped lock
- Various optional accessories

Load Capacity

- Static Loading: 1000Kg

Degree of protection

- IP20

Main Material

- SPCC cold rolled steel
- Thickness of Steel, Mounting profile: 2.0mm; Tray: 2.0mm; Mounting angle: 1.5mrr

Surface Finish

- Frame: Degreasing, Phosphoric, dip-coat primed , Powder Coat
- Others: Degreasing, Phospohoric, Powder Coat

Standard

- Comply with ANSI/EIA RS-310-D, IEC297-2; DIN41494, PART 1, DIN41494; PART 7 Standard

Perforated
Door Frame

Advanced
lock

Single Section Door

Advanced moon
Shaped lock

Metal cable ring installed
on mounting profile

Mounting profile with
U mark

Welded frame with strong
structure

Alston Systems open racks are designed to fix 19" active / passive devices in a data center environment. This product is designed to handle 500Kgs loading capacity and comes with a vertical cable manager to tidy up the cable run.

Definition of Body Color	
Black RAL 9004	Gray RAL 7035

Features

- Modular design for easy assembly and disassembly
- 19" Standard Installations adjustable rack height
- Easy to fix, stable and strong structure
- Various optional installations according to requirements cable management slot, cantilever shelf, etc..

Load Capacity

- 500Kg

Material

- Plinth - Angle Iron and others SPCC Cold Rolled Steel Thickness Plinth - 8.0mm

Surface Finish

- Frame: Degreasing, Phosphoric, Powder Coat

Standard

- Compliant with ANSI/EIA RS-310-D, DIN 41497 Part1, IEC297-2 DIN41494 Part7 GB /TB3047,2-92Standard

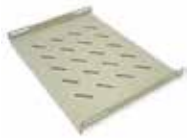
ORDERING INFORMATION (OPEN RACK)

Part No	Description
444253433	Open Rack 530 x 42U
444254043	Open Rack 42U Fish Bone Cable Management 450mm width
444254023	Open Rack 42U Fish Bone Cover

Cooling Fan

Metal Cable Management

Fixed Shelf



Blanking Panel

ORDERING INFORMATION (COOLING FAN)

Description	Part No	Voltage
Cooling Fan	491002203	220V
Cooling Fan	491001103	110V
Cooling Fan (Direct Current)	492000483	48V
Cooling Fan (Ball bearing)	493001103	110V
Cooling Fan (Ball bearing)	493002203	220V
Cooling Fan (Direct/Ball bearing)	494000483	48V

ORDERING INFORMATION (METAL CABLE)

Description	Part No	Height
1U Metal cable management with cap	491010013	1U
2U Metal cable management with cap	491010023	2U

ORDERING INFORMATION (FIXED SHELF)

Description	Part No
Fixed Shelf 800x800 mm	491030803
Fixed Shelf 800x1000 mm	491031003
Fixed Shelf 450 mm depth	491030453

ORDERING INFORMATION (BLANKING PANEL)

Description	Part No
1U Blank Panel	491040013

Definition of Body Color	
Black RAL 9004	Gray RAL 7035

Cooling Fan

Features

- Lower-noise, long lifespan, plastic filter options

Dimension

- 120mm xl 20mm x36mm

Mouting Dimension

- 105mm x 105mm

Air Flowing

- 50-110CBM/H

Metal Cable Management with CAP

Features

- Long lifespan, plastic filter options

Material

- SPCC cold rolled stell t1.2

Surface Finish

- Degreasing, Phosphoric, Powder Coated

Fixed Shelf

Features

- Used for placing equipment Material
- SPCC cold rolled stelltl .2

Surface Finish

- Degreasing, Phosphoric, Powder Coated

Load Capacity

- 60Kg

Blanking Panel

Features

- 19" cabinets as blanking plate

Material

- SPCC cold rolled stell t1.2

Surface Finish

- Degreasing, Phosphoric, Powder Coated

Alston systems manufactures different types of PDUs to distribute power from a main source to different active devices in a network rack.

Input characterises	
Rated input voltage	250VAC
Cable specification	H05VV-F3G 1.5mmA2
Type of plug	BS1363 13A plug
Cable length	2m
Max input current	13A
Output characterises	
Output quantity	6 ways
Rating output voltage	250VAC
Max output current	13A
Max output power	3.5KW
Functions	
Control	Double breaker switch
Protection	None
Size	
Product size	LXWXH=482.6X44.4X44.4mm (19 inch)
Mounting length	482.6mm
Test items	
hi-pot test	PASS
Grounding	PASS
IR	PASS
Product color& material	
Product color	Silver white
Shell material	Aluminum alloy
Plastic flame retardant rating	UL94V-0 grade
Mounting	
Mounting method	Horizontal installation
Packing	
Packing Method	Standard export packing

Features

- 6 way output configuration
- Uninflammable material PC module
- Aluminum alloy shell
- CE,ROHS certified
- Double breaker switch control
- Silver white design
- Rack mount 1U design
- Separate switch protection
- UK, US and Universal type power sockets

Packaging Details

Description	Details
Carton size	510*295*485
Quantity in one carton	25pcs
Metal enclosure	
Gross weight for one carton	23kg
Net Weight for one carton	20kg

ORDERING INFORMATION

Description	Part No
491100063	Power distribution units w/ aluminium body, UK type, 6 outlets
491100063	Power distribution units w/ aluminium body, 6 outlets - Universal Type
OTHER AVAILABLE PRODUCTS	
491100083	Power distribution units w/ aluminium body, UK type, 8 outlets
491100103	Power distribution units w/ aluminium body, UL type, 10 outlets
491100123	Power distribution units w/ aluminium body, UL type, 12 outlets

A KVM switch is a hardware device that allows a user to control multiple computers from one or more sets of keyboards, video monitors and mouse and monitor console. Switches control of up to 8 & 16 computers from a single USB / PS/2 keyboard, USB / PS/2 mouse, and monitor console.

Features

- One console controls 8 & 16 computers
- Compatible with USB / PS/2 keyboard and mouse in console and PS/2, USB keyboard and mouse in computer.
- Computer selection via front panel switches and OSD
- LED display for easy status monitoring
- Auto Scan Mode for monitoring all computers
- Superior video quality
- Easy installation - no software required
- Hot pluggable - add or remove computers for maintenance without powering down the switch
- Supports Windows, Solaris etc.

Technical Specifications

Type		8 Port	16 Port
CPU port selection		Front panel switches/OSD menu	Front panel switches/OSD menu
Console connectors	Keyboard	1 x PS/2 female (purple), 1 x USB Female	1 x PS/2 female (purple), 1 x USB Female
	Mouse	1 x PS/2 female (green), 1 x USB Female	1 x PS/2 female (green), 1 x USB Female
	Video	1 x HDB-15 female (blue)	1 x HDB-15 female (blue)
CPU connectors	Keyboard	1 x PS/2 female (purple), 1 x USB female	1 x PS/2 female (purple), 1 x USB female
	Mouse	1 x PS/2 female (green), 1 x USB female	1 x PS/2 female (green), 1 x USB female
	Video	8 x HDB-15 male (blue)	16 x HDB-15 male (blue)
LED's	Online	8	16
	Selected	8	16
Video resolution		1600 x 900	1600 x 900
Power		DC5V, 400mW	DC5V, 400mW
Operating Temperature		-10°C~50°C	-10°C~50°C
Storage Temperature		-20°C~60°C	-20°C~60°C
Housing / Weight / (LXWXH)		Metal / 3.59KG / 432 x 155 x 44 mm	Metal / 3.59KG / 432 x 155 x 44 mm

ORDERING INFORMATION

Part No	Description
8411150801	Alston activ, USB-PS/2 Combo-KVM switch with OSD, 8-Port; PC ports support PS/2&USB; console port support USB&PS/2; attached 8pcs cables
8411170801	Alston activ, USB-PS/2 Combo-KVM switch with OSD, 16-Port; PC ports support PS/2&USB; console port support USB&PS/2; attached 16pcs cables
8230030001	Alston activ, 3 Meter 1-to-3 DKVM Combo Cable
8230050001	Alston activ, 5 Meter 1-to-5 DKVM Combo Cable
8230010001	Alston activ, 1.8 meter Combo Cable

KVM LCD Console

The KVM Console (LCD, keyboard, video and mouse) multi-computer switches are designed for easy rack mount and disassembly, which will help to save time and cost, as well as to enhance the working efficiency. This system allows people to operate or access one or several computers, servers and related peripheral without moving the facilities around.

Specification:

- Standard 19" rack mount design, equipped with 1U sliding drawer
- Support width 500mm over installation
- Four-in-one switch integrates the LCD keyboard, video and mouse in 1 U space
- Built-in 15/17 inches high definition folding TFT-LCD, keyboard and touchpad mouse
- Supports multi Operating Systems
- Plug and play support, no drive program needed, easy to operate

ORDERING INFORMATION

Part No	Description
8411150801	Alston Systems, Local control KVM Switch, 15" LCD Screen with keyboard & mouse, 8 Ports KVM Switch(8pcs 1.8M cables for 8 ports outlet), with another 2 USB external interfaces
8411170801	Alston Systems, Local control KVM Switch, 17" LCD Screen with keyboard & mouse, 8 Ports KVM Switch (8pcs 1.8M cables for 8 ports outlet), with another 2 USB external interfaces
8411190801	Alston Systems, Local control KVM Switch, 19" LCD Screen with keyboard & mouse,16 Ports KVM Switch (16pcs 1.8M cables for 16 ports outlet), with another 2 USB external interfaces

Features

- Warning by Email and SMS to bring environment realtime monitoring and warning come true.
- Supports SNMP V1, V2, V3. User can check 2Port EnvirPro status via SNMP View.
- Supports SNMP Trap to collect and view warning messages sent by 2Port EnvirPro.
- Supports SysLog. User can collect device data by SysLog Server, and can integrate this function with IDC View, the centralized management software.
- Supports IP and MAC filter to prevent unauthorized user access to devices.
- Record operations and warning messages, user can check messages afterwards.
- Supports online firmware upgrade to renew equipment functions
- Supports 4 dry contact input, 2 AC outlets, monitoring temperature and humidity, water leakage and smoke that harm your servers and generate real-time alarms to protect your server.
- Built-in surge protector to avoid damages by voltage spikes.
- Supports PING function. If there is no response from connected device, EVS can command the device to reboot. Alerts by Email or SMS will be triggered if Ping failures exceed user-defined Ping times.
- Serial Port can support UPS to set up parameters.
- Supports 12VDC D/O Sensors can detect without connecting electrical power.
- Monitor UPS low battery signal. Equipment can be shutdown in time to react.

Specifications	EVS01-MST
Max. total Current Output	12 A
Each Output	8 A
Power Input	85-240 VAC, 50-60 Hz
Power Source frequency	50 - 60 HZ
Operating Temp.	0 - 45°C
Operating Humidity	0 - 60%
Storage temperature	-25 - 65 °C (-13 - 149 °F)
Temp. & Humid Sensor Port	1
Dry Contact Input	4
12VCD	1
RS232 Serial Port	1
MIC/Vibration Detector	o
Outline dimension	200 x 130 x 44 mm (W x D x H)
Net Weight	0.82 KG
Power Consumed	5 W
Socket No	2

Optional accessories


Door Open Detector


Smoke Detector


Water Detector


Temp Sensor


Rack fixer 2pcs

ORDERING INFORMATION

Part No	Description
EVS01-MST	Alston Systems, Environmental Monitoring Systems (EVS) Pro

Alston Systems "Smart Series" is a line-interactive UPS. The UPS comes in power ratings of 600 VA, 800 VA and 1/2/3KVA, which delivers the best combination of reliability, functionality and flexibility at a competitive price. Smart Series is equipped with AVR to stabilize input voltage, a built-in CCCV battery charger and battery over drain protection. The Smart design ensures reliable and trouble free operation for various critical loads.

TECHNICAL SPECIFICATION

Capacity	600VA/360W	800VA/480W	1 ~3 KVA
Main Input			
Voltage/Frequency	110/115/120VAC or 220/230/240VAC 47Hz~53Hz or 57Hz~63Hz		
Voltage Range	86VAC~144VAC or 172VAC ~288VAC (+/-25%)		
Main Output			
Voltage Regulation	110/115/120VAC or 220/230/240VAC +/-10%		
Frequency / Waveform / T ransfer time	50Hz or 60Hz +/-1Hz Simulated Sine wave < 6ms (Typical)		
Output Outlets: IEC-320/ NEMA 5-15R	3/2	6/4	9/6
Battery			
Battery Type	12V/7Ah*1pc	12V/9Ah*1pc	12V / 7Ah * 2 pc for 1 KVA
Recharge Time	5Hrs to 90% after complete discharge		
Battery protection	Over discharge protection & Short circuit protection by fuse		
Advanced battery manage-ment /User's replacement	Yes		
Battery backup time	20mins (Load with 1 PC)	30mins (Load with 1 PC)	60 min (Load with 1 PC)
Display	LED status indicator for AC normal. Back-up, UPS cut off		
Alarm	Buzzer on for Back-up mode, Battery low		
Output Short Protection	AC fuse and Electronic circuit(Line mode);Electronic circuit (Back-up mode)		
Communication Port	Shutdown software for Windows 95/98/NT/2000/ ME/XP/Vista		
Modem/ Phone Protection	RJ-11		
Lighting / Surge Protection	240joules		
Auto Voltage Regulation-AVR	Boost/Buck		
DC Start Function/Auto Restart UPS	Yes		
Over / Under Voltage Protection	Yes		
Physical Dimension	290 x 95 x 170mm	290 x 95 x 170mm	408 x 143 x 197mm
Net weight	6.5 Kgs	7.5 Kgs	16 Kgs

Features

- Easy Replaceable Battery Design
- Easy LED Indicators
- Supports DB 9 or USB Port
- Equipped with Boost and Buck AVR to stabilize Input Voltage
- Provides Lightning, Surge ,Overload and Short Circuit Protection
- Built-in CCCV Battery Charger and Battery Over Drain Protection
- Auto Restart when AC Recovery
- Cold Start Function (DC Power On), Operating Temperature 0 ~40 °C
- Tel/Modem/Fax/Internet Surge Suppression
- Software : Automatically save Your Valuable Files before Auto Shutdown

ORDERING INFORMATION

Part No	Description
90011600V	Alston Systems,Smart Series Line Interactive UPS 600 VA/DB 9 Port
90011800V	Alston Systems,Smart Series Line Interactive UPS 800 VA/DB 9 Port
90011600U	Alston Systems, Smart Series Line Interactive UPS 600 VA/USB Port
90011800U	Alston Systems, Smart Series Line Interactive UPS 800 VA/USB Port
90011001U	Alston Systems,Smart Series Line Interactive UPS 1 KVA/USB & DB 9 Port
90011002U	Alston Systems,Smart Series Line Interactive UPS 2 KVA/USB & DB 9 Port
90011003U	Alston Systems,Smart Series Line Interactive UPS 3 KVA/USB & DB 9 Port

Alston Supreme Online type UPS is designed for Single phase IN and OUT applications. Supreme tower type is designed to adapt to a wide input voltage range which is a more immune design to input voltage fluctuations. The unique design has a user friendly LED indicator with LCD screen which privides the complete UPS status.

Features

- 115~300V Wide Input voltage range
- Online double conversion technology
- Comprehensive LED and LCD display for complete UPS information
- Converter mode available
- ECO mode for energy saving (only for 1KVA-3KVA)
- Generator compatible
- Input power factor correction
- Lightning and surge protection
- Smart RS-232/USB ports with monitoring software and optional SNMP card

ORDERING INFORMATION

Internal Model	Part No	Description
	901110013	Alston Systems, Supreme Tower Type Single Phase Internal Battery 1KVA UPS-Black
	901110023	Alston Systems, Supreme Tower Type Single Phase Internal Battery 2KVA UPS-Black
	901110033	Alston Systems, Supreme Tower Type Single Phase Internal Battery 3KVA UPS-Black
	901110063	Alston Systems, Supreme Tower Type Single Phase Internal Battery 6KVA UPS-Black
	901110103	Alston Systems, Supreme Tower Type Single Phase Internal Battery 10KVA UPS-Black

External Model	Part No	Description
	901120013	Alston Systems, Supreme Tower Type Single Phase External Battery 1KVA UPS-Black
	901120023	Alston Systems, Supreme Tower Type Single Phase External Battery 2KVA UPS-Black
	901120033	Alston Systems, Supreme Tower Type Single Phase External Battery 3KVA UPS-Black
	901120063	Alston Systems, Supreme Tower Type Single Phase External Battery 6KVA UPS-Black
	901120103	Alston Systems, Supreme Tower Type Single Phase External Battery 10KVA UPS-Black

Parameters table of Supreme Series UPS

Capacity		**1000VA/800W**		**2000 VA / 1600 W**		**3000 VA / 2400 W**		**6000VA / 4800W**	**10000 VA / 8000 W**
Main Input									
Voltage/Frequency		200/208/220/230/240VAC 40Hz ~ 70 Hz						208/220/230/240VAC 56~64 Hz	
Voltage Range		Single Phase - 110-300 VAC (Based on load at 50%)							
Main Output									
Voltage Regulation		200/208/220/230/240VAC +/- 1%						208/220/230/240VAC +/- 1%	
Frequency / Transfer Time		47~ 53 Hz or 57 ~ 63 Hz Typical Zero						46~54 Hz or 56~64 Hz Typical Zero	
Waveform / Distortion		Pure Sine Wave, Linear load < 3% / Nonlinear load < 6%						Pure Sine Wave,Linear load < 3% / Nonlinear load < 5%	
Output Outlets: Universal		3	2	3	2	4+Terminal	2+Terminal	Output Terminal	
Battery									
Internal Model	Battery Type	12V/9Ah*2pc		12V/9Ah*4pc		12V/9Ah*6pc		12V/9Ah*16pcs	12V/9Ah*16pcs / 20PCS
	Charging Voltage	27.4 VDC ±1%		54.7VDC ±1%		82.1VDC ±1%		218.4 VDC± 1%	
	Charging Current	1A						1A/2A/4A/6A (Adjustable)	
External Model	Numbers	2	3	4	8	6	8	16	20
	Charging Voltage	27.4 VDC ±1%	41.0VDC ±1%	54.7 VDC ±1%	109.4 VDC ±1%	82.1 VDC ±1%	109.4 VDC ±1%	218.4 VDC± 1%	273VDC± 1%
	Charging Current	1A-6A (Adjustable)						1A/2A/4A/6A (Adjustable)	
Recharge Time		4 Hrs to 90% after complete discharge						9 Hrs to 90% after complete discharge	
Other Features									
Overload Protection		105%~110%: 10 mins, 110%~130%: 60 secs						100%~110%: 30 mins, 110%~130%: 5 mins	
RS-232/USB com. port		Supports Windows family, Linux, Unix and MAC							
Humidity		20-90 % RH @ 0- 40°C (Non-condensing)							
Noise Level		Less than 50dB						Less than 55dB	Less than 58dB
Internal Model	Physical Dimension (DxWxH) mm	282 x 145 x 220		397 x 145 x 220		421 x 190 x 318		369 x 190 x 688	442 x 190 x 688
	Net Weight (kgs)	9.8		17		27.6		61	66 / 75
External Model	Physical Dimension (DxWxH mm	282 x 145 x 220		397 x 145 x 220		397 x 145 x 220		369 x 190 x 318	442 x 190 x 318
	Net Weight (kgs)	4.1		6.8		7.4		8.2	16 / 18

Alston Extreme models come in a 19″ rack mount construction suitable to provide uninterrupted power for rack mount data centre equipments. A user friendly LCD design provides UPS status to customer. The extreme UPS design ensures reliable and trouble-free operation for critical loads ranging from 1KVA to 10 KVA.

6KVA-10KVA 1KVA-3KVA

Features

- 19 inch rack mounted design
- Online double conversion technology
- Microprocessor control for best reliability and performance
- 110-300V wide input range
- Zero transfer time
- Converter mode available
- ECO mode for energy saving (only for 1KVA-3KVA)
- Generator compatible
- Input power factor correction
- Lightning and surge protection

Parameters table of Extreme Series UPS

Capacity		1000VA/800W		2000 VA / 1600 W		3000 VA / 2400 W		6000VA / 4800W	10000 VA / 8000 W
Main Input									
Voltage/Frequency		200/208/220/230/240VAC 40Hz ~70 Hz						208/220/230/240VAC 56~64 Hz	
Voltage Range		Single Phase - 110-300 VAC (Based on load at 50%)							
Main Output									
Voltage Regulation		200/208/220/230/240VAC ± 1%						208/220/230/240VAC ± 1%	
Frequency / Transfer Time		47~ 53 Hz or 57 ~ 63 Hz Typical Zero						46 ~ 54 Hz or 56 ~ 64 Hz Typical Zero	
Waveform / Distortion		Pure Sine Wave, Linear load < 3% / Nonlinear load < 6%						Pure Sine Wave,	
Output Outlets: Universal		2		2		2+Terminal		Output Terminal	
Battery									
Internal Model	Battery Type	12V/9Ah*2pcs		12V/9Ah*4pcs		12V/9Ah*6pcs			
	Charging Voltage	27.4 VDC ±1%		54.7VDC ±1%		82.1VDC ±1%			
	Charging Current	1A							
External Model	Numbers	2	3	4	6	8	6	8	16
	Charging Voltage	27.4 VDC ±1%	41.0 VDC ±1%	54.7 VDC ±1%	82.1 VDC ±1%	109.4 VDC ±1%	82.1 VDC ±1%	109.4 VDC ±1%	
	Charging Current	1A/2A/4A/6A (Adjustable)						1A/2A/4A/6A (Adjustable)	
Recharge Time		4 Hrs to 90% after complete discharge						9 Hrs to 90% after complete discharge	
Other Features									
Overload Protection		105% ~ 110%: 10 mins, 110% ~ 130%: 60 secs						100% ~ 110%: 30 mins, 110% ~ 130%: 5 mins	
RS-232/USB com. port		Supprots Windows family, Linux, Unix and MAC							
Environment									
Humidity		20-90 % RH @ 0- 40°C (Non-condensing)						0-95 % RH @ 0-40°C (Non-condensing)	
Noise Level		Less than 50dB						Less than 55dB	Less than 58dB
Internal Model	Physical Dimension (DxWxH) mm	310 x 438 x 88		310 x 438 x 88		600 x 438 x 88			
	Net Weight (kgs)	12		19		29.3			
External Model	Physical Dimension (DxWxH) mm	280 x 438 x 88		380 x 438 x 88		380 x 438 x 88		500 x 438 x 88	580 x 438 x 88
	Net Weight (kgs)	9		12		14.2		13.5	16.5

ORDERING INFORMATION

Internal Model	Part No	Description
	904110013	AS Xtreme RM Series Single Phase 1KVA with Internal Battery-Black
	904110023	AS Xtreme RM Series Single Phase 2KVA with Internal Battery Bank-Black
	904110033	AS Xtreme RM Series Single Phase 3KVA with Internal Battery Bank-Black

External Model	Part No	Description
	904120013	AS Xtreme RM Series Single Phase 1KVA External Battery-Black
	904120023	AS Xtreme RM Series Single Phase 2KVA External Battery-Black
	904120033	AS Xtreme RM Series Single Phase 3KVA External Battery-Black
	904120063	AS Xtreme RM Series Single Phase 6KVA External Battery-Black
	904120103	AS Xtreme RM Series Single Phase 10KVA External Battery-Black

Alston Systems Ultra Tower Type UPS is designed for 3 Phase In and Single Phase Out. State of the art technology and design provides reliable perforamance for sensitive loads. High input power factor provides energy savings. The unique design has a user friendly LCD screen which provides the UPS status and print access for system service if any. The Ultra Tower UPS is commonly used for ISP sites, Datacenters and for sensitive loads.

Features

- Three phase in/Single phase out system, compatible with utility of 380/400/415V,50/60Hz
- Online double conversion, offering load with best power quality
- Supports all kinds of load, high overload capability
- DSP technology guarantees high performance
- Wide input voltage window
- Active input power factor correction in all phases
- Optional parallel redundancy capability up to 3 units
- Intelligent battery management, extending battery Lifetime
- Built-in phase auto adapt function simplifies wire installation
- Programmable output sockets for extended runtime
- Multiple operation modes: converter mode and ECO mode
- Adjustable battery number for flexibility

Parameters table of Ultra Series UPS

Capacity		10000VA/8000W	15000VA /12000W	20000VA /16000W	30000VA /24000W
Main Input					
Nominal Voltage		3 x 400 VAC (3Ph+N)			
Voltage/Frequency		190-520 VAC (3-phase) at 50% load ; 305-478 VAC (3-phase) at 100% load / 46~54 Hz or 56~64 Hz			
Main Output					
Voltage Regulation		208/220/230/240VAC +/- 1%			
Frequency / Transfer Time		50 Hz ± 0.1 Hz or 60 Hz ± 0.1 Hz (Batt. Mode) Zero			
Waveform / Distortion		Pure Sinewave, ± 2 % THD (Linear Load) /± 5 % THD (Non-linear Load)			
Battery					
Internal Model	Battery Type	12 V / 9 Ah	12V/9 Ah		12 V / 9 Ah
	Numbers	20 pcs (18 - 20 pcs adjustable)*	20 pcs (18 - 20 pcs adjustable)* x 2 strings		20pcs (18-20pcs adjustable)* x3 strings
	Charging Voltage	273 VDC ± 1% (Based on 20pcs batteries)			
	Charging Current	1A	2A	2A	4A
External Model	Numbers	18 - 20 pcs			
	Charging Voltage	273 VDC ± 1% (Based on 20pcs batteries			
	Charging Current	4A	8A	8A	12A
Recharge Time		9 hours recover to 90% capacity			
Other Features					
LCD Display		UPS status, Load level, Battery level, Input/ Output voltage, Discharge timer, and Fault conditions			
RS-232/USB com. port		Supports Windows family, Linux, Unix, and MAC			
Environment					
Humidity		0-95 % RH @ 0- 40°C (Non-condensing)			
Noise Level		Less than 58dB @ 1 Meter	Less than 60dB @ 1 Meter		Less than 65dB @ 1 Meter
Internal Model	Physical Dimension (Dx-WxH) mm	592 x 250 x 576	815 x 300 x 1000	815 x 250 x 826	815 x 300 x 1000
	Net Weight (kgs)	83	234	164	234
External Model	Physical Dimension (Dx-WxH) mm	592 x 250 x 576	815 x 250 x 826	592 x 250 x 576	815 x 250 x 826
	Model	28	64	40	64

ORDERING INFORMATION

Internal Model	Part No	Description
	90131901073S	AS Ultra Tower Type 3P/1P Interbal Battery 10KVA UPS
	90131901573S	AS Ultra Tower Type 3P/1P Interbal Battery 15KVA UPS
	90131902073S	AS Ultra Tower Type 3P/1P Interbal Battery 20KVA UPS
	90131903073S	AS Ultra Tower Type 3P/1P Interbal Battery 30KVA UPS

External Model	Part No	Description
	90132901073S	AS Ultra Tower Type 3P/1P External Battery 10KVA UPS
	90132901573S	AS Ultra Tower Type 3P/1P External Battery 15KVA UPS
	90132902073S	AS Ultra Tower Type 3P/1P External Battery 20KVA UPS
	90132903073S	AS Ultra Tower Type 3P/1P External Battery 30KVA UPS

Alston Systems Ultra PF0.9 Tower Online UPS is designed for 3 Phase IN and OUT applications. State of the art technology and design allows to easily adapt to all kinds of diverse and complicated loads, such as non-linear systems (IT systems), strongly inductive or capacitive loads, discharge lamps, and induction motors. To facilitate expan-sion easily, this unit can be set up in parallel-redundant systems with up 4 units.

ORDERING INFORMATION

Part No	Description
903220103	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 10 KVA UPS - Black
903220153	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 15 KVA UPS - Black
903220203	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 20 KVA UPS - Black
903220303	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 30 KVA UPS - Black
903220403	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 40 KVA UPS - Black
903220603	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 60 KVA UPS - Black
903220803	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 80 KVA UPS - Black
903221003	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 100 KVA UPS - Black
903221203	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 120 KVA UPS - Black
903221603	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 160 KVA UPS - Black
903222003	Alston System Ultra PF0.9 Tower Type 3 Phase External Battery 200 KVA UPS - Black

Features

- Online double conversion technology with DSP control
- Output power factor 0.9
- Very low input current distortion (THDi < 1%)
- Input power factor 0.99 at 10% load
- Output efficiency up to 95%
- Space-saving compact design
- Front access makes maintenance and replacement easily
- Highly flexibility in single phase/three-phase set-ups
- Control designed to withstand all kinds of loads
- Parallel redundant operation with up to 4 units

Parameters table of Ultra PF0.9 Series UPS

Capacity	**10KVA/ 9KW**	**15KVA/ 13.5KW**	**20KVA/ 18KW**	**30KVA/ 27KW**	**40KVA/ 36KW**	**60KVA/ 54KW**	**80KVA/ 72KW**	**100KVA/ 90KW**	**120KVA/ 108KW**	**160KVA/ 144KW**	**200KVA/ 180KW**
Main Input											
Nominal Voltage	3 x 400V (3Ph + N)										
Frequency	50 / 60 Hz ±5 %										
Total Harmonic Distortion (THDi)	< 1.5% @ 100% load < 2.5% @ 50% load < 6.0% @ 10% load			< 1.0% @ 100% load ; < 2.0% @ 50% load < 5.0% @ 10% load				< 1.5% @ 100% load ; < 2.0% @ 50% load < 6.0% @ 10% load			
Current Limitation	High overload: PFC Limit (discharging batteries)										
Inverter											
Nominal Voltage	3 x 400V (3Ph + N)										
Precision	Stationary: ±1% ; Transitory: ±2% (load variations 100-0-100%)										
Frequency	50/60 Hz synchronised ±4 % With mains absent ±0.05%										
Waveform	Pure Sinewave										
Total Harmonic Distortion (THDv)	0.5% (Linear Load) ; < 1.5% (Non-linear Load										
Admissible Crest Factor	3.4 : 1			3.2 :1			2.8 : 1	3.2 :1		3.0 :1	
Maintenance Bypass											
Type / Voltage	Without interruption ; 3 x 400V (3Ph + N)										
Overall Efficiency (Line mode)	90.0%	90.5%	91.0%	92.0%	92.5%	93.0%	94.0%	93.0%	93.3%	92.8%	92.6%
Battery											
Built-in Battery Type (2x31)	12V 4.5Ah	12V 4.5Ah	12V 7Ah	12V 9Ah	12V 12Ah	-					
Back-up Time (minutes)	5	3	5	3	3	-					
Max. Charging Current	23.5 A				47 A		70.5 A		188 A		
Physical											
Dimension, D x W x H(mm	770 x 450 x 1100						805 x 590 x 1320			850 x 900 x 1900	
Net Weight (without batteries)(Kg)	78	86	94	110	122	162	231	255		550	
Net Weight (w/built-in batteries) (Kg)	178	186	249	357	-						

Alston Systems Titan Tower Online UPS is designed for 3 Phase IN and OUT applications. State of the art technology and design allows to easily adapt to all kinds of diverse and complicated loads, such as non-linear systems (IT systems), strongly inductive or capacitive loads, discharge lamps, and induction motors. To facilitate expansion easily, this unit can be set up in parallel-redundant systems with up to 4 units.

ORDERING INFORMATION

Part No	Description
908320103	Alston Systems, TitanTowerType 3/3 Phase, Isolation Transformer 10KVA UPS, Black
908320153	Alston Systems,TitanTowerType 3/3 Phase, Isolation Transformer 15 KVA UPS, Black
908320203	Alston Systems,TitanTowerType 3/3 Phase, Isolation Transformer 20KVA UPS, Black
908320303	Alston Systems,TitanTowerType 3/3 Phase, Isolation Transformer 30KVA UPS, Black
908320403	Alston Systems,TitanTowerType 3/3 Phase, Isolation Transformer 40KVA UPS, Black
908320603	Alston Systems,TitanTowerType 3/3 Phase, Isolation Transformer60KVA UPS, Black
908320803	Alston Systems,TitanTowerType 3/3 Phase, Isolation Transformer 80KVA UPS, Black
908321003	Alston Systems,TitanTowerType 3/3 Phase, Isolation Transformer 100 KVA UPS, Black
908321203	Alston Systems,TitanTowerType 3/3 Phase, Isolation Transformer 120 KVA UPS, Black

Features

- Online double-conversion
- DSP technology guarantees high reliability
- True galvanic isolation transformer design
- Control designed to withstand all kinds of loads
- Intelligent battery management to prolong battery lifecycle
- Redundant fan design and independent ventilation enhance durable operation under harsh environment
- Adjustable battery numbers
- Accept dual-mains input
- Variety of communication options available

Parameters table of Titan Tower Series UPS

Capacity		**10KVA/ 8KW**	**15 KVA/ 12KW**	**20KVA/ 16KW**	**30KVA/ 24KW**	**40 KVA/ 32KW**	**60KVA/ 48 KW**	**80 KVA/ 64KW**	**100KVA/ 80KW**	**120KVA/ 96KW**
Main Input										
Nominal Voltage		3 x 380VAC/400VAC (3Ph + N)								
Frequency		50/60 Hz ±10%								
Inverter										
Nominal Voltage		3 x 380VAC/400V (3Ph + N)								
Precision		Stationary: ±1%; Transitory: ±5% (load variations 100-0-100%)								
Frequency		50/60 Hz synchronised ±1 % With mains absent ±0.1 %								
Waveform		Pure Sinewave								
Total Harmonic Distortion (THDv)		<2% (Linear Load); <5% (Non-linear Load)								
Admissible Crest Factor		3:1								
Current Limit		High overload, short-circuit: RMS Voltage Limit; High Crest-Factor current: Peak Voltage Limit								
Maintenance Bypass										
Type/Voltage		Without interruption; 3 x 380VAC/400V (3Ph + N)								
Overall Efficiency	Line Mode	90.0%		91.0%		92.0%		93.0%		
	Battery Mode	90.0%		91.0%		93.0%		93.0%		
Battery & Charger										
Battery Type and Numbers		12VDC x 32 pcs (29~32 pcs adjustable)								
Nominal Battery Voltage		384 VDC (Based on 32pcs batteries)								
Charging Method		CC/CV								
Charging Current		Default 10A, Max. = Capacity / Battery Voltage			Default: 10A. Max. 40A					
Charging Voltage		432 VDC (Based on 32pcs batteries)								
Physical										
Dimension, Dx Wx H(mm)		656x405x817			656x405 x 941	821 x 432 x 1159		975x554x1286		975x635x 1326
Net Weight		118	120	145	193	278	365	471	573	650

Alston Systems Titan Industrial Grade is designed for industry applications. State of the art technolgy and design allows to easily adapt to all kinds of diverse and complicated loads, such as industrial process, infrastructure, energy industry and military applications. Its screwless cabinet design and fully coated PCBAs withstand harsh environments.

Features

- True online double conversion with DSP control
- Robust electrical performance to prevent damage from top and bottom connections
- Screw less cabinet design and fully coating PCBAs to withstand harsh environment
- Unique ventilation design for effective heat dissipation
- Accepts dual mains inputs
- Front access makes maintenance and replacement easily
- High short circuit and overload capabilities
- Easy integration into existing electrical networks or generator
- Parallel capability up to 4 units
- True galvanic isolation transformer design

ORDERING INFORMATION

Part No	Description
908320103-IG	Alston Systems,Titan Industrial Grade Online UPS,10KVA/8KW, 3 x 380VAC/400VAC/415VAC (Selectable), 384VDC, W/O Batteries, 6pulse
908320153-IG	Alston Systems,Titan Industrial Grade Online UPS,15KVA/12KW, 3 x 380VAC/400VAC/415VAC (Selectable), 384VDC, W/O Batteries, 6pulse
908320203-IG	Alston 5ystems,Titan Industrial Grade Online UPS, 20KVA/16KW, 3 x 380VAC/400VAC/415VAC (Selectable) 384VDC, W/O Batteries, 6pulse
908320303-IG	Alston Systems,Titan Industrial Grade Online UPS, 30KVA/24KW, 3 x 380VAC/400VAC/415VAC (Selectable) 384VDC, W/O Batteries, 6pulse
9083204G3-IG	Alston Systems,Titan Industrial Grade Online UPS, 4QKVA/32KW, 3 x 380VAC/400VAC/415VAC (Selectable) 384VDC, W/O Batteries, 6pulse
908320603-IG	Alston 5ystems,Titan Industrial Grade Online UPS, 60KVA/48KW, 3 x 380VAC/400VAC/415VAC (Selectable) 384VDC, W/O Batteries, 6pulse
908320803-IG	Alston Systems,Titan Industrial Grade Online UPS, 80KVA/64KW, 3 x 380VAC/400VAC/415VAC (Selectable) 384VDC, W/O Batteries, 6pulse
908321003-IG	Alston Systems,Titan Industrial Grade Online UPS, 100KVA/80KW, 3 x 380VAC/400VAC/415VAC (Selectable) 384VDC, W/O Batteries, 6pulse
908321203-IG	Alston Systems,Titan Industrial Grade Online UPS, 120KVA/96KW, 3 x 380VAC/400VAC/415VAC (Selectable) 384VDC, W/O Batteries, 6pulse
908321603-IG	Alston Systems, Titan Industrial Grade Online UPS, 160KVA/128KW, 3 x 380VAC/400VAC/415VAC (Selectable) 384VDC, W/O Batteries, 6pulse
908322003-IG	Alston Systems, Titan Industrial Grade Online UPS, 200KVA/160KW, 3 x 380VAC/400VAC/415VAC (Selectable) 384VDC, W/O Batteries, 6pulse

Parameters table of Titan Industrial Grade UPS

Capacity	**10KVA/ 8KW**	**15KVA/ 12KW**	**20KVA/ 16KW**	**30KVA/ 24KW**	**40 KVA/ 32KW**	**60 KVA/ 48 KW**	**80KVA/ 64 KW**	**100KVA/ 80 KW**	**120KVA/ 96KW**	**160KVA/ 128KW**	**200KVA/ 160KW**
Main Input											
Nominal Voltage	3 x 380VAC/400VAC/415VAC (3Ph + N or 3Ph + N + G)										
Frequency	50Hz ±5 Hz (±10%)										
Inverter											
Nominal Voltage	3 x 380VAC/400VAC/415VAC (Selectable)										
Output Voltage Stability	Steady steat: ±1 %; T ransitory: ±5%										
Frequency	50Hz										
Frequency Stability	±1%										
Waveform	Pure Sinewave										
Crest Factor	3:1										
Total Harmonic Distortion (THDv)	<2% (Linear Load), <4% (Non-linear Load)										
Maintenance Bypass											
Connection Type	Hardwire 5-wire (3PH+N+G)										
Input Voltage Range	220VAC ± 25%										
Overall Efficiency	90.0%		91.0%				92.0%				
Battery & Charger											
Battery Type and Numbers	VRLA Battery x 32pcs (29 ~ 32 pcs adjustable)										
Nominal Battery Voltage	384 VDC										
Rectifier Type	6 pulse								6 pulse or 12 pulse		
Charging Current	20A		40A							50A	
Charging Voltage	395VDC ~ 435VDC (adjustable)										
Physical											
Dimension, D x W x H(mm)	800x800x1800							800x1200x1800		800x1600x1800	
Net Weight	350	370	420	450	480	730	790	1000	1300	1400	1700

Alston Systems Rugged outdoor UPS is designed to provide power backup for outdoor equipment like traffic lights and surveillance systems. Optional cooling fan or air conditioning enclosure is available along with the UPS units. The available range is 1 – 3KVA.

Features

- True online double conversion technology
- High temperature resistance, anti-cold.
- Suitable for use in bad environments.
- Digital control techniques to ensure consistency and reliability of UPS.
- Intelligent Air conditioning unit.
- Built in battery and intelligent battery management.

ORDERING INFORMATION

Part No	Description
901120013-ODCF	Alston Systems, Rugged Single Phase External Battery 1KVA UPS- Outdoor, Cooling Fan Enclosure
901120013-ODAC	Alston Systems, Rugged Single Phase External Battery 1KVA UPS- Outdoor, Air Condition Enclosure
901120023-ODCF	Alston Systems, Rugged Single Phase External Battery 2KVA UPS- Outdoor, Cooling Fan Enclosure
901120023-ODAC	Alston Systems, Rugged Single Phase External Battery 2KVA UPS- Outdoor, Air Condition Enclosure
901120033-ODCF	Alston Systems, Rugged Single Phase External Battery 3KVA UPS- Outdoor, Cooling Fan Enclosure
901120033-ODAC	Alston Systems, Rugged Single Phase External Battery 3KVA UPS- Outdoor, Air Condition Enclosure

Item	**Specification**		
Model	901120013-ODAC	901120023-ODAC	901120033-ODAC
Rated Power	1KV/700W	2KVA/1400W	3KVA/2100W
Rated Voltage	220VAC		
Rated Frequency	50/60 HZ		
Ac Power Input			
Input Voltage Range	115-295VAC□If there is Input high voltage protection board in the UPS module□it will cut off input AC when the voltage is over 275VAC□		
Input Frequency Range	45Hz To 55Hz		
Frequency Following Speed	1Hz/S		
Input Power Factor	>0.95(Full Load)		
DC Power Input			
DC Voltage	36VDC	72VDC/96VDC	96VDC
Battery Capacity	12V/38AH□12V/65AH□12V/80AH□12V/100AH etc. (option□		
Charger	Ex-charger□option□		
Charge Current	4A/8A(option)	4A/8A(OPTION)	4A/8A(OPTION)
AC power output			
Output Voltage Tolerance	220Vac ± 2%		
Output Frequency Tolerance	50 Hz ± 0.1HZ		
Output Waveform	Sine Wave		
Efficiency	≥87%		
THD	Linear load <3%Non-linear load <5%		
Crest Factor	3:1 (Max.)		
Overload	>110%: 30s transfer to bypass >150%: 200ms transfer to bypass		
Transfer time	0 ms□ Utility Mode To Battery Mode <4 ms□Invert Mode To Bypass Mode(standard value is 2.4ms)		
Surgeprotection degree	C CLASS		
Environment			
Work Temperature	-20 to 55□ (Battery heater option)		
Store Temperature	-20 to 55□		

Alston Systems Fusion Tiny UPS is a modular design UPS with a double conversion online feature designed for sensitive small loads of up to 40KVA. This product is designed for the power back up requirements from SME segment. Alston Systems modular products are hot swappable and deliver high reliability for sensitive loads. Our Fusion UPS is widely used for medium size data centers, critical loads and for computer systems.

Features

- 1/1, 3/1, 3/3 power connection selectable. 3/3 default
- Manual bypass and bypass breaker
- 19" rack installation
- Intelligent Hibernate
- Motor mode for motor type load
- Instant short protection
- Self aging mode

Part No	Description
AS-RM040-10X	Alston Systems, 40KVA cabinet chassis
AS-PM10X	Alston Systems, 10KVA Power Module

*Tested in 3/3 mode
**Typical dimension. Please refer to user manual if need detailed dimension.
***Simplified Chinese, English, Italian, Traditional Chinese are available now

Capacity		**10kVA-40kVA**		
Main Input	Input voltage	380V/400V/415V(line to line) / 220V/230V /240V(line to neutral		
	Input frequency	50/60Hz		
	Power factor	>0.99		
	Input voltage window	up 276Vac; down -40% (-20%,-30%, -40% selectable) -20%~-40% rated power derating from 100%~80%		
	Frequency window	40-70Hz		
	Input current THDi*	<4%		
Battery	Battery voltage	±240VDC		
	Charger power	20%*Active Power		
	Charger voltage precision	1%		
	Bypass			
	Bypass voltage	380V/400V/415V, line to line / 220V/230V/240V, line to neutral		
	Bypass voltage window	-20%-+15% default; -40%-+25% selectable		
	Bypass overload capability	125%, long time operation		
		125%< load <130%, last for more than 10 mins		
		130%<load<150%,last for more than 1 min		
		load>150%, last for more than 300ms		
Output	Output voltage	380V/400V/415V, line to line / 220V/230V/240V, line to neutral		
	Voltage precision	1.5%		
	Voltage THD(Total Harmonic Distortion)*	THD<1%(linear load),THD<5.5%(nonlinear load)		
	Power factor	0.9		
	Phase tolerance	120°±0.5° (balance and unbalance load)		
	Crest factor	3:1		
	Overload capability	110%, transfer to bypass after 60minutes		
		125%, transfer to bypass after 10 minutes		
		150%, transfer to bypass after 1 minute		
		>150%, transfer to bypass after 200ms		
System	System efficiency*	Normal mode: 95%max		
		ECO mode: 98%		
	Battery mode efficiency*	94.5%		
	Display	LCD+LED		
	Language***	7 languages: English, German, Italian, Russian, Spanish, Simplified Chinese and Traditional Chinese		
	IP class	IP20		
	Interface (Communication Ports)	RS232,RS485,Dry contactor, SNMP card(optional),EPO		
	Installation/Connection	Back or bottom cable entry		
	Operation temperature	0-40□		
	Storage temperature	-25□~70□		
	Relative humidity	0-95% (non-condensing)		
	Noise(dB)(1m away from front panel)	56dB(one module)		
Physical	Dimension(W*D*H)**Net Weight	4-module cabinet: RM040/10X	446*697*575(11U)mm	41kg
		2-module cabinet: RM020/10X	446*697*398(7U)mm	30.5kg
		Power Module: PM10X	436*590*85(2U)mm	15.3kg

Alston Systems Fusion UPS is a modular design with double conversion online feature designed for sensitive loads. This design meets the power rating requirement from 10KVA to 200KVA. Alston's modular products are hot swappable and deliver high reliability for sensitive loads. For Fusion UPS we use the latest three layer IGBT technology together with DSP control function. Fusion UPS are widely used for data center. critical loads and for computer systems.

Features

- Modular design, hot swappable
- Strong load adaptability for linear and nonlinear load
- Intelligent module and system protection design
- DSP control provides high performance
- Unity output power factor
- Flexible battery configuration
- Inbuilt power distribution for input and output connection
- Large graphic LCD with comprehensive information
- High overload capability
- N+1 or N+X parallel redundancy

*When temperature is above 30°C, the output power factor will be de-rated, 0.9 at 31 °C~35°C and 0.8 at 36°C~40°C.
** One battery module contains 10 pcs of 12V/7Ah or 12/9Ah sealed lead acid batteries in one tray. One complete battery set contains 4 battery modules. ***If the UPS is installed or used in a placewhere the altitude is above than 1000m, the output power must be derated one percent per 100m.
Product specifications are subject to change without further notice.

Parameters table of Fusion Series UPS

Cabinet Size	**30U**			**42U**	
Cabinet Capacity*	90KW	120KW or 80KW	180KW or 120KW	120KW	210KW
One Power Module Capacity	30KVA/30KW	20KVA/20KW or 30KVA/30KW	30KVA/30KW	30KVA/30KW	210KW
Max. Power Module No.	3	4	6	4	7+1
Main Input					
Nominal Voltage	3 x 400 VAC (3Ph+N)				
Voltage Range	305 ~ 477 VAC at 100% load; 208 ~ 304VAC at <70% load				
Nominal Frequency 50/60Hz (Auto Sensing)					
Harmonic Distortion (THDi) < 3% @ 100% load					
Main Output					
Nominal Voltage	3 x 400 VAC (3Ph+N)				
Voltage Regulation	Steady state: ≤ ± 1% Typical (balanced load) ; ≤ ± 2% Typical (unbalanced load) ; Transient: ≤ ± 5% Typical				
Nominal Frequency	50/60Hz				
Harmonic Distortion	≤ 1.5% THD (Linear Load) ; ≤ 4% THD (Non-linear Load)				
Battery / Charger					
Battery Type	Built-in Battery	External Battery		Built-in Battery	External Battery
Nominal Voltage	+/- 216V (12V x 36 pcs)				
Max. Battery Set No.**	3	-	-	5	-
Other Features					
RS-232/USB com. port	Supports Windows family, Linux, Unix, and MAC				
Optional SNMP	Power management from SNMP manager and web browser				
Environment					
Relative Humidity	0 ~ 95% non-condensing				
Altitude	<1000m for Nominal power				
Physical Dimension(DxWxH) mm	1100x600x1475	1100 x 600 x 1475	1100x600x 1475	1100x600x2010	1100x600x2010
Net Weight (kgs)	675.5	333 335	450.5 453.5	932	549
Standards					
Safety	IEC/EN 60950-1; IEC/EN 62040-1				
EMC	IEC/EN 62040-2 Category C3				

Part No.	Description	Dimension DxWxH(mm)	Weight (kg)
Power module 30HV	Alston Systems Fusion Power module 30KVA/30KW	650 x 440 x 132(3U)	34.5
Battery Module	10 pcs of 12V 9Ah batteries	735 x 107 x 155	26

ORDERING INFORMATION

Part No.	Description
Fusion Excel System Cabinet	
905190013	Alston Systems Fusion Excel Modular 30U Cabinet, No power module, with STS 90K module and Input / Output control module, No battery tray System cabinet
905190023	Alston Systems Fusion Excel Modular 30U Cabinet, No power module, with STS 100K module and Input / Output control module, No battery tray System cabinet
905190023	Alston Systems Fusion Excel Modular 30U Cabinet, No power module, with STS 180K module and Input / Output control module, No battery tray System cabinet
Fusion Ultra System Cabinet	
905690063	Alston Systems Fusion Ultra Modular 42U Cabinet, No power module, with STS 120K module and Input/ Output control module, No battery tray System cabinet
905790073	Alston Systems Fusion Ultra Modular 42U Cabinet, No power module, with STS 210K module and Input/ Output control module, No battery tray System cabinet

Part No	Fusion Excel Pack with built in modules - 30 U
905100603	Alston Systems, Fusion Excel - 60KVA / 60KW - 1 x 30U cabinet, with 30KVA/ 30KW power module x 2, with STS 90K module and Input/output control module, Build in 12 empty battery tray (each bank tray can accommodate 10 pcs 12V/9Ah battery), Power redundancy availability: Yes, 2+1 for option, Included RS-232, USB port, and all connection wires
905200903	Alston Systems, Fusion Excel - 90KVA / 90KW - 1 x 30U cabinet, with 30KVA/ 30KW power module x 3, with STS 180K module and Input/output control module, No Internal Battery, Power redundancy availability: Yes, 2+1 for option, Included RS-232, USB port, and all connection wires
905201203	Alston Systems, Fusion Excel - 120KVA / 120KW - 1 x 30U cabinet, with 30KVA/ 30KW power module x 4, with STS 180K module and Input/output control module, No Internal Battery, Power redundancy availability: Yes, 2+1 for option, Included RS-232, USB port, and all connection wires
905201503	Alston Systems, Fusion Excel - 150KVA / 150KW - 1 x 30U cabinet, with 30KVA/ 30KW power module x 5, with STS 180K module and Input/output control module, No Internal Battery, Power redundancy availability: Yes, 2+1 for option, Included RS-232, USB port, and all connection wires
905201803	Alston Systems, Fusion Excel - 180KVA / 180KW - 1 x 30U cabinet, with 30KVA/ 30KW power module x 6, with STS 180K module and Input/output control module, No Internal Battery, Power redundancy availability: Yes, 2+1 for option, Included RS-232, USB port, and all connection wires

Part No	Description
Fusion Power module	
905010003	Alston Systems Fusion Power module 30KVA/30KW
Fusion Modular UPS Accessories	
ASM-C30U	Alston Systems, Battery Bank 30U external battery cabinet(includes 40 empty battery tray (each bank tray can load 10 pcs 12V/9Ah battery), Breaker with auto current sensor, and all connection wires
ASM-C42U	Alston Systems, Battery Bank 42U external battery cabinet (Included 40 empty battery tray (each bank tray can load 10 pcs 12V/9Ah battery), Breaker with auto current sensor, and all connection wires
905090113	Alston Systems SNMP Card
905090123	Alston Systems Battery compensation kit
905090133	Alston Systems Parallel kit

Part No.	Fusion Ultra Pack with built in modules - 42 U
905600903	Alston Systems, Fusion Ultra - 90KVA / 90KW - 1 x 42U cabinet, with 30KVA/ 30KW power module x 3, with STS 120K module and Input/output control module, Build in 20 empty battery tray (each bank tray can accommodate 10 pcs 12V/9Ah battery), Power redundancy availability: Yes, 3+1 for option, Included RS-232, USB port, and all connection wires
905701203	Alston Systems, Fusion Ultra - 120KVA / 120KW - 1 x 42U cabinet, with 30KVA/30KW power module x 4, with STS 210K module and Input/output control module, No Internal Battery, Power redundancy availability: Yes, 3+1 for option, Included RS-232, USB port, and all connection wires
905701503	Alston Systems, Fusion Ultra - 150KVA / 150KW - 1 x 42U cabinet, with 30KVA/30KW power module x 5, with STS 210K module and Input/output control module, No Internal Battery, Power redundancy availability: Yes, 3+1 for option, Included RS-232, USB port, and all connection wires
905701803	Alston Systems, Fusion Ultra - 180KVA / 180KW - 1 x 42U cabinet, with 30KVA/30KW power module x 6, with STS 210K module and Input/output control module, No Internal Battery, Power redundancy availability: Yes, 3+1 for option, Included RS-232, USB port, and all connection wires
905702103	Alston Systems, Fusion Ultra - 210KVA / 210KW - 1 x 42U cabinet, with 30KVA/30KW power module x 7, with STS 210K module and Input/output control module, No Internal Battery, Power redundancy availability: Yes, 3+1 for option, Included RS-232, USB port, and all connection wires

N+X Modular design, full upgraded protection ASFM Series power system structure is extremely flexible, the concept of power modular designing can be easily removed at runtime and installed without affecting system operation and output. When users want to add load to the UPS, only adding the required number of modules for expansion is needed.

Specifications

- 10-640kVA Power Range
- Redundant and scalable system, it can be upgraded according to requirements
- It can work as 1-1, 1-3, 3-1 and 3-3 Phase
- N + X redundancy, reliable performance
- Share battery pack
- Green and clean power
- Small size, light weight
- Easy maintenance, free replacement of the module
- System controller for communication and diagnosis
- Adopt centralized Static Switch module

ASFM100

ASFM 300

ASFM 640

MODEL	ASFM-100	ASFM-200	ASFM-300	ASFM-400	ASFM-640
Power (kVA)	100	200	300	400	640
Module Quantity	10	8	12	10	16
Model of Power	ASFM-M10	ASFM-M25		ASFM-M40	
Module Power (kVA)	10	25		40	
Main Input					
Voltage	380/400/415 Vac 3 Phase+N+GND, 1 Phase+N+GND				
Voltage Tolerance	± %10				
Frequency	50/60 Hz				
Frequency Tolerance	± %20				
THDi	<3%				
Power Factor	> 0.99				
Output					
Voltage	380/400/415 Vac				
Voltage Regulation	±1 (linear load), ±2 (non linear load)				
Frequency	50/60 Hz				
Frequency Tolerance	Synchronized to Network ±%4; Battery Mode ±%0.2				
Recover Time	<20 ms. @ (0<load <100)				
Load Share Precision	< %5				
Crest Factor	3:1				
Power Factor	0.8				
THDv	<%1 (Lineear Load), <%3 (Non Linear Load)				
Total Efficiency	>%95 (AC-AC) ; >%98 (DC-AC)				
Overload	10 min. for 125% Load				
Transfer Time	Online Mode -Battery Mode 0 ms, Bypass-Inverter<1 ms				

Battery					
Voltage	± 384 VDC				
Voltage Tolerance	±345 VDC ~ ±440 VDC				
Charge Duration	10 hour (2 hour back up)				
Charge Current Limiting	Yes				
Charge Voltage Stability	± %1				
Bypass					
Input Voltage	380/400/415 Vac ± %20				
Input Frequency	50/60 Hz ± %4				
Communication					
Interface	RS232, RS485, 8 ea. Dry Contact, TCP/IP Adapter				
Display	LCD				
Management System	UP Supervisor				
Environmental					
Protection Level	IP30				
Operating Temperature	-5 °C ~ + 40°C				
Storage Temperature	-25 C ~ + 600C				
Max. Elevation	<1500 m.				
Cooling	Forced Air Cooling				
Humidity	0-95% (non condensing)				
Acoustic Noise (1 m.)	<55 dBA				
Physcial					
Construction	Standart 19" Cabinet				
Weight	250	270	470	500	700
Standards					
Standards	IEC60950-1, EN 62040-1 (LVD), EN 62040-2 (EMC)				

ORDERING INFORMATION

Part No.	Description
Fusion Multi Modular System Cabinet	
ASFM100	Alston Systems Fusion Multi Modular 100KVA Cabinet for 10 to 100KVA UPS, No power module, with STS 100K module and Input / Output control module
ASFM200	Alston Systems Fusion Multi Modular 200KVA Cabinet for 25 to 200KVA UPS, No power module, with STS 200K module and Input / Output control module
ASFM300	Alston Systems Fusion Multi Modular 300KVA Cabinet for 25 to 300KVA UPS, No power module, with STS 300K module and Input / Output control module
ASFM-400	Alston Systems Fusion Multi Modular 400KVA Cabinet for 40 to 400KVA UPS, No power module, with STS 400K module and Input / Output control module
ASFM-640	Alston Systems Fusion Multi Modular 640KVA Cabinet for 40 to 640KVA UPS, No power module, with STS 640K module and Input / Output control module
Fusion Multi Modular Power Module	
ASFM-10M	Alston Systems Fusion Multi Modular Power molule 10KVA/8KW
ASFM-25M	Alston Systems Fusion Multi Modular Power molule 25KVA/20KW
ASFM-40M	Alston Systems Fusion Multi Modular Power molule 40KVA/32KW

An ASRF Motor Generator (Rotary Frequency Converter) consists of an electric motor (either inductive motor or synchronous motor) and a synchronous generator mounted on common shaft (integrated type). The input frequency can be 50Hz or 60Hz, while the output frequency ranges from 50Hz to 1000Hz depending on various application requirements. All products are designed and manufactured in compliance with IEC, ISO, and other international standards as well as the related military standards.

The ASRF series motor generators are rated for continuous duty. They provide a clean source of 50 - 1000Hz power isolated from switching transients, voltage fluctuations and power line noise. They can be widely used in naval and air force bases, missile and ground support installations, radar and communication test sites, airports, smelting facilities, inductive heating equipments, vehicle power equipments, laboratory devices, etc. They also have high overload capability, outstanding dynamic characteristic and rugged fabrication which make them ideally suited for the applications where continuous service in a harsh environment is required. As an option, ASRF series motor generators can be mounted in a weather-proof enclosure, an acoustic- attenuated enclosure, a cargo container or a trailer.

Standards

IEC60034, ISO8528, ISO6858, NEMA MG1, VDE0530,
GB755, GJB1213, GJB181A, JB/T10747
ISO9001:2000 Quality Control System

Standard Ambient Conditions

Altitude : ≤1000m
Ambient temperature : ≤40°C
Relative humidity : ≤90%

Specs Range

Rated Power	6-1250kVA (5-1000kW)
Input Frequency	50Hz or 60Hz
Output Frequency	50 - 1000Hz
Rated Speed	600, 1000, 1200, 1500, 1800, 2000, 2400, 3000, 3600rpm
Phase Output	3-phase or single-phase
Power Factor	0.3-1.0
Rated Voltage:	115, 208, 230, 380, 400, 440, 480V
Insulation	Class H
Protection	IP23-IP65
Duty	Continuous
Type of Motor	Inductive Motor or Brushless Synchronous Motor
Excitation Mode	Brushless self excitation with AVR control
Type of Mounting	Integrated mounting (i.e. the motor and the generator are mounted on the same shaft) or separated mounting (i.e. the motor and the generator are independent but coupled by elastic coupler)

Standard Performance

Steady voltage regulation :±1.0%	Voltage setting range :(90-110)%Un
Transient voltage regulation :±15%	Voltage fluctuation :≤±0.5%
Voltage recovery time :<0.1s	Operation temperature rise: ≤105°C (Class F)
Total harmonic distortion (THD): ≤1.5%	Efficiency: ≥90 -94%
Overload capacity : ≥110% rated load for 1h	≥150% rated speed

Features

- Original products guaranteed by 30 years of experience in R&D, designing and producing of power generators
- All products designed and produced in strict compliance with IEC60034 and other international/national standards, and manufactured in ISO9001 certified facilities
- Continuous duty, reinforced steel frame
- Precise output frequency
- Wide frequency range covering 50/60Hz to 1000Hz
- Smaller size and weight in the industry
- Easy to operate
- Minimum maintenance required
- High motor power factor and quick motor starting
- High overload capacity
- Outstanding electrical performance in all aspects
- Ultra-low operation temperature rise endowing the products with best reliability and great overloading capability
- Original ventilation structure, improving the cooling effect by at least 30%
- Great dynamic performance and big capability in starting electric motors
- Complete reliability and safety in self-excited voltage buildup
- Precise voltage regulation with low-speed protection
- Compact size with popular outline

Product Categories

Classified by Input-Output Frequencies:

No.	Description	Input Frequency	Output Frequency
1	50-60Hz Frequency Converter	50Hz	60Hz
2	60-50Hz Frequency Converter	60Hz	50Hz
3	50-400Hz Frequency Converter	50Hz	400Hz
4	60-400Hz Frequency Converter	60Hz	400Hz
5	50-(200-1000)Hz Frequency Converter	50Hz	200-1000Hz
6	60-(200-1000)Hz Frequency Converter	60Hz	200-1000Hz

Classified by Motor Types:

No.	Description	Type of Electric Motor
1	Inductive-type Motor Generator	Inductive motor
2	Synchronous-type Motor Generator	Brushless synchronous motor

Classified by Mounting Structure:

No.	Description	Mounting Structure
1	Integrated-type Motor Generator	The motor and generator are mounted on the same shaft.
2	Separated-type Motor Generator	The motor and generator are coupled by elastic coupler.

ORDERING INFORMATION

Part No	Description
ASRFCII-5060100	AS, Rotary Frequency Converter 50 to 60 Hz, 100KVA, Inductive Motor, Integrated Mounting.
ASRFCSI-5060100	AS, Rotary Frequency Converter 50 to 60 Hz, 100KVA, Synchronize Motor, Integrated Mounting.
ASRFCIS-5060100	AS, Rotary Frequency Converter 50 to 60 Hz, 100KVA, Inductive Motor, Separated Mounting.
ASRFCSS-5060100	AS, Rotary Frequency Converter 50 to 60 Hz, 100KVA, Synchronize Motor, Separated Mounting.

Alston Systems "Rectifier System" provides large power system requirements in a cost effective, rack mount form. The system provides rectification system management and power distribution while maintaining high reliability and flexibility for future expansion. The system is based on hot swappable rectifier modules with constant output power available at 1400W (12V) or 1600W (48V) per module.

Features

- Fan controlled rectifier modules design
- New front access design
- AC input voltage range of 185 ~ 275 VAC
- 48Vdc rectifier with up to 1600W output
- 24Vdc rectifier with up to 1400W output
- Temperature range of -40 ~ +65 °C
- Power factor correction technology
- Modular system design from 32 to 640A design
- ETSI compatible

Recti module Monitoring Modules PDU

Parameters table of Telecom DC Rectifier

Module details		1400W	1600W
AC Input	Input range	185~300VAC 85~185VAC(output de rating)	
	Power factor	0.99	
DC output	Output Voltage/ Output Current	24V/55A	48V
	Voltage precision/ Load regulation	<0.6% / <0.5%	
	Voltage regulation/ Limited current	<0.13% / 0~110% adjustable	
	Equalized current imbalance	<3%	
	Parallel units / Efficiency	32 / >95%	
Protection	Over current protection	Input / Output : Fuse; PFC : Circuit Break	
	Short circuit protection	Yes	
	Over & low voltage protection	Input low-voltage protection 85±5V; Input over-voltage protection 290±5V Output over-voltaqe protection 59±1 V	
	Over temperature protection	Yes	
Display	LED	Main power, communication, fault	
Environment	Working temperature / Storage Temperature	-250~+650 / -400~+850	
	Humidity / Noise	<97% /<45dB	
Mechanical Dimension	H*W*L (mm) / Weight	88*103*261	

ORDERING INFORMATION

Part No	Description
907220013	Alston Systems, Power Cabinet(single Layer)
907220023	Alston Systems, Power Cabinet(double Layer)
907230013	Alston Systems, Monitoring module
907230023	Alston Systems, Rectifier module
907230033	Alston Systems, PDU
905230063	AS Fusion Excel Power module 6KVA
905230123	AS Fusion Excel Power module 12KVA



12V / 7AH Lead-acid Battery

Nominal Voltage		12V
Nominal Capacity (20 hour rate)		7Ah
Capacity 25°C(77°F)	10 hour rate (0.67A)	6.7Ah
	5 hour rate (1.25A)	6.25Ah
	1 hour rate (4.62A)	4.62Ah
Internal Resistance	Full Charged Battery 25°C	<22m Ω
Capacity affected by Temperature (10 hour)	40 °C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
	-15°C (5°F)	65%
Self-Discharge 25°C(77°F) Capacity	after 3 month storage	90%
	after 6 month storage	80%
	after 12 month storage	62%
Charge (Constant Voltage) 25°C (77°F)	Float	Initial Charging Current Less than 2.1A Voltage 13.6-13.8V
	Cycle	Initial Charging Current Less than 2.1A Voltage 14.4-15.0V

12V / 9AH Lead-acid Battery

Nominal Voltage		12V
Nominal Capacity (20 hour rate)		9.0Ah
Capacity 25°C(77°F)	10 hour rate (0.86A)	8.6Ah
	5 hour rate (1.60A)	8.0Ah
	1 hour rate (5.94A)	5.94Ah
Internal Resistance	Full Charged Battery 25°C	<20m Ω
Capacity affected by Temperature (10 hour)	40°C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
	-15°C (5°F)	65%
Self-Discharge 25°C(77°F) Capacity	after 3 month storage	90%
	after 6 month storage	80%
	after 12 month storage	62%
Charge (Constant Voltage) 25°C (77°F)	Float	Initial Charging Current Less than 2.7A Voltage 13.6-13.8V
	Cycle	Initial Charging Current Less than 2.7A Voltage 14.4-15.0V

12V / 12AH Lead-acid Battery

Nominal Voltage			12V
Nominal Capacity (20 hour rate)			12Ah
Capacity 25°C(77°F)		10 hour rate (1.14A)	11.4Ah
		5 hour rate (2.14A)	10.7Ah
		1 hour rate (7.92A)	7.92Ah
Internal Resistance		Full Charged Battery 25°C	<14m Ω
Capacity affected by Temperature (10 hour)		40°C (104°F)	102%
		25°C (77°F)	100%
		0°C (32°F)	85%
		-15°C (5°F)	65%
Self-Discharge 25°C(77°F) Capacity		after 3 month storage	90%
		after 6 month storage	80%
		after 12 month storage	62%
Charge (Constant Voltage) 25°C (77°F)	Float	Initial Charging Current Less than 3.6A Voltage 13.6-13.8V	
	Cycle	Initial Charging Current Less than 3.6A Voltage 14.4-15.0V	

12V / 17AH Lead-acid Battery

Nominal Voltage			12V
Nominal Capacity (20 hour rate)			17Ah
Capacity 25°C(77°F)		10 hour rate (1.62A)	16.2Ah
		5 hour rate (3.03A)	15.2Ah
		1 hour rate (11.2A)	11.2Ah
Internal Resistance		Full Charged Battery 25°C	<12m Ω
Capacity affected by Temperature (10 hour)		40°C (104°F)	102%
		25°C (77°F)	100%
		0°C (32°F)	85%
		-15°C (5°F)	65%
Self-Discharge 25°C(77°F) Capacity		after 3 month storage	90%
		after 6 month storage	80%
		after 12 month storage	62%
Charge (Constant Voltage) 25°C (77°F)	Float	Initial Charging Current Less than 5.1A Voltage 13.6-13.8V	
	Cycle	Initial Charging Current Less than 5.1A Voltage 14.4-15.0V	

12V / 26AH Lead-acid Battery

Nominal Voltage			12V
Nominal Capacity (10 hour rate)			26Ah
Capacity 25°C(77°F)		20 hour rate (1.4A)	28Ah
		5 hour rate (4.8A)	24Ah
		1 hour rate (17.3A)	17.3Ah
Internal Resistance		Full Charged Battery 25°C	<13m Ω
Capacity affected by Temperature (10 hour)		40°C (104°F)	102%
		25°C (77°F)	100%
		0°C (32°F)	85%
		-15°C (5°F)	65%
Self-Discharge 25°C(77°F) Capacity		after 3 month storage	90%
		after 6 month storage	80%
		after 12 month storage	62%
Charge (Constant Voltage) 25°C (77°F)	Float	Initial Charging Current Less than6.5A Voltage 13.6-13.8V	
	Cycle	Initial Charging Current Less than6.5A Voltage 14.4-14.9V	

12V / 38AH Lead-acid Battery

Nominal Voltage			12V
Nominal Capacity (10 hour rate)			38Ah
Capacity 25°C(77°F)		20 hour rate (2.11A)	42.2Ah
		5 hour rate (6.94A)	34.7Ah
		1 hour rate (25.3A)	25.3Ah
Internal Resistance		Full Charged Battery 25°C	<10m Ω
Capacity affected by Temperature (10 hour)		40°C (104°F)	102%
		25°C (77°F)	100%
		0°C (32°F)	85%
		-15°C (5°F)	65%
Self-Discharge 25°C(77°F) Capacity		after 3 month storage	90%
		after 6 month storage	80%
		after 12 month storage	62%
Charge(Constant Voltage)25°C(77°F)	Float	Initial Charging Current Less than 9.5A Voltage 13.6-13.8V	
	Cycle	Initial Charging Current Less than 9.5A Voltage 14.4-14.9V	

12V / 65AH Lead-acid Battery

Nominal Voltage			12V
Nominal Capacity (10 hour rate)			65Ah
Capacity 25°C(77°F)		20 hour rate (3.61A)	72.2Ah
		5 hour rate (11.9A)	59.5Ah
		1 hour rate (43.2A)	43.2Ah
Internal Resistance		Full Charged Battery 25°C	<7.0m Ω
Capacity affected by Temperature (10 hour)		40°C (104°F)	102%
		25°C (77°F)	100%
		0°C (32°F)	85%
		-15°C (5°F)	65%
Self-Discharge 25°C(77°F) Capacity		after 3 month storage	90%
		after 6 month storage	80%
		after 12 month storage	62%
Charge (Constant Voltage) 25°C(77°F)	Float	Initial Charging Current Less than16.3A Voltage 13.6-13.8V	
	Cycle	Initial Charging Current Less than16.3A Voltage 14.4-14.9V	

12V / 80 AH Lead-acid Battery

Nominal Voltage			12V
Nominal Capacity (10 hour rate)			80Ah
Capacity 25°C(77°F)		20 hour rate (4.44A)	88.8Ah
		5 hour rate (14.6A)	73Ah
		1 hour rate (53.2A)	53.2Ah
Internal Resistance		Full Charged Battery 25°C	<6.0m Ω
Capacity affected by Temperature (10 hour)		40°C (104°F)	102%
		25°C (77°F)	100%
		0°C (32°F)	85%
		-15°C (5°F)	65%
Self-Discharge 25°C(77°F) Capacity		after 3 month storage	90%
		after 6 month storage	80%
		after 12 month storage	62%
Charge(Constant Voltage)25°C (77°F)	Float	Initial Charging Current Less than20.0A Voltage 13.6-13.8V	
	Cycle	Initial Charging Current Less than20.0A Voltage 14.4-14.9V	

12V/ 100AH Lead-acid Battery

Nominal Voltage			12V
Nominal Capacity (10 hour rate)			100Ah
Capacity 25°C(77°F)		20 hour rate (5.55A)	111.0Ah
		5 hour rate (18.3A)	91.5Ah
		1 hour rate (66.5A)	66.5Ah
Internal Resistance		Full Charged Battery 25°C	<5.0m Ω
Capacity affected by Temperature (10 hour)		40°C (104°F)	102%
		25°C (77°F)	100%
		0°C (32°F)	85%
		-15°C (5°F)	65%
Self-Discharge 25°C (77°F) Capacity		after 3 month storage	90%
		after 6 month storage	80%
		after 12 month storage	62%
Charge (Constant Voltage) 25°C(77°F)	Float	Initial Charging Current Less than25.0A Voltage 13.6-13.8V	
	Cycle	Initial Charging Current Less than25.0A Voltage 14.4-14.9V	

12V / 120AH Lead-acid Battery

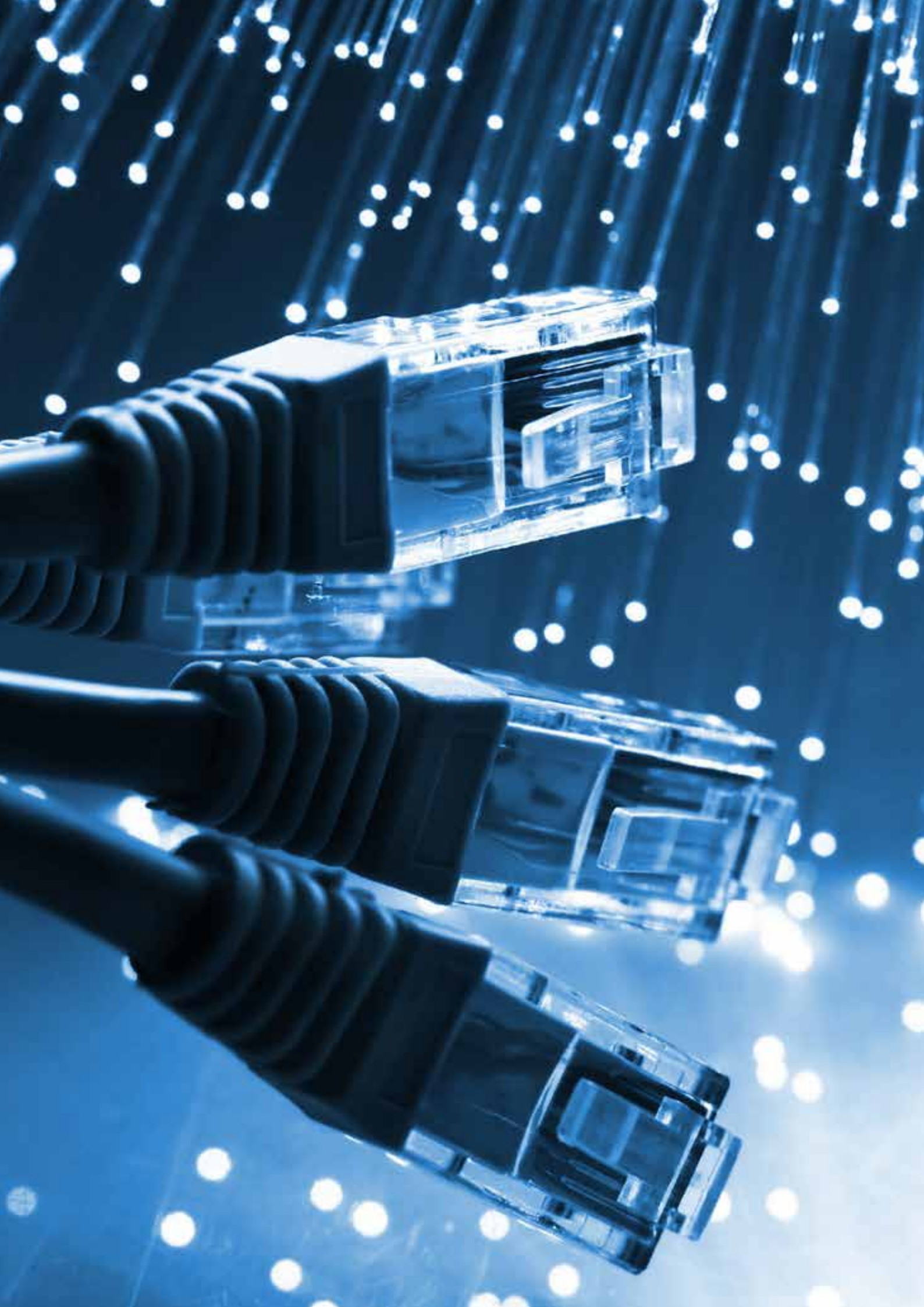
Nominal Voltage			12V
Nominal Capacity (10 hour rate)			120Ah
Capacity 25°C(77°F)		20 hour rate (6.66A)	133.2Ah
		5 hour rate (21.9A)	109.5Ah
		1 hour rate (79.8A)	79.8Ah
Internal Resistance		Full Charged Battery 25°C	<5.0m Ω
Capacity affected by Temperature (10 hour)		40°C (104°F)	102%
		25°C (77°F)	100%
		0°C (32°F)	85%
		-15°C (5°F)	65%
Self-Discharge 25°C (77°F) Capacity		after 3 month storage	90%
		after 6 month storage	80%
		after 12 month storage	62%
Charge (Constant Voltage) 25°C(77°F)	Float	Initial Charging Current Less than24.0A Voltage 13.6-13.8V	
	Cycle	Initial Charging Current Less than24.0A Voltage 14.4-14.9V	

12V / 200AH Lead-acid Battery

Nominal Voltage		12V
Nominal Capacity (10 hour rate)		200Ah
Capacity 25°C(77°F)	20 hour rate (11.0A)	220Ah
	5 hour rate (35.4A)	177Ah
	1 hour rate (132A)	132Ah
Internal Resistance	Full Charged Battery 25°C	<2.5m Ω
Capacity affected by Temperature (10 hour)	40°C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
	-15°C (5°F)	65%
Self-Discharge 25°C (77°F) Capacity	after 3 month storage	90%
	after 6 month storage	80%
	after 12 month storage	62%
Charge (Constant Voltage) 25°C(77°F)	Float	Initial Charging Current Less than 40A Voltage 13.6-13.8V
	Cycle	Initial Charging Current Less than 40A Voltage 14.4-14.9V
Design life 10 Years at 25° C		

ORDERING INFORMATION

Part No	Description
91120073	Alston Systems, 12V/7AH Lead Acid Batteries, Black
91120093	Alston Systems, 12V/9AH Lead Acid Batteries, Black
91120123	Alston Systems, 12V/12AH Lead Acid Batteries, Black
91120173	Alston Systems, 12V/17AH Lead Acid Batteries, Black
91120263	Alston Systems, 12V/26AH Lead Acid Batteries, Black
91120383	Alston Systems, 12V/38AH Lead Acid Batteries, Black
91120653	Alston Systems, 12V/65AH Lead Acid Batteries, Black
91120803	Alston Systems, 12V/80AH Lead Acid Batteries, Black
91121003	Alston Systems, 12V/100AH Lead Acid Batteries, Black
91121203	Alston Systems, 12V/120AH Lead Acid Batteries, Black
91122003	Alston Systems, 12V/200AH Lead Acid Batteries, Black



ALSTON SYSTEMS INC - USA
3411 Silverside Rd,
Wilmington, DE 19810,
United States of America
sales@alston-systems.com
www.alston-systems.com

ALSTON SYSTEMS INC - MEA
801 Reef Tower,
Jumeira Lake Towers,
United Arab Emirates
mea@alston-systems.com
www.alston-systems.com