Introducing the revolutionary

ProPlex® FloppyDrive BuckBoost™ System

Overcomes Cable Length Challenges Of Low Voltage LED Lighting Distances Up To 150 Meters

The ProPlex BuckBoost™ Drive System is a unique, patent-pending technology that completely overcomes the cable length challenges of low voltage LED lighting, especially LED “neons” and tapes. This revolutionary new system allows centralized and remote (up to 150m) location of drives, mains power and PSU’s. The proprietary BuckBoost drive signal is carried over a small cable, sized equivalent to a mic cable, from a remote BoostBox™ to a small inconspicuous BuckBox™ located adjacent to the fixture.

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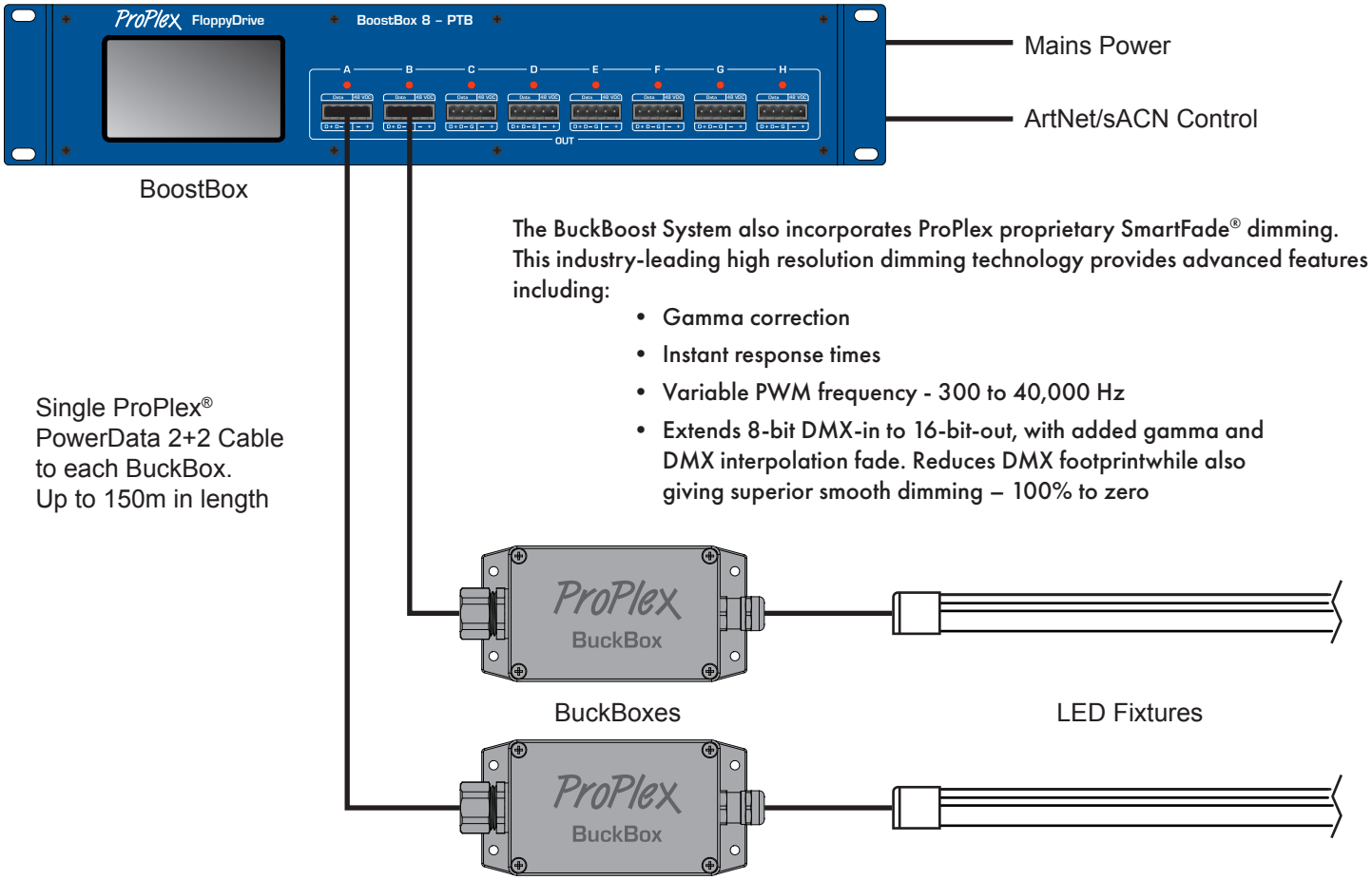
ProPlex's BuckBoost® Drive System is a unique, patent-pending technology that completely overcomes the cable length challenges of low voltage LED lighting, especially LED "neons" and tapes. This revolutionary new system allows centralized and remote (up to 150m) location of drives, mains power and PSU's.
The proprietary BuckBoost drive signal is carried over a small cable, sized equivalent to a mic cable, from a remote BoostBox® to a small inconspicuous BuckBox® located adjacent to the fixture.

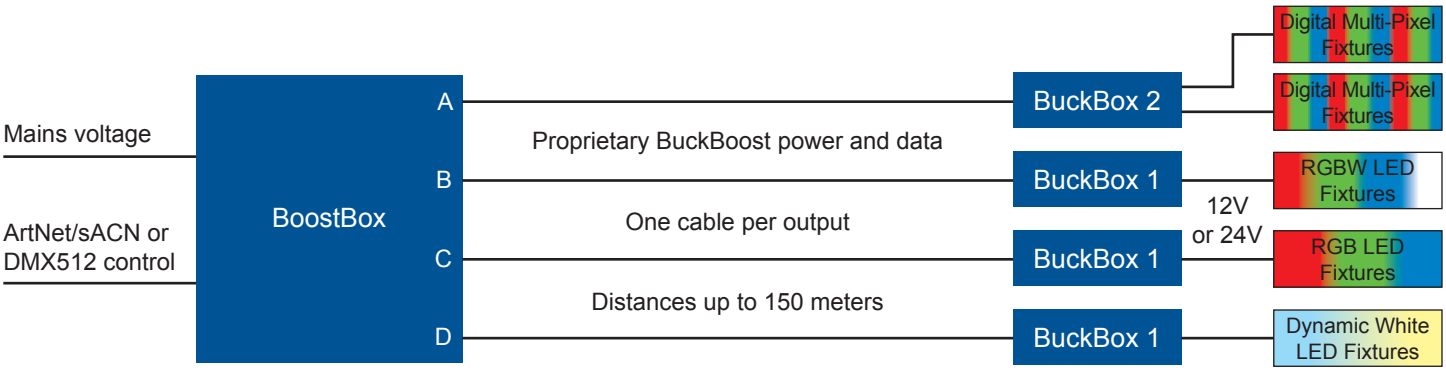


The BuckBoost System also incorporates ProPlex proprietary SmartFade® dimming. This industry-leading high resolution dimming technology provides advanced features including:

- Gamma correction
- Instant response times
- Variable PWM frequency - 300 to 40,000 Hz
- Extends 8-bit DMX-in to 16-bit-out, with added gamma and DMX interpolation fade. Reduces DMX footprintwhile also giving superior smooth dimming – 100% to zero

- BuckBoxes - mounted near fixtures - are compact, inconspicuous. IP67 architectural, and IP65 portable versions
- Up to 200 Watts of drive power per BuckBox, suitable for all varieties of LED tape and "neon"
- Single ProPlex® PowerData 2+2 (aka "Scroller") Cable from BoostBox to each BuckBox. Up to 150 m in length!
- Wide range of BoostBox drive units, all with both DMX and dual Ethernet control - versatile connectivity for any project scale.
- Variable PWM frequency - 300 to 40,000 Hz. Lower frequencies will drive LEDs with built-in active drivers while higher frequencies allow flicker-free high-speed filming.
- Infinitely adjustable pixel cloning feature - flexible management of total control channels on digital multi-pixel fixtures.
- Self-resetting solid-state overload protection - prevents short-circuits or overloads, protects drivers and LEDs, reduces fire hazard - no need to replace fuses!

HOW IT WORKS



BoostBox RackMount, PortableMount, and DIN Rail versions available with 2, 4, or 8 outputs. (DIN unit requires external 48V PSU)

ProPlex PowerData 2+2 Cable 2x 14 AWG power and 1-pair 22 AWG data.

Compact BuckBoxes are mounted adjacent to LED fixtures. Single output Universal versions drive any of single color, dynamic white, RGB, RGBW, or Digital multi-pixel fixtures. Dual output Digital versions drive multi-pixel fixtures.

BoostBox outputs provide up to 200 Watts of power per output.

Cable length between the BoostBox and the BuckBox may limit the usable power available to fixtures.
(See Cable Specifications table below)

BuckBox 1 Universal units can output PWM power with 1-4 channels for single color, dynamic white, RGB or RGBW "neon" and tapes in 12 Volt or 24 Volt versions. Can also drive digital multi-pixel neon and tapes.

BuckBox 2 units can drive digital multi-pixel "neon" and tapes only. The two outputs share the available wattage.

Digital multi-pixel tapes and "neons" can be configured with variable pixel width and/or repeating patterns, using BoostBoxes' innovative clone configuration feature.

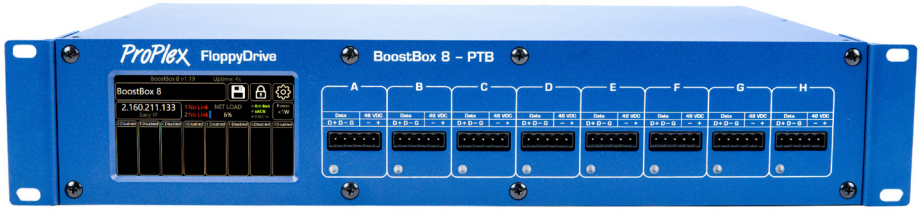
System Specifications	
System voltage	48 VDC
Current per BoostBox output	5 A
Power per output	240 W
Max power per output to end devices	200 W
Control data	Proprietary Bi-directional 500kBit

Cable Specifications		
Cable type	ProPlex PowerData 2+2* (pn: PCCCT)	
Power available for end devices based on cable length	65 m [220 ft]	200 W
	100 m [330 ft]	180 W
	150 m [500 ft]	160 W

* Specifications for ProPlex PowerData 2+2 cable can be found at:
https://tmb.com/docs/proplex/powerdata/ProPlex-PowerData-2+2-LTR-web.pdf

INSTALLATION SYSTEM

BoostBoxes — Combine mains power and Ethernet or DMX control into multiple outputs with proprietary BuckBoost drive signal combining power and control in one cable. Up to 200 Watts per output.



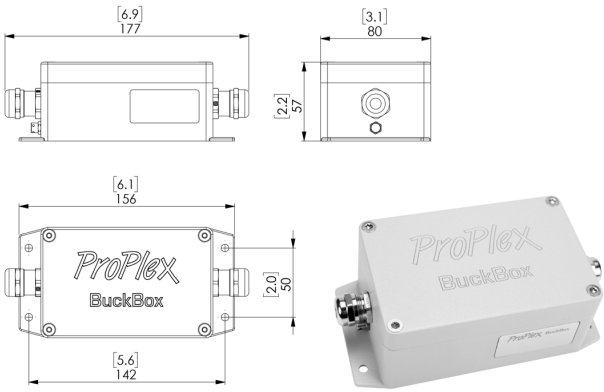
8-output 2U RackMount BoostBox with Pluggable Terminal Block BuckBoost Drive output connectors and dual Ethernet ports for ArtNet/sACN control. 4-output version also available.

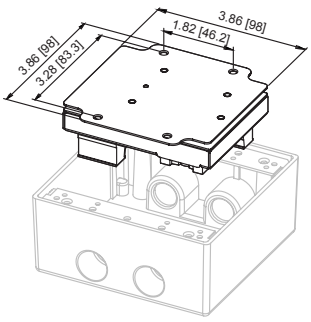
2-output DIN Rail Mount BoostBox with Pluggable Terminal Block BuckBoost Drive output connectors and dual Ethernet plus DMX control ports. (requires external 48V PSU)

BuckBoxes — Convert BuckBoost proprietary drive signal to output voltage and control for various types of LED fixtures. Compact units mount adjacent to fixtures, up to 150 meters from BoostBoxes.

BuckBox 1 Universal models — one output for single color, dynamic white, RGB, RGBW, or Digital multi-pixel fixtures.

BuckBox 2 models — two outputs for digital multi-pixel fixtures only.





BuckBox IP67 12V CE cSAus

BuckBox IP67 24V CE cSAus

IP67 housings suitable for conduit inlet, with internal terminal block connections and cable gland output.

Dimensions in inches [millimetres]

Recommended cable diameter for glands is minimum 4.5 mm - maximum 10mm

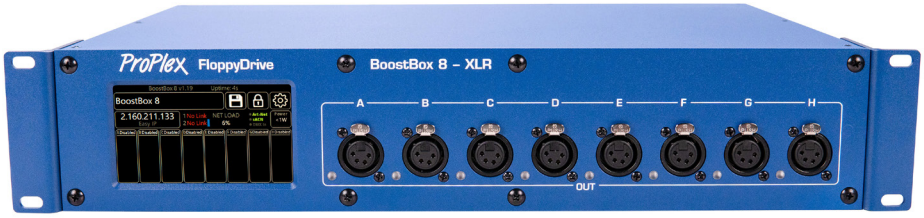
Thread size for the glands is M16 x1.5

BuckPlate cSAus

2-Gang versions mount in US standard 2-gang junction boxes

PORTABLE / TOUR SYSTEM

BoostBoxes — Combine mains power and Ethernet or DMX control into multiple outputs with proprietary BuckBoost drive signal combining power and control in one cable. Up to 200 Watts per output.



8-output RackMount BoostBox with 4-Pin XLR BuckBoost Drive output connectors and dual Ethernet ports for ArtNet/sACN control. 4-output version also available.

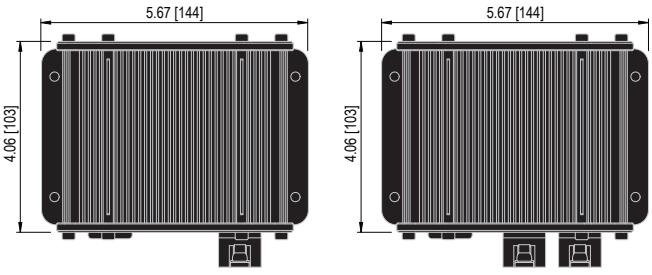
2-output PortableMount BoostBox with 4-Pin XLR output connectors and dual Ethernet plus DMX control ports.

BuckBoxes — Convert BuckBoost proprietary drive signal to output voltage and control for various types of LED fixtures. Compact units mount adjacent to fixtures, up to 150 meters from BoostBoxes.

IP65 PortableMount housing with 4-Pin XLR BuckBox Drive input and Techno™ output connector(s). Also includes attachable mounting plate for clamp/coupler, or keyslots for set mounting.

BuckBox 1 Universal — one output for single color, dynamic white, RGB, RGBW, or digital multi-pixel fixtures.

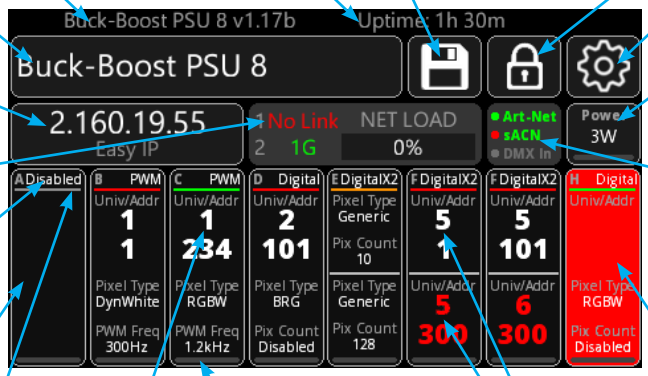
BuckBox 2 — two outputs for digital multi-pixel fixtures only.



Dimensions in inches [millimeters]

BOOSTBOX INTERFACE

Main Screen



Device model and firmware version

Time since boot up

Open “Save and Load” menu

Lock the screen

Unit name
tap to edit

Open configuration menu

IP address and net mask
tap to edit network settings

Total unit power
Tap to open menu with output status details

Network status:
Port link status and speed
Unit network load

Protocol monitor:

Dot color mimics if this protocol is active on network:
Green = active
Red = inactive
Gray = not established

Protocol label colors:
Green = enabled
Gray = disabled

Current port mode:
- Disabled
- PWM (BuckBox 1)
- Digital (BuckBox 1)
- DoubleDigital (BuckBox 2)

Load power bar

Red background = port overload

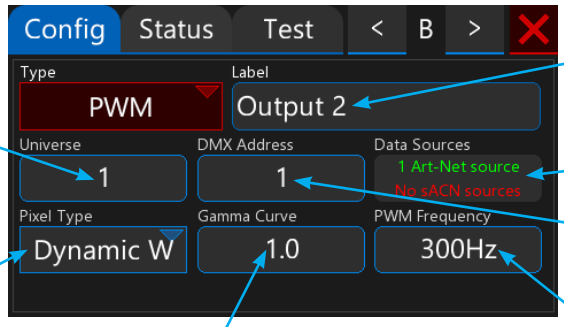
Port status
tap each for port config menu

Port status indicator bar:
- Gray - port disabled
- Red - no BuckBox detected
- Orange - wrong type BuckBox connected
- Green - correct BuckBox type found

Patch - universe and DMX address
- White - data being received
- Red - no data

DoubleDigital Output 1 and Output 2 shown separately

Port Configuration - PWM



Unit label
tap to edit

DMX Universe
tap to select

Shows available data sources

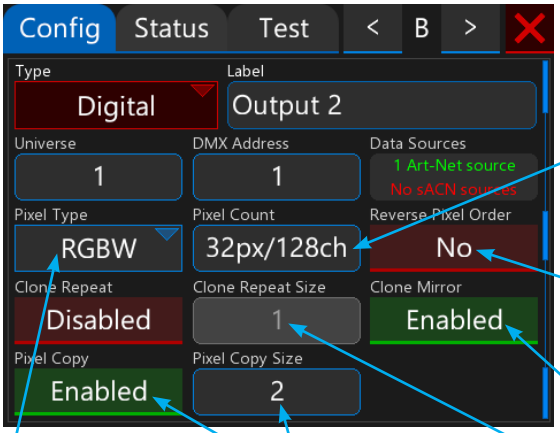
Pixel type select:
- Single Color
- Dynamic White
- RGB
- RGBW

DMX Address
tap to edit

Gamma value:
Range 1.0 - 5.0

PWM frequency:
Range 300 - 40000

Port Configuration - Digital



Pixel count. This is needed for pixel reversing and mirroring

Reverses pixel sequence so addressing starts at the end of FloppyFlex Digital run

Mirrors pixel order for each section.

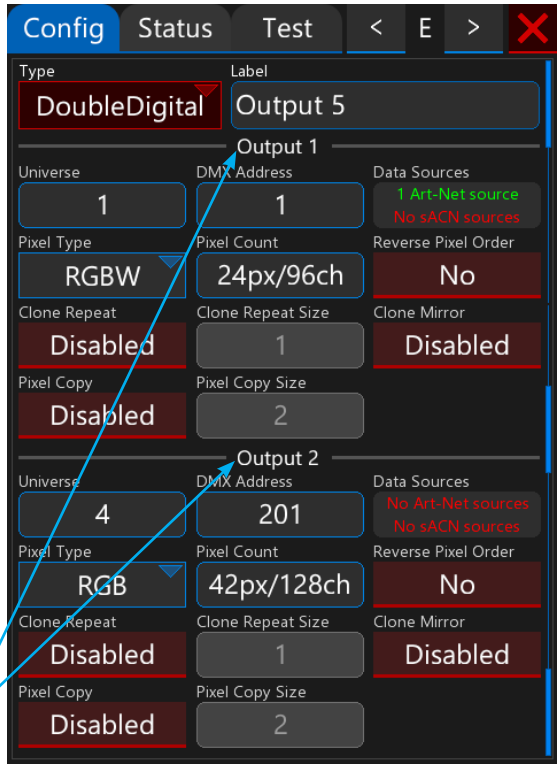
Digital pixel type select:
- RGB
- BRG
- RGBW
- Dynamic White
- White
- White X3

Pixel copy - same input data for multiple consecutive pixels effectively reducing pixel resolution.

Clone repeat - reuses data after given clone size. If set to 1, single pixel will control whole length of digital tape run.

Same parameters as for Digital (repeated for each physical output)

Port Configuration - Double Digital

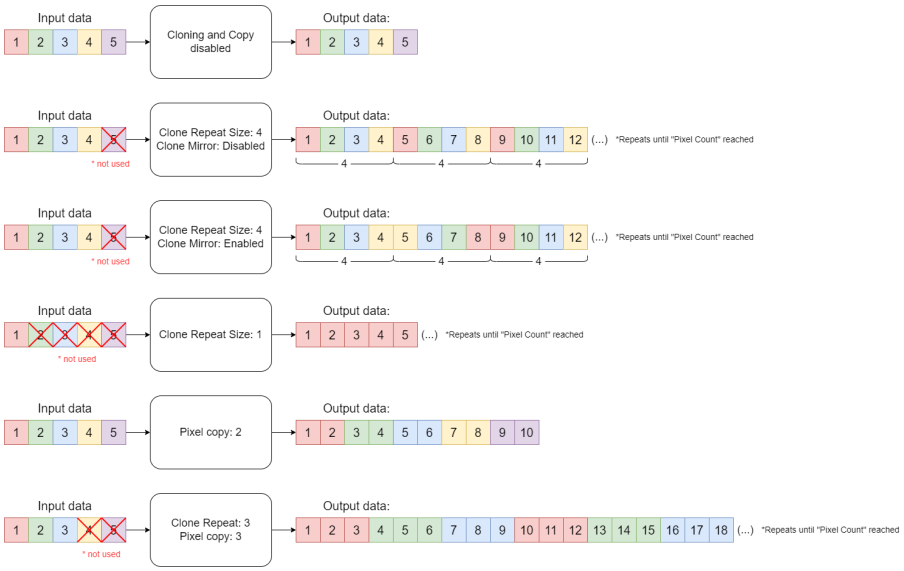


Advanced Pixel Cloning Features

The unique BoostBox Pixel Cloning system allows almost infinite adjustment of control channel counts. Simplifies programming and allows limited channel count control of any length of digital multi-pixel LED fixtures. From single channels to full universe of control, helps limit control budgets on larger multi-pixel systems.

Pixels can be modified in three ways:

- **Pixel Clone Repeat - reuse input data after given size range and repeat pixel "clones" until the end of the LED string**
- **Pixel Clone mirroring - reverse odd repeated clones**
- **Pixel Copy - Reduce pixel resolution by using the same data for any given number of consecutive pixels. A theoretically infinite number of pixels can be reduced all the way to just three or four channels if so desired.**



TECHNICAL SPECIFICATIONS

	8 XLR	4 XLR	8 PTB	4 PTB
PowerData ''Booster'' Outputs	8	4	8	4
Output Connector	Neutrik XLR4 Female		Pluggable Terminal Block (PTB) 5-terminal	
Ethernet Ports	2x Neutrik EtherCON RJ45 (1G)			
Network Protocols	ArtNet, sACN (E1.31)			
DMX Input	1x Neutrik XLR5 Male			
DMX Thru	1 x Neutrik XLR5 Female			
DMX control	DMX 512A+RDM			
Power	100-240V, 50-60 Hz			
Power Connector	PowerCON TRUE 1 TOP			
Max Power Consumption	2000W	1000W	2000W	1000W
Operating Temperature	-20º to +40º C			
Unit Dimensions (WxHxD)	19 x 3.47 x 12.08 in [482.6 x 88.1 x 307 mm]			
Unit Weight	TBA	TBA	21 lbs [9.5 kg]	TBA
Shipping Weight	TBA	TBA	23 lbs [10.43 kg]	TBA

	BoostBox 2		BoostBox 2 DIN	
PowerData ''Booster'' Outputs	2			
Output Connector	Neutrik XLR4 Female		Pluggable Terminal Block (PTB) 5-terminal	
Ethernet Ports	2x Neutrik EtherCON RJ45 (1G)		2x RJ45 (100 Mbit)	
Network Protocols	ArtNet, sACN (E1.31)			
DMX Input	1x Neutrik XLR5 Male		Pluggable Terminal Block (PTB) 3-terminal	
DMX Thru	1 x Neutrik XLR5 Female		-	
DMX control	DMX 512A+RDM			
Power	100-240V, 50-60 Hz		48V (Requires external power supply)	
Power Connector	PowerCON TRUE 1 TOP		Pluggable Terminal Block (PTB) 4-terminal	
Max Power Consumption	2000W	1000W	2000W	1000W
Operating Temperature	-20º to +40º C		-20º to +50º C	
Unit Dimensions (WxHxD)	4.1 x 3.63 x 1.55 in [104 x 92.3 x 39.5 mm]		8.15 x 5.33 x 10.72 in [207 x 136 x 273 mm]	

ORDERING CODES

BoostBoxes				
Part Number	**Item**	**Number of Outputs**	**Output Connectors**	**Mounting**
PPFDBOO8PR	BoostBox 8 PTB	8	Pluggable Terminal Block	RackMount
PPFDBOO4PR	BoostBox 4 PTB	4	Pluggable Terminal Block	RackMount
PPFDBOO8XR	BoostBox 8 XLR	8	4-Pin XLR Female	RackMount
PPFDBOO4XR	BoostBox 4 XLR	4	4-Pin XLR Female	RackMount
PPFDBOO2P	BoostBox 2 PortableMount	2	4-Pin XLR Female	PortableMount
PPFDBOO2DIN	BoostBox 2 DIN	2	Pluggable Terminal Block	DIN Rail Mount

BuckBoxes					
Part Number	**Item**	**Input Connector**	**Number of Output(s)**	**Output Connectors**	**Output Voltage**
PPFDBU1U12V2G	BuckPlate 1 Universal 2-Gang	Pluggable Terminal Block	1	Pluggable Terminal Block	12VDC
PPFDBU1U24V2G	BuckPlate 1 Universal 2-Gang	Pluggable Terminal Block	1	Pluggable Terminal Block	24VDC
PPFDBU1U12V67	BuckBox 1 Universal IP67	Pluggable Terminal Block	1	Pluggable Terminal Block	12VDC
PPFDBU1U24V67	BuckBox 1 Universal IP67	Pluggable Terminal Block	1	Pluggable Terminal Block	24VDC
PPFDBU1U12VP	BuckBox 1 Universal PortableMount	4-Pin XLR Male	1	Techno 5-Pin Female	12VDC
PPFDBU1U24VP	BuckBox 1 Universal PortableMount	4-Pin XLR Male	1	Techno 5-Pin Female	24VDC
PPFDBU2D12V2G	BuckPlate 2 Digital 2-Gang	Pluggable Terminal Block	2	Pluggable Terminal Block	12VDC
PPFDBU2D24V2G	BuckPlate 2 Digital 2-Gang	Pluggable Terminal Block	2	Pluggable Terminal Block	24VDC
PPFDBU2D12V67	BuckBox 2 Digital IP67	Pluggable Terminal Block	2	Pluggable Terminal Block	12VDC
PPFDBU2D24V67	BuckBox 2 Digital IP67	Pluggable Terminal Block	2	Pluggable Terminal Block	24VDC
PPFDBU2D12VP	BuckBox 2 Digital PortableMount	4-Pin XLR Male	2	2x Techno 5-Pin Female	12VDC
PPFDBU2D24VP	BuckBox 2 Digital PortableMount	4-Pin XLR Male	2	2x Techno 5-Pin Female	24VDC

Cables and Connectors	
Part Number	**Item**
PCCCT	ProPlex PowerData LV 2+2 cable (Sold by the foot)
ZPPCC25	ProPlex PowerData LV 2+2 cable assembly with 4-pin XLR connectors - 25 ft
ZPPCC50	ProPlex PowerData LV 2+2 cable assembly with 4-pin XLR connectors - 50 ft
ZPPCC75	ProPlex PowerData LV 2+2 cable assembly with 4-pin XLR connectors - 75 ft
ZPPCC100	ProPlex PowerData LV 2+2 cable assembly with 4-pin XLR connectors - 100 ft
ZPPCC150	ProPlex PowerData LV 2+2 cable assembly with 4-pin XLR connectors - 150 ft
ZPPCC250	ProPlex PowerData LV 2+2 cable assembly with 4-pin XLR connectors - 250 ft
THB.389.A5E	Techno 5-pin male connector
Z515THB389M10	Fixture tail assembly with Techno 5-pin male connector and H07-RNF 5x1.5mm² cable - 10 ft (other lengths and extension assemblies also available)

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