FURMAN®

Power Conditioning

A.C. SEQUENCED POWER DISTRO, 120 AMP

MODEL ASD-120

FEATURES

- 120 amp total load
- Six 20 amp, 120 volt circuits, each with a status indicators
- Four power input busses accommodate 120V/240V single phase, or 208V three phase voltages
- Six 20A duplex outlets on rear panel
- Outlets are powered up and down in sequence
- Three position switch allows each circuit to be part of the sequence, or to be switched on/off independently
- Sequence On/Off can be initiated locally, or remotely using low voltage control wires
- Six low level relays provide contact closure (or opening) to control and sequence other units, such as additional ASD-120's, PowerPorts, MiniPorts, PowerLinks, PS-8R, PS-PRO, and other devices
- Varistor spike and surge protection
- Front panel key switch for security
- Compact two rack space package
- Most economical product of its type

DESCRIPTION

The **ASD-120 AC Sequenced Power Distro** is an extremely compact, low cost rackmount power distribution system that is ideal for PA systems, touring musical and theatrical acts, mobile recording facilities, on-location film and video shoots — or any situation where AC power must be distributed to multiple circuits. Use of an ASD-120 is cost-effective, both in terms of the convenience it offers and the elimination of bulky and expensive parallel feeds and related connectors.

The ASD-120 allows you to power up its six circuits in a sequenced fashion. The sequence is reversed for power down. The overall delay interval is user-adjustable internally.

In any large system whose components present an inductive load to the AC line (including power amplifiers, power supplies and electric motors), sequenced power can avoid excessive inrush currents that can cause circuit breakers to falsely trip.

Sequenced power is needed whenever various kinds of equipment must be powered up or down at different times. Also, sequenced power is often necessary to allow turn-on transients from low level preamplifiers and processors to settle down before any power amps or powered speakers are turned on. This is because simultaneous powering can result in a loud, annoying, and potentially destructive "pop" reaching the speakers.

The user has complete control of each of the ASD-120's outputs. A three-position front panel switch for each control output allows it to be included in the sequence, or to be overridden. Indicator LED's show when each output is "on."

While the ASD-120 is ideal for controlling MiniPorts, it can also control PowerLinks, PowerPorts, PS-PRO or PS-8R Power Sequencers, or any other devices that need to be switched when a particular time delay has elapsed. An ASD-120 can also control additional ASD-120's, providing complete power sequencing control for even the largest systems.

The ASD-120 can handle up to 120 amps of incoming power, distributing it to six 20 amp, 120V circuits. Each circuit has a front panel status indicator that lights up when it is turned on, and a 20 amp duplex outlet on the rear panel.

The ASD-120's design incorporates four voltage input busses, allowing wiring for 120V/240V single phase, or 208V three phase voltages. A strain relief clamp is provided that can accommodate

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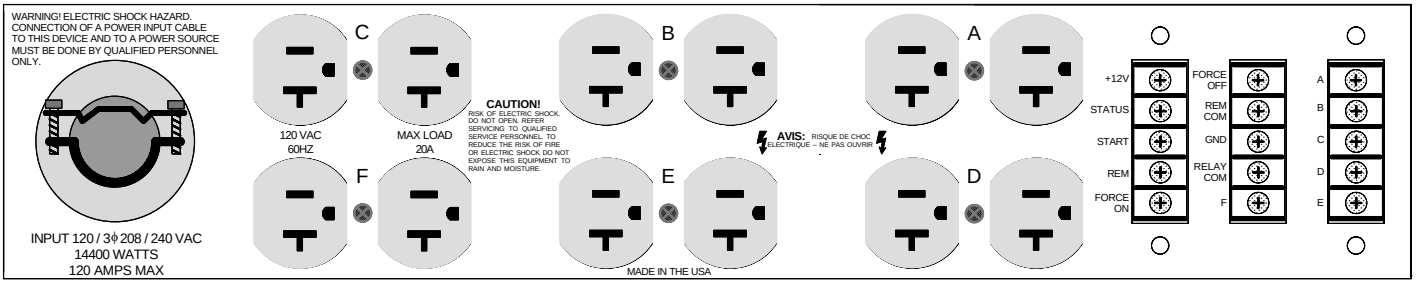
ASD-120 rear view



a cable or wire bundle up to 1.5 inches in diameter. Cable termination is a simple process of breaking out and stripping the individual conductors and connecting them with set screws, and then tightening the strain relief clamp. Complete instructions accompanying the unit detail the process of selecting and terminating the supply cable.

The ASD-120 provides basic spike and surge suppression, with metal oxide varistors (MOV's) connected between the hot and neutral conductors of each circuit. The MOV's respond to line-coupled spikes in less than a nanosecond, clamping transient voltages to safe levels of 200V peak or less.

Architects and Engineers Specifications

The Power Distro shall mount in a standard 19" rack, and shall occupy two units (3 1/2") of rack space.

It shall employ a four-buss structure (plus chassis ground) which can be re-configured as needed using an ordinary screwdriver. Buss input connections shall accommodate wires from 2 AWG through 8 AWG. Buss output connections shall be via repositionable Fast-On connectors. Buss construction shall be of solid copper capable of handling at least 125 amps. A secure cable clamp shall be provided which can accommodate an input cable up to 1.5 inches in diameter.

There shall be six output circuits on the rear panel, with a 20 amp duplex outlet for each. Outlets shall be turned on and off by heavy duty 25 amp relays. A three position switch shall be provided for each output, allowing it to be set ON or OFF locally, overriding the sequence. Each output shall have a front panel indicator readable at 20 feet showing the circuit ON status. Circuit breakers rated at 20 amps shall be provided for each circuit. Sequencing shall be provided for each of the six circuits. Overall sequence time shall be internally adjustable from 1.2 to 60 seconds. Each circuit shall have a front panel indicator clearly readable at a 20 foot distance showing the circuit ON status.

Each circuit shall include a protective device capable of clamping line to neutral spikes to no more than 200V peak. Response time shall not exceed 1 nanosecond. The devices shall absorb a surge current of up to 6500 amperes for 10 microseconds without damage.

The unit shall be the Furman ASD-120 Sequenced Power Distro.

Three Year Warranty

The Furman ASD-120 is protected by a limited three year warranty covering defects in materials and workmanship.

ASD-120 SPECIFICATIONS

VOLTAGE AND CURRENT	Input Current: 120 amps Input Voltage: 120/240V single phase, or 208V 3-phase Output: Six identical 20 amp, 120V circuits
CIRCUIT BREAKERS	Heavy duty Thermal, 20A
POWER SEQUENCING	Delay Interval: 0.2 to 10 seconds per step (adjustable with internal trimpot)
REM CONTROL INPUTS	Optically isolated, AC or DC drive, 12K ohm input impedance. Operates at 5 VDC or 6-130 VAC. Max 130 VAC from REM COM to chassis
SIGNAL RELAY OUTPUTS	Common isolated from chassis and control ground. 130 VAC max from relay common to chassis. Relay can switch 1/2 amp max @ 125 VAC, or 1/2 amp max @ 24 VDC. Internally configurable as normally closed or normally open.
SPIKE/SURGE PROTECTION	Spike Protection Mode: Line to neutral on each circuit. Clamping Voltage: 200V peak. Response Time: 1 nanosecond. Maximum Surge Current: 6,500 amps. Maximum Spike Energy: 80 joules per circuit.
OTHER	Mechanical: Weight: 20 lbs (9.1 kg). Dimensions: 3.5" H x 19" W x 9 5/8" D (8.9 x 48.3 x 24.4 cm) Construction: Steel chassis, zinc chromate plating; .125" brushed and black anodized aluminum front panel. Power Consumption at 130 VAC: 23 watts Safety Information: ETL/CETL listed

The ASD-120 is manufactured in the United States of America