

Three Phase Power Distribution Unit (PDU) Specifications

Overview

These specifications apply to AC General Standard Three Phase PDUs (Model series 300-xx-xx and 030-xx-xx). The PDUs are designed for equipment racks powered from a 20A or 30A 120/208VAC power drop, operating at 50, 60, or 400Hz.

All Standard PDUs contain a UL1077 compliant main circuit breaker. AC General recommends that the power drop that supplies the PDU be rated at a minimum of 20A and possess a UL489 rated Branch Circuit Breaker.

Environmental Specifications

- Operating Temperature: 0°C to +50°C
- Non-operating Temperature: -40°C to +71°C
- Relative Humidity (non-condensing): 5 to 95% +/- 5%
- Operating & Non-operating Altitude: 15,000 Ft
- Operating Vibration: 5 to 55 Hz, 0.33 mm peak-to-peak displacement
- Functional Shock 15g, half-sine shock pulse, 11 mSec, 3 axes

AC Line Filter

Power quality is an important aspect of any equipment protection program. AC General incorporates a high quality robust AC Line Filter in each Standard PDU.

The filter is placed at power input of the PDU to prevent incoming noise and transients on the AC line from propagating into the PDU and connected equipment. Each phase and neutral is filtered, plus the ground wire. Additionally, each phase is further protected with a MOV/Gas Discharge Tube combination to shunt any remaining transients to ground.

Insertion Loss [dB into 50 ohms]								
Frequency	100KHz	150	250	500	1.0 MHz	5.0	10.0	30.0
Line-to-Line	10	16	25	40	57	60	60	65
Line-to-Ground	15	19	23	29	36	50	50	50

- Filtering: Each phase, neutral, and Ground
- MOV/GDT protection:
 - each phase-to-neutral
 - MOV: 354-425V
 - GDT: 425V (Min)

- Operating Frequency: 50-400Hz
- Leakage Current: 5.0 mA @ 220VRMS
- Filter Discharge Voltage: 16 V max after 1 sec

AC General, Inc.

Circuit Protection

- 4 Pole Main circuit breaker (UL1077)
 - rated for 100% load over temperature
 - “medium” trip delay (general purpose applications, Test Equipment, transformer protection)
- Push-to-reset supplemental breakers for each duplex (30A PDU only)

Power Entry Connector

- 4 Pole/5 Wire nylon “locking” Flanged Inlet
 - Connector information provided on Model Data Sheet
- *Two ways to connect power drop*
 - Front Panel Bulkhead (PN 030-xxx-xx)
 - Rear Panel Line Cord (PN 300-xxx-xx)
 - See diagrams below

Output Connectors

- One (1) duplex per phase, NEMA 5-20R
- One (1) three phase “locking” receptacle, NEMA 6-20R (20A), or NEMA 6-30R (30A)
- One (1) Utility duplex, NEMA 5-20R wired to Phase A activated by Main breaker

Mechanical:

- Dimensions:
 - 20/30A: 19.0” W x 5.25” H x 11.0” D
 - 60A: 19.0” W x 7.00” H x 11.0” D
- Weight: 20 lbs. (30A Model)
- Chassis Construction: all aluminum, chromate finish, stainless hardware
- Front Panel Color: Gray FS 595 #26496
- Mounting: Hole spacing per EIA 310D

Options:

Basic Remote ON/OFF (Options R/R1)

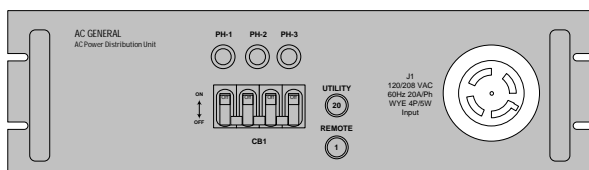
- Allows remote control of the PDU from 150 ft. away
- Low voltage control circuit:
 - 60Hz Models: 24 VAC
 - 400 Hz Models: 24 VDC
- Remote cable provided, standard length: 8ft
- *Two types of Remote Control are available:*
 - Option “R”
 - System power controlled via (1) lighted toggle switch
 - Option “R1”
 - System power controlled via (2) lighted momentary pushbutton switches

AC Power Monitor (Option P)

- Available in 60Hz and 400Hz PDU only
 - Requires Remote Option
- Phase rotation protection, “A-B-C”
- AC Under Voltage and Phase Loss protection.
 - Under voltage set point: -15%, 177VAC
 - Fault Reaction Time: < 50 mSec
- All output power removed except Utility outlet

Two Power Input Configurations Available

Front Panel Bulkhead
Applies to all Models with P/N 030-xxx-xx



Rear Panel Line Cord (8 Ft)
Applies to all Models with P/N 300-xxx-xx

