

AC General, Inc.

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.

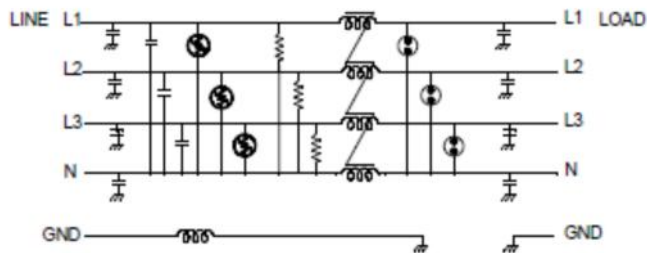
AC Line Filter

Power quality is an important aspect of any equipment protection program. AC General incorporates a high quality robust AC Line Filter in each PDU to suppress conducted interference present on any power line and suppresses downstream EMI generated by equipment powered by the PDU from leaving the system.

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. Each phase is further protected with a MOV/Gas Discharge Tube which shunts 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



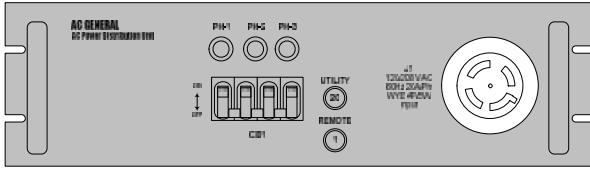
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<p style="text-align: center;"><u>Circuit Protection</u></p> <ul style="list-style-type: none">➤ 3-Pole Main circuit breaker<ul style="list-style-type: none">○ Rated for 100% load over temperature○ UL1077 Recognized○ Trip Delay: “medium”<ul style="list-style-type: none">▪ good for general purpose test equipment, power supplies, transformer protection➤ Three (3) UL Listed RK5 internal series fuses, coordinated with breaker, provides 5000A Interrupt Rating for PDU➤ Push-to-reset supplemental breakers for each duplex (30A PDUs only)	<p style="text-align: center;"><u>Power Entry Connector</u></p> <ul style="list-style-type: none">➤ 4 Pole/5 Wire nylon “locking” Flanged Inlet<ul style="list-style-type: none">○ Connector information provided on Model Data Sheet➤ <i>Two ways to connect power drop</i><ul style="list-style-type: none">○ Front Panel Bulkhead (PN 030-xxx-xx)○ Rear Panel Line Cord (PN 300-xxx-xx)○ See diagrams below
<p style="text-align: center;"><u>Output Connectors</u></p> <ul style="list-style-type: none">➤ 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/ Convenience duplex, NEMA 5-20R wired to Phase A activated by Main breaker	<p style="text-align: center;"><u>Mechanical</u></p> <ul style="list-style-type: none">➤ Dimensions:<ul style="list-style-type: none">○ 20/30A: 3U<ul style="list-style-type: none">▪ 19.0” W x 5.25” H x 11.0” D○ 60A: 4U<ul style="list-style-type: none">▪ 19.0” W x 7.00” H x 11.0” D➤ Weight: 20 lbs. (30A Model)➤ Chassis Construction:<ul style="list-style-type: none">○ Aluminum 5052○ Chromate finish○ stainless hardware fasteners throughout➤ Front Panel Color: Gray FS 595 #26496➤ Mounting: Hole spacing per EIA 310D
<p style="text-align: center;"><u>Environmental Specifications</u></p> <p>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</p>	<p style="text-align: center;"><u>Standards</u></p> <ul style="list-style-type: none">➤ All electrical components and wiring within the PDU are UL Recognized or Listed items except as noted:<ul style="list-style-type: none">○ The AC Line Filter is customized with a Surge Arrestor component on each output phase. The base model of the filter is a UL listed component, however the filter configured with the surge arrestor is not yet an approved UL component
<u>Options</u>	
<p style="text-align: center;"><u>Basic Remote ON/OFF (Options R/R1)</u></p> <ul style="list-style-type: none">➤ Allows remote control of the PDU from 150 ft. away➤ Low voltage control circuit:<ul style="list-style-type: none">○ 60Hz Models: 24 VAC○ 400 Hz Models: 24 VDC➤ Remote cable provided with PDU, standard length: 8ft➤ <i>Two types of Remote Control are available:</i><ul style="list-style-type: none">○ Option “-R”<ul style="list-style-type: none">▪ System power controlled via (1) lighted toggle switch○ Option “-R1”<ul style="list-style-type: none">▪ System power controlled via (2) lighted momentary pushbutton switches	<p style="text-align: center;"><u>AC Power Monitor (Option P)</u></p> <ul style="list-style-type: none">➤ Protects your system from Under-voltage, improper phase rotation, and phase loss➤ Requires Remote Option➤ Phase rotation protection, “A-B-C”➤ AC Under-Voltage and Phase Loss protection.<ul style="list-style-type: none">○ Under voltage set point: -15%, 177VAC○ Fault Reaction Time: < 50 mSec➤ Upon detecting a fault, all output power removed except Utility/Convenience outlet

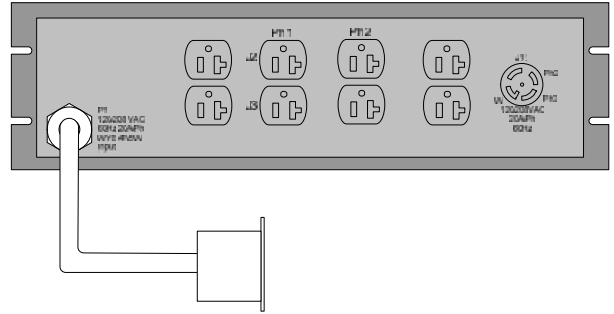
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Two Power Input Configurations Available

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



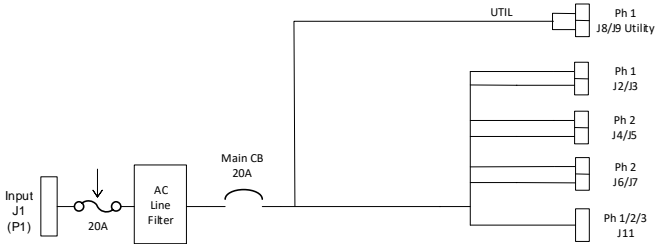
Rear Panel Line Cord (6 Ft)
Applies to all Models with P/N 300-xxx-xx



PDU Configurations

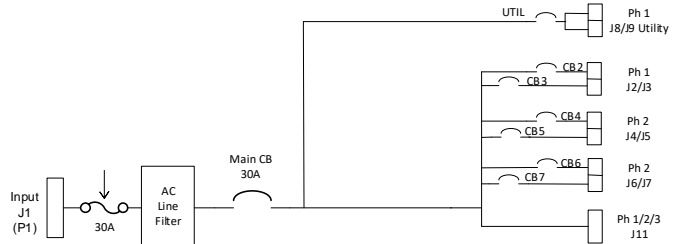
Three Phase 20A Models

P/N 300-060-20, 030-060-20

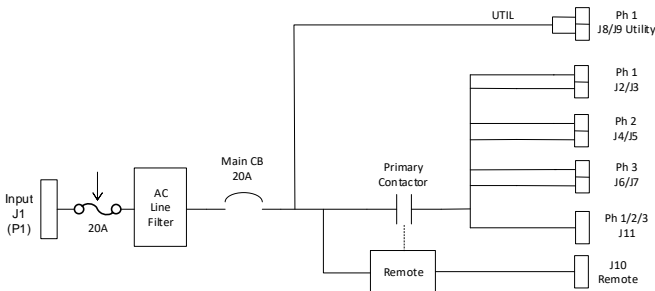


Three Phase 30A Models

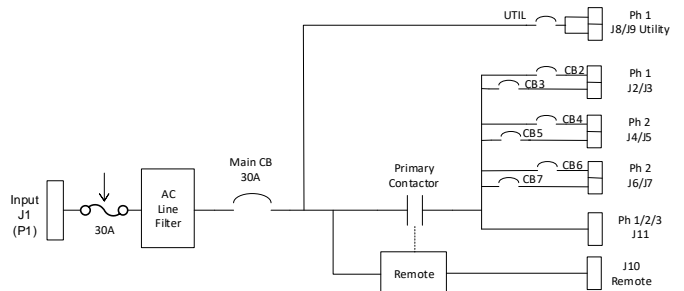
P/N 300-060-30, 030-060-30



P/N 300-060-20R (and -20R1), 030-060-20R (and -20R1)



P/N 300-060-30R (and -30R1), 030-060-30R (and -30R1)

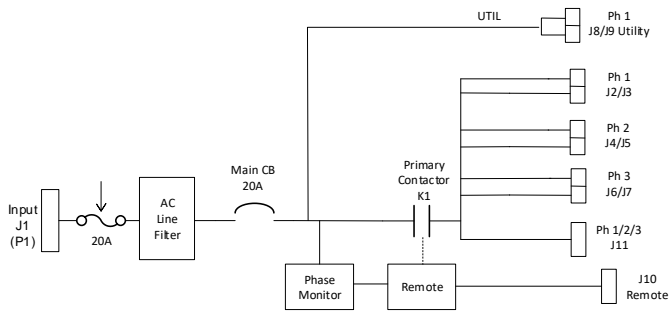


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PDU Configurations

Three Phase 20A Models

P/N 300-060-20PR (and -20PR1), 030-060-20PR (and -20PR1)



Three Phase 30A Models

P/N 300-060-30PR (and -30PR1), 030-060-30PR (and -30PR1)

