

**PCV S45 SERIES** - SINGLE PHASE - 0.5 to 5 kVA

**POWER CONDITIONING PROTECTION**  
against voltage fluctuations and line disturbances - ensuring a **CLEAN** supply.

**FEATURES**

- **Automatic Voltage Regulation**  
Step less automated voltage regulation.
- **Super Isolated Ferro-Resonant Design**  
With no moving parts to deliver a Maintenance Free solution.
- **Wide Range of Power Ratings**  
Single Phase 0.5 to 5 KVA
- **Broad Input Voltage Swing**  
Input Swing - 20% / +15% (±45%)
- **Precise Output Voltage Regulation**  
Output Voltage Accuracy ± 1% (± 5%)
- **Enhanced Transient Voltage Surge Suppression - TVSS**  
Protects loads against harmful high-energy surges, transients and spikes. Including lightning induced spikes and surges.



**SUPER ISOLATED FERRO-RESONANT DESIGN**  
**AC POWER LINE CONDITIONERS**  
**AC SINGLE PHASE - 0.5 TO 5 kVA**

**PCV**  
**H & L - SINGLE PHASE**

**ENSURING A STABLE & CLEAN AC SUPPLY VOLTAGE**

AC mains voltage fluctuations can cause equipment to behave erratically and malfunction. Some systems may even break down due to these fluctuations, noise or spikes. Failure to ensure the incoming mains voltage is stable and clean can often result in costly equipment repairs and unplanned down-time.

**Ashley-Edison PCV AC Power Line Conditioners offer -**

- **Endurable and Maintenance Free**  
PCV Indoor AC Power Conditioners are recommended for severe environments where the input voltage varies widely and a highly durable 'install and forget' Maintenance Free solution is required.
- **Delivering a truly 'Clean' Supply**  
Designed to deliver a precisely regulated clean AC power output, thereby removing the need for a dedicated clean supply feed, PCV Series AC Power Conditioners are highly compact in size and offer full isolation with a neutral-to-ground bonding, excellent surge and lightning protection, unsurpassable noise filtering, high efficiency and outstanding reliability.
- **Super Isolated Ferro-Resonant Design**  
With no moving parts, PCV AC Line Conditioners are able to withstand high instantaneous overloads. Their unique super-isolation design, with it's built in ride through capability, ensures that in the event of a short break in supply of up to 3 milli-seconds in duration, output will still be maintained - a feature exceptionally useful for applications where there are frequent short breaks or extremely severe voltage dips in the incoming mains supply.
- **Unparalleled Protection and Value**  
When looking for affordable durable Quality power conditioning and voltage regulation, the PCV Range of AC Power Line Conditioners from Ashley-Edison lead the market in all respects.

- **Galvanic Isolation**  
Provides Noise Attenuation (Common Mode and Normal Mode), neutral ground bonding and short circuit protection.
- **Energy Storage - 'Ride-Through' Capability**  
No loss of output for input power losses of up to 3 milli-seconds in duration.
- **High Efficiency**  
Better than 90%
- **High MTBF**  
Endurable and long-lasting with a Mean Time Between Failure (MTBF) of in excess of 125,000 hours
- **Input Circuit Breaker**  
Standard protection on all models
- **Optional Accessories**  
Dual Output Option and enhanced Digital Power Metering.
- **Compliance with International Standards**  
Designed, manufactured and supplied to comply with leading international standards
- **CE Conformity**  
Fully compliant and labelled
- **Warranty**  
3 Years / 36 Months as standard

**Available Standard Models:**

- **H Series - High Voltage Models**  
220V, 230V or 240V (Single Phase)
- **L Series - Low Voltage Models**  
100V, 110V, 115V, 120V or 127V (Single Phase)

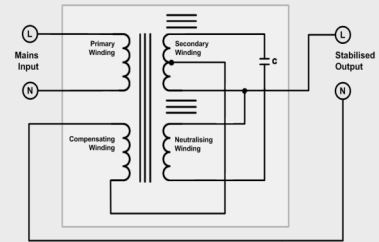
## ENDURABLE FERRO-RESONANT DESIGN TOPOLOGY

Based around a highly reliable and durable Constant Voltage Transformer (CVT), super isolation design based PCV Single Phase AC Power Conditioners are able to tolerate very wide input fluctuations - even when the input voltage drops as low as - 45% the output voltage will be maintained at nominal voltage  $\pm 5\%$ .

With no moving parts and no electronic control circuitry there is no need for maintenance and is virtually an install and forget solution. The design can withstand high instantaneous overloads and is able to suppress lightning induced spikes and surges.

Compact in size, this design has the inherent ability to withstand a ride-through even when there is a very short power failure, maintaining voltage for up to 3 milli-seconds. This feature is exceptionally useful for sensitive electronic equipment when there are frequent short breaks or severe voltage dips.

As a Ferro-Resonant / Constant Voltage Transformer (CVT) based solution, PCV AC Power Line Conditioners utilise a tank circuit composed of a high-voltage resonant winding and a capacitor to produce a constant output voltage whilst supporting a varying load current - even in situations where the input voltage varies widely.



The circuit has a primary on one side of a magnet shunt and tuned circuit coil and a secondary on the other side. Voltage regulation is achieved through the magnetic saturation in the section around the secondary. As the design offers excellent isolation, PCV AC Power Line Conditioners characteristically offer exceptional transient surge suppression and short-circuit protection.

## VOLTAGE CHOICES AVAILABLE

### 2 WIRE SOLUTIONS

SINGLE PHASE WITH NEUTRAL (+GROUND/EARTH)

#### H SERIES 0.5 to 5 kVA

#### High Voltage Models:

220V, 230V or 240V

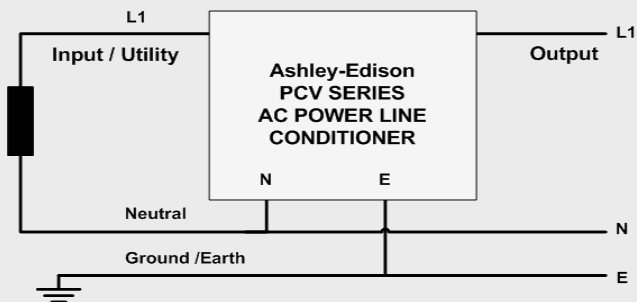
Other voltages available on individual request / quotation.

#### L SERIES 0.5 to 5 kVA

#### Low Voltage Models:

100V, 110V, 115V, 120V or 127V.

Other voltages available on individual request / quotation.



## INPUT VOLTAGE WINDOW

### H SERIES - Input Voltage Windows & Output Accuracy

Nominal Single Phase Voltage	Output Voltage Accuracy $\pm$ % of Nominal	Input Voltage Window	
		$\pm$ % of Nominal	Voltage
220V	$\pm 1\%$	-20% / +15%	176v to 253v
	$\pm 5\%$	$\pm 45\%$	121v to 319v
230V	$\pm 1\%$	-20% / +15%	184v to 265v
	$\pm 5\%$	$\pm 45\%$	127v to 333v
240V	$\pm 1\%$	-20% / +15%	192v to 276v
	$\pm 5\%$	$\pm 45\%$	132v to 348v

### L SERIES - Input Voltage Windows & Output Accuracy



Nominal Single Phase Voltage	Output Voltage Accuracy $\pm$ % of Nominal	Input Voltage Window	
		$\pm$ % of Nominal	Voltage
100V	$\pm 1\%$	-20% / +15%	80v to 115v
	$\pm 5\%$	$\pm 45\%$	55v to 145v
110V	$\pm 1\%$	-20% / +15%	88v to 127v
	$\pm 5\%$	$\pm 45\%$	61v to 159v
115V	$\pm 1\%$	-20% / +15%	92v to 132v
	$\pm 5\%$	$\pm 45\%$	64v to 166v
120V	$\pm 1\%$	-20% / +15%	96v to 138v
	$\pm 5\%$	$\pm 45\%$	66v to 174v
127V	$\pm 1\%$	-20% / +15%	102v to 146v
	$\pm 5\%$	$\pm 45\%$	70v to 184v

Please Note – PCV AC Power Conditioners are not designed to support / protect voltage "back feed" applications, where energy is required to be also fed back into the utility supply.

## TYPICAL APPLICATIONS

- Computers & Network Systems
- Medical Equipment
- Electronics Equipment
- Testing & Laboratory Equipment
- POS Terminals
- Process Control Systems
- Audio/Video Systems
- Security Systems
- Photo Processing Systems



**TECHNICAL SPECIFICATION**

<b>Technology:</b>	Ferro-Resonant - enduring and highly reliable super isolated Constant Voltage Transformer design.	<b>Construction:</b>	Enclosures to IP20 (NEMA 1 Style) - BS EN 60529.
<b>Input Voltage Swing:</b>	-20% / +15% ( $\pm$ 45%) Single Phase, 2 Wire.	<b>Paint Colour:</b>	RAL 7032 (Grey - Epoxy Powder Coating)
<b>Output Voltage Accuracy:</b>	$\pm$ 1%, ( $\pm$ 5%) Single Phase, 2 Wire.	<b>EMC Conformance:</b>	Complies with BS EN 55022 and the relevant parts of the BS EN 61000 series of standards.
<b>Frequency:</b>	50Hz or 60Hz ( <i>Customer to Specify</i> )	<b>CE Conformity:</b>	<b>CE Marked</b> - being fully compliant with European Union Directives 2004/108/EC (The EMC Directive) and 2006/95/EC (The Low Voltage Directive).
<b>Response Time:</b>	<30ms	<b>Standard Warranty:</b>	Three Years / 36 Months from date of supply
<b>Efficiency:</b>	90% ( <i>at Full Load</i> )	<b>Standard Features:</b>	<b>PCV - 0.5 kVA to 1 kVA</b> Input Circuit Breaker Input / Output Terminals Universal Output Socket  <b>PCV - 2 kVA to 5 kVA</b> Input Circuit Breaker Input / Output Terminals Output Voltmeter and Ammeter Free Standing Enclosure on Castors
<b>Surge Ratings:</b>	200% of rated load for 10 seconds 500% of rated load for 10 msec	<b>Optional Accessories:</b>	Dual Output Voltage (eg. 220V & 110V) (Voltage Only / Not Frequency) Digital Power Metering - showing V,A,W,VA,AER,PF & kWh AquaStop Protective Coating - protection against damp and moisture ingress
<b>Surge Suppression:</b>	TVSS - Protects loads against high-energy Spikes and Transient Voltages. Meets ANSI/IEEE and IEC standards.		
<b>Noise Attenuation:</b>	<b>Common Mode</b> - 110dB @100Mhz <b>Normal Mode</b> - 60dB @100Mhz		
<b>Energy Storage:</b>	<b>Ride Through</b> - No loss of output for input power losses of up to 3 milli-seconds.		
<b>Total Harmonic Distortion:</b>	Up to 3%		
<b>Environment:</b>	Temperature range -15 to 45 °C. Derate by 2% for each additional °C Up to max 60 °C . Suitable for indoor tropical use 95% RH (non-condensing). Maximum altitude 1000m. Derate by 2.5% for each additional 500m.		

Note: Optional Accessories added may affect dimensions - subject to confirmation.

**H SERIES - 50Hz PRODUCT SELECTION TABLE**

220V - 230V - 240V - 50Hz

Model	Rating kVA	Max Rating (Amps)			Dimensions (mm) W x H x D	Weight (Kg)	Enclosure Type
		@ 220V	@ 230V	@ 240V			
PCV-05H-50-S45	0.5	2.3	2.2	2.1	210 x 260 x 420	26	016A
PCV-1H-50-S45	1	4.5	4.3	4.2	210 x 260 x 420	39	016A
PCV-2H-50-S45	2	9.1	8.7	8.3	270 x 460 x 490	66	102
PCV-3H-50-S45	3	13.6	13.0	12.5	270 x 460 x 490	93	102
PCV-5H-50-S45	5	22.7	21.7	20.8	270 x 460 x 490	112	102

**H SERIES - 60Hz PRODUCT SELECTION TABLE**

220V - 230V - 240V - 60Hz

Model	Rating kVA	Max Rating (Amps)			Dimensions (mm) W x H x D	Weight (Kg)	Enclosure Type
		@ 220V	@ 230V	@ 240V			
PCV-05H-60-S45	0.5	2.3	2.2	2.1	210 x 260 x 420	26	016A
PCV-1H-60-S45	1	4.5	4.3	4.2	210 x 260 x 420	39	016A
PCV-2H-60-S45	2	9.1	8.7	8.3	270 x 460 x 490	66	102
PCV-3H-60-S45	3	13.6	13.0	12.5	270 x 460 x 490	93	102
PCV-5H-60-S45	5	22.7	21.7	20.8	270 x 460 x 490	112	102

**L SERIES - 60Hz PRODUCT SELECTION TABLE**

100V - 110V - 115V - 120V - 127V - 60Hz

Model	Rating kVA	Max Rating (Amps)					Dimensions (mm) W x H x D	Weight (Kg)	Enclosure Type
		@ 100V	@ 110V	@ 115V	@ 120V	@ 127V			
PCV-05L-60-S45	0.5	5.0	4.5	4.3	4.1	3.9	210 x 260 x 420	24	016A
PCV-1L-60-S45	1	10.0	9.1	8.7	8.3	7.9	210 x 260 x 420	34	016A
PCV-2L-60-S45	2	20.0	18.2	17.4	16.7	15.7	270 x 460 x 490	58	102
PCV-3L-60-S45	3	30.0	27.3	26.1	25.0	23.6	270 x 460 x 490	75	102
PCV-5L-60-S45	5	50.0	45.5	43.5	41.7	39.4	270 x 460 x 490	101	102



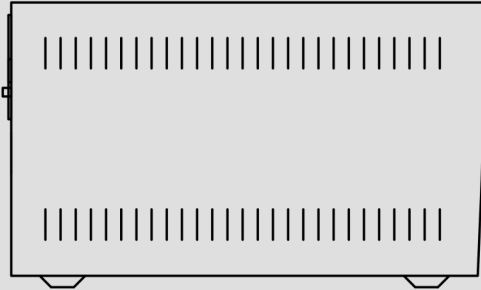
## ENCLOSURE TYPES

### 016A - 0.5 kVA & 1 kVA Models

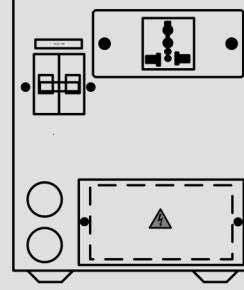
Front



Side



Rear

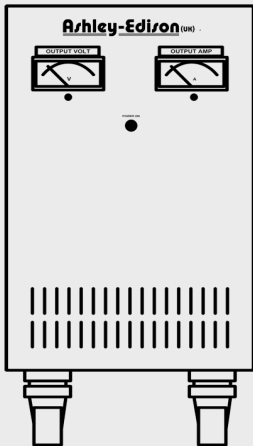


Physical Size: 210(W) x 260(H) x 420(D) mm    8.3"(W) x 10.3"(H) x 16.6"(D) inches

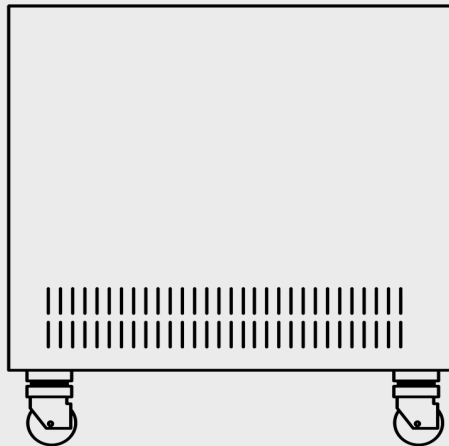
Features: Input Circuit Breaker, Input / Output Terminals & Universal Output Socket

### 102 - 2 kVA to 5 kVA Models

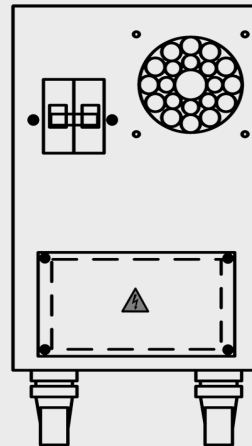
Front



Side



Rear



Physical Size: 270(W) x 460(H) x 490(D) mm    10.7"(W) x 18.2"(H) x 19.3"(D) inches

Features: Input Circuit Breaker, Input / Output Terminals, Output Voltmeter and Ammeter & Free Standing Enclosure on Castors

## AVAILABILITY

We offer probably the best availability on AC Voltage Stabiliser & Power Conditioning solutions.

Many of our most popular ratings are readily available from stock at the factory or from one of our strategically located Service and Distribution Hubs. Where a solution is not readily available, due to our considerable investment in component inventory and fine-tuned accredited build processes, we are able to ensure very short lead times on deliveries – even for the largest of models!

## CUSTOM BUILT SOLUTIONS

Ashley-Edison, with a strong and wide manufacturing base, is able to meet the requirements of customers from our own in-house professional resources.

Where bespoke / custom built solutions are required we are able to call upon our extensive portfolio of proven standard designs and tailor offerings to accommodate, without breaking the bank, most individual specific requirements.

