

## CONSTANT VOLTAGE COMPENSATOR & PARALLEL REDUNDANT SYSTEM

### Features

- **Wide Range of Constant Voltage Compensator**  
Three Phase Up to 1000Kva
- **Input Voltage Range available from :**
  - (S1) 360V ~ 420V
  - (S2) 340V ~ 420V
  - (S3) 320V ~ 420V
  - (S4) 300V ~ 420V
- **Output Voltage Regulation**  
Output Voltage Accuracy  $\pm 1.5\%$ ,
- **High Efficiency**  
Better than 98%
- **Independent Phase Control Circuit**  
Sensing on all Three Phase Circuit
- **Standard Protection Features**
  - Input circuit breaker
  - Bypass control switch
  - Over/low voltage protection
  - Phase-failure protection
  - Voltmeter ( Internal)
- **Enclosure Protection Category**  
IP20
- **Compliance with International Standards**  
IEC 439, BS6527, IEEE 587
- **CE Conformity**  
EN55022, EN50082-2, ENV50140
- **Warranty**  
1 Year

## Model CVC



### Applications

- **Communication Systems**
- **TV/Radio Broadcasting Stations**
- **Security Systems**
- **Communication Stations**
- **Lighting Systems**
- **Golf Course Lighting Systems**

Installations with long cable run have the inherent problem of developing high voltage drop across their cables. To overcome this, it is necessary to select and use larger sized cables in order to reduce such voltage drops to an acceptable level. IEE Regulations stipulate that a voltage drop should be no more than 4% which means that for a 3Phase 400V system, the drop across any length of its cable should not exceed 16V. In addition to this volt drop, the mains supply has a permissible fluctuating voltage tolerance of  $\pm 6\%$  (provided this supply comes directly from the supply authority. If this is not the case, then the fluctuating mains voltage may be even higher due to various loads which may be connected, plus load changing conditions) in between. Eventually the cable had to be sized much bigger to cater to this large voltage drop. Copper prices have peaked significantly, hence cable is now extremely expensive when the electrical system designers comply fully with the IEE requirements.

Our **Ashley-Edison's Constant Voltage Compensators** have been carefully designed with this application in mind. With the Compensator installed at the end of the cable where the volt drop is high, it will continuously monitor and adjust the voltage to help maintain a constant voltage to within  $\pm 1.5\%$  accuracy. The cable end voltage will then be 400V  $\pm 1.5\%$ , complying fully to IEE requirements. With the cable being sized and selected to ensure minimum cost for an installation requirement, the combined cable and Compensator cost will definitely show a substantial overall saving!

Our **Parallel Redundant System** offers additional protection in areas of critical application. Two units are installed into one cubicle. Should one unit malfunction or is under servicing, you can switch over to the other unit manually. This will provide for uninterrupted operation for your critical equipment. In cases of high capacity (KVA), Tie-Cabinets will be provided.

### Compensator features include:

- Built-in Surge suppression
- Built-in Lightning surge arrester
- Unit does not emit EMI
- Unit is free from harmonics emission
- Unit is unaffected by load power factor

**HUGE SAVINGS** with Ashley-Edison's **Constant Voltage Compensator**

## CONSTANT VOLTAGE COMPENSATOR

### Technical Specifications

<b>Input Voltage Range available</b>	S1 - 360V ~ 420VAC, 3 Phase 4 Wire S2 - 340V ~ 420V S3 - 320V ~ 420V S4 - 300V ~ 420V	<b>Standard Features</b>	Input circuit breaker Bypass control switch Over/Low voltage protection Phase failure protection Voltmeter/selector switch (internal)
<b>Output Voltage</b>	380/220V; 400/230V; 414/240V (to specify)	<b>Optional Accessories</b>	Ammeter/selector switch Frequency meter Output circuit breaker Manual Maintenance Bypass Switch Tie-Cabinets ( <i>Parallel Redundant System</i> )
<b>Output Voltage Accuracy</b>	± 1.5%		
<b>Frequency</b>	47 – 65 Hz	Note: Optional accessories added may affect dimension, subject to confirmation.	
<b>Efficiency</b>	98%	Note: 1) 208V options available on order 2) Special voltage configurations available on order 3) Higher KVA rating options available on order	
<b>Power Factor</b>	Any lagging to 0.95 leading		
<b>Surge ratings</b>	5 x max current rating for 1 second 2 x max current rating for 20 seconds 1.5 x max current rating for 2 minutes		
<b>Surge Suppression</b>	Protect loads against high-energy (Spike) and transient voltage.		
<b>Surge Arrester</b>	40KA at 415V AC Class III (IEC 61643-1:1998-02, EN 61643-11:2001)		
<b>Total Harmonic Distortion</b>	Less than 1%		
<b>Independent Phase Control</b>	Maintain each phase voltage stable irrespective of load unbalance.		
<b>Environment</b>	Temperature range –15 to 50 °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.		
<b>Construction</b>	Enclosures to IP20, BS5490/IEC529		
<b>Conformance</b>	BS 6527, BS6667, IEEE587		
<b>CE Conformity</b>	EN55011, EN61000-6-1,		
<b>Warranty</b>	1 Year		



### Model: CVC Constant Voltage Compensator

Model:	Rating KVA	Model:	Rating KVA
CVC-15H-3P-S	15	CVC-300H-3P-S	300
CVC-20H-3P-S	20	CVC-350H-3P-S	350
CVC-30H-3P-S	30	CVC-400H-3P-S	400
CVC-45H-3P-S	45	CVC-450H-3P-S	450
CVC-50H-3P-S	50	CVC-500H-3P-S	500
CVC-60H-3P-S	60	CVC-550H-3P-S	550
CVC-75H-3P-S	75	CVC-600H-3P-S	600
CVC-80H-3P-S	80	CVC-650H-3P-S	650
CVC-90H-3P-S	90	CVC-700H-3P-S	700
CVC-100H-3P-S	100	CVC-750H-3P-S	750
CVC-150H-3P-S	150	CVC-800H-3P-S	800
CVC-200H-3P-S	200	CVC-900H-3P-S	900
CVC-250H-3P-S	250	CVC-1000H-3P-S	1000

Note: 1) Weight and dimensions upon request  
2) 200V & 208V options available on order.  
3) Special voltage configurations available on order  
4) Higher KVA rating options available on order

## CONSTANT VOLTAGE COMPENSATOR PARALLEL REDUNDANT SYSTEM

### Technical Specifications

<b>Input Voltage Range available</b>	S1 - 360V ~ 420VAC, 3 Phase 4 Wire S2 - 340V ~ 420V S3 - 320V ~ 420V S4 - 300V ~ 420V	<b>Standard Features</b>	Input circuit breaker Bypass control switch Over/Low voltage protection Phase failure protection Voltmeter/selector switch (internal) Transfer switch(15kVA to 250KVA) Parallel Tie Cabinet (300KVA ~ 1000KVA)
<b>Output Voltage</b>	380/220V; 400/230V; 414/240V (to specify)		
<b>Output Voltage Accuracy</b>	± 1.5%	<b>Optional Accessories</b>	Ammeter/selector switch Frequency meter Output circuit breaker
<b>Frequency</b>	47 – 65 Hz		
<b>Efficiency</b>	98%	Note: Optional accessories added may affect dimension, subject to confirmation.	
<b>Power Factor</b>	Any lagging to 0.95 leading	Note: 1) 208V options available on order 2) Special voltage configurations available on order 3) Higher KVA rating options available on order	
<b>Surge ratings</b>	5 x max current rating for 1 second 2 x max current rating for 20 seconds 1.5 x max current rating for 2 minutes		
<b>Surge Suppression</b>	Protect loads against high-energy (Spike) and transient voltage.		
<b>Surge Arrester</b>	40KA at 415V AC Class III (IEC 61643-1:1998-02, EN 61643-11:2001)		
<b>Total Harmonic Distortion</b>	Less than 1%		
<b>Independent Phase Control</b>	Maintain each phase voltage stable irrespective of load unbalance.		
<b>Environment</b>	Temperature range –15 to 50 °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.		
<b>Construction</b>	Enclosures to IP20, BS5490/IEC529		
<b>Conformance</b>	BS 6527, BS6667, IEEE587		
<b>CE Conformity</b>	EN55011, EN61000-6-1,		
<b>Warranty</b>	1 Year		



### Model: CVC – PRS Constant Voltage Compensator PARALLEL REDUNDANT SYSTEM

Model:	Rating KVA	Model:	Rating KVA
CVC-PRS-15H-3P-S	15	CVC-PRS-300H-3P-S	300
CVC-PRS-20H-3P-S	20	CVC-PRS-350H-3P-S	350
CVC-PRS-30H-3P-S	30	CVC-PRS-400H-3P-S	400
CVC-PRS-45H-3P-S	45	CVC-PRS-450H-3P-S	450
CVC-PRS-50H-3P-S	50	CVC-PRS-500H-3P-S	500
CVC-PRS-60H-3P-S	60	CVC-PRS-550H-3P-S	550
CVC-PRS-75H-3P-S	75	CVC-PRS-600H-3P-S	600
CVC-PRS-80H-3P-S	80	CVC-PRS-650H-3P-S	650
CVC-PRS-90H-3P-S	90	CVC-PRS-700H-3P-S	700
CVC-PRS-100H-3P-S	100	CVC-PRS-750H-3P-S	750
CVC-PRS-150H-3P-S	150	CVC-PRS-800H-3P-S	800
CVC-PRS-200H-3P-S	200	CVC-PRS-900H-3P-S	900
CVC-PRS-250H-3P-S	250	CVC-PRS-1000H-3P-S	1000

Note: 1) Weight and dimensions upon request  
2) 200V & 208V options available on order.  
3) Special voltage configurations available on order  
4) Higher KVA rating options available on order