

Outdoor AC Constant Voltage Compensators / Outdoor AC Automatic Booster Transformers

Installations with long cable runs have an inherent problem of developing high voltage drop across their cables. To overcome this, it is necessary to select and use larger sized electrical cables in order to reduce such voltage drop to an acceptable level.

IEE Regulations stipulate that a volt drop should be no more than 4% which means that for a 3 phase 400V system, the drop across any length of cable shall not exceed 16 Volts. Therefore design engineers have to use larger cable size to cater for this drop. However, they also have to take the mains supply voltage fluctuations into consideration. Typically mains fluctuations is expected to be +/-6%. This means the engineer has to cater to wider voltage drop than necessary, leading to a larger size cable and this can be a very costly affair.

Our **Ashley-Edison's Outdoor Constant Voltage Compensators** have been carefully designed with this application in mind. The New Parallel Redundant **Voltage Regulation Control Module (VRCM)** is incorporated on each phase of the Compensator. Should one Module fail or malfunction, the other parallel Module will operate automatically **without causing interruption to the load** and also without affecting capacity. The other phases not affected will still operate as normal. This will ensure that the voltage control is regulated continuously. This feature is especially useful for critical load application. Downtime is minimized.

With the Compensator installed at the end of the cable line:

- This Voltage Drop problem will be resolved - voltage will be 'compensated' / boosted up to the required voltage.
- End voltage will be kept constant all the time, automatically, from no-load to full-load.
- Load change will not have any effect on this voltage - with the compensator installed, this voltage is kept constant continuously, automatically.
- Cable sizing is therefore reduced to a more affordable level. Cable installation is made more convenient due to smaller cable size.

New, improved design enhances Compensator reliability with their proven, field-tested Parallel Redundant **Voltage Regulation Control Module (VRCM)** and serves as an added advantage of reducing inconvenient and expensive downtime.

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

Models:

High Voltage (H) Models

380/220V; 400/230V or 415/240V
(Three Phase)

Low Voltage (L) Models

200/115V; 208/120V or 220/127V
(Three Phase)

Features:

- **Wide Range of Constant Voltage Compensator**
Three Phase Up to 1000KVA
- **Input Voltage Range available from :**
(S1) 373V ~ 430V
(S2) 352V ~ 430V
(S3) 332V ~ 430V
(S4) 311V ~ 430V
(S5) 290V ~ 430V
(To Specify)
- **Output Voltage Regulation**
Output Voltage Accuracy $\pm 1\%$.
- **High Efficiency**
Better than 98%
- **Independent Phase Control Circuit**
Sensing on all Individual Three Phases
- **Standard Protection Features**
Input circuit breaker
Bypass control switch
Over/low voltage protection
Phase-failure protection
Voltmeter / Selector switch (Internal)
Soft Switch-ON
- **Optional Accessories**
Output circuit breaker
Ammeter / Selector switch
Frequency meter
Manual maintenance bypass switch
- **Compliance with International Standards**
BS EN50081-1;2/IEC 61000-4-3;4
BS EN5490/IEC 60529
- **CE Conformity**
EN55022,EN50082-2,ENV50140-1
- **Warranty**
2 Years

Applications

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

OCVC-TM SERIES THREE PHASE 6KVA ~ 1000KVA



Utilizing Advanced Digital Controller

Eliminate Voltage Drop in Long Cable Run and SAVE on Cable Cost



Outdoor AC Constant Voltage Compensators

Technical Specifications

Input Voltage Range	*S1 - 373V ~ 430VAC, 3 Phase 4 Wire (3P+N) S2 - 352V ~ 430V S3 - 332V ~ 430V S4 - 311V ~ 430V S5 - 290V ~ 430V, (To Specify)	Soft Switch-ON	Ensure that the output voltage is at its minimum upon Switch-On before it commence full stabilization
Output Voltage	Pre-settable for any voltage between 380/220V; 400/230V or 415/240V	Parallel Redundancy Module	Should one of these Control Units (VRCM) malfunction or fail, the Voltage Compensator will operate at 50% without affecting the compensator operation and without affecting capacity
Output Voltage Accuracy	± 1%	Environment	Temperature range -15 to 50 °C. Derate by 2% for each additional °C Up to max 65 °C. Suitable for indoor tropical use 95% RH (non-condensing). Maximum altitude 1000m. Derate by 2.5% for each additional 500m
Frequency	47 – 65 Hz	Standard Features	Input circuit breaker Over/Low voltage protection Phase failure protection Bypass control switch Voltmeter/selector switch (internal)
Response Time	<1.5ms	Construction	Enclosures to IP54, BS EN5490 / IEC 60529
Correction Time	A 10% supply variation will be corrected to within 2.5% in 0.6 seconds	EMC Conformance	BS EN50081-1;2 / IEC 61000-4-3;4
Efficiency	98%	CE Conformity	EN55022, EN50082-2, EN50140-1
Power Factor	Any lagging to 0.95 leading	Optional Accessories	Output circuit breaker Ammeter/selector switch Frequency meter Manual maintenance bypass switch
Surge ratings	10 x max current rating for 2 seconds 3 x max current rating for 1 minutes 2 x max current rating for 5 minutes	Note: Optional accessories added may affect dimension, subject to confirmation.	
Surge Suppression	Protect loads against high-energy spikes and transient voltage.	Note: 1) 208V 3Phase 3Wire or 4Wire options available on order 2) Special voltage configurations available on order 3) Higher KVA rating options available on order	
Surge Arrester	40KA at 415V AC Class III (IEC 61643-1:1998-02, EN 61643-11:2001)		
Total Harmonic Distortion	<1%		
Independent Phase Control	Maintain each phase voltage stable irrespective of load unbalance, even up to 100% load unbalance		

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Three Phase Model: OCVC-H-3P-S*-TM

Model:	Rating KVA	Amps @ 380V	Amps @ 400V	Amps @ 415V	Dimensions (mm) W x H x D	Weight (Kgs)
OCVC 6H-3P-S	6	9.1	8.7	8.3	Dimensions and Weight upon request	
OCVC 10H-3P-S	10	15.2	14.4	13.9		
OCVC 15H-3P-S	15	22.8	21.6	20.9		
OCVC 20H-3P-S	20	30.4	28.9	27.8		
OCVC 25H-3P-S	25	38	36.1	35		
OCVC 30H-3P-S	30	46	43	42		
OCVC 35H-3P-S	35	53	51	49		
OCVC 40H-3P-S	40	61	58	56		
OCVC 45H-3P-S	45	68	65	63		
OCVC 50H-3P-S	50	76	72	70		
OCVC 55H-3P-S	55	84	79	77		
OCVC 60H-3P-S	60	91	87	83		
OCVC 75H-3P-S	75	114	108	104		
OCVC 80H-3P-S	80	122	115	111		
OCVC 90H-3P-S	90	137	130	125		
OCVC 100H-3P-S	100	152	144	139		
OCVC 120H-3P-S	120	182	173	167		
OCVC 150H-3P-S	150	228	216	209		
OCVC 180H-3P-S	180	273	260	250		
OCVC 200H-3P-S	200	304	289	278		
OCVC 250H-3P-S	250	380	361	348		
OCVC 300H-3P-S	300	456	433	417		
OCVC 350H-3P-S	350	532	505	487		
OCVC 400H-3P-S	400	608	577	556		
OCVC450H-3P-S	450	684	649	626		
OCVC 500H-3P-S	500	760	722	695		

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