AVC SET DVR 300, 600 and 900 kVA 40%

Voltage sag compensation systems to assure the continuity of industrial processes

Description

AVC SET DVR is an innovating system designed to mitigate and eliminate the effect of electrical disturbances on critical industrial processes through the elimination of sags and transitory overvoltages.
Power generation, transport and distribution systems are limited and their problems can affect production processes as well as to produce economic consequences.
AVC SET DVR guarantees the quality of the network, meeting the demands of industrial production processes, keeping stable & constant the output voltage regardless of input voltage variations.

AVC SET DVR is a flexible voltage compensator capable of correcting variations of input voltage, to offer a highly stable voltage (± 0,5%) with immediate response (<3msec).
It consists of a transformer, a reversible rectifier unit, plus an inverter. The aim of the AVC SET DVR is to offset disturbances, voltage imbalances, and to regulate them in case of possible fluctuations and overvoltages.
The system also supervises controls and logs all events.
The output voltage stabilisation is assured both for balanced (all three phases) and unbalanced (some of the phases) voltage variations.

AVC SET DVR 300 kVA 40%

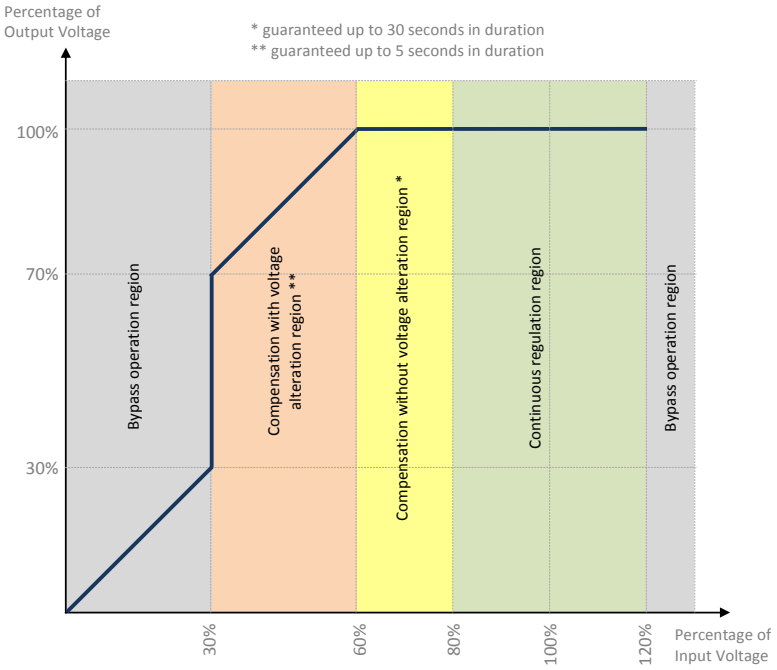
Features of AVC SET DVR series

- Mitigate three-phase voltage sags up to 70% of depth or one-phase interruptions.
- Continuous operation to offer high stabilization (± 0.5%)
- High efficiency supply system >98.5%
- From 30 to 900 kVA (other on demand)
- Minimises the required investment
- It does not require battery or other energy storage components
- Compensation of voltage sags even for long times (up to 30 sec)
- Swell compensation up to +20%
- Compensation irrespective of phase
- Compensation of balanced and unbalanced voltage drops
- Automatic bypass
- Withstand 150% overload for 1 sec
- Less than 3ms response
- Energy flow in both directions
- Improved response in time
- Reduction of operating costs
- Guarantees maximum sturdiness of the system
- Never interrupts service
- Modular design which facilitates maintenance and repairs
- Easy for connecting in parallel up to 3 equipments
- Mitigate voltage sags according the standards: SEMI F47, IEC 61000-4-11 and IEC 61000-4-34 (depend on the model)
- Turnkey project: tailor-made design for special needs

GENERAL SPECIFICATIONS			
Model	**AVC SET DVR 300 kVA 40%**	**AVC SET DVR 600 kVA 40%**	**AVC SET DVR 900 kVA 40%**
System	Master	Master + 1 slave	Master + 2 slaves
INPUT			
Nominal voltage (1) (2) (3)	208/380/400/415/480 Vac		
Admissible voltage range (4)	+ 20% - 40%		
Admissible frequency	50/60 Hz ±10%		
OUTPUT			
Power	300 kW/kVA	600 kW/kVA	900 kW/kVA
Voltage (1) (2) (3)	208/380/400/415/480 Vac ±0.5%		
Frequency	50/60 Hz programmable		
Response time	< 3 msec		
Transfer time to bypass	< 0,5 msec		
Overload	110% during 30 seconds, 150% during 1 second		
THREE-PHASE CORRECTION CAPABILITY (4)			
Range for continuous regulation	± 20% V_{nom}		
Maximum sag without voltage alteration	40% V_{nom}, up to 30 seconds in duration		
Maximum sag without switching to bypass	70% V_{nom}, up to 5 seconds in duration (5)		
OTHERS			
Maximum efficiency	98,5%		
Dielectric rigidity	2,5 kV – 1 minute		
Communications	Standard: Web HTTP, SNMP, ModBus; Optional: modem or router		
Control panel	Touch screen		
Protections	Short-circuits, current limitation, overload, RFI filter, required disconnections		
Maintenance switch	Only Master system: optional ; Parallel system: Yes		
Protection	IP 21		
Cooling	Forced ventilation		
Noise	<65 dB		
Working temperature	0~40ºC		
Altitude	< 1000m		
Relative Humidity	0-95%		
STANDARDS			
Certifications	CE		
Directives	UNE-EN 50178 (98), EN 61000-6-2, EN 61000-6-3		
DIMMENSIONS AND WEIGHTS (2)			
Dimensions (high x wide x depth)	2145x1215x665 mm	2145x3270x665 mm	2145x4915x665 mm
Weight	1050 kg	2400 kg	3550 kg
MANUAL BYPASS CABINET (2)			
Availability	Optional	Included	Included
Dimensions (high x wide x depth)	2145x616x665 mm	-	-
Weight	250 kg	-	-

(1) Other voltages on demand
(2) If voltage is not 380/400/415V, an input transformer will be necessary. Consult dimensions and weights
(3) In case of 415V and without input transformer, the upper limit of admissible voltage is +15%
(4) Other dynamic response to voltage sags, on demand
(5) Depending on AC input breaker protection and AC network impedance

Specifications may be changed without notice.



Three-phase correction capability curve of AVC SET DVR 300/600/900 kVA 40%