VOLTAGE SAG COMPENSATION SYSTEM

AVC SET DVR 60, 120 and 180 kVA 30%

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 a continuous regulation for minor disturbances.
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 60 kVA 30%

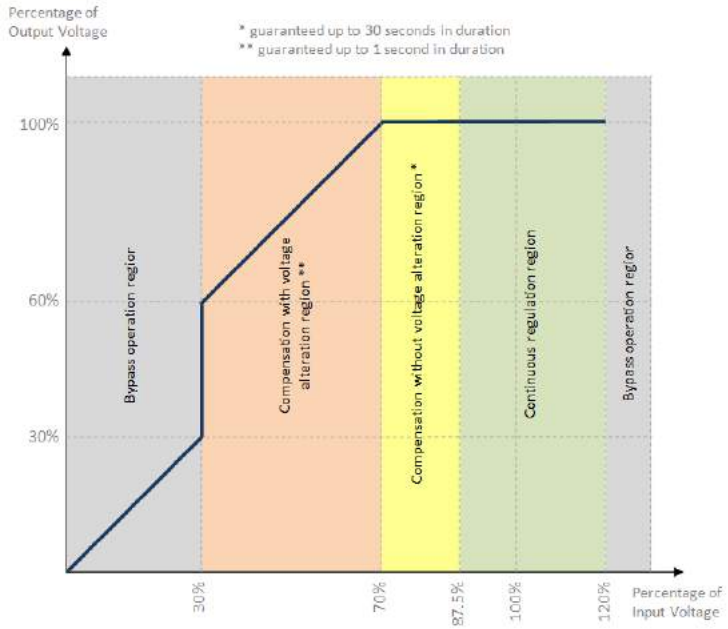
Features of AVC SET DVR series

- Mitigate three-phase voltage sags up to 70% of depth
- Continuous operation to offer high stabilization (± 0.5%)
- High efficiency supply system >98%
- 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
- Turnkey project: tailor-made design for special needs

GENERAL SPECIFICATIONS			
Model	**AVC SET DVR 60 kVA 30%**	**AVC SET DVR 120 kVA 30%**	**AVC SET DVR 180 kVA 30%**
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% - 30%	
Admissible frequency		50/60 Hz ±10%	
OUTPUT			
Power	60 kW/kVA	120 kW/kVA	180 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		± 12,5% V_{nom}	
Maximum sag without voltage alteration		30% V_{nom}, up to 30 seconds in duration	
Maximum sag without switching to bypass		70% V_{nom}, up to 1 second in duration (5)	
OTHERS			
Maximum efficiency		98%	
Dielectric rigidity		2,5 kV – 1 minute	
Communications		Standard: Web HTTP, SNMP, ModBus; Optional: modem or router	
Control panel		Display, keyboard and leds	
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)	1495x653x703 mm	2095x1306x703 mm	2095x1959x703 mm
Weight	330 kg	760 kg	1140 kg
MANUAL BYPASS CABINET (2)			
Availability	Optional	Included	Included
Dimensions (high x wide x depth)	700x653x703 mm	-	-
Weight	50 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 60/120/180 kVA 30%