Sr. No	Digital SCVS	Analog SCVS	Digital Feature Advantage
1	Microchip controller as heart of control board, 20X4 LCD for runtime electrical parameter display and metering	Separate Analog / Digital meter needs for metering	Higher reliability and performance, easy for user to monitor all parameters and fault details to take preventive actions
2	Front panel control for parameter setting	Factory set, can't change	Easy to change output parameter as per customer need
3	Intelligent enough to control overload based on system KVA rating	Factory set only	System will not be allowed more than system power rating other than set overload setting. System and load can be saved from hazard
4	Output voltage upper and lower cutoff based on output set value	Factory set only	Load will be always safe from the output over voltage in case of change in set output voltage, controller itself will take min/max threshold value
5	Individual message for each fault	Common indication for any fault	Easy for user to recognize unhealthy status of servo or load. User can take preventive action based on this indication
6	Single board for control and conditioning	Separate board for control and conditioning	Less component count and board to reduce failure probability
7	On board buzzer	External buzzer with complex hardware logic	User will get buzzer for all kinds of faults to recognize system status without visualizing
8	Buzzer control from front panel	No control	User can control the buzzer as per their need
9	Easy for wiring and maintenance	Complex than Digital control	Reduced wiring will increase reliability in the system, lesser probability of failure or malfunction
10	Fault history storage capability for all faults, can store No. of faults occurred during operation	No history	This is great feature of Digital controller, user will always be aware with load performance input line conditioning. User himself can take preventive actions. This will reduce time to repair system.
11	Can store absolute maximum voltage and current parameters to take preventive action	No such record	This will provide correct information of how much maximum voltage and load current can be sustained by the system. From this preventive action can be taken for the load
12	SCVS ON / OFF control through Front panel soft key for maintenance	Separate hardware for manual operation	User can start and stop output without switch on and off input supply, can do maintenance from line side
13	Independent output control through single board, no separate card required for cutoff, phase sequence error	Three different control and cutoff card required to achieve this requirement	Less component count and board to reduce failure probability
14	RS232 / 485 serial communication with auto baud rate feature for remote configuration as well as monitoring. Can make SCVS on and off as well as can get all system status and history from remote place	No such PC communication	User can check status of the servo from the PC itself and need not go to servo and check the parameters. With RS485 more than one system parameters can be checked in PC. User can start and stop servo from the PC itself. This will generate system status and fault history report to understand line and load voltage behavior
15	System in manual mode alarm message in case the system is bypassed through digital control	No	This feature will help user to remind system is in manual mode, by mistake if user forgets to change from manual to auto mode system will not regulate respected line output and can damage load
16	Carbon loss indication for easy preventive action and maintenance	No	User will come to know that carbon brush has damaged (this will lead system output to be very high voltage) and can ask for early preventive action, load will be safe in case of carbon failure
17	Can set SCVS Sr. No. and commission date information for easy maintenance	No	User can check system history like Sr. No., installation date and ask for preventive maintenance