Comparison

Comparison		SSW05	SSW06	SSW07	SSW08	SSW900
Current range		3 - 85 A	10 - 1,400 A	17 - 412 A	17 - 412 A	10 - 1,400 A
Power supply	Power voltage	220 - 460 V ac (+10%, -15%) 460 - 575 V ac (+10%, -15%)	220 - 575 V ac (+10%, -15%) 220 - 690 V ac (+10%, -15%)	220 - 575 V ac (+10%, -15%)	220 - 575 V ac (+10%, -15%)	220 - 575 V ac (+10%, -15%)
	Frequency	50 / 60 Hz	50 / 60 Hz (±10%)	50 / 60 Hz (±10%)	50 / 60 Hz (±10%)	50 / 60 Hz (±10%)
	Control voltage	90 - 250 V ac	110 - 230 V ac (+10%, -15%)	110 - 240 V ac (+10%, -15%)	110 - 240 V ac (+10%, -15%)	110 - 240 V ac (+10%, -15%)
Protection rating		IP00	IP00 (optional IP20 kit)	IP20 up to 85 A IP00 above 85 A (optional IP20 kit)	IP20 up to 85 A IP00 above 85 A (optional IP20 kit)	IP20 up to 85 A IP00 above 85 A (optional IP20 kit for frames C and D)
Overload duty	Normal	300% for 10 s, 4 starts per hour	Up to 670 A: 300% for 30s, 10 starts per hour Above 820 A: 300% for 30s, 5 starts per hour	300% for 30s, 10 starts per hour (frames A and D standard or frames B and C with ventilation kit)	300% for 20s, 10 starts per hour (frames A and D standard or frames B and C with ventilation kit)	Up to 412 A: 300% for 30s, 10 starts per hour (frames A and D standard or B and C with ventilation kit) Above 480 A: 300% for 30s, 5 starts per hour.
Controlled phases		2 phases	3 phases	3 phases	2 phases	3 phases
Built-in bypass		Yes	Yes, up to 820 A	Yes	Yes	Yes
Inside delta connection		No	Yes, above 30 A	No	No	Yes, above 105 A
Initial voltage		30 - 80%	25 - 90%	30 - 90%	30 - 90%	25 - 90%
Starting time		Yes, 1 to 20s	Yes, 1 to 999s	Yes, 1 to 999s	Yes, 1 to 999s	Yes, 1 to 999s
Stoppage time		Yes, 1 to 20s	Yes, 1 to 999s	Yes, 1 to 240s	Yes, 1 to 240s	Yes, 1 to 999s
Braking methods	Reverse braking	No	Yes (requires two external contactors)	No	No	Yes (requires two external contactors)
	DC braking	No	Yes	No	No	Yes
	Optimal braking	No	Yes	No	No	Yes
Control types	Voltage ramp	Yes	Yes	Yes	Yes	Yes
	Current ramp	No	Yes	No	No	Yes
	Current limit	No	Yes	Yes	Yes	Yes
	Kick-start	No	Yes	Yes	Yes	Yes
	Torque control	No	Yes	No	No	Yes
	Pump control	No	Yes	No	No	Yes
Inputs	Digital	2 (110 - 230 V ac), one of those is programmable	6 (24 V dc) programmable	3 (110 - 240 V ac) programmable	3 (110 - 240 V ac) programmable	5 (24 V dc) programmable
	PTC input	No	Yes (standard)	Yes (optional kit)	Yes (optional kit)	Yes (standard)
Outputs	Relay	1 relay output with NO contact, 250 V ac, 1 A, programmable	2 relay outputs with NO contact and 1 with NO/NC contact, 240 V ac, 1 A, programmable	2 relay outputs with NO contact, 240 V ac, 1 A, programmable	2 relay outputs with NO contact, 240 V ac, 1 A, programmable	2 relay outputs with NO contact and 1 with NO/NC contact, 240 V ac, 1 A, programmable
	Analog	No	1 programmable (1x 0-10 V dc) 1 programmable (1x 4-20 mA)	No	No	1 programmable (1 x 0-10 V dc or 1 x 4-20 mA)
Interfaces		RS232C[1)]	USB[2)], CAN[2)], RS232[3)], Ethernet[2)] or RS485[2)]	CAN[2)], RS232[2)] or RS485[2)]	CAN[2)], RS232[2)] or RS485[2)]	USB[3)], CAN[2)], Ethernet[2)] , RS485[2)] or Bluetooth[2)]
Fieldbus Protocols		Modbus-RTU	DeviceNet, Profibus DP, Profibus DP-V1, EtherNet/IP, Modbus-TCP and Modbus-RTU	Modbus-RTU and DeviceNet	Modbus-RTU and DeviceNet	DeviceNet, Profibus DP, Profibus DP-V1, EtherNet/IP, Modbus-TCP, PROFINET IO, CANopen and Modbus-RTU
HMI		Optional, remote LED display	Built-in 7-segment LED display Optional: local or remote LCD display	Optional, local or remote LED display	Optional, local or remote LED display	Built-in detachable local HMI with graphic LCD display. HMI with Bluetooth connectivity available as an accessory item.

Notes: 1) Built-in interface for conection with external HMI or with RS485 network (using MIW02 accessory).
2) Available with an accessory.
3) Available as standard.

Comparison

Comparison		SSW05	SSW06	SSW07	SSW08	SSW900
Protections		Phase loss	Phase loss in the power supply and in the motor	Phase loss in the power supply and in the motor	Phase loss in the power supply and in the motor	Phase loss in the power supply and in the motor
		Locked rotor	Locked rotor	Locked rotor	Locked rotor	Locked rotor
		Motor overload	Motor overload	Motor overload	Motor overload	Motor overload
		Overcurrent	Over and undercurrent in the motor	Over and undercurrent in the motor	Over and undercurrent in the motor	Over and undercurrent in the motor
		-	Overtemperature in the motor and in the soft-starter	Overtemperature in the motor and in the soft-starter	Overtemperature in the motor and in the soft-starter	Overtemperature in the motor and in the soft-starter
		-	Fault in the thyristor	Fault in the thyristor (overheating)	Fault in the thyristor (overheating)	Fault in the thyristor
		Phase sequence	Phase sequence	Phase sequence	Phase sequence	Phase sequence
		-	Undervoltage in the electronics	Undervoltage in the electronics	Undervoltage in the electronics	Undervoltage in the electronics
		-	Fault in the bypass	Fault in the bypass	Fault in the bypass	Fault in the bypass
		-	Under and overcurrent before the bypass closes	Overcurrent before the bypass closes	Overcurrent before the bypass closes	Under and overcurrent before the bypass closes
		-	Supply line frequency out of the range	Supply line frequency out of the range	Supply line frequency out of the range	Supply line frequency out of the range
		-	Voltage and current imbalance	Voltage and current imbalance	Voltage and current imbalance	Voltage and current imbalance
		Internal fault	Internal fault	Internal fault	Internal fault	Internal fault
		-	Warning for alarms before going into fault	-	-	Warning for alarms before going into fault
		-	Under and overvoltage in the power	-	-	Under and overvoltage in the power
		-	Ground fault	-	-	Ground fault
		-	Motor not connected	-	-	Motor not connected
		-	Motor wrong connection	-	-	Motor wrong connection
		-	Under and overtorque	-	-	Under and overtorque
		-	Over and underpower	-	-	Over and underpower
		-	Starting time exceeded	-	-	Starting time exceeded
Ambient conditions	Temperature	0 - 55 °C without derating	Up to 820 A: 0 - 55 °C without derating Above 820 A: 0 - 40 °C without derating	0 - 55 °C without derating	0 - 55 °C without derating	0 - 55°C without derating (frames A to D) 0 - 40 °C without derating (frames E, F and G)
	Humidity	0...90% non-condensing	20...90% non-condensing	5...90% non-condensing	5...90% non-condensing	5...90% non-condensing
	Altitude	Up to 1,000 m without derating	Up to 1,000 m without derating	Up to 1,000 m without derating	Up to 1,000 m without derating	Up to 1,000 m without derating
		1,000 - 4,000 m with 1% derating every 100 m	1,000 - 4,000 m with 1% derating every 100 m	1,000 - 4,000 m with 1% derating every 100 m	1,000 - 4,000 m with 1% derating every 100 m	1,000 - 4,000 m with 1% derating every 100 m
Other resources	Communication with PC	Yes	Yes	Yes	Yes	Yes
	SoftPLC function	No	Yes	No	No	Yes