



### Main Features

Reference	: SSW900D0412T5E3B
Product code	: 15824975
Product family	: SSW900

### Basic data

Power	
- Rated current	: 412 A
- Power supply	: 220-575V
- Power supply type	: TT / TN / IT
- Frequency	: 50/60Hz
- Number of controlled phases	: 3 phases
- Integrated bypass	: Yes

### Motor power - standard connection (cv/kW)

- 220/230V	: 150 / 110
- 380/400V	: 300 / 225
- 440/460V	: 350 / 260
- 575V	: 450 / 330
- 690V	: No

### Motor power - delta inside connection (cv/kW)

- 220/230V	: 250 / 185
- 380/400V	: 500 / 370
- 440/460V	: 600 / 450
- 575V	: 800 / 600

### Electronic and fan

Supply voltage (control)	: 110-130V
Supply voltage (cooler)	: 110-130V

### Connection to the motor

- Standard (3 leads)	: Yes
- Inside delta (6 leads)	: Yes

### Duty cycle

- Estándar [1]	: AC-53b 3-30:330
- With ventilation kit [2]	: No

### Digital inputs

- Quantity (standard)	: 6
- Type	: DC NPN / PNP
- Voltage	: 24 Vdc
- Minimum high level	: 18 Vdc
- Maximum low level	: 3 Vdc
- Maximum voltage	: 30 Vdc
- Input current	: 11 mA @ 24 Vdc
- Function	: Programmable
- Reading via communication	: Yes

### Input for motor thermistor

- Quantity (standard)	: 1
- Activation	: 3k9 Ohms
- Deactivation	: 1k6 Ohms
- Minimum resistance	: 100 Ohms

### Analog outputs

- Quantity (standard)	: 1
- Level	: 0 to 10 Vdc and 0 to 20 mA
- Resolution	: 10 bits
- Function	: Programmable
- Write via communication	: Yes

### Digital outputs

- Quantity	: 3
- Type	: 2 x NO relay, 1 NO/NC relay
- Maximum voltage	: 250 Vac
- Maximum current	: 1 A
- Function	: Programmable
- Write via communication	: Yes

### Functions and Features

#### Control type start and stop

- Voltage ramp	: Yes
- Voltage ramp and current limit	: Yes
- Current limit	: Yes

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- Current limitation ramp : Yes
- Pump control : Yes
- Torque control : Yes
- Direct on line start : Yes

### Functions/Features

#### Specials functions

- Torque pulse at start (kick start) : Yes
- Jog : Yes
- DC braking (with contactor) : Yes
- Optimal Braking (without contactor) : Yes
- Reverse braking : Yes
- Changing of the rotation direction : Yes
- Multimotor application : No
- Emergency start (Fire Mode) : Yes

#### Diagnosis

- Latest faults : Yes, LOG
- Starting and cycle diagnosis : Yes
- Last previous faults : Yes
- Last previous alarms : Yes
- Last previous events : Yes

#### Others

- Set-up of the programmable fan : Yes
- Copy of the parameters via keypad : Yes
- User 1 and user 2 : Yes
- Oriented Start-up : Yes
- Protections actuation in errors and alarms : Yes
- Fault auto reset : Yes
- Real time clock (RTC) : Yes
- SoftPLC (ladder programming) : Yes, 4K bytes

#### Slots (para accessories options)

- Quantity : 2
- Digital inputs and outputs expansion : No
- PTC inputs : No
- Pt-100 inputs : No
- Current sensor (by extern bypass) : No

#### Communications (see Communication)

##### Protections

###### Voltage

- Power supply phase loss : Yes
- Overvoltage and undervoltage : Yes
- Voltage imbalance : Yes
- Electronic undervoltage (control) : Yes

###### Current

- Overcurrent and undercurrent : Yes
- Current imbalance : Yes

###### Torque

- Overtorque e undertorque : Yes

###### Potencia

- Overpower and underpower : Yes

##### Temperature

- Thyristor overheating : Yes
- PTC thermistor motor overheating : Yes
- PT100 thermocouple motor overheating : No

##### Overload

- Motor overload (thermal class) : Yes
- Thyristor overload : Yes
- Inverted phase sequence : Yes
- External fault : Yes
- Not connected motor : Yes
- Wrong motor connection : Yes
- Frequency out of range : Yes

##### Ground fault

- Ground fault : No

##### Bypass

- Bypass not opened : Yes
- Bypass not closed : Yes
- Overcurrent before closing the bypass : Yes
- Undercurrent before closing the bypass : Yes

##### Time

- Time before starting : Yes
- Time after starting : Yes
- Time between starting : Yes
- Locked rotor at start : Yes

##### Communications

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- Programming error : Yes
- Communication faults : Yes
- Potencia
- Power short circuit with motor switched off : Yes
- Thyristor fault : Yes
- Hardware self-diagnosis : Programmable via optional

### Parameterization

- Parameterization via trim pots and dip switches : No
- Parameterization via keypad : Yes
- Parameterization via software : WPS

### Local HMI

- Type : Yes, removable

### Remote HMI

- Type : Local removable
- Frame for HMI : Optional
- HMI degree of protection : IP56
- Maximum cable length : 20 m / 65.6 ft

### Local or remote HMI data

- Display : LCD graphic
- Keys : 12 keys
- Password : Yes
- Language : Yes
- Help : Yes
- Copy function : Yes
- Status graphic (read) : Yes
- HMI USB : Yes

### Communication

- Modbus-RTU RS-232 : No
- Modbus-RTU RS-485 : Available with optional
- Modbus-RTU USB : Yes
- WEG Bus : No
- Modbus-TCP : Available with optional
- Profibus-DP : Available with optional
- Profibus-DPV1 : Available with optional
- Profinet : Available with optional
- DeviceNet : Available with optional
- EtherNet/IP : No
- EtherNet/IP 2P : Available with optional
- Profinet IO 2P : Available with optional
- CANopen : Available with optional

### Ambient conditions

- Enclosure : IP00
- Pollution degree (UL 508) : 2

### Temperature

- Minimum : -10 °C / 14 °F
- Rated : 55 °C / 131 °F
- Current reduction factor above nominal [3] : 2% for each degree

### Relative humidity (non-condensing)

- Minimum : 5 %
- Maximum : 90 %

### Altitude

- Under rated operating conditions : 1000 m (3281 ft)
- Maximum allowed with reduction factor [4] : 4000 m (13123 ft)
- Current reduction factor above 1000 m [5] : 1 % for each 100 m (328 ft)
- Voltage reduction factor above 2000 m [6] : 1.1 % for each 100 m (328 ft)

### Dimensions

- Frame : D
- Height : 331 mm / 13.0 in
- Width : 227 mm / 8.9 in
- Depth : 282 mm / 11.1 in
- Weight : 12.83 kg / 28.3 lb

### Sustainability Directives

- RoHS : Yes
- Conformal coating : 3C2

### Standards Compliance

- Safety : UL 508
- Low voltage : EN 60947-4-2
- Overvoltage category : III (UL508 / EN61010)
- EMC : Directive 89/336/EEC

### Certifications

- Product certification : UL, CE

### Notes

- 1) Starting duty cycle AC-53b 3-30:330:

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- 3 x Rated current of the SSW900 during 30 s;
  - 10 starts per hour;
  - 100% of the time with rated current;
  - With bypass;
  - from 0 to 55 °C without current derating
- 3) For temperature over the rated value;
  - 4) With reduction factor;
  - 5) For altitude above 1000 m (3281 ft);
  - 6) For altitude above 2000 m (6562 ft);
  - 7) Image merely illustrative;
  - 8) For further information consult the product manuals SSW900.