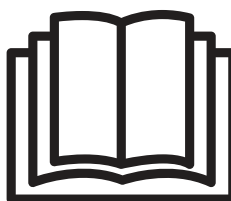
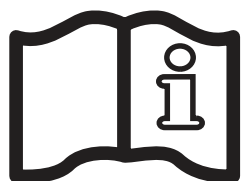
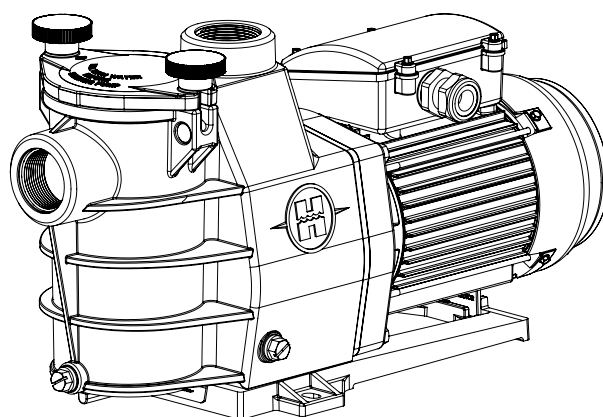
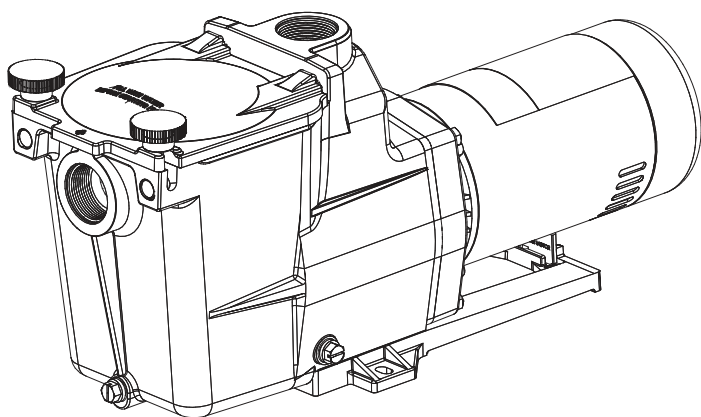




HAYWARD®



**GUIDE DE L'UTILISATEUR
USER'S GUIDE
MANUAL DEL USUARIO
MANUAL DO UTILIZADOR
ANWENDERHANDBUCH
GEBRUIKERSHANDLEIDING
MANUALE D'USO
ANVÄNDARHANDBOK
РУКОВОДСТВО ПО ЭКСПЛУАТАЦИИ**



WARNING: Electrical Hazard. Failure to follow instructions can result in serious injury or death. FOR USE WITH SWIMMING POOLS

⚠ WARNING – Disconnect the pump from the main power supply completely before servicing the pump or filter.

⚠ WARNING – All electrical connections must be done by a qualified electrician according to local electrical standard.

F	NF C 15-100	GB	BS7671:1992
D	DIN VDE 0100-702	EW	EVHS-HD 384-7-702
A	ÖVE 8001-4-702	H	MSZ 2364-702:1994 / MSZ 10-533 1/1990
E	UNE 20460-7-702 1993, REBT ITC-BT-31 2002	M	MSA HD 384-7-702.S2
IRL	IS HD 384-7-702	PL	PN-IEC 60364-7-702:1999
I	CEI 64-8/7	CZ	CSN 33 2000 7-702
LUX	384-7.702 S2	SK	STN 33 2000-7-702
NL	NEN 1010-7-702	SLO	SIST HD 384-7-702.S2
P	RSIUEE	TR	TS IEC 60364-7-702

⚠ WARNING – Be certain the machine is only plugged into a protected 230 V_~ outlet that is protected from short-circuits. The pump is to be supplied by an isolating transformer or supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.

⚠ WARNING – Children should be supervised to ensure that they do not play with the appliance. Keep fingers and foreign objects away from openings and moving parts.

⚠ WARNING – Motor must be suitably grounded. Connect ground wire to green grounding screw and for cord connected units use properly grounded outlet.

⚠ WARNING – Use a motor bonding lug to connect motor with other bonded parts using the appropriate size conductor as required by electrical codes.

⚠ WARNING – When making these electrical connections, refer to the diagram given under the lid of the motor terminal box. Be sure to check the electric connections are tight and sealed before powering up. Replace all covers before operation.

⚠ WARNING – Make sure that the power supply voltage required by the motor corresponds to that of the distribution network and that the power supply cables matches the power and current of the pump.

⚠ WARNING – Read and follow all instructions in this owner's manual and on the equipment. Failure to follow instructions can cause serious injury or death. This document should be given to the owner of the swimming pool and must be kept by the owner in a safe place.

⚠ WARNING – The appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

⚠ WARNING – Cleaning and user maintenance shall not be made by children without supervision.

⚠ WARNING – The pump is intended for continuous operation at Maximum Water temperature 35°C.

⚠ WARNING – Use Only Genuine Hayward Replacement Parts.

⚠ WARNING – If the supply cord is damaged it must be replaced by the manufacturer, service agent, or similarly qualified persons in order to avoid a hazard.

⚠ WARNING – For disconnection from main power supply an external switch having a contact separation in all poles that provide a full disconnection under overvoltage category III conditions must be incorporated in the fixed wiring in accordance with the wiring rules.

⚠ WARNING – Do not operate the swimming pool pump if the power cord or the housing of the motor connection box is damaged. This can cause an electric shock. A damaged power cord or motor connection box must be replaced by a service agent or a similarly qualified person immediately in order to avoid a hazard.

⚠ WARNING – This pool motor is NOT equipped with a Safety Vacuum Release System (SVRS). SVRS helps prevent drowning due to body entrapment on underwater drains. In some pool configuration, if a person's body covers the drain, the person can be trapped by suction. Depending on your pool configuration, a SVRS may be required to meet local requirements.

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

REGISTRATION

Hayward thanks you for buying this product. This manual contains important information regarding the operation and maintenance of your product. Keep it carefully for future reference.

TO REGISTER YOUR PRODUCT, GO TO:

<http://www.hayward.fr/en/services/register-your-product>



For your information

Record the following information future reference, if necessary:

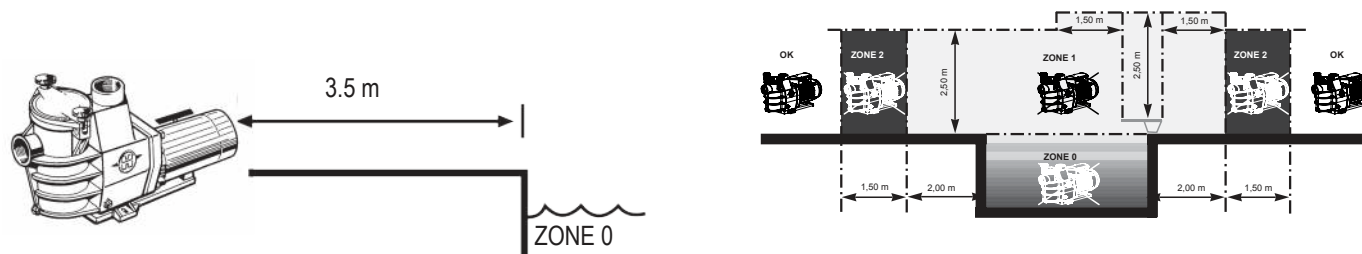
- 1) Date of purchase _____
- 2) Name _____
- 3) Address _____
- 4) Post Code _____
- 5) Email _____
- 6) Part number _____ Serial number _____
- 7) Dealer _____
- 8) Address _____
- 9) Post code _____ Country _____

Note



GENERAL POINTS

Install the pump at a suitable distance from the pool to reduce the distance between the suction point and the pump as much as possible to avoid pointless excessive pressure drops on the hydraulic circuit.
However, it is essential to comply with the safety distance required by the current installation standard (3.5 metres minimum).
Install and use the product at an altitude less than 2000m



Install the pump in a dry, well-ventilated place. The motor requires the air to circulate freely around it to allow natural ventilation. Check regularly that no objects, leaves or other debris are blocking the motor cooling system.

The pump must be installed to ensure that the external disconnection switch incorporated into the fixed unit is visible and easily accessible. The switch must be located near to the pump.

The pump must be permanently installed on a concrete base using 8mm lag screws suitable for concrete, screwed into drilled implantation holes. Lock washers must be used to prevent the installation lag screws working loose over time. If the pump has to be mounted on a wooden board, Ø 8mm hexagonal wood screws must be used combined with lock washers to prevent the screws working loose over time.

The acoustic pressure of Hayward pumps is less than 70dB (A).

Necessary measures:

- Connect the pump to the earth: Never operate the pump unless it is connected to the earth.
- Connect the pump with a H07RN-F 3G1mm² type cable (D max 7,8mm)
- Include a 30mA differential protection to protect people against electric shocks which may be caused by a breach of the equipment's electrical insulation.
- Include short-circuit protection (the rating is determined according to the value given on the nameplate on the motor).
- Include a means of disconnection from the power supply having an opening distance on the contacts of all the poles ensuring the power supply is completely cut off under the conditions of a category III overvoltage.

Single phase electric motor:

The single phase motors fitted to our pumps are provided with thermal protection. This protection operates on an overload or in the event of abnormal heating of the motor coil and is reset automatically when the winding temperature drops.

Three phase electric motor:

On three phased motors the internal heat protection (screw terminal blocks ) is to be connected serially in the pump's power contactor command line.

Check the running direction of the pump motor (a label is provided on the motor housing to indicate the motor running direction).

If so required by regulations and whatever the motor type, in addition to the devices mentioned above, it is also necessary to install a thereto-magnetic protective device calibrated in accordance with the indications on the motor name-plate.

The table on page 108 indicates the various characteristics of the motors fitted to our pumps.

Electrical connection: Make sure that the power supply voltage required by the motor corresponds to that of the distribution network and that the power supply cables matches the power and current of the pump.

All the electric connections of the pump and the possible change of power supply cable must be hand-led by a qualified professional so as to avoid all possible danger.

When making these electrical connections, refer to the diagram given under the lid of the motor terminal box.

Be sure to check the electric connections are tight and sealed before powering up.

The pre-wiring that might be included on some of the pumps must be removed for final connection of the pump to the electric power supply. This pre-equipment is only used for works testing during the manufacturing phases.

INSTALLATION

Install the pool pump so as to reduce pressure drops to a minimum whilst complying with the distances specified in the installation standard, namely 3.5m minimum between the pump and the pool. The suction pipe must be installed with a slight uphill incline towards the pump axis. Ensure that the connections are correctly tightened and watertight. However, avoid excessively tightening the pipes. For plastic materials, use Teflon only to ensure watertightness. The diameter of the suction pipe shall depend on that of the discharge pipe. Avoid damp or non-ventilated locations. The motor requires the cooling air to circulate freely.

IMPORTANT: Check the direction of rotation before permanently connecting the motor.

INSTRUCTIONS FOR START-UP AND PRIMING: Fill the body of the strainer with water up to the level of the suction pipe. Never run the pump without water, as the water is necessary for cooling and lubrication of the mechanical shutter. Open all the suction and discharge pipe valves, and the filter air purge valve if there is one. (Any air in the suction pipes must be eliminated). Start up the generator and wait a reasonable time for priming. Five minutes is not excessive for priming (this time depends on the suction head and the length of the suction pipe). If the pump does not start or does not prime, please refer to the troubleshooting guide.

MAINTENANCE

1. Completely disconnect the pump from the mains power supply before opening the cover and cleaning the strainer. Clean the strainer basket regularly. Do not bang on the basket to clean it. Check the seal on the cover of the strainer and replace it if necessary.
2. The motor shaft is mounted on self-lubricating bearings which do not require any subsequent lubrication.
3. Keep the motor clean and dry and ensure the ventilation openings are not blocked.
4. The mechanical shutter occasionally starts to leak and must then be changed.
5. Apart from cleaning the pool, all repairs, servicing and maintenance must be carried out by a Hayward-approved agent or a qualified person.

WINTERING

1. Empty the pump by removing all the drain plugs and store them in the strainer basket.
2. Disconnect the pump, remove the pipe connectors and store the entire unit in a dry, well-ventilated place or at least take the following precaution: disconnect the pump, remove the 4 bolts attaching the pump housing to the motor bracket and store the unit in a dry, well-ventilated place. Then cover the pump housing and strainer to protect them.

N.B.: Before recommissioning the pump, clean all the internal parts to remove dust, lime scale etc.

TROUBLESHOOTING

A) The motor does not start

1. Check the electrical connections, switches or relays, and the circuit breaker or fuses.
2. Ensure that the motor turns freely by hand.

B) The motor stops, check

1. The cables, connections, relays etc.
2. Voltage drop on motor (frequently caused by cables that are too small).
3. That there is no seizing or overheating (by reading the absorbed current).

N.B.: The motor on your pump is fitted with a thermal protection which, in the case of overload, will automatically cut the circuit and avoid the motor being damaged. This triggering is caused by abnormal usage conditions which need to be checked and corrected. The motor will restart without any intervention as soon as normal operating conditions are restored.

C) The motor growls but does not start, check that a phase is not cut, the capacitor is not damaged.

D) The pump does not prime

1. Ensure the strainer housing is filled with water, that the cover seal is clean and correctly positioned and that no air can enter. If necessary, tighten the cover lock screws.
2. Ensure that all the suction and discharge valves are open and not blocked and that the suction outlets in the pool are fully submerged.
3. Check that the pump draws by freeing the suction as close as possible to the pump:
 - a) if the pump does not draw despite being sufficiently full of priming water
 1. Tighten the bolts and pipe accessories on the suction side.
 2. Check the voltage to ensure that the pump is rotating at the correct speed.
 3. Open the pump and check that nothing is blocking it inside,
 4. Replace the mechanical shutter.
 - b) If the pump is drawing normally, check the suction pipe and strainer which may be blocked or be allowing air to enter.

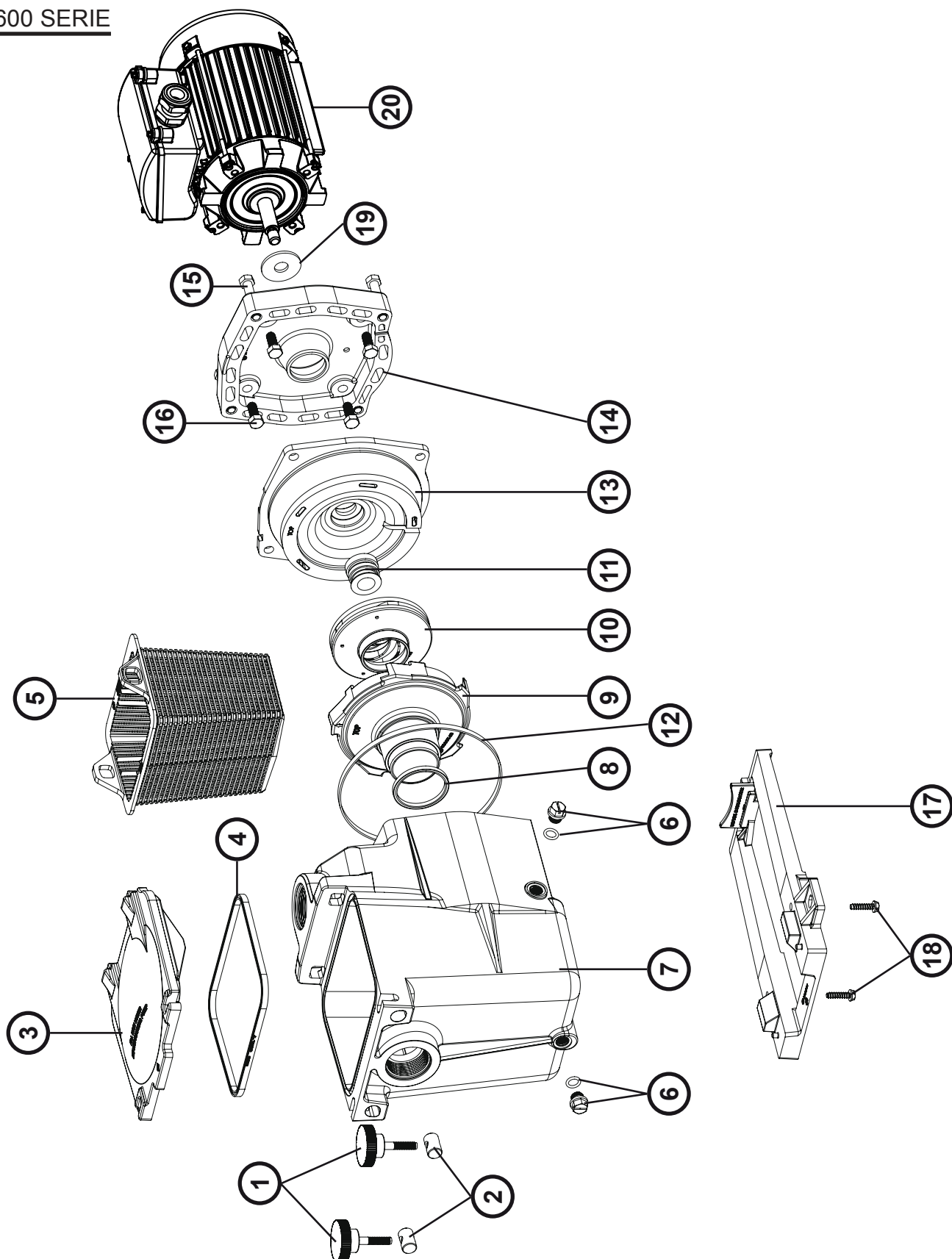
E) Low flow - Generally, Check for :

1. Clogged or restricted strainer or suction line; undersized pool piping.
2. Plugged or restricted discharge line of filter (high discharge gauge reading).
3. Air leak in suction (bubbles issuing from return fittings).
4. Pump operating under speed (low voltage).
5. Plugged or restricted impeller.

F) Noisy pump, check

1. That no air is entering the suction side and causing dull crackling in the pump.
2. That there is no cavitation caused by insufficient diameter or a restriction in the suction tube. An over-sized discharge pipe can also cause cavitation. Use pipes of the correct size or purge the pipes if necessary.
3. That no vibration is occurring due to incorrect fitting.
4. That there are no foreign bodies in the pump housing.
5. That the motor bearings have not seized due to excessive clearance, rust or prolonged overheating.

SP1600 SERIE



N°	Mod. SP1608XE11	Mod. SP2608XE11	Mod. SP1611XE16	Mod. SP2611XE16	Mod. SP1616XE22	Mod. SP2616XE22	Mod. SP1622XE25
1 + 2	SPX1600PN	SPX1600PN	SPX1600PN	SPX1600PN	SPX1600PN	SPX1600PN	SPX1600PN
3	SPX1600D	SPX1600D	SPX1600D	SPX1600D	SPX1600D	SPX1600D	SPX1600D
4	SPX1600S	SPX1600S	SPX1600S	SPX1600S	SPX1600S	SPX1600S	SPX1600S
5	SPX1600M	SPX1600M	SPX1600M	SPX1600M	SPX1600M	SPX1600M	SPX1600M
6	SPX1700FG	SPX1700FG	SPX1700FG	SPX1700FG	SPX1700FG	SPX1700FG	SPX1700FG
7	SPX1600AA	SPX1620AE	SPX1600AA	SPX1620AE	SPX1600AA	SPX1620AE	SPX1620AE
8	SPX1600R	SPX1600R	SPX1600R	SPX1600R	SPX1600R	SPX1600R	SPX1600R
9	SPX2600BE	SPX2600BE	SPX2600BE	SPX2600BE	SPX2600BE	SPX2600BE	SPX1608BEX
10	SPX2607CE	SPX2607CE	SPX2610CE	SPX2610CE	SPX2615CE	SPX2615CE	SPX1606CEX
11	SPX1600Z2	SPX1600Z2	SPX1600Z2	SPX1600Z2	SPX1600Z2	SPX1600Z2	SPX1600Z2
12	SPX1600T	SPX1600T	SPX1600T	SPX1600T	SPX1600T	SPX1600T	SPX1600T
13 + 14	SPX2600EKIT	SPX2600EKIT	SPX2600EKIT	SPX2600EKIT	SPX2600EKIT	SPX2600EKIT	SPX1600EKIT
15	SPX1600Z4	SPX1600Z4	SPX1600Z4	SPX1600Z4	SPX1600Z4	SPX1600Z4	SPX1600Z4
16	SPX0125Z4E	SPX0125Z4E	SPX0125Z4E	SPX0125Z4E	SPX0125Z4E	SPX0125Z4E	SPX0125Z4E
17	SPX2600G1	SPX2600G1	SPX2600G1	SPX2600G1	SPX2600G1	SPX2600G1	SPX2600G1
18	SPX1600Z5	SPX1600Z5	SPX1600Z5	SPX1600Z5	SPX1600Z5	SPX1600Z5	SPX1600Z5
19	SPX0125F	SPX0125F	SPX0125F	SPX0125F	SPX0125F	SPX0125F	SPX0125F
20*	SPX0550M	SPX0550M	SPX0750M	SPX0750M	SPX1100M	SPX1100M	SPX1500M
20**	-	-	SPX0750T	SPX0750T	SPX1100T	SPX1100T	SPX1500T
4 + 8 + 11 + 12 + 19	SPX1600GS	SPX1600GS	SPX1600GS	SPX1600GS	SPX1600GS	SPX1600GS	SPX1600GS

* Single phase - Monophasé - Wechselstrommotor - Monofásicos - Monofase - Eenfasige - Monofásicos - Enfasig - Одна фаза.

** Three phase - Triphasé - Drehstrommotor - Trifásicos - Trifase - Driefasige - Trifásicos - Trefasig - Три фазы.