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# Sophi A

### The Sophi family is growing.



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## Still Sophi, just smaller.

Sophi A – The letter "A" stands for Anterior and provides you with the necessary features for anterior segment surgery. The already established functions of the Sophi family, such as the Peristaltic Pump, active IOP Control Pump, Efficient Sinus Phaco, vitrectomy and diathermy have all been integrated into the device. With Sophi A you can expect high-end performance on a small footprint.

The concept of Sophi A is based on 3 pillars:

## Mobility

Sophi A offers the surgical team high flexibility. The wireless foot pedal comes with the "Easy Move" function, which enables moving the foot pedal over the floor like a hovercraft. In addition, the compressor for vitrectomy is integrated into the device. The compact design of Sophi A allows for an effortless transport and set-up.

## Simplicity

Sophi A's design is simple and straightforward. The complexity is inside the device, which allows for simple user handling, helps to save time and increases productivity.

## Safety

Sophi A opens up new avenues in hygiene and safety. The automated Cassette Slot-In System reduces the risk of contamination. The IOP Control Pump is designed for high chamber stability.

## Efficiency

Altogether, the benefits of Sophi A's 3-Pillar-Concept facilitate simpler, safer and faster operating procedures – before, during and after surgery. This significantly increases efficiency and therefore also yields economic benefits.

# High-end performance in a smaller version.

#### Sensory Information Assistance

- Voice Information Assistance Text2Speech



#### Ease of Use

Simple, clear and well laid out. You see only the information you currently require.

Video-Inlay 2 Display

Microscope images transmitted to display through Wi-Fi.

#### Instruments

- Efficient Sinus Phaco
- Vitrectomy pneumatic
- Diathermy

#### **IOP Control Pump**

 Integrated pressure and flow sensor
Additional Peristaltic Pump dedicated to keeping the IOP stable



#### Lean Cassette System

- Peristaltic Aspiration Pump
- Automatic Slot-In-System
- Multi Sensor System for optimized fluidic control.
- Cassette handle which simplifies the insertion of cassettes.

#### Foot pedal

Wireless, dual linear, four rocker switches, freely programmable, simple charging process. Easy Move: Move the foot pedal over the floor like a hovercraft.



#### Easy Move foot pedal

Sophi A is activated and controlled by the wireless foot pedal. The dual linear deflections and the four switches are individual and easily programmable. The foot pedal comes with integrated LED lighting, which enables you to accurately move the foot pedal under the surgical table. You can move the foot pedal over the floor like a hovercraft.

#### Video over Wi-Fi

Sophi A also assists with communication between surgeon and assistant. The microscope video signal is transmitted wirelessly to the display, which enables the assistant to follow the surgeon's work in real time. The assistant is therefore kept informed at a glance and can focus on the essentials.





#### Slim Design

Sophi A wins through its slim, reduced design. Nonetheless, everything needed for both ergonomic and safe usage is in place. Clear shapes, high-quality materials and numerous innovative solutions make Sophi A a system which sets new benchmarks.





#### **GUI with Voice Information Assistance**

The Intuitive Graphical User Interface shown on the high-resolution 15-inch display enables clear and simple handling. With the voice module you can have your settings read out loud and thanks to Text2Speech, even in your own words.

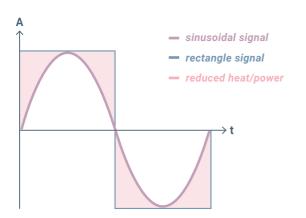
#### Tubeless: Integrated compressor

The compressor for anterior vitrectomy is integrated into the device, so that the usual bulky and inflexible tube to the external compressor is no longer needed.

#### SAFETY

#### **IOP Control Pump**

Sophi A's second peristaltic pump is dedicated to keeping the IOP stable. Instead of gravity infusion, Sophi A comes with an active IOP Control Pump. Thanks to the sensory information provided by the pressure and flow sensor inside the cassette system, the Sophi A IOP Control Pump reacts rapidly. Accordingly, during surgery, the infusion pressure at the instrument tip remains stable in the anterior chamber of the eye.



#### Lean Cassette system

Each detail of Sophi A focuses on safety – without compromises. Sophi A offers an automatic Cassette Slot-In System which reduces the risk of contact between sterile and unsterile areas during loading.



#### **Efficient Sinus Phaco**

The less energy a Phaco handpiece requires, the less heat is projected into the eye. That is why Sophi A controls the handpiece with a sinusoidal signal, which considerably reduces the energy needed, thereby protecting the eye.



#### **Technical Data**

Phacoemulsification	Handpiece type	Piezoelectric
	Application part	BF
	Frequency	38 43 kHz
	Signal form	Sine wave
	Power	$25~W\pm5~W$ at 1100 $\Omega$ and 100 % performance
	Stroke	0 90 µm ± 20 %
	Modulation	Continuous, pulse, burst
Irrigation	Active infusion	With separate peristaltic pump (IOP Control Pump)
		Compensation of pressure losses in tubings and handpieces
Aspiration	Peristaltic	Flow 0 60 ml /min
		Vacuum 0 650 mmHg
	Reflux	15 ml/min
Diathermy	Туре	Bipolar coagulation
	Handpiece type	Bipolar forceps, bipolar pencil
	Application part	BF
	Frequency	500 kHz
	Power	Continuous 0 10 W at 50 Ω
	Modulation	Pulse 3 ms; pause 30 ms
Vitrectomy	Handpiece type	Guillotine cutter
	Cutting rate	302'000 cuts/min
	Cutting mode	Linear proportional, fixed
	Compressor	Integrated compressor
	Pressure	25 PSI (1.7 bar)
Foot pedal	Туре	Wireless, dual linear, heel pressure (reflux)
		4 rocker switches (up/down)
	Easy Move	Switch between gliding / fixation
	Illumination	When Easy Move is activated
	Battery	Inductive charging station with external USB power supply or CAN-Bus Cable connected to Sophi A
	Status display	Traffic light system displays charging status and errors
	Wireless standard	Bluetooth LE
	Cable link	CAN-Bus
Dimension	Device	46 x 29 x 65 cm
	Weight	
		21 kg
Graphical user interface	Foot pedal weight	5.0 kg
	Screen size	15", TFT, LED Backlight
	Languages	English, Deutsch, Français, Italiano, Español
	Max. no. of surgeons	50
Electrical specifications	Frequency	5060 Hz
	Supply voltage	100240VAC
	Power consumption	Max. 250 VA
	Fuse	2 pieces 8A, 250 V
	Duty time	Continuous operation with power supply cable

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