



Effects of electrostimulation with Stimulator RISE in peripheral paresis

- Improvement or regeneration of muscle substance
- Improvement or regeneration of muscle function
- Improved blood circulation
- Better skin condition
- Faster wound healing
- Thicker muscle pad
- Decubitus prophylaxis
- Improved visual appearance

Other technical advantages

- Biphasic rectangular pulses
- Biphasic triangular impulses for sensitive skin
- Biphasic triangular pulses for selective stimulation
- Frequency readable on display
- Wide current pulses
- Patented safety electrodes for stimulation of limp paralysed muscles
- Patient switch for self-control during functional use when standing up or walking on the walking bar
- Individual limitation of the maximum current intensity
- Optional password protection for home use

Effects of electrostimulation with Stimulator RISE in central paresis

- Muscle building and strengthening
- Reduction of spasticity
- Promotion of neuroplasticity
- Improved function of the affected extremity
- Improvement of gait pattern, mobility and arm function

Impuls test

The Stimulator RISE offers an impulse test for the therapist to check the progress of the training. This delivers short packets of impulses (1ms).

- More treatment safety by checking the degree of denervation
- Determination of the optimal stimulation parameters
- Success tracking



STIMULATOR RISE

FES:
A NEW ERA
BEGINS



- Unique current output up to ± 250 mA, free of direct current.
- Breakthrough in the treatment of denervated muscles.
- Many areas of application. Programmable.
- Top seller in science and research.

Technical data

Supply voltage: ~100 V to 240 V / 50 Hz to 60 Hz; Power consumption: max. 350 VA; Mains fuses: Glass fuse $\varnothing 5 \times 20$ mm - 2x T 3.15 A, 250 V; Max. output current intensity (peak value): Current types PS1 to PS11 up to 250mA; Current types IMP up to 250mA; Patient impedance typically 300 Ω ; Adjustable constant current output: "Full scale" accuracy of the current measurement better than $\pm 10\%$; Dimensions (W x H x D) 336 x 127 x 270 mm; Weight 4.45kg; Protection class II: "Degree of protection against electric shock BF"



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RECOMMENDED BY
INTERNATIONAL FES CENTRE® NOTTWIL

Detailed operating instructions with treatment protocols and indication-specific, scientifically proven source currents.

OVERVIEW OF THE PRE-PROGRAMMED CURRENT FORMS						
Key name	ID [ms]	IP [ms]	Imax [mA]	SD [s]	SP [s]	T [min.]
PREASSIGNMENT FOR TREATING DENERVATED MUSCLES						
PS1 (DEN120)	120	400	250	8.32	2	5
PS2 (DEN40)	40	10	250	4	2	5
PS3	150	400	250	8.25	2	5
PS4	200	400	250	8.4	2	5
PS5 (DEN120)	120	400	250	8.32	2	15
PS6 (DEN40)	40	10	250	4	2	15
PS7	150	400	250	8.25	2	15
PS8	200	400	250	8.4	2	15
PREASSIGNMENT FOR TREATING INNERVATED MUSCLES						
PS9 (aS)	0.8	14.4	150	3.5	4.5	10
PS10 (asL)	0.8	19.2	150	6	16	10
PS11 (aSLL)	0.6	19.4	150	10	50	10
PULSE TEST						
IMP	1	1	100	/	/	10

For many indications and individual challenges, for small and large muscles

2-channel device - unique in the treatment of muscle weakness in innervated and denervated muscles. Even limp paralysed muscles can be stimulated.

The powerful 2-channel stimulation current unit has eleven pre-programmed current forms, which are immediately available when the unit is started. The patient current intensity of the respective channel can be dosed independently. To ensure treatment flexibility, the current forms can be individually adjusted via a comprehensively arranged menu.

This makes it easy to select the electrotherapy programs for innervated and denervated muscles. The touch screen in combination with a well thought-out user interface makes the selection and adaptation of current forms simple and clear. When designing the device, special emphasis was placed on simple, fast and intuitive handling.

The Stimulator RISE can be used for therapy as part of a physical treatment as follows

- Muscle weakness with innervated muscles
 - Flaccid paralysis in denervated muscles and muscle degeneration in peripheral pareses
 - Treatment of central and peripheral paralysis
- The Stimulator RISE is the only device worldwide that achieves current output of up to ±250mA without direct current. The Stimulator RISE represents a breakthrough in the electrotherapy of limp paralysed muscles. This is done with broad biphasic rectangular pulses and, if necessary, very high intensities. The stimulation of denervated muscles can only be achieved by means of broad pulses that directly excite the muscle. In order to achieve stimulation of the entire denervated muscle, the use of large-surface electrodes (safety electrodes) adapted to the muscle is necessary.

Stimulation of innervated musculature

- 3 forms of threshold current are preset
- Form aS (preset to PS9) for small and medium muscle groups, such as shoulder girdle or arm muscles
 - Form aSL (preset to PS10) and aSLL (preset to PS11) for larger muscle groups, such as dorsal or pelvic muscles

Stimulation of denervated muscles

Functional electrostimulation "FES" is usually carried out with biphasic pulses of approx. 120-150ms duration each for the double pulse, at a frequency of approx. 2Hz, which are emitted in a swelling manner. The typical threshold duration is 8s and the threshold pause 2s. It is recommended to provoke tetanic muscle contractions with biphasic pulses of approx. 40ms width at a frequency of approx. 20Hz. The contraction and pause should last 4s and 2s, respectively. This treatment can be performed with the preset current forms PS1 to PS8. The main difference to the classic exponential current is the higher frequency and the significantly higher number of pulses per treatment unit.

