

Technical specifications

POLYTER EVO

MODULAR EQUIPMENT



Technical specifications

	Polyter Evo
Line	Elekta
Code	PE0316
Technologies	Electrotherapy Ultrasound High power laser Low power laser Magnetotherapy Tecar
Structure	Case with key, wheels, telescoping handle, accessory compartment, fuses and power cable with shuko plug
Program	Single and Multitherapy
Software	Updatable via USB
Power supply	Supply: 230 Vac, 50-60Hz, ±10% / 115 Vac, 50-60Hz, ±10% (on demand) Internal battery: Nominal Voltage: 24V, Nominal Capacity: 4500mAh
Double protection fuse on power supply (T)	1.6 A-T / 3.15 A-T
Max power absorption	190 VA
Display	Color TOUCH SCREEN, 7"
Emission	N°01 technology / module at a time, except the combined mode ET+US
Class of isolation / parts applied according to the rule EN 60601-1	I / BF
Classification in compliance with the directive 93/42/CEE	II B
Degree of protection against input of liquids according to EN 60601-1 standard	IPX0
Trolley of polyurethane, external dimensions (width. x depth x height.)	61x37x23H cm
Weight of the device body	depending on the basis of included modules
Use conditions	Room temperature (+10 : +40) °C Relative humidity (10 : 80) % without condensation
Stocking/transport conditions	Room temperature (-40 : +70) °C Relative humidity (10 : 100) % without condensation Atmospheric pressure (500 : 1060) hPa

Electrotherapy Module

GENERAL FEATURES	ELECTROTHERAPY
Code	ME0003
Programmable treatment time	Up to 99 minutes
Emission frequency	25 kinds of wave Low and medium frequency currents
Functioning	Constant Voltage (CV) Constant Current (CC)
Peak current (Load resistance 1KOhm)	Impulsive currents 100 mA Diadynamic currents 70 mA

	Continuous currents 50 mA
Peak voltage (Load resistance 1KOhm)	Impulsive currents 100 V Diadynamic currents 70 V Continuous currents 50V
Output channels	2 independent
Stored protocols	126

SUPPLIED ACCESSORIES	
1	2-Channel ET cable (2 mm)
4	Electrodes 50x50 mm
4	Sponges for electrodes 50x50 mm
4	Electrodes 60x85 mm
4	Sponges for electrodes 60x85 mm
2	Elastic band 1000x50 mm
2	Elastic band 600x50 mm
OPTIONAL ACCESSORIES	CODE
Output cable of electrotherapy module	ACC603/8
Conductive rubber electrodes 50x50 (2 mm)	ACC402
Conductive rubber electrodes 60x85 (2 mm)	ACC403
Sponges for electrodes mm 50x50	ACC001
Sponges for electrodes mm 60x85	ACC003
Elastic band 1000x50 mm	ACC28
Elastic band 600x50 mm	ACC27

Ultrasound Module

GENERAL FEATURES		CODE
Programmable treatment time	Up to 30 minutes	MU0002
Emission	Continue / Pulsed	
Emission frequency	1 MHz and 3 MHz \pm 15%	
Adjustable Duty Cycle	(10 - 100) %	
Adjustable Frequency Duty Cycle	(10 - 100) Hz	
Continuous peak power	2 W/cm ² \pm 20%	
Pulsed peak power	3 W/cm ² \pm 20%	
Output channels	1	
ERA (Effective Radiating Area)	TV1 1.0 cm ² TV3 3.0 cm ² TV5 5.0 cm ² TV8 8.0 cm ²	
BNR (Beam Non-Uniformity Ratio)	TV1 Max 5:1 TV3 Max 5:1 TV5 Max 5:1 TV8 Max 5:1	
Stored protocols	70	
SUPPLIED ACCESSORIES		
1	1/3 Mhz multifrequency head with integrated contact sensor - 5 cm ²	
OPTIONAL ACCESSORIES		CODE
TV1 - Ultrasonic Handpiece 1/3 MHz, issuer area 1 cm .		TV1POE/B
TV3 - Ultrasonic Handpiece 1/3 MHz, issuer area 3 cm .		TV3POE/B

TV5 – Ultrasonic Handpiece 1/3 MHz, issuer area 5 cm .	TV5POE/B
TV8 – Ultrasonic Handpiece 1/3 MHz, issuer area 8 cm .	TV8POE/B
Gel 260 ml	ACC917
Gel 1000 ml	ACC918
Gel canister 5000 ml	ACC919

Combined Mode: ET + US

GENERAL FEATURES	
Programmable treatment time	Up to 30 minutes
Electrotherapy Functioning	Constant Voltage (CV)
Work mode Ultrasound	Continuous
Current type	Low frequency Medium frequency
Emission frequency	See ELECTROTHERAPY and ULTRASOUND MODULES
Adjustable Duty Cycle	See ULTRASOUND MODULE
Continuous peak power	See ULTRASOUND MODULE
Pulsed peak power	See ULTRASOUND MODULE
Output channels	1
Stored protocols	17

Magnetotherapy Module

GENERAL FEATURES		CODE
Programmable treatment time	Up to 99 minutes	MM0005
Adjustable Duty Cycle	(10÷100) %	
Programmable treatment frequency	(1 - 100)Hz	
Maximum induction	100 Gauss ± 20%	
Output channels	1	
Stored protocols	91	
SUPPLIED ACCESSORIES		
1	Magnet for magnetic field emission control	
1	Pair of applicators	
1	Elastic band 1000x50 mm	
1	Elastic band 600x50 mm	
OPTIONAL ACCESSORIES		CODE
Magnetotherapy applicators (16x10x3.5 cm)		ACC615/PE

High Power Laser Module

GENERAL FEATURES		CODE
Output channels	1	MH0007
Stored protocols	32	
Wavelength	980 nm	
Maximum power	4 W	
Frequency	From 100 Hz to 10.000 Hz	
Calculation of Fluency/Joules		

Visualization/modification of treatment area in cm²	
Laser probes with contact sensors	
SUPPLIED ACCESSORIES	
1	Laser probe
1	Foot pedal
1	Interlock
1	Laser protective goggles OLV model
1	Laser protective goggles YG3 model

Low Power Laser Module

GENERAL FEATURES		CODE
Programmable treatment time	Up to 99 minutes	ML0004
Interlock socket/Safety key (contacts normally closed)	3 contact DIN socket	
Diode Laser wave length emission	905 nm	
Laser classification according to EN 60825-1	3B	
OD (Optic density) 25 mW	0.1	
OD (Optic density) 100 mW	0.7	
Programmable pulse frequency	(100 - 10.000) Hz	
Pulse duration	100 nsec	
Pulsed mode	(10 - 100) %	
Peak power for single diode	25 W 100 W	
Total peak power	depending on the handpiece (See Accessories)	
Target pointing device characteristics	Target pointing device in conformity with the UNI EN 60601-2-22 standard: Light-drive Light-drive device: Led-diode Light-drive color: Red Light-drive representation on the impact point: Spot with red as colour	
Typology for emission of the treatment	Automatic emission Continuous emission	
Output channels	1	
Stored protocols	88	
SUPPLIED ACCESSORIES		
1	Laser probe 25 mW	
1	Goggles protection laser IR OLV model	
1	Interlock	
OPTIONAL ACCESSORIES		CODE
Laser probe with 1 diode of 25 mW		MLA125/B
Laser probe with 1 diode of 100 mW		MLA110/B
Laser probe with 3 diodes of 25 mW (75 mW in total)		MLA375/B
Laser probe with 5 diodes of 25 mW (125 mW in total)		MLA330/B
Laser probe with 3 diodes of 100 mW (300 mW in total)		MLA512/B
Laser probe with 5 diodes of 100 mW (500 mW in total)		MLA550/B

LASER PROBES SPECIFICATION	
MLA1 (25) – pulsed laser diode	
Number of laser diodes	1
Wavelength	905nm
Divergence of the beam	192x436mrad
Duration of the impulse	100ns
Programmable pulse frequency	100 – 10.000 Hz
Peak power	25 W
EMP (Maximum allowed exposure) single pulse	5,14 mJ/m ²
EMP (Maximum allowed exposure) pulse train	2,06 mJ/m ²
EMP (Maximum allowed exposure) average	2,57 mJ/m ²
DNRO (Nominal eye-hazard distance) direct light	116.3 mm
MLA1 (100) – pulsed laser diode	
Number of laser diodes	1
Wavelength	905nm
Divergence of the beam	192x436mrad
Duration of the impulse	100ns
Programmable pulse frequency	100 – 10.000 Hz
Peak power	100 W
EMP (Maximum allowed exposure) single pulse	5,14 mJ/m ²
EMP (Maximum allowed exposure) pulse train	2,06 mJ/m ²
EMP (Maximum allowed exposure) average	2,57 mJ/m ²
DNRO (Nominal eye-hazard distance) direct light	251 mm
MLA3 (75) – pulsed laser diode	
Number of laser diodes	3
Wavelength	905nm
Divergence of the beam	192x436mrad
Duration of the impulse	100ns
Programmable pulse frequency	100 – 10.000 Hz
Peak power	75 W
EMP (Maximum allowed exposure) single pulse	5,14 mJ/m ²
EMP (Maximum allowed exposure) pulse train	2,06 mJ/m ²
EMP (Maximum allowed exposure) average	2,57 mJ/m ²
DNRO (Nominal eye-hazard distance) direct light	116.3 mm
MLA3 (300) – pulsed laser diode	

Number of laser diodes	3
Wavelength	905nm
Divergence of the beam	192x436mrad
Duration of the impulse	100ns
Programmable pulse frequency	100 – 10.000 Hz
Peak power	300 W
EMP (Maximum allowed exposure) single pulse	5,14 mJ/m ²
EMP (Maximum allowed exposure) pulse train	2,06 mJ/m ²
EMP (Maximum allowed exposure) average	2,57 mJ/m ²
DNRO (Nominal eye-hazard distance) direct light	251 mm
MLA5 (125) – pulsed laser diode	
Number of laser diodes	5
Wavelength	905nm
Divergence of the beam	192x436mrad
Duration of the impulse	100ns
Programmable pulse frequency	100 – 10.000 Hz
Peak power	125 W
EMP (Maximum allowed exposure) single pulse	5,14 mJ/m ²
EMP (Maximum allowed exposure) pulse train	2,06 mJ/m ²
EMP (Maximum allowed exposure) average	2,57 mJ/m ²
DNRO (Nominal eye-hazard distance) direct light	116.3 mm
MLA5 (500) – pulsed laser diode	
Number of laser diodes	5
Wavelength	905nm
Divergence of the beam	192x436mrad
Duration of the impulse	100ns
Programmable pulse frequency	100 – 10.000 Hz
Peak power	500 W
EMP (Maximum allowed exposure) single pulse	5,14 mJ/m ²
EMP (Maximum allowed exposure) pulse train	2,06 mJ/m ²
EMP (Maximum allowed exposure) average	2,57 mJ/m ²
DNRO (Nominal eye-hazard distance) direct light	251 mm

Tecar Module

GENERAL FEATURES		CODE
Programmable treatment time	Up to 60 minutes	MT0006
Peak Power	200 Wpk max.	
Adjustable power	0 - 100%	
Supplied handpieces	Handpieces holding-electrodes resistive electrodes Handpieces holding-electrodes capacitive electrodes	
Output channels	1 single connector for resistive and capacitive handpiece 1 connector for the return plate	
Emission frequency of the handle	455 kHz	
Type of used electrodes	Resistive, made of stainless steel Capacitive, made of stainless steel and covered with nylon	
Diameter of the capacitive and resistive electrodes	Diameter 30 mm Diameter 50 mm Diameter 70 mm	
Stored protocols	58	
SUPPLIED ACCESSORIES		
1	Resistive ergonomic probe	
3	Resistive electrode \varnothing 30-50-70	
1	Capacitive ergonomic probe	
3	Capacitive electrode \varnothing 30-50-70	
1	Steel return electrode	
1	Conductive cream 1000 ml	
1	Steel plate	
OPTIONAL ACCESSORIES		CODE
Capacitive probe		ACC1280/1
Resistive probe		ACC1280
Capacitive ergonomic probe		ACC1281/CAP
Resistive ergonomic probe		ACC1281/RES
Resistive treatment insert \varnothing 30 mm		ACC1268/3
Resistive treatment insert \varnothing 50 mm		ACC1268/5
Resistive treatment insert \varnothing 70 mm		ACC1268/7
Capacitive treatment insert \varnothing 30 mm		ACC1307/3
Capacitive treatment insert \varnothing 50 mm		ACC1307/5
Capacitive treatment insert \varnothing 70 mm		ACC1307/7
Bipolar ergonomic probe \varnothing 45 mm		ACC1281/BIP/1
Bipolar ergonomic probe \varnothing 70 mm		ACC1281/BIP/2
Steel return electrode + cable		ART1310
Kit for treatment in movement (cable + 10 adhesive plates)		ACC1268/12
Adhesive plate for treatment in movement (10 pc)		ACC1268/13
Conductive cream 1000 ml		ACC1506/2