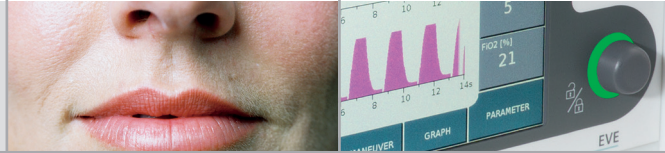




Ventilation

Clinical Experience
+ Technical Competence



EVE

Technical Data



EVE

General	
Patient group	Adults, Children, Premature/Newborn Infants
Classification acc. to 93/42 EEC	II b
Dimensions	360 x 320 x 155 mm (WxHxD)
Weight	6.3 kg (w/o exchangeable battery), 6.9 kg (w/ exchangeable battery)
Power supply	
Mains	100-240 V AC, 50-60 Hz
Power input	max. 150 W
Power consumption	1.667 - 0.625 A
Battery	25.2 V DC, 3.12 Ah, approx. 4 h (8 h incl. exchangeable battery)
Charging time	approx. 4.5 h (internal), approx. 6 h (exchangeable battery)
Connection	100 - 240 V AC, +/- 10%
Connection helicopter/ambulance	12 - 28 V DC (nominal), incl. tolerance 10.2 - 30.3 V DC
Gas supply	
AIR	integrated turbine, peak flow > 230 l/min
O ₂ /HPO	2.7-6 bar + 0.5 bar, HPO / LPO mode, Oxygen 93 compatible
O ₂ /LPO	0 - 1.5 bar
Protection class	IP 44
UMDNS code	17-429 (EVE _{IN/NEO}), 18-098 (EVE _{TR}),
GMDN code	42411 (EVE _{IN/NEO}), 36289 (EVE _{TR})
Operation modes	
Invasive and non-invasive Ventilation	
Ventilation modes	
Volume controlled	VC-CMV, VC-S-IMV
Pressure controlled (invasive/non-invasive)	PC-CMV, nPC-CMV, PC-ACV, nPC-ACV, PC-ACV+, nPC-ACV+ PC-S-IMV, nPC-S-IMV, DUOPAP, nDUOPAP, CPAP, nCPAP, CPAP B/U High Flow O ₂ Therapy
Ventilation options	PSV, PRVC, ETT compensation
Maneuvers	Inspiration hold, SpHb, Aerosol, Preoxygenation, P0.1
Fast track control keys	Adults, Children, Premature/Newborn Infants
Ventilation settings	
P _{insp}	6 ... 95 mbar (EVE _{IN}), 6 ... 55 mbar (EVE _{TR} , EVE _{NEO})
P _{high} (DUOPAP)	6 ... 95 mbar (EVE _{IN}), 6 ... 55 mbar (EVE _{TR} , EVE _{NEO})
PEEP	0 ... 35 mbar
Δ P _{supp}	1 ... 55 mbar
Inspiration time	0.15 ... 30 sec. (NEO-Mode) / 0.2 ... 30 sec. (Ped./Adult-Mode)
Expiration time	0.15 ... 30 sec. (NEO-Mode) / 0.2 ... 30 sec. (Ped./Adult-Mode)
Breathing rate	1 ... 200 bpm. (NEO-Mode) / 1 ... 150 bpm. (Ped./Adult-Mode)
I:E	1:150 ... 150:1
Trigger flow	0.2 ... 15 l/m
Trigger external (EVE _{NEO})	0.2 ... 15 Arb
Expiratory trigger	5 ... 70%
Ramp-up time	0.06 ... 30 sec.
FiO ₂	21 ... 100%
Apnea time	1 ... 60 sec.
Tidal volume (VCV)	50 ... 2,000 ml (Child: 50 ... 300 ml, Adult: 50 ... 2,000 ml)

Technical Data

Ventilation settings	
Tidal volume (PRVC)	2 ... 2,000 ml (NEO: 2 ... 50 ml, Child: 20 ... 300 ml, Adult: 60 ... 2,000 ml)
High Flow O ₂ Therapy	2 ... 60 l/min.
Preoxygenation	
FiO ₂ Concentration	21 ... 100% absolute, 1 ... 79% relative
Preoxygenation time	10 ... 180 sec.
Nebulizer outlet	
Pressure outlet	1.5 bar
Nebulizer flow	approx. 5 l/min. (at 5 bar oxygen inlet pressure)
Nebulization	100% O ₂ concentration
Nebulization time	5 ... 30 min.
Tube compensation	
Ø	2 ... 12 mm
Compensation	0 ... 100%
Inspiration hold	max. 15 sec.
Alarms (selection)	PAW high/low, occlusion, MV high/low, apnea, f high, PEEP high/low, leakage, VT high/low, VT not reached, technical alarms, Gas alarms Optional: CO ₂ alarms, MASIMO alarms
Measured values display	
LOOPS	V(P), V'(V), V'(P)
Trend display	up to 28 trends selectable
Trend duration	1h, 6h, 12h, 24h, 72h
Curve display	P(t), V(t), V'(t), optional: CO ₂ (t), pletysmography
Parameter display	Pplat, Ppeak, Pmean, PEEP, VTe, VTespon, Vtleak, MVe, MVespon, ftotal, fspon, Tinsp, Texsp, V'max, V'min, I:E, resistance (R), compliance (C), RSB, FiO ₂ /O ₂ Optional: EtCO ₂ , SpO ₂ , pulse, PI, PVI, Spmet, SpHB, SpCO, SpOC
Pressure	
PPeak	-20 ... 99 mbar
PPlat	-20 ... 99 mbar
PMean	-20 ... 99 mbar
PEEP	-20 ... 99 mbar
Volume	
Exp. tidal volume	0 ... 3,000 ml
Insp. tidal volume	0 ... 3,000 ml
Exp. tidal volume (Vtspont.)	0 ... 3,000 ml
Leakage Volume (Vtleak)	0 ... 5,000 ml
Minute volume (Mve)	0 ... 999 l/min.
Minute volume (Mvspont.)	0 ... 999 l/min
Flow	
Insp. Flow	-200 ... 200 l/min.
Exp. Flow	-200 ... 200 l/min.

EVE

Technical Data

Measured values display	
Time	
T _{insp}	0 ... 60 sec.
T _{exp}	0 ... 60 sec.
Breathing rate (f _{total})	0 ... 300 1/min
Breathing rate (f _{spont.})	0 ... 300 1/min
I:E ratio	1:150 - 150:1
Apnea	0 ... 60 sec.
Diagnostics	
Resistance (R)	0 ... 1,000 mbar l/sec.
Compliance (C)	0 ... 650 ml/mbar
Rapid shallow breathing index (RSB)	0 ... 9,999 1/min x l
Time constant	0 ... 20 sec.
Pressure time product (PTP)	0 ... 999 mbar x sec.
FiO ₂	0 ... 100%
O ₂	21 ... 100%
EtCO ₂	
Vol%	0 ... 90
mmHg	0 ... 12
kPa	0 ... 999
MASIMO® parameters (optional)	
Pulse	0 ... 239 bpm
PVI	0 ... 100%
PI	0.02 ... 20%
SpMet	0 ... 100%
SpCO	0 ... 100%
SpOC	0 ... 35 ml/dl
SpHb	g/dl
Display	
8.4" TFT color touch screen, resolution 1024 x 786, antireflecting	
Interface	
SD / in combination with docking station: Ethernet, RS232, nurse call	
Sensors	
Flow/Volume	Flow sensor single-use for newborns, infants and adults, Flow sensor reusable for newborns (PNT B) Flow sensor reusable for infants and adults (PNT D)
FIO ₂	El. chem. oxygen cell (EVE _{IN} , EVE _{NEO})
Optional	CO ₂ measurement, (main or sidestream method), Masimo rainbow® SET (SpO ₂ , pulse, PI, PVI, SpHb, Spmet, SpCO, SPOC)
Standards (extract)	
DIN EN: 794-3, 1789, 60601-1, 60601-1-2, DIN EN ISO: 14971, 80601-2-12, EVE _{TR} : RTCA / DO 160G, ISO 10651-3:1997	