M3

Vital Signs Monitor

Version 1.0

Data Sheet

EDAN

M3 Vital Signs Monitor Specification		
Physical Specifications		
Dimension	(174±2) mm (W)× (235±2) mm (H)×(189±2) mm(D)	
Weight	≤3.5 kg (not including battery)	
Power Supply		
Power Supply	100 V to 240 V~, 50 Hz/60 Hz	
Pmax	70 VA	
Battery		
Battery Type	Rechargeable lithium-ion battery	
Capacitance	2500 mAh, 5000 mAh	
Typical Working Period	2500 mAh	7 h
	5000 mAh	14 h
Maximum Rechargeable Period	2500 mAh	3.5 h
	5000 mAh	7 h
Display		
Display screen	5.6-inch color TFT	
Resolution	640×480	
Data Storage		
Trend	72 h, at 1 min resolution	
NIBP trend list	30, 000 groups	
Alarm list	800 groups	
Recorder		
Record Width	48 mm	
Paper Speed	12.5 mm/s, 25 mm/s	
Recording types	Parameter list recording Trend graph review recording Alarm list recording Real-time 8s waveform recording Recording of all the data of current patient ID Real-time alarm recording	
Wireless Network		
Compliant with Standard and Directive	IEEE802.11b/g, R&TTE Directive (99/5/EEC)	
Frequency Range	2.412 GHz ~2.462 GHz (America) 2.412 GHz ~2.484 GHz (Japan) 2.412 GHz ~2.472 GHz (ETSI)	
Interfaces and others		
USB Port	1	
Network interface	1	

Nurse Call	RJ-45 network interface	
NIBP		
Method	Oscillometric	
Mode	Manual, Auto, Continuous, Average	
Measuring Interval in Auto Mode	1/2/3/4/5/10/15/30/60/90/120/240/480 min	
Continuous	5 min, interval is 5 s	
Measuring Type	SYS, DIA, MAP, PR	
Average measurement	Interval	1/2/3/4/5 min
	Times	3/5
Measuring Range	Adult Mode	SYS: 40 mmHg to 270 mmHg DIA: 10 mmHg to 215 mmHg MAP: 20 mmHg to 235 mmHg
	Pediatric Mode	SYS: 40 mmHg to 230 mmHg DIA: 10 mmHg to 180 mmHg MAP: 20 mmHg to 195 mmHg
	Neonatal Mode	SYS: 40 mmHg to 135 mmHg DIA: 10 mmHg to 100 mmHg MAP: 20 mmHg to 110 mmHg
Cuff Pressure Measuring Range	0 mmHg to 300 mmHg	
Pressure Resolution	1 mmHg	
Maximum Mean Error	±5 mmHg	
Maximum Standard Deviation	8 mmHg	
Maximum Measuring Period	Adult/ Pediatric	120 s
	Neonatal	90 s
Typical Measuring Period	20 s to 35 s (depend on HR/motion disturbance)	
Overpressure Protection	Adult	297 mmHg±3 mmHg
	Pediatric	245 mmHg±3 mmHg
	Neonatal	147 mmHg±3 mmHg
PR		
Measuring range	40 bpm to 240 bpm	
Accuracy	±3 bpm or 3.5%, whichever is greater	
SpO_2		
EDAN Module		
Measuring Range	0% to 100%	
Resolution	1%	
Data update period	1 s	

Accuracy	Adult/Pediatric	±2% (70% to 100% SpO_2) Undefined (0% to 69% SpO_2)
	Neonatal	±3% (70% to 100% SpO_2) Undefined (0% to 69% SpO_2)
PI (Perfusion Index)		
Measuring Range	0-10	
Resolution	1	
Pulse Rate		
Measuring Range	25 bpm to 300 bpm	
Resolution	1 bpm	
Accuracy	±2 bpm	
Nellcor Module		
Measuring Range	1% to 100%	
Resolution	1%	
Data Update Period	1 s	
Accuracy	DS-100A, OXI-A/N(Adult)	±3% (70% ~ 100% SpO_2)
	OXI-A/N(Neonate)	±4% (70% ~ 100% SpO_2)
Pulse Rate		
Measuring Range	20 bpm to 300 bpm	
Resolution	1 bpm	
Accuracy	±3 bpm (20 bpm to 250 bpm)	
TEMP		
T2 Module (EDAN Quick TEMP)		
Measuring range	Monitor mode: 25°C ~ 45°C Predict mode: 35.5°C ~ 42°C	
Sensor type	Oral /Axillary /Rectal	
Resolution	0.1°C	
Accuracy	Monitor mode: ±0.1°C (25°C ~ 45°C)	
Response time	< 60 s	
Time for predicting	< 30 s	
Measuring Mode	Direct Mode/ Adjusted Mode	
TH Module (Infrared Ear TEMP)		
Measuring range	34°C ~ 42.2°C	
Resolution	0.1°C	
Response time	1 s	
Clinical Accuracy	±0.2°C (0.4°F) (35.5°C ~ 42°C) (95°F ~ 107.6°F) ±0.3°C (0.5°F) (out of the range mentioned above)	
Laboratory Accuracy	±0.2°C	
F3000 Module (Covidien Quick TEMP)		
Measuring range	30°C ~ 43°C	

Prediction measurement range	35°C ~ 43°C		
Cold mode prediction measurement range	33°C ~ 43°C		
Sensor type	Oral /Axillary /Rectal		
Resolution	0.1°C		
Accuracy	Monitoring Mode and Predictive Mode: ±0.1°C Quick Predictive Mode: ±0.3°C		
Typical measurement time	Oral (Quick Predictive Mode): (3 ~ 5) s (non-fever temps); (8 ~ 10) s (fever temps)		
	Oral (Predictive Mode): (6 ~ 10) s		
	Axillary: (8 ~ 12) s		
	Rectal: (10 ~ 14) s		
	Monitoring Mode (all sites): (60 ~ 120) s		
Measuring Mode	Direct Mode /Adjusted Mode		
Safety Specifications			
Compliant with Standards	IEC 60601-1: 2005+A1:2012; EN 60601-1: 2006+A1: 2013; IEC 60601-1-2:2007; EN 60601-1-2: 2007; IEC 80601-2-30: 2009; ISO 80601-2-61: 2011; ISO 80601-2-56: 2009; IEC 60601-2-49:2011		
Anti-electroshock Type	Class I equipment and internal powered equipment		
Anti-electroshock Degree	BF	SpO_2 , NIBP, TEMP (TH module, F3000 module)	
	CF	TEMP (T2 module)	
Ingress Protection	IPX1		
Environmental Specifications			
Temperature	Working	+0°C to +40°C (32ºF ~ 104ºF) With TEMP: +10°C ~ +40°C (50ºF ~ 104ºF)	
	Transport and Storage	-20°C to +55°C (-4ºF ~ 131ºF) With TH TEMP module: -20°C ~ +50°C (-4ºF ~ 122ºF)	
Humidity	Working	15%RH to 95%RH (non-condensing)	
	Transport and Storage	15%RH to 95%RH (non-condensing)	
Altitude	Working	86 kPa to 106 kPa	
	Transport and Storage	70 kPa to 106 kPa	

** Specifications are subject to change without prior notice*

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