



KORA 100 DR

DDDR PACEMAKER

TECHNICAL SPECIFICATIONS

Programmable Parameters	
Basic Parameters	
Mode	SafeR⁽⁴⁾ - SafeRR - SafeR/DDIR - Dplus - DplusR - Dplus/DDIR - DDDR - DDD - DDD/DDIR - AAIR - AAI - VVIR - <u>VVI</u> - VDDR - VDD - DDIR - DDI - DDTAV - DDTA - DDTV - AAT - VVT - DOO - AOO - VOO - OOO
Basic rate	30 - 40 - 45 - 50 - 55 - 60 - 65 - <u>70</u> - 75 - 80 - 85 - 90 - 95 min ⁻¹
Rest rate	50 - 55 - 60 - 65 - 70 - 75 - 80 - 85 - 90 - 95 min ⁻¹
Maximum tracking rate	100 - 110 - 120 - 130 - 140 - 155 - 165 - 175 - 185 min ⁻¹
Rate Hysteresis	0 - 5 - 10 - 20 - 35 %
Rest AV delay	30 - 45 - 65 - 80 - 95 - 110 - 125 - 140 - 155 - 170 - 190 - 205 - 220 - 235 - 250 ms
Exercise AV delay	30 - 45 - 65 - 80 - 95 - 110 - 125 - 140 - 155 - 170 - 190 - 205 - 220 - 235 - 250 ms
AVD Paced/Sensed Offset	0 - 15 - 30 - 45 - 65 - 80 - 95 - 110 - 125 ms
Pacing and Sensing Parameters	
Atrial and ventricular amplitude	1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0 - <u>5.0</u> - 7.5 V
Atrial and ventricular pulse width	0.10 - 0.25 - 0.35 - <u>0.50</u> - 0.60 - 0.75 - 0.85 - 1.00 ms
Atrial sensitivity	0.1 - 0.2 - 0.3 - 0.4 - 0.6 - 0.8 - 1.0 - 1.2 - 1.5 - 1.8 - 2.0 - 2.2 - 2.5 - 2.7 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 6.0 mV
Ventricular sensitivity	1.0 - 1.2 - 1.5 - 1.8 - 2.0 - <u>2.2</u> - 2.5 - 2.7 - 3.0 - 3.5 - 4.0 - 4.5 - 5.0 - 6.0 - 8.0 - 10.0 - 15.0 mV
Atrial and ventricular sensing polarity	<u>Unipolar</u> - Bipolar ⁽²⁾
Atrial and ventricular pacing polarity	<u>Unipolar</u> - Bipolar ⁽²⁾
SafeR™ Parameters	
Pause (max.)	2 - 3 - 4 s
Long PR (max.)	250 - 300 - 350 - 400 - 450 ms
Long PR (min.)	200 - 250 - 300 - 350 - 400 - 450 ms
AVB I switch	Rest+Exercise - Exercise
Special Features	
Fallback Mode Switching (FMS)	ON - OFF
PMT protection	Termin - Reprog
Rate smoothing	OFF - Very slow - Slow - Medium - Fast
Acceleration (%)	0 - 5 - 15 - 25 - 35 - 45
AVD shortening (ms)	0 - 15 - 30 - 45 - 65 - 80 - 95 - 110
Atrial or Ventricular Autosensing	Auto - Monitor
Ventricular Autothreshold	Auto - Monitor - OFF
Min. Ventricular Amplitude	1.5 - 2.0 - 2.5 - 3.0 - 3.5 V
Post Ventricular Atrial Blanking (PVAB)	150 - 165 - 180 - 195 - 210 - 225 - 240 - 255 ms
Atrial Arrhythmia Prevention Parameters	
Overdrive	ON - OFF
Max. overdrive rate	100 - 110 - 130 - 155 - 185 min ⁻¹
Pause suppression	A - V - A+V - OFF
PAC acceleration	ON - OFF
Rate-Response Parameters	
Sensor choice	MV+G - MV - G
Rate response mode	Learn ⁽¹⁾ - RRAuto - RRFixed - OFF
Physical exercise	Very low - Low - Medium - High - Very high
Sleep Apnea Monitoring (SAM)	
Monitoring	ON - OFF ⁽³⁾
Monitoring period	22:00-03:00 - 23:00-04:00 - 00:00-05:00 - 01:00-06:00
MRI Mode parameters ⁽⁴⁾	
MRI Mode	Auto, Manual, OFF
MRI Pacing Mode	DOO , VOO, OOO
MRI Pacing Rate ⁽⁵⁾	50 - 55 - 60 - 65 - 70 - 75 - 80 - 85 - 90 - 95 - 100 - 105 - 110 - 115 - 120 min ⁻¹
MRI Monitoring Period	2h, 4h, 6h, 12h, 24h , 48h
Automatic Detection of Implantation	
SafeR auto launch	Yes - No
Atrial pacing polarity	Unipolar - Bipolar
Ventricular pacing polarity	Unipolar - Bipolar

Non Programmable Parameters	
Committed period	95 ms
Rate limit	195 min ⁻¹
Lead impedance measurement	Automatic (every 6 hours)
Refractory periods	Dynamic
Physical Characteristics	
Dimensions	41.2 x 41.5 x 6.1 mm
Weight	20 g
Volume	8 cm ³
Connector	IS-1
Sensors	Minute Ventilation (MV) and Accelerometer (G)
Electrical Characteristics	
Battery type	GB8711 Lithium Iodine (2.8 V, 0.81 Ah)
Longevity	9.6 years in DDDR mode (100% A&V pacing, 60 min ⁻¹ at 2.5 V, 0.35 ms, 750 Ω, EGMs & Diagnostics ON) 12 years in SafeR mode (50% A pacing, 5% V pacing, 60 min ⁻¹ at 2.5 V, 0.35 ms, 750 Ω, EGMs and Diagnostics ON)
Magnet rate (BOS / RRT)	96 min ⁻¹ / 80 min ⁻¹
Follow-Up Functions	
Patient data	Detailed patient information
Battery status	Magnet rate; Battery impedance; Battery curve
A and V lead Impedance	Automatic every 6 hours
Atrial and ventricular pacing threshold tests	Simultaneous transmission of intracardiac ECG, and markers
Temporary programming	Automatic measurement of P and R amplitudes; Simultaneous transmission of intracardiac ECG and markers
Test Assistant Smartcheck	Chained test sequence with automatic saving/printing of results
NIPS (Electrophysiologic studies)	A burst, V burst, extra-stimuli sequences
Implant and follow-up report	Available paper print and electronic format (Adobe® PDF)
Diagnostics AIDA (<i>Automatic Interpretation for Diagnosis Assistance</i>)	
All Diagnostics	Always ON
Intracardiac ECG	11 min., A and V, 512 Hz sampling, 22 stored episodes, Annotated markers, synchronized with intracardiac ECG
AV Conduction	AVB episodes: AVB I, II, III and pauses; SafeR switch criteria
ECG Triggers	Mode switching; Atrial bursts; Ventricular bursts; Switches in SafeR mode
Histograms and counters	A and V rate; Pacing %; Atrial arrhythmias (number and time in mode switch, bursts, Premature Atrial Contractions (PACs)); Ventricular bursts and Premature Ventricular Contractions (PVCs); Pacing threshold follow-up; Amplitudes of normal and abnormal P and R waves; 7 days 24-hour heart rate curve
Sleep Apnea Monitoring (SAM)	Respiratory Disturbance Index; Number and duration of events

As-shipped values shown **in bold**. Nominal values are underlined.

- (1) 20 minutes after implant, the pacing mode is automatically programmed to SafeR. Rate response will be programmed to Learn, and Diagnostics will be ON.
- (2) As soon as the detection of implant is confirmed, the lead configuration is automatically programmed to unipolar pacing and bipolar sensing (if a bipolar lead is used) or to bipolar pacing and bipolar sensing (if the values are re-programmed to bipolar in the box and a bipolar lead is used).
- (3) Automatic activation at first interrogation after automatic implantation detection.
- (4) The pacemaker system (KORA 100 pacemaker and MRI tested leads) is MR conditional under strict conditions. Refer to the MRI Solutions manual (U201) for the complete MRI checklist to be fulfilled at the time of MRI examination.
- (5) Default pacing rate is 20 min⁻¹ over programmed basic rate.

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