Cardiac Resynchronisation Therapy (CRT) Devices

Allure Quadra[™] RF

Merlin@home™ Transmitter Compatible

Cardiac Resynchronisation Therapy Pacemaker

Product Highlights

- The Allure Quadra™ CRT-P and quadripolar LV pacing lead features four pacing electrodes and 14 pacing vectors to provide more options and greater control to address complications at and post implant to improve CRT response
- Angled header and physiologic tear drop shape provide better lead wrap
- CorVue™ Congestion Monitoring feature monitors the intrathoracic impedance and provides the option for both patient and physician alerts
- The DirectTrend™ Report provides a summary of three month daily, one year weekly or one year daily diagnostic trends
- Better patient unitilization from Day 1 when paired with the Merlin@home™ transmitter at point of care
- AT/AF Alerts can be programmed to notify patients and their clinics when a programmed AT/AF threshold or continuous episode duration has been exceeded, or when a high ventricular rate accompanies the AT/AF episode
- Exclusive AF Suppression™ algorithm is clinically proven to suppress episodes of paroxysmal and persistent AF
- AT/AF burden trend provides a graphical representation of the percentage of time in AT/AF and the number of AT/AF episodes in the previous 52 weeks
- Up to 14 minutes of stored electrograms help identify key intrinsic and pacemaker-related events and simplify the diagnosis of complex ECG rhythms associated with heart failure
- Industry-leading longevity offers 8 years of service life supported by a 6 year warranty*

Ordering Information

Contents: Cardiac pulse generator

Model Number	Dimensions (H x W x T, mm)	Weight (g)	Volume (cc)	Connector
PM3242	56 x 59 x 6	27	15	IS4-LLLL, IS-1

Indications: Implantation of Allure and Allure RF devices is indicated for: maintaining synchrony of the left and right ventricles in patients who have undergone an AY nodal ablation for chronic atrial fibrillation and have NYHA Class II or III heart failure, the reduction of the symptoms of moderate to severe heart failure (NYHA Class III or IIV) in those patients who remain symptomatic despite stable, optimal medical therapy, and have a left ventricular ejection fraction \(\leq 35\)% and a prolonged ORS duration, implantation of Assurity, Endurity and Allure family of devices is indicated in one or more of the following permanent conditions: syncope, presyncope, fatigue, disorientation, or any combination of those symptoms. \(Rate-Modulated Pacing \) is indicated for patients with chronotropic incompetence, and for those who would benefit from increased stimulation rates concurrent with physical activity. \(Dual-Chamber Pacing \) is indicated for those patients exhibiting: sick sinus syndrome, chronic, symptomatic second—and third-degree AV block, recurrent Adams-Stokes syndrome, symptomatic bilateral bundle branch block when tachyarrhythmia and other causes have been ruled out. \(Atrial Pacing \) is indicated for patients with sinus node dystunction and normal AV and intraventricular conduction systems. \(Ventricular Pacing \) is indicated for patients with significant bradycardia and normal sinus rhythm with only rare episodes of A-V block or sinus arrest, chronic atrial fibrillation, severe physical disability. \(AF Suppression algorithm is indicated for pacing is indications. \(Ventral Pacing \) is indicated for patients with sing indications.

Contraindications: Implanted Cardioverter-Defibrillator (ICD). Devices are contraindicated in patients with an implanted cardioverter-defibrillator. Rate-Adaptive Pacing may be inappropriate for patients who experience angina or other symptoms of myocardial dysfunction at higher sensor-driven rates. An appropriate Maximum Sensor Rate should be selected based on assessment of the highest stimulation rate tolerated by the patient. AF Suppression stimulation is not recommended in patients who cannot tolerate high atrial-rate stimulation. Dual-Chamber Pacing, though not contraindicated for patients with chomic atrial flutric, chronic atrial flutring and provide no benefit beyond that of single-chamber pacing in such

patients. Single-Chamber Ventricular Demand Pacing is relatively contraindicated in patients who have demonstrated pacemaker syndrome, have retrograde VA conduction, or suffer a drop in arterial blood pressure with the onset of ventricular pacing. Single-Chamber Atrial Pacing is relatively contraindicated in patients who have demonstrated compromise of AV conduction. Atrial Fibrillation. Anthem devices are contraindicated in patients having chronic atrial fibrillation or intermittent atrial fibrillation that does not terminate. For specific contraindications associated with individual modes, refer to the programmer's on-screen help.

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Potential Adverse Events: The following are potential complications associated with the use of any pacing system: air embolism, body rejection phenomena, cardiac tamponade or perforation, hematoma, bleeding hematoma, seroma, formation of fibrotic tissue, local tissue reaction, inability to interrogate or program due to programmer or device malfunction, infection/erosion, interruption of desired pulse generator function due to electrical interference, either electromyogenic or electromagnetic, lead malfunction due to conductor fracture or insulation degradation, loss of capture or sensing due to lead displacement, body reaction at electrode interface, or lead malfunction (fracture or damage to insulation), loss of normal device function due to battery failure or component malfunction, pacemaker migration or pocket erosion, pectoral muscle or diaphragmatic stimulation, phrenic nerve stimulation, pneumothorax/hemothorax, endocarditis, excessive bleeding induced atrial or ventricular arrhythmias, myocardial irritability, pericardial effusion, pericardial rub, pulmonary edema, rise in threshold and exit block, valve damage, cardiac/coronary sinus dissection, cardiac/coronary sinus or cardiac vein thrombosis.

Refer to the User's Manual for detailed indications, contraindications, warnings, precautions and potential

Customer Support: 46-8-474-4756

Brief Summary: Prior to using these devices, please review the Instructions for Use for a complete listing of indications, contraindications, warnings, precautions, potential adverse events and directions for use. Devices depicted may not be available in all countries. Check with your St. Jude Medical representative for product availability in your country. Unless otherwise noted, ™ indicates that the name is a trademark of, or licensed to, St. Jude Medical or one of its subsidiaries. ST. JUDE MEDICAL, the nine-squares symbol and MORE CONTROL. LESS RISK. are registered and unregistered trademarks and service marks of St. Jude Medical, Inc. and its related companies. ©2013 St. Jude Medical, Inc. All rights reserved.



^{*}Longevity calculated based on the following settings: 2.5 V, 500 Ohm, 60 BPM, 100% DDD-BiV Pacing, 0.4ms, Cap Confirm Off, and Stored EGM On

Allure Quadra[™] RF

Cardiac Resynchronisation Therapy Pacemaker

Product Specifications

PHYSICAL SPECIFICATIONS		
Model	PM3242	
Telemetry	RF	
Dimensions (mm)	56 x 59 x 6	
Weight (g)	27	
Volume (cc) ¹	15	
Connector	IS4-LLLL, IS-1	
PARAMETER	SETTINGS	

Resynchronisation Therapy QuickOpt™ Timing Cycle Optimisation RV and LV Pulse Width (ms) Sensed/Paced AV Delay; Interventricular Paced Delay 0,05; 0,1-1,5 in steps of 0,10,25-4,0 in steps of 0,25; 4,5-7,5 in steps of 0,5 RV and LV Pulse Amplitude (V) RV Pulse Configuration VectSelect Quartet™ Unipolar; Bipolar Unipolar; Bipolar; Distal Tip 1 - Mid 2;Distal Tip 1 - Proximal 4; Distal Tip 1 – RV Ring; Mid 2 – Proximal 4; Mid 2 – RV Ring; Mid 3 – Mid 2; Mid 3 – Proximal 4; Mid 3 – RV Ring; Proximal 4 – Mid 2; Proximal 4 – RV Ring; Distal Tip 1 – Can; Mid 2 – Can; Mid 3 – Can; Proximal 4 – Can LV Pulse Configuration BV Unipolar Tip; BV Bipolar; RV Unipolar Tip; RV Bipolar;Distal Tip 1 - Mid 2; Distal Tip 1 - Can; and Distal Tip 1 - RV Tip Simultaneous²; RV; LV Ventricular Sense Configuration

10-80 in steps of 5

Output/Sensing

First Chamber Paced

Interventricular Pace Delay (ms)

Off; -10 to -120 in steps of 10 Shortest AV/PV Delay (ms) 25-50 in steps of 5; 60-120 in steps of 10 Atrial ACap™ Confirm

Primary Pulse Confirmation On; Off; Monitor Bipolar Backup Pulse Confirmation Backup Pulse Amplitude (V) Searchable Intervals (hrs) Bipolar 5,0 8; 24 O1.24 Unipolar (tip—case); Bipolar (tip—ring)
Unipolar (tip—case); Bipolar (tip—ring); Unipolar Ring (ring—case)
O.1—0.5 in steps of 0.1; 0.75—2.0 in steps of 0.25; 2.5—5.0 in steps of 0.5
O.25—4.0 in steps of 0.25; 4.5—7.5 in steps of 0.5
O.05; 0.1—1.5 in steps of 0.1
On; Off; Monitor Atrial Pulse Configuration Atrial Sense Configuration Atrial Sensitivity^{3,4} (Fixed) (mV)
Atrial Pulse Amplitude (V)
Atrial Pulse Width (ms)
RVCap™ Confirm 8; 24 On; Off; Monitor 8; 24 Searchable Interval (hrs) LVCap™ Confirm Searchable Interval (hrs) Sense*Ability*™ Technology Off; On (Automatic Sensitivity Control adjustment for atrial and ventricular events) A Max Sensitivity (mV) 0.2-1.0 in steps of 0.1 V Max Sensitivity (mV) Threshold Start 0,2-2,0 in steps of 0,1 (Atrial and Ventricular Post-Sense) 50; 62,5; 75; 100% (Atrial Post-Pace) 0,2-3,0 in steps of 0,1 mV (Ventricular Post-Pace) Auto; 0,2-3,0 in steps of 0,1 mV (Atrial and Ventricular Post-Sense) 0; 30; 60; 95; 125; 160; 190; 220

(Atrial Post-Pace) 0; 30; 60; 95; 125; 160; 190; 220 (Ventricular Post-Pace) Auto; 0; 30; 60; 95; 125; 160; 190; 220 0,5-12,5 in steps of 0,5^{3,4}

Ventricular Sensitivity (fixed) (mV)

Decay Delay (ms)

Rate/Timing	
Mode	A00(R); AAI(R); AAT(R); VO0(R); VVI(R); VVT(R); D00(R); DVI(R); DDI(R); DDT(R); DDD(R); VDD(R); Pacing Off
DDT Trigger ⁵	R wave
DDT Timing ⁵	DDI
Base Rate (min-1)	30-130 in steps of 5; 140-170 in steps of 10
Hysteresis Rate (min-1)	Off; 30-150 in steps of 56
Search Interval (min)	Off; 1; 5; 10; 15; 30
Cycle Count	1–16
Intervention Rate (min-1)	Off; Same Base Rate; 80-120 in steps of 10 (Intrinsic +0;
	Intrinsic +10; Intrinsic +20; Intrinsic +30)
Intervention Duration (min ⁻¹)	1–10
Recovery Time	Fast; Medium; Slow; Very Slow
Rest Rate (min-1)	Off; 30-150 in steps of 5
Maximum Tracking Rate (min-1)	90-130 in steps of 5; 140-180 in steps of 10
Sensed AV Delay (ms)	25; 30-200 in steps of 10; 225-325 in steps of 25
Paced AV Delay (ms)	25; 30-200 in steps of 10; 225-300 in steps of 25; 350
Ventricular Pace/Sense	
Refractory7 (Fixed) (ms)	125; 160-400 in steps of 30; 440; 4708
Atrial Pace Refractory	190-400 in steps of 30; 440; 4708
Atrial Sense Refractory	93; 125; 157; 190-400 in steps of 30; 440; 4708

Atrial Sense Refractory PVARP (ms) Atrial Protection Interval (ms)⁵ Far-Field Protection Interval (ms)⁵

1 ± 0.5 cc
2 IV first with 10 ms interventricular delay.
3 Sensitivity is with respect to a 20 ms haversine test signal.
4 Values 0.1-0.4 not available in a Unipolar Sense Configuration.
5 This parameter is not programmable.
6 The highest available setting for hysteresis rate is 5 min⁻¹ below the programmed base rate.
7 In the highest available setting for hysteresis rate is 5 min⁻¹ below the programmed base rate.
8 Togramming options dependent on pacing mode.
9 During airial NIPS in dual-chamber modes, the shortest Coupling Interval will be limited by the programmed AV/PV Delay.
10 SI Burst Cycle is applied at the preprogrammed S1 cycle length.

125

125-500 in steps of 25

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Rate-Modulated

Rate Responsive AV/PV Delay Rate Responsive PVARP/VREF Shortest PVARP/VREF Off; Low; Medium; High Off; Low; Medium; High 125–475 in steps of 25 On; Off; Passive 80–150 in steps of 5; 160-180 in steps of 10 Sensor Max Sensor Rate (min-1) Auto (-0,5); Auto (+0,0); Auto (+0,5); Auto (+1,0); Auto (+1,5); Auto +(2,0); 1-7 in steps of 0,5 Auto (-1); Auto (+0); Auto (+1); Auto (+2); Auto (+3); 1-16 Threshold Slope Very Fast; Fast; Medium; Slow Fast; Medium; Slow; Very Slow Reaction Time Recovery Time

AF Management

AF Suppression™ Algorithm Lower Rate Overdrive (min-1)5 Upper Rate Overdrive (min⁻¹)⁵ No. of Overdrive Pacing Cycles 15–40 in steps of 5 Rate Recovery (ms) Auto Mode Switch 8:12 Off; DDD(R) to DDI(R); DDD(R) to DDT(R); DDD(R) to VVI(R); DDD(R) to VVT(R); VDD(R) to VVI(R); VDD(R) to VVT(R) AMS Base Rate (min-1) 40-170 in steps of 5

Stored Electrograms

Options		
Priority Options	Off; Low; High	
Channel	1; 2; 3	
Triggers		
Advanced Hysteresis	Off; Low; High	
AMS Entry/AMS Exit/		
AMS Entry and Exit	Off; Low; High	
AT/AF Detection	Off; Low; High	
Magnet Response	Off; Low; High	
High Atrial Rate	Off; Low; High	
Rate (min-1)	125-300 in steps of 25	
No. of Consecutive Cycles	2; 3; 4; 5; 10; 15; 20	
High Ventricular Rate	Off; Low; High	
Rate (min-1)	125-300 in steps of 25	
No. of Consecutive Cycles	2; 3; 4; 5; 10; 15; 20	
PMT Termination	Off; Low; High	
Consecutive PVCs	Off; Low; High	
No. of Consecutive PVCs	2; 3; 4; 5	
Noise Reversion	Off; Low; High	

Off; Battery Test

Other

Magnet Response

Ventricular Intrinsic

Ventricular mitrinisie	
Preference, VIP™ (ms)	Off; 50-150 in steps of 25; 160-200 in steps of 10
VIP Search Interval	30 sec.; 1; 3; 5; 10; 30 min.
VIP Search Cycles	1; 2; 3
of the Atrial Tachycardia	
Detection Rate (min-1)	110-200 in steps of 10; 225-300 in steps of 25
Post Vent. Atrial Blanking	
(PVAB) (ms)	60-200 in steps of 10; 225; 250
Ventricular Safety Standby	Off; On
PVC Response	Off; Atrial Pace8
PMT Options	Off; Passive; Atrial Pace8
PMT Detection Rate (min-1)	90–180 in steps of 5
Lead Type	Uncoded; Unipolar; Bipolar
NIPS Options	
Stimulation Chamber	Atrial; Right Ventricular
Coupling Interval [®] (ms)	200-800 in steps of 10
S1 Count	2-25 in steps of 1
S1 ¹⁰ ; S2; S3 and S4 Cycle (ms) Right Ventricular	Off; 100–800 in steps of 10 (Fixed or Adaptive)
Support Rate (min ⁻¹)	Off; 30-95 in steps of 5
Sinus Node Recovery Delay (s)	1-5 in steps of 1
Diagnostic Trends	AT/AF Activity; Exercise; Lead Impedance; P and R Wave; A and V threshold
	CorVue™ Congestion Monitoring
CorVue™ Congestion Monitoring	Off; On
CorVue Congestion Trigger	8-18 days

Patient Notifiers

Patient Notiners		
Programmable Notifiers (On; Off)	Device at ERI; Atrial Lead Impedance Out of Range; Ventricular Lead Impedance Out of Range; LV Lead Impedance Out of Range; AT/AF Burden; AT/AF Episode Duration; High V Rate During AT/AF, High V Rate, Percent BiV/RV Pacing Alert CorVue Congestion Monitoring Alert	
Device Reset	On	
Entry into Backup VVI Mode	On	
Audible Duration (sec) Number of Audible Alerts	2; 4; 6; 8; 10; 12; 14; 16	
per Notification	2	
Number of Notifications	1–16	
Time Between Notifications (hours)	10; 22	

