Table 1. *Variables in the model of the adenine nucleotide-creatine-phosphate module*

Variable	Description	Start Value At 135 beats/min
		Concentrations
$C_{ATP,cyt}$	ATP concentration in cytosol	5,601 μ M
$C_{ADP,cyt}$	ADP concentration in cytosol	64 μ M
$C_{PCr,cyt}$	PCr concentration in cytosol	5,710 μ M
$C_{Cr,cyt}$	Cr concentration in cytosol	9,790 μ M
$C_{Pi,cyt}$	Pi concentration in cytosol	912 μ M
$C_{ATP,ims}$	ATP concentration in IMS	5,626 μ M
$C_{ADP,ims}$	ADP concentration in IMS	39 μ M
$C_{PCr,ims,}$	PCr concentration in IMS	5,711 μ M
$C_{Cr,ims}$	Cr concentration in IMS	9,789 μ M
$C_{Pi,ims}$	Pi concentration in IMS	910 μ M

Chemical conversions (expressed per unit volume of total intracellular water)

J_{hyd}	ATP hydrolysis in cytosol
J_{syn}	ATP production, i.e., ux of ATP entering
$J_{CK,MM}$	the IMS from the mitochondrial matrix via
$J_{CK,Mi}$	the adenine nucleotide translocator
	rate of PCr production via muscle isoform
	of CK in cytosol
	rate of PCr production via mitochondrial
	isoform of CK in IMS

Transport uxes (expressed per unit volume of total intracellular water)

$J_{diff,ATP}$	diffusion ux of ATP from IMS to cytosol
$J_{dff,ADP}$	diffusion ux of ADP from IMS to cytosol
$J_{diff,PCr}$	diffusion ux of PCr from IMS to cytosol
$J_{diff,Cr}$	diffusion ux of Cr from IMS to cytosol
$J_{diff,Pi}$	diffusion ux of P i from IMS to cytosol

Start value refers to ATP hydrolysis rate = 486.5 μ M/s. These values are time averaged over the cardiac cycle. For the rabbit heart parameter set, see Table 2. Cyt, Cytosol; ims, intermembrane space.