Abstract: The two-Higgs-doublet model can be constrained by imposing Higgs-family symmetries and/or generalized CP symmetries. It is known that there are only six independent classes of such symmetry-constrained models. We study the CP properties of all cases in the bilinear formalism. An exact symmetry implies CP conservation. We show that soft breaking of the symmetry can lead to spontaneous CP violation (CPV) in three of the classes.