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Leonid Krop* (lkrop@condor.depaul.edu), Department of Mathematical Sciences, DePaul University, Chicago, IL 60614. *Isomorphism Types of Hopf Algebras in a Class of Abelian Extensions.*

There is no systematic general procedure by which isomorphism classes of Hopf algebras that are extensions of kF by k^G can be found. We develop the general procedure for classification of isomorphism classes of Hopf algebras which are extensions of the group algebra kC_p by k^G where C_p is a cyclic group of prime order p and k^G is the Hopf algebra dual of kG , G a finite abelian p -group and k is an algebraically closed field of characteristic 0. We apply the method to calculate the number of isoclasses of commutative extensions and certain extensions of this kind of dimension $\leq p^4$. (Received January 20, 2014)