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It is now well known that any group definable in an algebraically closed field K is constructible and is constructibly isomorphic to the K-rational points of an algebraic group. If L is separably closed of characteristic p and not perfect, then a priori new groups appear: definable groups which are not constructible (L^p for example) and infinitely definable groups which are not definable ($L^{p^{\infty}}$, the field of infinitely p-divisible elements of L). It is nevertheless true that every definable group is definably isomorphic to the L-rational points of an algebraic group defined over L. Up to definable isomorphism, any minimal (U-rank one connected) infinitely definable group is one of the following: the multiplicative group of $L^{p^{\infty}}$, the divisible hull of A(L) for some simple abelian variety A over L or a minimal subgroup of the additive group (L, +). In the third case there are examples of minimal groups with infinite transcendence degree and of minimal groups which are definably isogenous but not isomorphic to $G(L^{p^{\infty}}$ for G an algebraic group over $L^{p^{\infty}}$. - "Minimal groups in separably closed fields", preprint. (Received September 22, 2000)