

Title (en)
CURRENT TRANSFORMER WITH INCREASED PRECISION

Publication
EP 0400343 B1 19930714 (DE)

Application
EP 90108288 A 19900501

Priority
DE 3918100 A 19890602

Abstract (en)
[origin: EP0400343A1] In order to provide a current transformer with increased precision, in which a comparator converter (11; 22) and a power converter (13; 24) are located in series with their primary windings (10, 12; 21, 13) in a main circuit, in which a compensation current of a winding (16; 36) of the comparator converter (11; 22) is supplied from a secondary winding (17; 18) of the power converter (13; 24) in order to reduce the magnetisation of the core of the comparator converter (11; 22), and in which an indicator winding (19; 36) of the comparator converter (11; 22) emits a difference signal corresponding to the remaining magnetic flux, which signal is amplified (at 20; 37) and is supplied as a difference current of another winding (16; 38) of the comparator converter (11; 22), the sum of the compensation current (I1; I3) and of the difference current (I2; I4) forming the output signal, such that a high precision can be achieved both in the case of alternating current as well as in the case of pulsating direct current, with a cost-effective design, it is proposed that the power converter (24) also transmits a component, corresponding to the direct current component of the main current (Ih), in the first compensation current (I3). <IMAGE>

IPC 1-7
H01F 40/14

IPC 8 full level
H01F 27/42 (2006.01)

CPC (source: EP)
H01F 27/427 (2013.01)

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0400343 A1 19901205; EP 0400343 B1 19930714; AT E91566 T1 19930715; DE 3918100 A1 19901206; DE 3918100 C2 19920716; DE 59001950 D1 19930819; DK 0400343 T3 19930823

DOCDB simple family (application)
EP 90108288 A 19900501; AT 90108288 T 19900501; DE 3918100 A 19890602; DE 59001950 T 19900501; DK 90108288 T 19900501