

Title (en)
Control and output load circuit.

Title (de)
Regel- und Verbraucherkreis.

Title (fr)
Circuit de régulation et de charge.

Publication
EP 0168864 A1 19860122 (DE)

Application
EP 85200955 A 19850618

Priority
CH 318684 A 19840703

Abstract (en)
1. Circuit wit a.d.c.-d.c. converter (15) according to the principle of the switching controller with a rigid clock frequency and pulse length modulation, which by means of a closed control loop supplies a variable output current with a constant output voltage (U_a), with a load (27) supplied by the output current and whose power consumption is suddenly variable and with a control (30), which controls the power consumption of load (27) and the output current of the converter in such a way that for each sudden power consumption change, with minor variations to the control loop, the output current is directly adapted to the modified power consumption, characterized in that the load (27) comprises a plurality of electromagnetic transducers (51, 52), which can be individually switched on and off, that a further load (26) is provided, whose power consumption is substantially constant and that the control (30) is a selection control (55, 56) for the simultaneous, planned switching on and off of a random number of electromagnetic transducers (51, 52) and for controlling the converter in such a way that the length of the switch-on intervals (p, q) of the d.c.-d.c. converter (15) is in each case modified synchronously with the switch-on time and the duration of the switch-on intervals of the electromagnetic transducers (51, 52) and as a function of the number of the each case switched on electromagnetic transducers (51, 52), that it (15) continuously supplies an output current, whereof the quantity of its intensity constantly corresponds to the total power consumption of both loads (26, 27).

Abstract (de)
Der Regelkreis (11) umfasst ein Stellglied (15) zur Umwandlung einer Eingangsgrösse (16) in eine geregelte Ausgangsgrösse (17) und einen Regler (21) zur Abgabe eines Stellsignals (23) in Abhängigkeit vom Ist- (20) und Sollwert (22). Der Verbraucherkreis (12) umfasst Verbraucher konstanten (26) und gesteuert variablen (27) Verbrauchs. Die Steuerung (30) gibt ihre zur Ansteuerung der gesteuerten Verbraucher (27) benötigte Information vorgängig der Ansteuerung an einen zweiten Regler (33) ab. Dieser beeinflusst das Stellglied (15) so, dass zeitgleich mit jeder Verbrauchsänderung der gesteuerten Verbraucher (27) eine mengengleiche Veränderung der Ausgangsgrösse (17) resultiert. Die Anordnung besitzt verbessertes Regelverhalten bei Lastsprüngen und dient zur kombinierten Speisung von elektronischen Schaltkreisen und elektromechanischen Wandlern, insbesondere bei Matrixdrucken.

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G05F 1/575; H02M 3/335

IPC 8 full level
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• [A] DE 2932791 A1 19810219 - SIEMENS AG
• [A] DE 2932819 A1 19810226 - SIEMENS AG

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