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WHIRLPOOL S.A. [BR/BR]; Avenida Das Nações
Unidas, N° 12.995, 32° andar, Brooklin Novo, Cep:
04578-000, São Paulo, SP (BR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **MAAS, Günter Jo-**
hann [BR/BR]; Guai Lopes, 346 - Apto. 304, Bairro San-
to Antônio, Cep: 89218-060 - Joinville - SC (BR).(74) Agent: **DANNEMANN, SIEMSEN, BIGLER &**
IPANEMA MOREIRA; Caixa Postal 2142, Rua Mar-quês de Olinda, 70, 22251-040 - Rio de Janeiro - RJ
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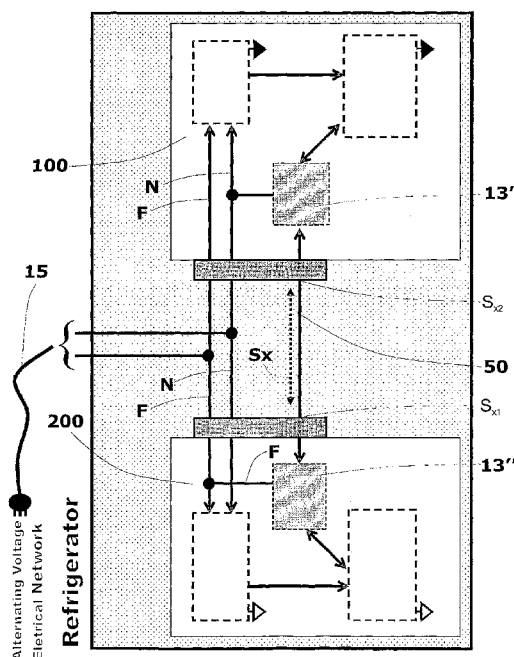
(54) Title: DATA AND COMMANDS COMMUNICATION SYSTEM AND METHOD BETWEEN VARIABLE CAPACITY
COMPRESSOR AND ELECTRONIC THERMOSTAT FOR A COOLING SYSTEM

Fig. 5

(57) Abstract: The present invention refers to a data and commands com-
munication system between compressor and electronic thermostat, particu-
larly applied to cooling systems having variable capacity compressor
(VCC), with the purpose of providing an exchange of data between said
equipment which is technically more efficient and less costly compared to
the solutions available today. Accordingly, there is described a data com-
munication system between variable capacity compressor and electronic
thermostat for a cooling system, the compressor comprising at least a fre-
quency inverter unit (100) electrically associated to an electrical motor of
the compressor, the electronic thermostat (200) being electrically associ-
ated to the frequency inverter unit (100), the electronic thermostat (200) and
the frequency inverter unit (100) being powered by an alternating voltage
source (15), the data communication system comprising a data communi-
cation single highway (50) between the electronic thermostat (200) and the
inverter unit (100), arranged to establish an exchange of data between the
thermostat (200) and the inverter unit (100), the exchange of data between
the thermostat (200) and the inverter unit (100) being provided by the
modulation of an electrical magnitude (Snetwork) of the alternating volt-
age source (15), the modulation of the electrical magnitude (Snetwork) of
the alternating voltage source (15) being capable of configuring a modu-
lated information signal (Sx), the exchange of data between the thermostat
(200) and the inverter unit (100) being provided by a demodulation of the
modulated information signal (Sx).



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