ACSx80 Modbus TCP – Writing Parameters Via 32 Bit Modbus Registers In Modbus Poll

Description:

The information given in this document will show how to write a parameter via a 32 bit Modbus registers in Modbus Poll.

The formula for determining the Modbus register address is given by the following:

\[ 420000 + 200 \times \text{Parameter Group Number} + 2 \times \text{Parameter Index Number} \]

Example for ACS880 drive parameter 1.11, DC Bus Voltage:

\[ 420000 + 200 \times 1 + 2 \times 11 = 420222 \]

The least significant Modbus word register is 420222 and the most significant Modbus register is 420223.

The 32 bit Modbus registers for ACS580 parameter 99.06, Motor Nominal Current are 439812 and 439813. Refer to the next page for the screenshot of the Modbus poll dialog box. In the address field of the Read/Write Definition dialog box in Modbus Poll, type in the register number 39812 with a value in the quantity field of 2 to handle the second 16 bit register. The display type must be set to Long Inverse which is equivalent to Long CD, AB byte order.
As shown in the screenshots on the next page, the value of 35 is being written to Modbus register 439812 in Modbus Poll and updated in ACS580 parameter 99.06, Motor Nominal Current in Drive Composer Pro. This results in a value of 3.5 amps in parameter 99.06.
Documents or other reference material:

FENA-01/-11/-21 Ethernet Adapter Module User’s Manual, document 3AUA0000093568

Drive Composer Start-Up and Maintenance PC Tool User’s Manual, document 3AUA0000094606