

(the currently installed version can be checked in the Menu under "About HW, SW...")

| Modbus address | Read coils (0x01) | Read holding registers (0x03) | Write single coil (0x05) | Write single register (0x06) | Write multiple registers (0x10) | Description               | Access | Data type | Data length in bytes | Number of registers | Data                          | Example or description     |
|----------------|-------------------|-------------------------------|--------------------------|------------------------------|---------------------------------|---------------------------|--------|-----------|----------------------|---------------------|-------------------------------|----------------------------|
| 0              | x                 |                               |                          |                              |                                 | Device class              | R      | uint(16)  | 2                    | 1                   |                               | 28, 30, 38 = PS 9000 Serie |
| 1              | x                 |                               |                          |                              |                                 | Device type               | R      | char      | 40                   | 20                  | ASCII                         | PS 9080-60 2U              |
| 21             | x                 |                               |                          |                              |                                 | Manufacturer              | R      | char      | 40                   | 20                  | ASCII                         |                            |
| 41             | x                 |                               |                          |                              |                                 | Manufacturer address      | R      | char      | 40                   | 20                  | ASCII                         |                            |
| 61             | x                 |                               |                          |                              |                                 | Manufacturer ZIP code     | R      | char      | 40                   | 20                  | ASCII                         |                            |
| 81             | x                 |                               |                          |                              |                                 | Manufacturer phone number | R      | char      | 40                   | 20                  | ASCII                         |                            |
| 101            | x                 |                               |                          |                              |                                 | Manufacturer website      | R      | char      | 40                   | 20                  | ASCII                         | 80                         |
| 121            | x                 |                               |                          |                              |                                 | Nominal voltage           | R      | float     | 4                    | 2                   | Floating point number IEEE754 | 60                         |
| 123            | x                 |                               |                          |                              |                                 | Nominal current           | R      | float     | 4                    | 2                   | Floating point number IEEE754 | 1500                       |
| 125            | x                 |                               |                          |                              |                                 | Nominal power             | R      | float     | 4                    | 2                   | Floating point number IEEE754 |                            |
| 131            | x                 |                               |                          |                              |                                 | Article no.               | R      | char      | 40                   | 20                  | ASCII                         | 06230209                   |
| 151            | x                 |                               |                          |                              |                                 | Serial no.                | R      | char      | 40                   | 20                  | ASCII                         | 1234567890                 |
| 171            | x                 |                               |                          | x                            |                                 | User text                 | RW     | char      | 40                   | 20                  | ASCII                         |                            |
| 191            | x                 |                               |                          |                              |                                 | Firmware version (KE)     | R      | char      | 40                   | 20                  | ASCII                         | V3.02 16.08.2016           |
| 211            | x                 |                               |                          |                              |                                 | Firmware version (HMI)    | R      | char      | 40                   | 20                  | ASCII                         | V2.08 22.09.2016           |
| 231            | x                 |                               |                          |                              |                                 | Firmware version (DR)     | R      | char      | 40                   | 20                  | ASCII                         | V1.0.4.1 30.06.2016        |

|     |   |   |   |   |  |                                                  |    |          |   |   |                            |                                                                                      |
|-----|---|---|---|---|--|--------------------------------------------------|----|----------|---|---|----------------------------|--------------------------------------------------------------------------------------|
| 402 | x |   | x |   |  | Remote mode                                      | RW | uint(16) | 2 | 1 | Coils : Remote             | 0x0000 = off; 0xFF00 = on                                                            |
| 405 | x |   | x |   |  | DC output / DC input                             | RW | uint(16) | 2 | 1 | Coils : Output             | 0x0000 = off; 0xFF00 = on                                                            |
| 407 | x |   | x |   |  | Condition of DC output after power fail alarm    | RW | uint(16) | 2 | 1 | Coils : Auto on            | 0x0000 = off; 0xFF00 = auto-on                                                       |
| 408 |   | x |   | x |  | Condition of DC output after powering the device | RW | uint(16) | 2 | 1 | Reg : Power on             | 0xFFFF = off; 0xFFFE = Restore                                                       |
| 410 | x |   | x |   |  | Restart of the device (warm start)               | RW | uint(16) | 2 | 1 | Coils : Restart            | 0xFF00 = execute                                                                     |
| 411 | x |   | x |   |  | Acknowledge alarms                               | RW | uint(16) | 2 | 1 | Coils : Alarms             | 0xFF00 = acknowledge                                                                 |
| 416 | x |   | x |   |  | Analog interface: Reference voltage (pin VREF)   | RW | uint(16) | 2 | 1 | Coils : VREF               | 0x0000 = 10V; 0xFF00 = 5V                                                            |
| 417 | x |   | x |   |  | Analog interface: REM-SB level                   | RW | uint(16) | 2 | 1 | Coils : REM-SB Level       | 0x0000 = normal; 0xFF00 = inverted                                                   |
| 418 | x |   | x |   |  | Analog interface: REM-SB action                  | RW | uint(16) | 2 | 1 | Coils : REM-SB Action      | 0x0000 = DC off; 0xFF00 = DC auto                                                    |
| 422 | x |   | x |   |  | Speed of internal voltage controller             | RW | uint(16) | 2 | 1 | Coils : Controller speed   | 0x0000 = slow; 0xFF00 = fast                                                         |
| 425 | x |   | x |   |  | DC output after leaving remote                   | RW | uint(16) | 2 | 1 | Coils : Condition          | 0x0000 = off; 0xFF00 = unchanged                                                     |
| 500 |   | x |   | x |  | Set voltage value                                | RW | uint(16) | 2 | 1 | 0x0000 - 0xD0E5 (0 - 102%) | Voltage value (for translation see programming guide)                                |
| 501 |   | x |   | x |  | Set current value                                | RW | uint(16) | 2 | 1 | 0x0000 - 0xD0E5 (0 - 102%) | Current value (for translation see programming guide)                                |
| 502 |   | x |   | x |  | Set power value                                  | RW | uint(16) | 2 | 1 | 0x0000 - 0xD0E5 (0 - 102%) | Power value (for translation see programming guide)                                  |
| 505 |   | x |   |   |  | Device state                                     | RW | uint(32) | 4 | 2 | Bit 0- 4: Control location | 0x00 = free; 0x01 = local; 0x02 = remote; 0x03 = USB; 0x04 = analog; 0x06 = Ethernet |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 7 : DC output state    | 0 = off; 1 = on                                                                      |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 9-10 : Regulation mode | 00 = CV; 01 = CR; 10 = CC; 11 = CP                                                   |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 11 : Remote            | 0 = off; 1 = on                                                                      |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 14 : Remote sensing    | 0 = off; 1 = on                                                                      |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 15 : Alarms            | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 16 : OVP               | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 17 : OCP               | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 18 : OPP               | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 19 : OT                | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 21 : Power fail        | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 22 : Power fail        | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 23 : Power fail        | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 24 : UVD               | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 25 : OVD               | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 26 : UCD               | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 27 : OCD               | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 28 : OPD               | 0 = none; 1 = active                                                                 |
|     |   |   |   |   |  |                                                  |    |          |   |   | Bit 30 : REM-SB            | 0 = DC enabled; 1 = REM-SB disables DC output                                        |
| 507 |   | x |   |   |  | Actual voltage                                   | RW | uint(16) | 2 | 1 | 0x0000 - 0xFFFF (0 - 125%) | Actual voltage (for translation see programming guide)                               |
| 508 |   | x |   |   |  | Actual current                                   | RW | uint(16) | 2 | 1 | 0x0000 - 0xFFFF (0 - 125%) | Actual current (for translation see programming guide)                               |
| 509 |   | x |   |   |  | Actual power                                     | RW | uint(16) | 2 | 1 | 0x0000 - 0xFFFF (0 - 125%) | Actual power (for translation see programming guide)                                 |

|     |   |  |  |                                   |    |          |   |   |                 |       |
|-----|---|--|--|-----------------------------------|----|----------|---|---|-----------------|-------|
| 520 | x |  |  | Count of OV alarms since power up | RW | uint(16) | 2 | 1 | 0x0000 - 0xFFFF | Count |
| 521 | x |  |  | Count of OC alarms since power up | RW | uint(16) | 2 | 1 | 0x0000 - 0xFFFF | Count |
| 522 | x |  |  | Count of OP alarms since power up | RW | uint(16) | 2 | 1 | 0x0000 - 0xFFFF | Count |
| 523 | x |  |  | Count of OT alarms since power up | RW | uint(16) | 2 | 1 | 0x0000 - 0xFFFF | Count |
| 524 | x |  |  | Count of PF alarms since power up | RW | uint(16) | 2 | 1 | 0x0000 - 0xFFFF | Count |

|     |   |   |                                        |    |          |   |   |                            |                                                       |
|-----|---|---|----------------------------------------|----|----------|---|---|----------------------------|-------------------------------------------------------|
| 550 | x | x | Overvoltage protection threshold (OVP) | RW | uint(16) | 2 | 1 | 0x0000 - 0xE147 (0 - 110%) | OVP threshold (for translation see programming guide) |
| 553 | x | x | Overcurrent protection threshold (OCP) | RW | uint(16) | 2 | 1 | 0x0000 - 0xE147 (0 - 110%) | OCP threshold (for translation see programming guide) |
| 556 | x | x | Overpower protection threshold (OPP)   | RW | uint(16) | 2 | 1 | 0x0000 - 0xE147 (0 - 110%) | OPP threshold (for translation see programming guide) |

|      |   |   |                                          |    |          |   |                              |                                                       |
|------|---|---|------------------------------------------|----|----------|---|------------------------------|-------------------------------------------------------|
| 9000 | x | x | Upper limit of voltage set value (U-max) | RW | uint(16) | 2 | 1 0x0000 - 0xD0E5 (0 - 102%) | Voltage value (for translation see programming guide) |
| 9001 | x | x | Lower limit of voltage set value (U-min) | RW | uint(16) | 2 | 1 0x0000 - 0xD0E5 (0 - 102%) | Voltage value (for translation see programming guide) |
| 9002 | x | x | Upper limit of current set value (I-max) | RW | uint(16) | 2 | 1 0x0000 - 0xD0E5 (0 - 102%) | Current value (for translation see programming guide) |
| 9003 | x | x | Lower limit of current set value (I-min) | RW | uint(16) | 2 | 1 0x0000 - 0xD0E5 (0 - 102%) | Current value (for translation see programming guide) |
| 9004 | x | x | Upper limit of power set value (P-max)   | RW | uint(16) | 2 | 1 0x0000 - 0xD0E5 (0 - 102%) | Power value (for translation see programming guide)   |

|       |   |   |   |                                           |    |          |    |    |                          |                                        |
|-------|---|---|---|-------------------------------------------|----|----------|----|----|--------------------------|----------------------------------------|
| 10007 | x |   |   | Ethernet: TCP keep-alive                  | RW | uint(16) | 2  | 1  | Coils: Keep-alive on/off | 0x0000 = off; 0xFF00 = on              |
| 10008 |   |   | x | Ethernet: DHCP                            | RW | uint(16) | 2  | 1  | Coils: DHCP on/off       | 0x0000 = off; 0xFF00 = on              |
| 10010 | x |   | x | Protocol: Modbus                          | RW | uint(16) | 2  | 1  | Coils: MODBUS on/off     | 0x0000 = off; 0xFF00 = on              |
| 10011 | x |   | x | Protocol: SCPI                            | RW | uint(16) | 2  | 1  | Coils: SCPI on/off       | 0x0000 = off; 0xFF00 = on              |
| 10017 |   | x |   | Ethernet: DHCP status                     | RW | uint(16) | 2  | 1  | Bit0: DHCP running       | 0 = manual; 1 = DHCP                   |
| 10502 |   | x |   | x Ethernet: IP address                    | RW | uint(8)  | 4  | 2  | Bytes 0 - 3: 0..255      | 192.168.0.2 (default)                  |
| 10504 | x |   | x | Ethernet: Subnet mask                     | RW | uint(8)  | 4  | 2  | Bytes 0 - 3: 0..255      | 255.255.255.0 (Standard)               |
| 10506 |   | x |   | x Ethernet: Gateway                       | RW | uint(8)  | 4  | 2  | Bytes 0 - 3: 0..255      | 192.168.0.1 (default)                  |
| 10508 |   | x |   | x Ethernet: Host name                     | RW | char     | 54 | 27 | ASCII                    | "Client" (default)                     |
| 10535 |   | x |   | x Ethernet: Domain name                   | RW | char     | 54 | 27 | ASCII                    | "Workgroup" (default)                  |
| 10562 | x |   | x | Ethernet: DNS                             | RW | uint(8)  | 4  | 2  | Bytes 0 - 3: 0..255      | 0.0.0.0 (default)                      |
| 10566 | x |   |   | USB: Connection timeout (in milliseconds) | RW | uint(16) | 2  | 1  | 5..65535                 | Default: 5 ms                          |
| 10567 | x |   |   | Ethernet: MAC                             | RW | uint(8)  | 6  | 3  | Bytes 0 - 5: 0..255      | 00-50-C2-C3:12:34 or 00-50-C2-C3:12-34 |
| 10572 | x |   |   | Ethernet: Port                            | RW | uint(16) | 2  | 1  | 0..65536 (except 80)     | 5025 (default)                         |
| 10573 | x |   |   | Ethernet: TCP Socket timeout (in seconds) | RW | uint(16) | 2  | 1  | 5..65535                 | Default: 5 s                           |
| 10900 | x |   |   | GPIO address (option 3W)                  | RW | uint(16) | 2  | 1  | 1...30                   | Default: 1                             |