

Solectria Commercial MODBUS Register Table for PVI 10-15kW Grid-Tie Inverters

- Notes: 1) Each register/data point contains a raw 16-bit signed or unsigned number. The appropriate multiplier must be applied to each number to obtain the scaled representation indicated under the 'Unit' column. Each word is ordered {MSB, LSB}.
- 2) Do not attempt to write to **Reserved** registers.
- 3) The **Memory Type** is for writeable registers only and is defined as follows: **V**, volatile, has effect immediately, but not remembered the next day; **P**, permanent, need to cycle power to have effect, but will be remembered next day.

| Register | Offset | Description | Unit | Multiplier | Type | Write | Memory Type | Notes |
|----------|--------|--|------|------------|--------|-------|-------------|--|
| 40001 | 0 | DC Voltage | V | 0.195313 | int16s | No | - | - |
| 40002 | 1 | Apparent AC Power Output | W | 19.53125 | int16s | No | - | - |
| 40003 | 2 | AC Grid Frequency | Hz | 0.048828 | int16s | No | - | - |
| 40004 | 3 | Reserved | - | - | - | - | - | - |
| 40005 | 4 | L1-to-L2 AC Voltage | V | 0.195313 | int16s | No | - | - |
| 40006 | 5 | L2-to-L3 AC Voltage | V | 0.195313 | int16s | No | - | - |
| 40007 | 6 | L1-to-L3 AC Voltage | V | 0.195313 | int16s | No | - | - |
| 40008 | 7 | Phase Sequence | - | - | int16s | No | - | 0: Not Locked; 1: CW; 2: CCW |
| 40009 | 8 | AC Energy MSW | kWh | 0.1 | int16u | No | - | Cumulative Energy = {MSW,LSW}*0.1 |
| 40010 | 9 | AC Energy LSW | kWh | 0.1 | int16u | No | - | - |
| 40011 | 10 | On-grid Hours MSW | h | 1 | int16u | No | - | Cumulative Hours = {MSW,LSW} |
| 40012 | 11 | On-grid Hours LSW | h | 1 | int16u | No | - | - |
| 40013 | 12 | Fan On-time Hours | h | 1 | int16u | No | - | Cumulative Value |
| 40014 | 13 | AC Contactor Cycles | - | - | int16u | No | - | Cumulative Value |
| 40015 | 14 | Network ID | - | - | int16u | Yes | P | - |
| 40016 | 15 | Critical Alarms | - | - | int16u | No | - | See Alarm Definitions |
| 40017 | 16 | Informative Alarms 1 | - | - | int16u | No | - | See Alarm Definitions |
| 40018 | 17 | Reserved | - | - | - | - | - | - |
| 40019 | 18 | Inverter Status | - | - | int16u | No | - | See Alarm Definitions |
| 40020 | 19 | Reserved | - | - | - | - | - | - |
| 40021 | 20 | Reserved | - | - | - | - | - | - |
| 40022 | 21 | Reserved | - | - | - | - | - | - |
| 40023 | 22 | Reserved | - | - | - | - | - | - |
| 40024 | 23 | Reserved | - | - | - | - | - | - |
| 40025 | 24 | Reserved | - | - | - | - | - | - |
| 40026 | 25 | Reserved | - | - | - | - | - | - |
| 40027 | 26 | Reserved | - | - | - | - | - | - |
| 40028 | 27 | Reserved | - | - | - | - | - | - |
| 40029 | 28 | Reserved | - | - | - | - | - | - |
| 40030 | 29 | Reserved | - | - | - | - | - | - |
| 40031 | 30 | Reserved | - | - | - | - | - | - |
| 40032 | 31 | Inverter Manufacture Year and Month | - | - | int16u | No | - | Inverter Serial Number appears as YYMMDD-##; this register is for YYMM in hex format |
| 40033 | 32 | Inverter Manufacture Day and Serial Number | - | - | int16u | No | - | Inverter Serial Number appears as YYMMDD-##; this register is for DD## in hex format |
| 40034 | 33 | Reserved | - | - | - | - | - | - |
| 40035 | 34 | Reserved | - | - | - | - | - | - |
| 40036 | 35 | Reserved | - | - | - | - | - | - |
| 40037 | 36 | Reserved | - | - | - | - | - | - |
| 40038 | 37 | Reserved | - | - | - | - | - | - |
| 40039 | 38 | Reserved | - | - | - | - | - | - |
| 40040 | 39 | Reserved | - | - | - | - | - | - |

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|----------|--------|-------------|------|------------|------|-------|-------------|-------|
| 40041 | 40 | Reserved | - | - | - | - | - | - |
| 40042 | 41 | Reserved | - | - | - | - | - | - |
| 40043 | 42 | Reserved | - | - | - | - | - | - |
| 40044 | 43 | Reserved | - | - | - | - | - | - |
| 40045 | 44 | Reserved | - | - | - | - | - | - |
| 40046 | 45 | Reserved | - | - | - | - | - | - |
| 40047 | 46 | Reserved | - | - | - | - | - | - |
| 40048 | 47 | Reserved | - | - | - | - | - | - |
| 40049 | 48 | Reserved | - | - | - | - | - | - |
| 40050 | 49 | Reserved | - | - | - | - | - | - |
| 40051 | 50 | Reserved | - | - | - | - | - | - |
| 40052 | 51 | Reserved | - | - | - | - | - | - |
| 40053 | 52 | Reserved | - | - | - | - | - | - |
| 40054 | 53 | Reserved | - | - | - | - | - | - |
| 40055 | 54 | Reserved | - | - | - | - | - | - |
| 40056 | 55 | Reserved | - | - | - | - | - | - |
| 40057 | 56 | Reserved | - | - | - | - | - | - |
| 40058 | 57 | Reserved | - | - | - | - | - | - |
| 40059 | 58 | Reserved | - | - | - | - | - | - |
| 40060 | 59 | Reserved | - | - | - | - | - | - |
| 40061 | 60 | Reserved | - | - | - | - | - | - |
| 40062 | 61 | Reserved | - | - | - | - | - | - |
| 40063 | 62 | Reserved | - | - | - | - | - | - |
| 40064 | 63 | Reserved | - | - | - | - | - | - |
| 40065 | 64 | Reserved | - | - | - | - | - | - |
| 40066 | 65 | Reserved | - | - | - | - | - | - |
| 40067 | 66 | Reserved | - | - | - | - | - | - |
| 40068 | 67 | Reserved | - | - | - | - | - | - |
| 40069 | 68 | Reserved | - | - | - | - | - | - |
| 40070 | 69 | Reserved | - | - | - | - | - | - |
| 40071 | 70 | Reserved | - | - | - | - | - | - |
| 40072 | 71 | Reserved | - | - | - | - | - | - |
| 40073 | 72 | Reserved | - | - | - | - | - | - |
| 40074 | 73 | Reserved | - | - | - | - | - | - |
| 40075 | 74 | Reserved | - | - | - | - | - | - |
| 40076 | 75 | Reserved | - | - | - | - | - | - |
| 40077 | 76 | Reserved | - | - | - | - | - | - |
| 40078 | 77 | Reserved | - | - | - | - | - | - |
| 40079 | 78 | Reserved | - | - | - | - | - | - |
| 40080 | 79 | Reserved | - | - | - | - | - | - |
| 40081 | 80 | Reserved | - | - | - | - | - | - |
| 40082 | 81 | Reserved | - | - | - | - | - | - |
| 40083 | 82 | Reserved | - | - | - | - | - | - |
| 40084 | 83 | Reserved | - | - | - | - | - | - |

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| Register | Offset | Description | Unit | Multiplier | Type | Write | Memory Type | Notes |
|----------|--------|---|------|------------|--------|-------|-------------|---|
| 40085 | 84 | Power Stage Temperature 1 | °C | 0.09765625 | int16s | No | - | - |
| 40086 | 85 | Reserved | - | - | - | - | - | - |
| 40087 | 86 | Reserved | - | - | - | - | - | - |
| 40088 | 87 | Reserved | - | - | - | - | - | - |
| 40089 | 88 | Reserved | - | - | - | - | - | - |
| 40090 | 89 | Reserved | - | - | - | - | - | - |
| 40091 | 90 | Reserved | - | - | - | - | - | - |
| 40092 | 91 | Reserved | - | - | - | - | - | - |
| 40093 | 92 | Reserved | - | - | - | - | - | - |
| 40094 | 93 | Inverter Output Current (after transformer, rms, average) | A | 0.09765625 | int16s | No | - | - |
| 40095 | 94 | Reserved | - | - | - | - | - | - |
| 40096 | 95 | Reserved | - | - | - | - | - | - |
| 40097 | 96 | Reserved | - | - | - | - | - | - |
| 40098 | 97 | Reserved | - | - | - | - | - | - |
| 40099 | 98 | Reserved | - | - | - | - | - | - |
| 40100 | 99 | Reserved | - | - | - | - | - | - |
| 40101 | 100 | Reserved | - | - | - | - | - | - |
| 40102 | 101 | Reserved | - | - | - | - | - | - |
| 40103 | 102 | Reserved | - | - | - | - | - | - |
| 40104 | 103 | Reserved | - | - | - | - | - | - |
| 40105 | 104 | Reserved | - | - | - | - | - | - |
| 40106 | 105 | Reserved | - | - | - | - | - | - |
| 40107 | 106 | Reserved | - | - | - | - | - | - |
| 40108 | 107 | Reserved | - | - | - | - | - | - |
| 40109 | 108 | Reserved | - | - | - | - | - | - |
| 40110 | 109 | Reserved | - | - | - | - | - | - |
| 40111 | 110 | Reserved | - | - | - | - | - | - |
| 40112 | 111 | Reserved | - | - | - | - | - | - |
| 40113 | 112 | Disable Power Remotely by Message | - | - | int16s | Yes | V | 0: enable power output; 1: disable power output |
| 40114 | 113 | UL Recover Time Left | s | 0.01 | int16s | Yes | V | - |
| 40115 | 114 | Reserved | - | - | - | - | - | - |
| 40116 | 115 | Reserved | - | - | - | - | - | - |
| 40117 | 116 | Reserved | - | - | - | - | - | - |
| 40118 | 117 | Reserved | - | - | - | - | - | - |
| 40119 | 118 | Reserved | - | - | - | - | - | - |
| 40120 | 119 | Reserved | - | - | - | - | - | - |
| 40121 | 120 | Reserved | - | - | - | - | - | - |
| 40122 | 121 | Reserved | - | - | - | - | - | - |
| 40123 | 122 | Reserved | - | - | - | - | - | - |
| 40124 | 123 | Reserved | - | - | - | - | - | - |
| 40125 | 124 | Reserved | - | - | - | - | - | - |
| 50000 | - | Reserved for SunSpec Expansion | - | - | - | - | - | - |