



MODBUS Protocol

for CS101

network card family

MODBUS tables

Please note that not all the data are available for all UPSs.

The addresses are in PLC mode (base 1).

Type: **U** means “without arithmetic sign”, **S** means “with arithmetic sign”.

Daker DK, Daker DK Plus, Keor S, Keor LP, Keor Line RT

Address	Function	Type	Description	Notes
40001 - 40007	03	14 chars	UPS Company Name	2 characters each register
40008 - 40012	03	10 chars	UPS Model Name	2 characters each register
40013 - 40017	03	10 chars	UPS Firmware Version	2 characters each register
40018 - 40025	03	16 chars	CS101 Firmware Version	2 characters each register
40026	03	U	Battery Status	1 - unknown 2 - normal 3 - battery low
40027	03	U	Seconds on Battery	[seconds]
40028	03	U	Battery Capacity	[%]
40029	03	U	Battery Cell Voltage	[V * 100]
40030	03	U	Battery Temperature	[°C * 10]
40032	03	U	Battery Voltage	[V * 100]
40040	03	U	Input Line Voltage	[V * 10]
40041	03	U	Input Max Line Voltage	[V * 10]
40042	03	U	Input Min Line Voltage	[V * 10]
40043	03	U	Input Frequency	[Hz]
40050	03	U	Output Status	1 - unknown 2 - normal 3 - battery 5 - sleeping 6 - bypass 7 - rebooting 8 - standby
40051	03	U	Output Voltage	[V * 10]
40052	03	U	Output Frequency	[Hz * 10]
40053	03	U	Output Load	[%]
40054	03	U	Output Current	[A * 10]
40055	03	U	Output Power	[W]
40060	03	U	Nominal I/O Voltage	[V * 10]
40061	03	U	Nominal Power	[VA]
40062	03	U	Nominal Battery Voltage	[V * 100]
40063	03	U	Nominal I/O Frequency	[Hz * 10]
40064	03	U	Utility Fail	1 - yes 2 - no
40065	03	U	UPS Failed	1 - yes 2 - no

40066	03	U	Test in Progress	1 - yes 2 - no
40067	03	U	Shutdown Active	1 - yes 2 - no
40068	03	U	Beeper Enabled	1 - yes 2 - no
40070	06 / 16	U	UPS Switch OFF Delay	The delay in seconds the UPS remains ON after being told to turn OFF (see register 40080). Allowed values are [seconds]: 12, 18, 24, 30, 36, 42, 48, 54, 60, 120, 180, 240, 300, 360, 420, 480, 540, 600
40071	06 / 16	U	Config UPS Sleep Time	1 - 9999 [minutes]
40080	06 / 16	U	Turn OFF UPS	2 - turn OFF UPS (see also register 40070)
40081	06 / 16	U	Reboot UPS	2 - turn OFF UPS, then turn ON
40082	06 / 16	U	Control UPS Sleep	2 - put UPS in sleep mode
40085	06 / 16	U	Turn ON UPS	2 - turn ON UPS
40090	06 / 16	U	Battery Test	2 - start battery test
40091	03	U	Battery Test Result	1 - ok 2 - failed 3 - invalid test 4 - test in progress

Whad 3000, 4000, 5000, 6000

Address	Function	Type	Description	Notes
40001 - 40007	03	14 chars	UPS Company Name	2 characters each register
40008 - 40012	03	10 chars	UPS Model Name	2 characters each register
40013 - 40017	03	10 chars	UPS Firmware Version	2 characters each register
40018 - 40025	03	16 chars	CS101 Firmware Version	2 characters each register
40026	03	U	Battery Status	1 - unknown 2 - normal 3 - battery low
40027	03	U	Seconds on Battery	[seconds]
40028	03	U	Battery Capacity	[%]
40030	03	U	Battery Temperature	[°C * 10]
40031	03	S	Battery Current	[A * 10]
40032	03	U	Battery Voltage	[V * 100]
40040	03	U	Input Line Voltage	[V * 10]
40043	03	U	Input Frequency	[Hz * 10]
40044	03	U	Input Current	[A * 10]
40045	03	U	Input Power	[W]
40050	03	U	Output Status	1 - unknown 2 - normal 3 - battery 5 - sleeping 6 - bypass 7 - rebooting 8 - standby
40051	03	U	Output Voltage	[V * 10]
40052	03	U	Output Frequency	[Hz * 10]
40053	03	U	Output Load	[%]
40054	03	U	Output Current	[A * 10]
40055	03	U	Output Power	[W]
40060	03	U	Nominal I/O Voltage	[V * 10]
40061	03	U	Nominal Power	[VA]
40062	03	U	Nominal Battery Voltage	[V * 100]
40064	03	U	Utility Fail	1 - yes 2 - no
40065	03	U	UPS Failed	1 - yes 2 - no
40066	03	U	Test in Progress	1 - yes 2 - no
40067	03	U	Shutdown Active	1 - yes 2 - no
40068	03	U	Beeper Enabled	1 - yes 2 - no
40070	06 / 16	U	Config UPS Switch OFF Delay	The delay in seconds the UPS remains ON after being told to turn OFF (see register 40080). Allowed values are [seconds]: 12, 18, 24, 30, 36, 42, 48, 54, 60, 120, 180, 240, 300, 360, 420, 480, 540, 600

40080	06 / 16	U	Turn OFF UPS	2 - turn OFF UPS (see also register 40070)
40081	06 / 16	U	Reboot UPS	2 - turn OFF UPS, then turn ON
40084	06 / 16	U	Control Beeper	1 - disable beeper 2 - enable beeper
40085	06 / 16	U	Turn ON UPS	2 - turn ON UPS
40090	06 / 16	U	Battery Test	2 - start battery test
40091	03	U	Battery Test Result	1 - ok 2 - failed 3 - invalid test 4 - test in progress

Keor T

Address	Function	Type	Description	Notes
40001 - 40007	03	14 chars	UPS Company Name	2 characters each register
40008 - 40012	03	10 chars	UPS Model Name	2 characters each register
40013 - 40017	03	10 chars	UPS Firmware Version	2 characters each register
40018 - 40025	03	16 chars	CS101 Firmware Version	2 characters each register
40026	03	U	Battery Status	1 - unknown 2 - normal 3 - battery low
40027	03	U	Seconds on Battery	[seconds]
40050	03	U	Output Status	1 - unknown 2 - normal 3 - battery 5 - sleeping 6 - bypass 7 - rebooting 8 - standby
40084	06 / 16	U	Toggle Beeper	2 - toggle buzzer status
40090	06 / 16	U	Battery Test	2 - start battery test
40091	03	U	Battery Test Result	1 - ok 2 - failed 3 - invalid test 4 - test in progress
40100	03	U	Battery Voltage	[V * 10] It is the sum (without sign) of the voltage on positive and negative branch
40101	03	U	Battery Capacity	[%]
40102	03	U	Battery Time Remaining	[minutes]
40103	03	S	Battery Current	[A * 10] It is the average value between the current on positive and negative branch
40110	03	U	Input Frequency	[Hz * 10]
40111	03	U	Input Voltage (L1)	[V * 10]
40112	03	U	Input Voltage (L2)	[V * 10]
40113	03	U	Input Voltage (L3)	[V * 10]
40120	03	U	Output Frequency	[Hz * 10]
40121	03	U	Output Voltage (L1)	[V * 10]
40122	03	U	Output Voltage (L2)	[V * 10]
40123	03	U	Output Voltage (L3)	[V * 10]
40124	03	U	Output Load (L1)	[% * 10]
40125	03	U	Output Load (L2)	[% * 10]
40126	03	U	Output Load (L3)	[% * 10]
40131	03	U	Bypass Voltage (L1)	[V * 10]
40132	03	U	Bypass Voltage (L2)	[V * 10]
40133	03	U	Bypass Voltage (L3)	[V * 10]
40143	03	U	Output Configuration	2 - one output phase 3 - three output phases

40145	03	U	DC and Rectifier Status	6 - boost 7 - float 16 - no
40146	03	U	Rectifier Active	14 - yes 16 - no
40147	03	U	Bypass Frequency out of limits	14 - yes 16 - no
40148	03	U	Manual Bypass Breaker	8 - closed 9 - open
40149	03	U	Input Voltage out of limits	10 - normal 11 - abnormal
40150	03	U	Static Switch Mode	12 - inverter mode 13 - bypass mode
40161	03	U	DC bus voltage too high	14 - yes 16 - no
40163	03	U	Output Overload	14 - yes 16 - no
40165	03	U	Inverter Overtemperature	14 - yes 16 - no
40170 - 40176	03	14 chars	Nominal Rectifier Voltage (Phase to Neutral and Phase to Phase) and Number of Wires	2 chars each register
40177	03	U	Nominal Rectifier Frequency	[Hz]
40186 - 40192	03	14 chars	Nominal Output Voltage (Phase to Neutral and Phase to Phase) and Number of Wires	2 chars each register
40193	03	U	Nominal Output Frequency	[Hz]
40195 - 40199	03	10 chars	Rating Power	2 chars each register