

Function Code 03 - Read holding Registers.					Function Code 03 - Read holding Registers				
Register	Query Address	Size	Measurement	Notes	Output Data (SSG1.5KRM-1)				
UPS Information Group					UPS Information Group (Hex / ASCII)				
40001 - 40007	0000 - 0006	14 characters	UPS Company Name	14 characters	4661 (Fa), 6C63 (lc), 6F6E (on), 2045 (E), 6C65 (le), 6374 (ct), 7269 (ri)				
40008 - 40012	0007 - 0011	10 characters	UPS Model	10 characters	5353(SS), 4731(G1), 4B35 (K5), 524D (RM), 3120 (1)				
40013 - 40017	0012 - 0016	10 characters	version number of the UPS firmware	10 characters	3230 (20), 3130 (10), 2E30 (.0), 362E (6.), 3134 (14)				
40018 - 40025	0017 - 0024	16 characters	firmware revision of the UPS SNMP Proxy agent.	16 characters	332E (3.), 3130 (10), 2E42 (.B), 4135 (A5), 3036 (06), 2E46 (.F)				
Battery Group					Battery Group (Hex)				
40026	0025	UWORD	Battery Status	Integer Value: unknown(1),batteryNormal(2),batteryLow(3)	0002 (Battery Normal)				
40027	0026	UWORD	Seconds on Battery	Seconds	0000 ~ 006D (109 Seconds)				
40028	0027	UWORD	Battery Capacity	0-100%	005D (93% Online Mode), 005D ~ 0044 (93 to 68% Battery Mode)				
40029	0028	UWORD	Battery Voltage	x0.01 VDC	00DF (223 x .01= 2.23 Vdc Online Mode), 00DF ~ 00C6 (2.23 to 1.98Vdc Battery Mode)				
40030	0029	UWORD	Battery Temperature	x0.1 °C	0102 (258 x 0.1 = 25.8°C)				
40031	0030	UWORD	Battery Current	x0.1 A	N/A				
Input Group					Input Group (HEX)				
40040	0039	UWORD	Input Line Voltage	x0.1 VAC	0404 (1028 x .1 = 102.8Vac)				
40041	0040	UWORD	Input Max Line Voltage	x0.1 VAC	040C (1036 x .1 = 103.6Vac)				
40042	0041	UWORD	Input Min Line Voltage	x0.1 VAC	03F8 (1016 x .1 = 101.6Vac)				
40043	0042	UWORD	Input Frequency	x0.1 Hz	0258 (600 x .1 = 60Hz)				
Output Group					Output Group (HEX)				
40050	0049	UWORD	Output Status	Integer Value:unknown(1),onLine(2),onBattery(3),onBoost(4),sleeping(5),onBypass(6),rebooting(7),standBy(8),onBuck(9)	0002 (2, Online, Default), 0003 (3, Battery Mode), 0006 (6, Bypass)				
40051	0050	UWORD	Output Voltage	x0.1 VAC	0449 (1097 x .1 = 109.7Vac)				
40052	0051	UWORD	Output Frequency	x0.1 Hz	0258 (600 x .1 = 60Hz)				
40053	0052	UWORD	Output Load	0-100%	0005 (5 %)				
RATING GROUP					Rating Group (HEX)				
40060	0059	UWORD	Rating Voltage	x0.1 VAC	0480 (1200 x .1 = 120.0Vac)				
40061	0060	UWORD	Rating Power	VA	0618 (1560 VA)				
40062	0061	UWORD	Rating Battery Voltage	x0.01 VDC	1590 (1590 x .01 = 55.2Vdc)				
40063	0062	UWORD	Rating Frequency	x0.1 Hz	0258 (600 x .1 = 60Hz)				
UPS Environment					UPS Environmental Sensor (Net Feeler II) (HEX)				
40301	0300	UWORD	Environment Temperature	x0.1°C	00FA (250 x .1 = 25.0°C)				
40302	0301	UWORD	Environment Humidity	0-100%	0037 (55%)				
40303	0302	UWORD	Environment Water	Integer Value: normal(1),abnormal(2)	0001 (1, Normal)				
40304	0303	UWORD	Environment Smoke	Integer Value: normal(1),abnormal(2)	0001 (1, Normal)				
40305	0304	UWORD	Environment Security1	Integer Value: normal(1),abnormal(2)	0001 (1, Normal)				
40306	0305	UWORD	Environment Security2	Integer Value: normal(1),abnormal(2)	0001 (1, Normal)				
40307	0306	UWORD	Environment Security3	Integer Value: normal(1),abnormal(2)	0001 (1, Normal)				
40308	0307	UWORD	Environment Security4	Integer Value: normal(1),abnormal(2)	0001 (1, Normal)				
40309	0308	UWORD	Environment Security5	Integer Value: normal(1),abnormal(2)	0001 (1, Normal)				
40310	0309	UWORD	Environment Security6	Integer Value: normal(1),abnormal(2)	0001 (1, Normal)				
40311	0310	UWORD	Environment Security7	Integer Value: normal(1),abnormal(2)	0001 (1, Normal)				
Environment Settings					Environmental Sensor (Net Feeler II) Settings				
40312	0311	UWORD	Environment Over Temperature	x0.1 °C	N/A				
40313	0312	UWORD	Environment Under Temperature	x0.1 °C	N/A				
40314	0313	UWORD	Environment Over Humidity	0-100%	N/A				
40315	0314	UWORD	Environment Under Humidity	0-100%	N/A				

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Register	Query Address	Size	Measurement	Notes
<b>UPS Information Group</b>				
40001 – 40007	0000 – 0006	14 characters	UPS Company Name	14 characters
40008 – 40012	0007 – 0011	10 characters	UPS Model	10 characters
40013 – 40017	0012 – 0016	10 characters	version number of the UPS firmware	10 characters
40018 – 40025	0017 – 0024	16 characters	firmware revision of the UPS SNMP Proxy agent.	16 characters
<b>Battery Group</b>				
40026	0025	UWORD	Battery Status	Integer Value: unknown(1), batteryNormal(2), batteryLow(3)
40027	0026	UWORD	Seconds on Battery	Seconds
40028	0027	UWORD	Battery Capacity	0–100%
40029	0028	UWORD	Battery Voltage	x0.01 VAC
40030	0029	UWORD	Battery Temperature	x0.1 °C
40031	0030	UWORD	Battery Current	x0.1 A
<b>Input Group</b>				
40040	0039	UWORD	Input Line Voltage	x0.1 VAC
40041	0040	UWORD	Input Max Line Voltage	x0.1 VAC
40042	0041	UWORD	Input Min Line Voltage	x0.1 VAC
40043	0042	UWORD	Input Frequency	x0.1 Hz
<b>Output Group</b>				
40050	0049	UWORD	Output Status	Integer Value: unknown(1), onLine(2), onBattery(3), onBoost(4), sleeping(5), onBypass(6), rebooting(7), standBy(8), onBuck(9)
40051	0050	UWORD	Output Voltage	x0.1 VAC
40052	0051	UWORD	Output Frequency	x0.1 Hz
40053	0052	UWORD	Output Load	0–100%
<b>Rating Group</b>				
40060	0059	UWORD	Rating Voltage	x0.1 VAC
40061	0060	UWORD	Rating Power	VA
40062	0061	UWORD	Rating Battery Voltage	x0.01 VAC
40063	0062	UWORD	Rating Frequency	x0.1 Hz

## Function Code 06 – Write Single Register

## Function Code 16 – Write Multiple Registers

### Config Group

40070	0069	UWORD	Config ups Shut off Delay	The delay in seconds the UPS remains on after being told to turn off. Allowed values are 12, 18, 24, 30, 36, 42, 48, 54, 60, 120, 180, 240, 300, 360, 420, 480, 540, and 600 seconds.
40071	0070	UWORD	Config Ups Sleep Time	Integer Value: 1 – 9999
<b>Control Group</b>				
40080	0079	UWORD	Control UPS Off	Integer Value: turnUpsOff(2)
40081	0080	UWORD	Control Reboot Ups	Integer Value: rebootUps(2)
40082	0081	UWORD	Control UPS Sleep	Integer Value: noPutUpsToSleep(1), putUpsToSleep(2)
40083	0082	UWORD	Control Simulate Power Fail	Integer Value: simulatePowerFailure(2)
40084	0083	UWORD	Control Flash And Beep	Integer Value: flashAndBeep(2)
40085	0084	UWORD	Control Turn On UPS Load	Integer Value: upsSmartControlTurnOnUpsLoad(2)
<b>Test Group</b>				
40090	0089	UWORD	Test Diagnostics	Integer Value: testDiagnostics(2)
<b>Function Code 03 – Read holding Registers.</b>				
40091	0090	UWORD	Test Diagnostics Results	Integer Value: ok(1), failed(2), invalidTest(3), testInProgress(4)

## ThreePhase UPS

40100	0099	UWORD	<b>Battery Group</b>	
40101	0100	UWORD	Battery Voltage	VAC
40102	0101	UWORD	Battery Capacity	0-100%
40103	0102	UWORD	Battery Time Remain	Minutes
			Battery Current	x0.1 A
			<b>Input Group</b>	
40110	0109	UWORD	Input Frequency	x0.1 Hz
40111	0110	UWORD	Input Voltage R	x0.1 VAC
40112	0111	UWORD	Input Voltage S	x0.1 VAC
40113	0112	UWORD	Input Voltage T	x0.1 VAC
			<b>Output Group</b>	
40120	0119	UWORD	Output Frequency	x0.1 Hz
40121	0120	UWORD	Output Voltage R	x0.1 VAC (Output Voltage in the threeInOneOut)
40122	0121	UWORD	Output Voltage S	x0.1 VAC (equivalent to Register 40124 in the threeInOneOut)
40123	0122	UWORD	Output Voltage T	x0.1 VAC (equivalent to Register 40101 in the threeInOneOut)
40124	0123	UWORD	Output Load Percentage R	x0.1 Percentage (Output Load Percentage in the threeInOneOut)
40125	0124	UWORD	Output Load Percentage S	x0.1 Percentage (No significance in the threeInOneOut)
40126	0125	UWORD	Output Load Percentage T	x0.1 Percentage (No significance in the threeInOneOut)
			<b>Bypass Group</b>	
40130	0129	UWORD	Bypass Source Frequency	x0.1 Hz
40131	0130	UWORD	Bypss Source Voltage R	x0.1 VAC
40132	0131	UWORD	Bypss Source Voltage S	x0.1 VAC
40133	0132	UWORD	Bypss Source Voltage T	x0.1 VAC
			<b>UPS Status Group</b>	
40140	0139	UWORD	DC and Rectifier Status RecRotError	Integer Value: ves(14).no(16)
40141	0140	UWORD	DC and Rectifier Status LowBatteryShutdown	Integer Value: ves(14).no(16)
40142	0141	UWORD	DC and Rectifier Status LowBattery	Integer Value: ves(14).no(16)
40143	0142	UWORD	DC and Rectifier Status InAndOut	Integer Value: threeInOneOut(2).threeInThreeOut(3)
40144	0143	UWORD	DC and Rectifier Status BatteryStatus	Integer Value: backup(4).acnormal(5)
40145	0144	UWORD	DC and Rectifier Status ChargeStatus	Integer Value: boost(6).float(7).no(16)
40146	0145	UWORD	DC and Rectifier Status RecOperating	Integer Value: ves(14).no(16)
40147	0146	UWORD	UPS Status Bypass Frequency Fail	Integer Value: ves(14).no(16)
40148	0147	UWORD	UPS Status Manual Bypass Breaker	Integer Value: close(8).open(9)
40149	0148	UWORD	UPS Status AC Status	Integer Value: normal(10).abnormal(11)
40150	0149	UWORD	UPS Status Static Switch Mode	Integer Value: invermode(12).bypassmode(13)
40151	0150	UWORD	UPS Status Inverter Operating	Integer Value: ves(14).no(16)
			<b>Fault Status Group</b>	
40160	0159	UWORD	Fault Status Emergency Stop	Integer Value: ves(14).no(16)
40161	0160	UWORD	Fault Status High DC Shutdown	Integer Value: ves(14).no(16)
40162	0161	UWORD	Fault Status Bypass Breaker	Integer Value: ves(14).no(16)
40163	0162	UWORD	Fault Status Over Load	Integer Value: ves(14).no(16)
40164	0163	UWORD	Fault Status Inverter Output Fail	Integer Value: ves(14).no(16)
40165	0164	UWORD	Fault Status Over Temperature	Integer Value: ves(14).no(16)
40166	0165	UWORD	Fault Status Short Circuit	Integer Value: ves(14).no(16)
			<b>Rating Group</b>	
40170 - 40176	0169 - 0175	14 characters	Rating Rectifier Voltage	14 characters
40177	0176	UWORD	Rating Rectifier Frequency	Hz
40178 - 40184	0177 - 0183	14 characters	Rating Source Bypass Voltage	14 characters
40185	0184	UWORD	Rating Bypass Source Frequency	Hz
40186 - 40192	0185 - 0191	14 characters	Rating Output Voltage	14 characters
40193	0192	UWORD	Rating Output Frequency	Hz
40194	0193	UWORD	Rating Battery Voltage	VAC
40195 - 40199	0194 - 0198	10 characters	Rating Power	10 characters

## UPS Environment

### Function Code 03 – Read holding Registers.

<b>Environment Status</b>				
40301	0300	UWORD	Environment Temperature	x0.1 °C
40302	0301	UWORD	Environment Humidity	0-100%
40303	0302	UWORD	Environment Water	Integer Value: normal(1), abnormal(2)
40304	0303	UWORD	Environment Smoke	Integer Value: normal(1), abnormal(2)
40305	0304	UWORD	Environment Security1	Integer Value: normal(1), abnormal(2)
40306	0305	UWORD	Environment Security2	Integer Value: normal(1), abnormal(2)
40307	0306	UWORD	Environment Security3	Integer Value: normal(1), abnormal(2)
40308	0307	UWORD	Environment Security4	Integer Value: normal(1), abnormal(2)
40309	0308	UWORD	Environment Security5	Integer Value: normal(1), abnormal(2)
40310	0309	UWORD	Environment Security6	Integer Value: normal(1), abnormal(2)
40311	0310	UWORD	Environment Security7	Integer Value: normal(1), abnormal(2)
<b>Environment Settings</b>				
40312	0311	UWORD	Environment Over Temperature	x0.1 °C
40313	0312	UWORD	Environment Under Temperature	x0.1 °C
40314	0313	UWORD	Environment Over Humidity	0-100%
40315	0314	UWORD	Environment Under Humidity	0-100%

### Function Code 06 – Write Single Register

### Function Code 16 – Write Multiple Registers

<b>Environment Settings</b>				
40401	0400	UWORD	Environment Over Temperature	x0.1 °C
40402	0401	UWORD	Environment Under Temperature	x0.1 °C
40403	0402	UWORD	Environment Over Humidity	0-100%
40404	0403	UWORD	Environment Under Humidity	0-100%