

PS 5000 A series: register list for KE firmware V2.02 or higher (the currently installed version can only be determined by reading register 191)

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
0	x					Device class	R	uint(16)	2	1		23 = PS 5000
1	x					Device type	R	char	40	20	ASCII	PS 5200-10A
21	x					Manufacturer	R	char	40	20	ASCII	
41	x					Manufacturer address	R	char	40	20	ASCII	PS 5200-10A
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	
121	x					Nominal voltage	R	float	4	2	Floating point number IEEE754	200
123	x					Nominal current	R	float	4	2	Floating point number IEEE754	10
125	x					Nominal power	R	float	4	2	Floating point number IEEE754	640
129	x					Min. Internal resistance	R	float	4	2	Floating point number IEEE754	Immer 0
131	x					Article no.	R	char	40	20	ASCII	05100300
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	V2.01 01.03.2014
211	x					Firmware version (HMI)	R	char	40	20	ASCII	V2.02 01.03.2014
231	x					Firmware version (DR)	R	char	40	20	ASCII	V1.5.10

402	x		x			Remote mode	RW	uint(16)	2	1	Coils : Remote	0x0000 = off; 0xFF00 = on
405	x		x			DC output	RW	uint(16)	2	1	Coils : Output	0x0000 = off; 0xFF00 = on
408	x		x			Condition of the DC output after powering the device	RW	uint(16)	2	1	Coils : Power-On	0xFFFF = off; 0xFFFE = restore
411			x			Acknowledge alarms	W	uint(16)	2	1	Coils : Alarms	0xFF00 = acknowledge
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	R	uint(32)	4	2	Bit 0-4: Control location	0x00 = free; 0x01 = local; 0x02 = remote; 0x03 = USB
											Bit 5 :-	0 = off; 1 = active
											Bit 6 :-	
											Bit 7 : DC output	0 = off; 1 = on
											Bit 8 :-	
											Bit 9-10: Regulation mode	00 = CV; 10 = CC; 11 = CP
											Bit 11 : Remote	0 = off; 1 = on
											Bit 12 :-	
											Bit 13 :-	
											Bit 14 : Warning Sense	0 = none; 1 = active
											Bit 15 : Alarm	0 = no alarm active; 1 = at least one alarm active
											Bit 16 : Alarm OVP	0 = none; 1 = active
											Bit 17 : Alarm OCP	0 = none; 1 = active
											Bit 18 : Alarm OPP	0 = none; 1 = active
											Bit 19 : Alarm OT	0 = none; 1 = active
											Bit 20 :-	
											Bit 21 : Alarm PF	0 = none; 1 = active
507		x				Actual voltage	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual voltage (for translation see programming guide)
508		x				Actual current	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual current (for translation see programming guide)
509		x				Actual power	R	uint(16)	2	1	0x0000 - 0xFFFF (0 - 125%)	Actual power (for translation see programming guide)
520		x				Count of OV alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
521		x				Count of OC alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
522		x				Count of OP alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
523		x				Count of OT alarms since power up	R	uint(16)	2	1	0x0000 - 0xFFFF	Count
524		x				Count of PF alarms since power up	R	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)

7100		x			x	Recall set 1	RW	uint(16)	10	5	Bytes 0-1: 0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)
											Bytes 2-3: 0x0000 - 0xD0E5 (0 - 102%)	Current value (for translation see programming guide)
											Bytes 4-5: 0x0000 - 0xE147 (0 - 110%)	Overvoltage value (OVP) (for translation see programming guide)
											Bytes 6-7: 0x0000 - 0xE147 (0 - 110%)	Overcurrent value (OCP) (for translation see programming guide)
											Bytes 8-9: -	Always 0x0000
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
7140		x			x	Recall set 9	RW	uint(16)	10	5	Bytes 0-1: 0x0000 - 0xD0E5 (0 - 102%)	Voltage value (for translation see programming guide)
											Bytes 0-1: 0x0000 - 0xD0E5 (0 - 102%)	Current value (for translation see programming guide)
											Bytes 4-5: 0x0000 - 0xE147 (0 - 110%)	Overvoltage value (OVP) (for translation see programming guide)
											Bytes 6-7: 0x0000 - 0xE147 (0 - 110%)	Overcurrent value (OCP) (for translation see programming guide)
											Bytes 8-9: -	Always 0x0000
7200				x		Recall set 1-9: Select, submit and save	W	uint(16)	2	1	0x0001-0x0009	0x0001 = Submit and save the values from recall set 1