

int = unsigned integer; little-endian, lb - hb

fd = signed fixed decimal, value x 100

ascii = raw ascii string

group	register	mnemonic	name	datatype	bytes	repeats	size	access	description
identification	100	idspdm	SPDMVersion	int	2	1	2	ro	Data model version. 1.10 adds a few new entries.
identification	102	idfwvs	firmwareVersion	int	2	1	2	ro	The units firmware revision number (1.30 at the time of writing)
identification	104	idonbr	salesOrderNumber	ascii	16	1	16	rw	SP sales order number.
identification	120	idpart	productId	ascii	16	1	16	rw	SP product id.
identification	136	idsnbr	serialNumber	ascii	16	1	16	rw	SP serial number.
identification	152	idchip	hardwareAddress	int	2	3	6	ro	Hardware serial number; cannot be changed. Can be used as backup unit address. format as 3 unsigned ints separated by dashes: "int - int - int"
identification	158	idaddr	unitAddress	int	2	1	2	rw	User defined address; this will be used for addressing the unit.

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configuration	200	cfnrph	n.o.Phases	int	1	1	1	rw	Either zero, one or three for no input metering, single or three phase system
configuration	201	cfnrno	n.o.OutletsTotal	int	1	1	1	rw	Total number of outlets, even hardwired without switch/measure modules.
configuration	202	cfnrso	n.o.SwitchedOutl	int	1	1	1	rw	Number of switched outlets. If outlet numbering is non-contiguous: the highest outlet number.
configuration	203	cfnrmo	n.o.OutletsMeas.	int	1	1	1	rw	Number of measured outlets. If outlet numbering is non-contiguous: the highest outlet number.
configuration	204	cfamps	maximumLoad	int	1	1	1	rw	Maximum rated load of device per phase, usually either 16 or 32 A.
configuration	205	cfnrte	n.o.Temp.Sensors	int	1	1	1	rw	The number of temperature sensors: 0 for none, 1 for internal cpu sensor; 2 for int and ext.

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system_status	300	ssstat	deviceStatusCode	int	1	1	1	ro	Returns an internal status or error code. 0 = OK, 16 = watchdog timer caused reset, 128 = slave module was reset, 144 = both previous.
system_status	301	ssttri	temperatureAlert	int	1	1	1	ro	An alert has been raised due to temperature exceeding threshold; 0=no alert; 1= internal unit temp, 2= external sensor.
system_status	302	ssitri	inputCurrentAlert	int	1	1	1	ro	An alert has been raised due to current exceeding threshold; 0=no alert; 1-3 for input phase.
system_status	303	ssotri	outputCurrentAlert	int	1	1	1	ro	An alert has been raised due to current exceeding threshold; 0=no alert; 1-27 for outlet.
system_status	304	ssvtri	inputVoltageAlert	int	1	1	1	ro	An alert has been raised due to a voltage dip; 0=no alert; 1-3 for input phase.
system_status	305	ssftri	oCurrentDropAlert	int	1	1	1	ro	An alert has been raised due to the current of a measured outlet suddenly dropping to near zero, possibly indicating a blown fuse; 0=no alert; 1-27 for outlet.
system_status	306	ssicda	iCurrentDropAlert	int	1	1	1	ro	An alert has been raised due to the current of a measured input suddenly dropping to near zero, possibly indicating a blown fuse; 0=no alert; 1-3 for phase.

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reset	400	rsboot	rebootDevice	int	1	1	1	wo	Warm reboot/reset of device; note: this will have no effect on outlet status!
reset	401	rsalrt	resetAlerts	int	1	1	1	wo	Reset all alert signals.
reset	402	rsimks	zeroInputKWh subt	int	1	1	1	wo	Reset of input kWh subtotal counter to zero.
reset	403	rsomks	zeroOutKWh subtot	int	1	27	27	wo	Reset of outlet kWh subtotal counter to zero.
reset	430	rspval	resetPeakValues	int	1	1	1	wo	Reset all peak values to zero, as well input as output metering, voltages dips, current peaks and temperatures.

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group	register	mnemonic	name	datatype	bytes	repeats	size	access	description
settings	1000	stdvnm	deviceName	ascii	16	1	16	rw	User configurable device name or identifier.
settings	1016	stdvlc	deviceLocation	ascii	16	1	16	rw	User configurable device location identifier.
settings	1032	stuser	vanityTag	ascii	20	1	20	rw	Characters to be displayed as vanity tekst in display.
settings	1052	stpkdr	peakDuration	int	2	1	2	rw	A current peak should last at least [stpkdr] milliseconds before an alert is raised; max about a minute.
settings	1054	stdpdr	dipDuration	int	2	1	2	rw	A voltage dip should last at least [stdpdr] milliseconds before an alert is raised; min 20ms, max 2500ms.
settings	1056	stfodl	fixedOutletDelay	int	2	1	2	rw	Minimal delay between two successive relay switches in milliseconds. Minimal delay is 100 ms. Will always be respected!
settings	1058	stpsav	powerSaverMode	int	1	1	1	rw	Set backlight on time in seconds; 0 keeps display always on. Note that keeping the backlight on may decrease luminosity over time. Setting this to other values than 10, 60, 120 or 240 is incompatible with the gateway!
settings	1059	stopom	outletPowerupMode	int	1	1	1	rw	Behaviour of outlet on power-up: 0=off; 1=same state as at power down; 2=same state, but delayed by individual delay timer.
settings	1060	stmaxt	maximumTemperature	int	1	1	1	rw	An alert should be generated whenever the temperature is above this value. Zero means disabled.
settings	1061	stdiso	displayOrientation	int	1	1	1	rw	0 no display; display off; 1 vertical, display on top; 2 vertical, upside down; 3 horizontal, display at left; 4 horizontal, display at right
settings	1062	stimcm	maxInletAmps	fd	2	3	6	rw	Maximum current per input phase in A; should last at least [stpkdr] milliseconds before triggering an alert.
settings	1068	stomcm	maxOutletAmps	fd	2	27	54	rw	Maximum current per outlet in A; should last at least [stpkdr] milliseconds before triggering an alert.
settings	1122	stolgp	outletGroup	int	2	27	54	rw	User configurable grouping of individual outlets. Useful to switch several outlets at once or total measures in device or customer groups. Note that this is not implemented in the gateway!
settings	1176	stolnm	outletName	ascii	8	27	216	rw	User configurable naming of individual outlets. Useful to distinguish outlets based on customer or device name.
settings	1392	stiodl	indiv.OutletDelay	int	2	27	54	rw	Delay before an individual outlet switches on at power-up in seconds.
settings	1446	stcddt	currentDropDetection	int	1	1	1	rw	Enables the current drop detection function. 0 = always off (default), 1 = input(s) only, 2 = output(s) only, 3 = both inputs and outputs.

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switched_outlets	2000	swocst	currentState	int	1	27	27	rw	The actual state of the outlet relays. The hardware will contain max 27 outlets. Writing is only effective after setting [swounl].
switched_outlets	2027	swosch	scheduled	int	1	27	27	ro	A one indicates pending activity; the switch delay has not yet expired.
switched_outlets	2081	swounl	unlock	int	1	27	27	wo	Setting the value to one will release the safety for this outlet for a couple seconds; switching and rebooting are then temporarily enabled.

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input_measures	3000	imkwht	kWhTotal	int	3	3	9	ro	Either the only phase in a single phase measurement; or one of the three phases in a multiphase measurement.
input_measures	3009	imkwhs	kWhSubtotal	int	3	3	9	ro	kWh subtotal register of the only phase in a single phase measurement; or one of three phases in a multiphase measurement. Reset to zero with [rsimks].
input_measures	3018	impfac	powerFactor	fd	2	3	6	ro	The effective power factor in percent.
input_measures	3024	imcrac	actualCurrent	fd	2	3	6	ro	Actual apparent, RMS current.
input_measures	3030	imcrpk	peakCurrent	fd	2	3	6	ro	Peak apparent, RMS current; highest value since last reset of the peaks.
input_measures	3036	imvoac	actualVoltage	fd	2	3	6	ro	The actual voltage.
input_measures	3042	imvodp	minVoltage	fd	2	3	6	ro	RMS voltage dip; lowest value since reset of dips.

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group	register	mnemonic	name	datatype	bytes	repeats	size	access	description
output_measures	4000	omkwhT	kWhTotal	int	3	27	81	ro	Total kWh of selected output.
output_measures	4081	omkwhS	kWhSubtotal	int	3	27	81	ro	kWh subtotal register of selected output. Reset to zero with [rsomks].
output_measures	4162	ompfac	powerFactor	fd	2	27	54	ro	Power factor of output.
output_measures	4216	omcrac	actualCurrent	fd	2	27	54	ro	Actual apparent, RMS current.
output_measures	4270	omcrpk	peakCurrent	fd	2	27	54	ro	Peak apparent, RMS current; highest value since last reset of peaks.
output_measures	4324	omvoac	actualVoltage	fd	2	27	54	ro	Actual voltage on output.

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pdu_measures	5000	pditem	pduIntTemperature	fd	2	1	2	ro	Actual internal pdu temperature in deg C
pdu_measures	5002	pdetem	pduExtTemperature	fd	2	1	2	ro	Actual external pdu temperature sensor in deg C.
pdu_measures	5004	pdinpk	pduIntPeak temp	fd	2	1	2	ro	Peak internal pdu temperature in deg C since last reset of peaks.
pdu_measures	5006	pdexpk	pduExtPeak temp	fd	2	1	2	ro	Peak external pdu temperature in deg C since last reset of peaks.

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