

Modbus and SNMP Parameters

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Category	Sub category	Holding Address	Parameter name	OID (*)	Parameter Details	Factory Setting	Range	Scale factor	Offset	Unit	Notes	Read/ Write
Monitoring	Battery	40004	Battery sense voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40004	Voltage measured at the battery sense terminals		0-65535			mV		Read only
		40005	Charging status	1.3.6.1.4.1.50811.103.2.1.4.xx.40005	Current charging status: 0=None / 1=Recovery / 2=Bulk / 3=Absorption / 4=Float/5=Purification		0-5					Read only
		40008	Battery voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40008	Voltage measured at the battery terminals		0-65535			mV		Read only
		40014	Battery charge current	1.3.6.1.4.1.50811.103.2.1.4.xx.40014	Measured value of the battery charge current		0-65535			mA		Read only
		40015	Battery internal reference resistance	1.3.6.1.4.1.50811.103.2.1.4.xx.40015	The reference value of the internal resistance that is used to compute the state-of-health. It is automatically updated by the CBI and computed only if the lifetest is enabled, the battery sense cable is correctly wired to the battery and the Nominal battery internal resistance parameter (40101) is nonzero. Displays 65535 when the information is not yet available or when it is not possible to compute it	65535	0-65535	0.1		mΩ		Read only
		40016	Battery capacity consumed	1.3.6.1.4.1.50811.103.2.1.4.xx.40016	The capacity that has been consumed from the battery (e.g 500 = 50Ah)		0-65535	0.1		Ah		Read only
		40017	Battery discharge current	1.3.6.1.4.1.50811.103.2.1.4.xx.40017	Measured value of the battery discharge current		0-65535			mA		Read only
		40021	Battery state-of-health	1.3.6.1.4.1.50811.103.2.1.4.xx.40021	The state-of-health of the battery. It is not updated when the Manual SoH test is requested by writing 1 to the Manual SoH Test Request parameter (40099). Updated only if the battery sense cable is correctly wired to battery, the lifetest is enabled and the Nominal battery internal resistance parameter (40101) is nonzero. Displays 65535 when the information is not yet available or when it is not possible to compute it	65535	0-100 (> 100 if not yet calculated)			%		Read only
		40022	Time remaining to 100% discharge	1.3.6.1.4.1.50811.103.2.1.4.xx.40022	Remaining time to 0% SoC during discharge if the load remains unchanged. Updated only if at least one of the Battery Capacity ratings (40105, 40106, 40108, 40109, 40112) is nonzero. Displays 65535 when the information is not available or the battery capacity ratings are all set to zero		0-65535			min		Read only
		40023	Battery state-of-charge	1.3.6.1.4.1.50811.103.2.1.4.xx.40023	Displays the percent state of charge of the battery, with a 0.1 scale factor (e.g. 800=80%). Updated only if at least one of the Battery Capacity ratings (40105, 40106, 40108, 40109, 40112) is nonzero. Displays 65535 when the information is not available or the battery capacity ratings are all set to zero		0-1000 (> 1000 if not yet calculated)	0.1		%		Read only
		40024	Battery type currently selected	1.3.6.1.4.1.50811.103.2.1.4.xx.40024	The battery type currently selected (0 = Open lead, 1 = AGM lead, 2 = GEL lead, 3 = NiCd, 4 = Lilon). Please refer to the user manual for the battery chemistry setting.		0-4					Read only
		40026	Battery temperature	1.3.6.1.4.1.50811.103.2.1.4.xx.40026	Temperature measured on the battery by means of the external battery temperature probe in Kelvin units, conversion formula T(°C) = T(K)-273. Displays the value 0 when the probe is not connected		233-381 (-40°C ...+108°C)			K		Read only
		40028	Measured battery internal resistance (Rint meas)	1.3.6.1.4.1.50811.103.2.1.4.xx.40028	Battery internal resistance as measured by the device. It is shown only if the battery sense cable is correctly wired to battery and the lifetest is enabled. Displays 65535 when the information is not yet available or when it is not possible to compute it. It is not updated when the Manual SoH test is requested by writing 1 to the Manual SoC/SoH test request parameter (40099). (e.g. 450 = 45.0mOhm)	65535	0-65535	0.1		mΩ		Read only
		40089	Number of battery cells	1.3.6.1.4.1.50811.103.2.1.4.xx.40089	Number of the battery cells expected according to the selected chemistry and the nominal output voltage of the device							Read only
		40100	SoC/SoH test possible	1.3.6.1.4.1.50811.103.2.1.4.xx.40100	0 = Manual SoC/SoH test not possible; 1 = Manual SoC/SoH test possible		0-1					Read only
		40115	Battery internal resistance by Manual SoH test	1.3.6.1.4.1.50811.103.2.1.4.xx.40115	Battery internal resistance as measured by the device when the Manual SoH test is requested by writing 1 to the Manual SoH Test Request parameter (40099). It is shown only if the lifetest is enabled and the battery sense cable is correctly wired to the battery. Displays 65535 when the information is not yet available or when it is not possible to compute it		0-65535	0.1		mΩ		Read only
		40116	Battery state-of-health by Manual SoH test	1.3.6.1.4.1.50811.103.2.1.4.xx.40116	The state-of-health of the battery based on the battery internal resistance by Manual SoH test parameter (40115). Updated only if the battery sense cable is correctly wired to battery, the lifetest is enabled and the Nominal battery internal resistance parameter (40101) is nonzero. Displays 65535 when the information is not yet available or when it is not possible to compute it		0-100 (> 100 if not yet calculated)			%		Read only
		40117	Ongoing battery SoH test type	1.3.6.1.4.1.50811.103.2.1.4.xx.40117	The type of the battery test that is currently in progress: 0 = No test 1 = Manual SoH test 2 = Automatic SoH test		0-2					Read only

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Monitoring	Device	40006	Power management DC-UPS	1.3.6.1.4.1.50811.103.2.1.4.xx.40006	0 = Backup (mains is not available and the load connected at the Output Load terminals is supplied by the battery) 1 = Charging (mains is available and the battery charging) 2 = Power boost (the power required to supply the load connected at the Output Load terminals is drawn both from the mains and from the battery) 3 = Not charging; battery floating because it is fully charged or charge stopped with HR40148; battery not connected or service mode active (HR40156); wrong battery connected; short circuit at the output load terminals	0-3					Read only
		40007	Nominal output voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40007	12 = 12V nominal output voltage ; 24 = 24V nominal output voltage; 48 = 48V nominal output voltage	12/24/48			V		Read only
		40009	Parameter map version ID	1.3.6.1.4.1.50811.103.2.1.4.xx.40009	Identifier of the release of the device parameter map	0-65535					Read only
		40010	Software ID	1.3.6.1.4.1.50811.103.2.1.4.xx.40010	Identifier of the software release	0-65535					Read only
		40012	Unique device ID (least significant part)	1.3.6.1.4.1.50811.103.2.1.4.xx.40012	Serial Number - least significant part	0-65535				SNMP range 0-4294967295	Read only
		40013	Unique device ID (most significant part)	1.3.6.1.4.1.50811.103.2.1.4.xx.40013	Serial Number - most significant part	0-65535					Read only
		40029	On-board temperature inside the device	1.3.6.1.4.1.50811.103.2.1.4.xx.40029	Temperature measured from inside the device in Kelvin units, conversion formula T(°C) = T(K)-273	233-398 (-40°C ...+125°C)			K		Read only
		40067	Product name	1.3.6.1.4.1.50811.103.2.1.4.xx.40067	Device type code	0-32767					Read only
		40039	Device variant	1.3.6.1.4.1.50811.103.2.1.4.xx.40039	Variant of the product	0-65535					Read only
		40103	Firmware ID	1.3.6.1.4.1.50811.103.2.1.4.xx.40103	Identifier of the device firmware release	0-65535					Read only
		40136	Operating time (least significant part)	1.3.6.1.4.1.50811.103.2.1.4.xx.40136	Total device operating time in seconds - least significant part	0-65535			s		Read only
		40137	Operating time (most significant part)	1.3.6.1.4.1.50811.103.2.1.4.xx.40137	Total device operating time in seconds - most significant part	0-65535			s		Read only
		40149	Available power	1.3.6.1.4.1.50811.103.2.1.4.xx.40149	The available output power considering any derating due to environmental conditions	0-65535			W		Read only
		40221	System programming alarm code	1.3.6.1.4.1.50811.103.2.1.4.xx.40221	Custom alarm register from system programming; if not 0 bit 6 of HR40043 is set	0-65535					Read only
		40222	System programming monitoring 1	1.3.6.1.4.1.50811.103.2.1.4.xx.40222	Custom monitoring parameter from system programming	0-65535					Read only
		40223	System programming monitoring 2	1.3.6.1.4.1.50811.103.2.1.4.xx.40223	Custom monitoring parameter from system programming	0-65535					Read only
		40224	System programming monitoring 3	1.3.6.1.4.1.50811.103.2.1.4.xx.40224	Custom monitoring parameter from system programming	0-65535					Read only
	Input	40030	Mains input voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40030	Mains input voltage	0-65535			VAC		Read only
		40145	Inputs state	1.3.6.1.4.1.50811.103.2.1.4.xx.40145	Bit 0: internal start button pressed Bit 1: external start button pressed Bit 2: display (DPY 353) start button pressed Bit 3: fast-charge jumper inserted Bit 4: automatic start from battery dipswitch ON Bit 5: reserved Bit 6: reserved	0-16					Read only
	Output	40011	Output load voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40011	Voltage measured at the output load terminals	0-65535			mV		Read only
		40020	Output load current	1.3.6.1.4.1.50811.103.2.1.4.xx.40020	Measured value of the current drawn from the output load terminals	0-65535			mA		Read only
		40042	Output load power	1.3.6.1.4.1.50811.103.2.1.4.xx.40042	Electrical power delivered to the load	0-65535			W		Read only
		40146	Output state	1.3.6.1.4.1.50811.103.2.1.4.xx.40146	Bit 0: load switched off, see HR40133) Bit 1: fault relay state (0=closed 1=open), see HR40139 Bit 2: mains relay state (0=closed 1=open), see HR40140 Bit 3: rectifier relay state (0=closed 1=open), see HR40141 Bit 4-7: reserved Bit 8: buzzer notification active Bit 9: buzzer warning active Bit 10: buzzer alarm active Bit 11-15: reserved	0-2047					Read only
	Networking	40155	Internet or network access	1.3.6.1.4.1.50811.103.2.1.4.xx.40155	1 if at least one of the configured ping addresses is responding to ping requests; 0 otherwise	0-1					Read only
History	Battery	40048	Number of charge cycles completed	1.3.6.1.4.1.50811.103.2.1.4.xx.40048	Number of completed charge cycles	0-65535				write only 0 (history reset)	Read/write
		40049	Charge cycles not completed	1.3.6.1.4.1.50811.103.2.1.4.xx.40049	Number of aborted charge cycles, not completed	0-65535				write only 0 (history reset)	Read/write
		40050	Ah charged	1.3.6.1.4.1.50811.103.2.1.4.xx.40050	Total Ampere-hours charged: scale factor 0.1 (e.g. 1000 = 100Ah), computed as (Ah charged - Ah discharged)	0-65535	0.1		Ah	write only 0 (history reset)	Read/write
		40051	Charging time	1.3.6.1.4.1.50811.103.2.1.4.xx.40051	Cumulated battery charging time in hours	0-65535			h	write only 0 (history reset)	Read/write
		40052	Number of low battery voltage events	1.3.6.1.4.1.50811.103.2.1.4.xx.40052	Number of times the battery voltage has been found lower than the value expressed by the low battery threshold parameter (40097) during backup	0-65535				write only 0 (history reset)	Read/write
		40053	Number of high battery voltage events	1.3.6.1.4.1.50811.103.2.1.4.xx.40053	Number of high voltage events at the battery output terminals	0-65535				write only 0 (history reset)	Read/write

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History	Battery	40058	Number power boost events	1.3.6.1.4.1.50811.103.2.1.4.xx.40058	Number of powerboost events		0-65535				write only 0 (history reset)	Read/write
		40059	Highest battery voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40059	Highest voltage acquired at the battery terminals		0-65535			mV	write only 0 (history reset)	Read/write
		40062	Lowest battery voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40062	Lowest voltage acquired at the battery terminals		0-65535			mV	write only 0 (history reset)	Read/write
		40165	Highest battery discharging current	1.3.6.1.4.1.50811.103.2.1.4.xx.40165	Highest battery discharging current as measured by HR40017		0-65535	0.1		A	write only 0 (history reset)	Read/write
		40166	Highest battery charging current	1.3.6.1.4.1.50811.103.2.1.4.xx.40166	Highest battery charging current acquired as measured by HR40014		0-65535	0.1		A	write only 0 (history reset)	Read/write
		40167	Highest battery temperature	1.3.6.1.4.1.50811.103.2.1.4.xx.40167	Highest battery temperature as measured by HR40026		0-65535			K	write only 0 (history reset)	Read/write
		40168	Lowest battery temperature	1.3.6.1.4.1.50811.103.2.1.4.xx.40168	Lowest battery temperature as measured by HR40026		0-65535			K	write only 0 (history reset)	Read/write
		40169	High battery temperature events	1.3.6.1.4.1.50811.103.2.1.4.xx.40169	High battery temperature events (higher than HR40093)		0-65535				write only 0 (history reset)	Read/write
		40170	Low battery temperature events	1.3.6.1.4.1.50811.103.2.1.4.xx.40170	Low battery temperature events (lower than HR40094)		0-65535				write only 0 (history reset)	Read/write
		40061	Maximum depth of discharge	1.3.6.1.4.1.50811.103.2.1.4.xx.40061	Maximum depth of discharge attained during discharge (e.g. 800 = 80%). Updated only if at least one of the Battery Capacity ratings (40105, 40106, 40108, 40109, 40112) is nonzero		0-1000	0.1		%	write only 0 (history reset)	Read/write
	Device	40064	Average depth of discharge	1.3.6.1.4.1.50811.103.2.1.4.xx.40064	Average depth of discharge attained during discharge (e.g. 800 = 80%). Updated only if at least one of the Battery Capacity ratings (40105, 40106, 40108, 40109, 40112) is nonzero		0-1000	0.1		%	write only 0 (history reset)	Read/write
		40056	Number of overtemperature inside events	1.3.6.1.4.1.50811.103.2.1.4.xx.40056	Number of internal overtemperature events		0-65535				write only 0 (history reset)	Read/write
	Input	40171	Max inside temperature	1.3.6.1.4.1.50811.103.2.1.4.xx.40171	Max inside temperature as measured by HR40029		0-65535			K	write only 0 (history reset)	Read/write
		40054	Number of low input voltage events at mains input	1.3.6.1.4.1.50811.103.2.1.4.xx.40054	Number of times the input voltage has been found lower than the value expressed by the low mains input voltage alarm threshold parameter (40036)		0-65535				write only 0 (history reset)	Read/write
		40055	Number of high input voltage events at mains input	1.3.6.1.4.1.50811.103.2.1.4.xx.40055	Number of times the input voltage has exceeded the value expressed by the high mains input voltage alarm threshold parameter (40037)		0-65535				write only 0 (history reset)	Read/write
		40057	Number of mains-backup transitions	1.3.6.1.4.1.50811.103.2.1.4.xx.40057	Increased every time a mains-to-backup or a backup-to-mains transition is performed		0-65535				write only 0 (history reset)	Read/write
	Output	40121	Highest voltage at mains input	1.3.6.1.4.1.50811.103.2.1.4.xx.40121	Maximum voltage measured by the device at mains input		0-65535			VAC	write only 0 (history reset)	Read/write
		40122	Lowest voltage at mains input	1.3.6.1.4.1.50811.103.2.1.4.xx.40122	Minimum voltage measured by the device at mains input		0-65535			VAC	write only 0 (history reset)	Read/write
		40060	Highest output load voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40060	Highest voltage acquired at the output load terminals		0-65535			mV	write only 0 (history reset)	Read/write
		40172	Highest output current	1.3.6.1.4.1.50811.103.2.1.4.xx.40172	Highest current drawn from the output load terminals		0-65535	0.1		A	write only 0 (history reset)	Read/write
		40063	Lowest output load voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40063	Lowest voltage acquired at the output load terminals		0-65535			mV	write only 0 (history reset)	Read/write
Settings	Battery	40069	Reset internal battery model	1.3.6.1.4.1.50811.103.2.1.4.xx.40069	Resets the battery model computed by the device over cycles	0	0-1				write only 1	Read/write
		40076	End-of-discharge SoC level	1.3.6.1.4.1.50811.103.2.1.4.xx.40076	The SoC level at which backup is terminated and the device is shut down. Used only if value different than 65535 and at least one of the Battery Capacity ratings (40105, 40106, 40108, 40109, 40112) is nonzero; if used it must be set lower or equal than the Low State-of-charge parameter (40113)	65535	0-899 (65535 to disable)	0.1		%		Read/write
		40098	Battery purification period	1.3.6.1.4.1.50811.103.2.1.4.xx.40098	The period, in hours, between battery purification actions. If set to 0 the purification is not carried out	0	120-18000 (0 to disable)			h		Read/write
		40099	Manual SoC/SoH test request	1.3.6.1.4.1.50811.103.2.1.4.xx.40099	Write 1 to start the SoC/SoH test. Value remains 1 as long as the test is ongoing. Automatically returns to 0 at the end of the test. Write accepted only when the SoC/SoH test possible parameter (40100) displays the value 1	0	0-1				write only 1	Read/write
		40101	Nominal battery internal resistance (Rint nom)	1.3.6.1.4.1.50811.103.2.1.4.xx.40101	Battery nominal internal resistance as provided by the battery datasheet (e.g. 50 = 5.0mΩ)	0	0-20000	0.1		mΩ		Read/write
		40105	Battery capacity C20	1.3.6.1.4.1.50811.103.2.1.4.xx.40105	Twenty-hour rate capacity in Ah (scale factor 0,1: 500=50Ah)	0	0-10000	0.1		Ah		Read/write
		40106	Battery Capacity C10	1.3.6.1.4.1.50811.103.2.1.4.xx.40106	Ten-hour rate capacity in Ah (scale factor 0,1: 500=50Ah)	0	0-10000	0.1		Ah		Read/write
		40108	Battery Capacity C5	1.3.6.1.4.1.50811.103.2.1.4.xx.40108	Five-hour rate capacity in Ah (scale factor 0,1: 500=50Ah)	0	0-10000	0.1		Ah		Read/write
		40109	Battery Capacity C2	1.3.6.1.4.1.50811.103.2.1.4.xx.40109	Two-hour rate capacity in Ah (scale factor 0,1: 500=50Ah)	0	0-10000	0.1		Ah		Read/write
		40112	Battery Capacity C1	1.3.6.1.4.1.50811.103.2.1.4.xx.40112	One-hour rate capacity in Ah (scale factor 0,1: 500=50Ah)	0	0-10000	0.1		Ah		Read/write
		40113	Low state-of-charge	1.3.6.1.4.1.50811.103.2.1.4.xx.40113	Battery state of charge level below which an alarm is triggered indicating low state of charge (e.g. 300 = 30%). Used only if at least one of the Battery Capacity ratings (40105, 40106, 40108, 40109, 40112) is nonzero. If the End-of-discharge SoC level parameter (40076) is different than 65535, this parameter value (40113) must be set higher or equal than the (40076) parameter value	300	0-900	0.1		%		Read/write
		40123	Battery purification timeout	1.3.6.1.4.1.50811.103.2.1.4.xx.40123	Timeout of the battery purification phase. At the end, the device transitions to bulk charge	480	5-1800			min		Read/write
		40124	SoC level at the end of purification	1.3.6.1.4.1.50811.103.2.1.4.xx.40124	Battery state of charge level to reach to end the battery purification. Used only if at least one of the Battery Capacity ratings (40105, 40106, 40108, 40109, 40112) is nonzero	500	300-900	0.1		%		Read/write
		40156	Service mode	1.3.6.1.4.1.50811.103.2.1.4.xx.40156	Activates service mode. Caution: in case of mains outage the load will not be powered in service mode.	0	0-1					Read/write
	Input	40153	Select DC mains input	1.3.6.1.4.1.50811.103.2.1.4.xx.40153	Informs the device that it is powered from a DC mains source, so the voltage is measured and displayed correctly. When this setting is changed the mains voltage history is cleared (40121 and 40122)	0						Read/write

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Settings Output	40133	Load switch configuration	1.3.6.1.4.1.50811.103.2.1.4.xx.40133	Bit1-0 - load switch behavior: 0: load ON 1: load OFF temporarily (reset to 0 / load ON at power up); not valid if CMD=1 2: load OFF at power up; valid if CMD=0,1,2 3: load ON in backup (e.g. emergency lights); if CMD=1 switches load on transitions Bit 5-2 - load command (CMD): 0: none (default) 1: external start button turns load ON and OFF 2: external start button turns load ON and OFF with memory 3: relay mode / external switch 5: timed extendable: button restarts timer if not expired 6: cyclic operation TON seconds ON and TOFF seconds OFF 7 with bit1-0 <= 2: cyclic operation relay mode (combines 3 and 6) 7 with bit1-0 = 2: network watchdog: cyclic operation when HR40155=0, otherwise ON 4, 8-15: invalid, reserved for future use Bit 6: external button source (0=terminal block, 1=DPY display) Bit 7: load always ON when mains available Bit 15-8 write protect password: 7D hex (=> add 32000 to content to be written) Please refer to the Load Switch Diagrams document for details (for devices with web server, this can be downloaded from "External resources" in the device "Info" page)	32000	0-65535					Read/write
	40134	Load Ton	1.3.6.1.4.1.50811.103.2.1.4.xx.40134	Load ON time in seconds (0=unlimited), used with CMD = 1,2,3,5,6,7 (see HR40133)	0	0-65535			s		Read/write
	40135	Load Toff	1.3.6.1.4.1.50811.103.2.1.4.xx.40135	Load ON delay / OFF time in seconds, used with CMD = 1,2,3,5,6,7 (see HR40133)	0	0-65535			s		Read/write
	40139	Fault relay configuration	1.3.6.1.4.1.50811.103.2.1.4.xx.40139	Configures which alarm groups drive the fault relay. More groups can be activated in parallel. If bits 0-11 are all '0' bit 15 can be used for testing (1=open, 0=closed) Bit 0= battery alarms (HR40032 bit 0,1,2,3,7; HR40035) Bit 1 = battery under/over temperature (HR40032 bit 5; HR40044) Bit 2 = SoC&SoH alarms (HR40032 bit 8,9; HR40033) Bit 3 = device alarms (HR40043 bit 1,2,3) Bit 4 = device over temperature (HR40047 bit 0) Bit 5 = device critical temperature (HR40047 bit 1) Bit 6 = boost mode (HR40032 bit 4) Bit 7 = backup mode (HR40046 bit 0) Bit 8 = Vac out of limits (HR40045) Bit 9 = load alarm (HR40038) Bit 10 = rectifier alarm (HR40043 bit 0) Bit 11 = PC shutdown (HR40046 bit 1) Bit 12-14 = reserved Bit 15 = invert (relay open when alarm not active) Refer to the Adelsystem technical documentation for further details.	1577 (0x0629: battery, device, critical temperature, load and rectifier alarms)	0-65535				Read/write	
	40140	Mains relay configuration	1.3.6.1.4.1.50811.103.2.1.4.xx.40140	Configures which alarm groups drive the mains relay. More groups can be activated in parallel. If bits 0-11 are all '0' bit 15 can be used for testing (1=open, 0=closed) Bit 0= battery alarms (HR40032 bit 0,1,2,3,7; HR40045) Bit 1 = battery under/over temperature (HR40032 bit 5; HR40044) Bit 2 = SoC&SoH alarms (HR40032 bit 8,9; HR40033) Bit 3 = device alarms (HR40043 bit 1,2,3) Bit 4 = device over temperature (HR40047 bit 0) Bit 5 = device critical temperature (HR40047 bit 1) Bit 6 = boost mode (HR40032 bit 4) Bit 7 = backup mode (HR40046 bit 0) Bit 8 = Vac out of limits (HR40045) Bit 9 = load alarm (HR40038) Bit 10 = rectifier alarm (HR40043 bit 0) Bit 11 = PC shutdown (HR40046 bit 1) Bit 12-14 = reserved Bit 15 = invert (relay open when alarm not active) Refer to the Adelsystem technical documentation for further details.	128 (0x0080: backup mode)	0-65535				Read/write	
	40141	Rectifier relay configuration	1.3.6.1.4.1.50811.103.2.1.4.xx.40141	Configures which alarm groups drive the rectifier relay. More groups can be activated in parallel. If bits 0-11 are all '0' bit 15 can be used for testing (1=open, 0=closed) Bit 0= battery alarms (HR40032 bit 0,1,2,3,7; HR40045) Bit 1 = battery under/over temperature (HR40032 bit 5; HR40044) Bit 2 = SoC&SoH alarms (HR40032 bit 8,9; HR40033) Bit 3 = device alarms (HR40043 bit 1,2,3) Bit 4 = device over temperature (HR40047 bit 0) Bit 5 = device critical temperature (HR40047 bit 1) Bit 6 = boost mode (HR40032 bit 4) Bit 7 = backup mode (HR40046 bit 0) Bit 8 = Vac out of limits (HR40045) Bit 9 = load alarm (HR40038) Bit 10 = rectifier alarm (HR40043 bit 0) Bit 11 = PC shutdown (HR40046 bit 1) Bit 12-14 = reserved Bit 15 = invert (relay open when alarm not active) Refer to the Adelsystem technical documentation for further details.	1024 (0x0400: rectifier alarm)	0-65535				Read/write	

Modbus and SNMP Parameters

Configuration	Settings	Output	40142	Buzzer notification configuration	1.3.6.1.4.1.50811.103.2.1.4.xx.40142	Configures which alarm groups drive a notification sound from the buzzer. More groups can be activated in parallel. Bit 0 = battery alarms (HR40032 bit 0, 1, 2, 3, 7; HR40045) Bit 1 = battery under/over temperature (HR40032 bit 5; HR40044) Bit 2 = SoC&SoH alarms (HR40032 bit 8, 9; HR40033) Bit 3 = device alarms (HR40043 bit 1, 2, 3) Bit 4 = device over temperature (HR40047 bit 0) Bit 5 = device critical temperature (HR40047 bit 1) Bit 6 = boost mode (HR40032 bit 4) Bit 7 = backup mode (HR40046 bit 0) Bit 8 = Vac out of limits (HR40045) Bit 9 = load alarm (HR40038) Bit 10 = rectifier alarm (HR40043 bit 0) Bit 11 = PC shutdown (HR40046 bit 1) Bit 12-14 = reserved Bit 15 = forced activation Refer to the Adelsystem technical documentation for further details.	0	0-4095					Read/write
			40143	Buzzer warning configuration	1.3.6.1.4.1.50811.103.2.1.4.xx.40143	Configures which alarm groups drive a warning sound from the buzzer. More groups can be activated in parallel. Bit 0 = battery alarms (HR40032 bit 0, 1, 2, 3, 7; HR40045) Bit 1 = battery under/over temperature (HR40032 bit 5; HR40044) Bit 2 = SoC&SoH alarms (HR40032 bit 8, 9; HR40033) Bit 3 = device alarms (HR40043 bit 1, 2, 3) Bit 4 = device over temperature (HR40047 bit 0) Bit 5 = device critical temperature (HR40047 bit 1) Bit 6 = boost mode (HR40032 bit 4) Bit 7 = backup mode (HR40046 bit 0) Bit 8 = Vac out of limits (HR40045) Bit 9 = load alarm (HR40038) Bit 10 = rectifier alarm (HR40043 bit 0) Bit 11 = PC shutdown (HR40046 bit 1) Bit 12-14 = reserved Bit 15 = forced activation Refer to the Adelsystem technical documentation for further details.	0	0-4095					Read/write
			40144	Buzzer alarm configuration	1.3.6.1.4.1.50811.103.2.1.4.xx.40144	Configures which alarm groups drive an alarm sound from the buzzer. More groups can be activated in parallel. Bit 0 = battery alarms (HR40032 bit 0, 1, 2, 3, 7; HR40045) Bit 1 = battery under/over temperature (HR40032 bit 5; HR40044) Bit 2 = SoC&SoH alarms (HR40032 bit 8, 9; HR40033) Bit 3 = device alarms (HR40043 bit 1, 2, 3) Bit 4 = device over temperature (HR40047 bit 0) Bit 5 = device critical temperature (HR40047 bit 1) Bit 6 = boost mode (HR40032 bit 4) Bit 7 = backup mode (HR40046 bit 0) Bit 8 = Vac out of limits (HR40045) Bit 9 = load alarm (HR40038) Bit 10 = rectifier alarm (HR40043 bit 0) Bit 11 = PC shutdown (HR40046 bit 1) Bit 12-14 = reserved Bit 15 = forced activation Refer to the Adelsystem technical documentation for further details.	0	0-4095					Read/write
	Communications		40001	Modbus RTU address	1.3.6.1.4.1.50811.103.2.1.4.xx.40001	Modbus RTU address of the device. Must be unique on the bus. Can be reset to its default value by a hardware procedure. Refer to the Adelsystem MODBUS Technical Specification for further details.	1	1-247					Read/write
			40002	Baud rate for Modbus RTU	1.3.6.1.4.1.50811.103.2.1.4.xx.40002	Baud rate of Modbus RTU serial communication with the device, must be the same for all the devices on the same bus. Valid values are 4800, 9600, 19200 and 38400. Can be reset to its default value by a hardware procedure. Refer to the Adelsystem MODBUS Technical Specification for further details.	38400	4800 -38400			bps		Read/write
			40003	Parity bit for Modbus RTU	1.3.6.1.4.1.50811.103.2.1.4.xx.40003	Parity bit of Modbus RTU serial communication: 0 = No parity with 2 stop bits; 1 = Odd parity with 1 stop bit; 2 = Even parity with 1 stop bit; 3 = No parity with 1 stop bit Must be the same for all the devices on the same bus. Can be reset to its default value by a hardware procedure. Refer to the Adelsystem MODBUS Technical Specification for further details.	2	0-3					Read/write
			40130	CANopen mode	1.3.6.1.4.1.50811.103.2.1.4.xx.40130	0=CANopen / AdelBus Master; 1=CANopen / AdelBus Slave; 2=CANopen disabled. Only one device on the bus be set as Master. This device can be Master only if there are no third party (non-Adelsystem) devices on the CAN bus.	0	0-2					Read/write
			40131	CANopen NodeId	1.3.6.1.4.1.50811.103.2.1.4.xx.40131	Node ID of CANopen slave device. Valid values: 1-127. 255 => device not configured. AdelBus Master device has always NodeId = 1.	255	1-255					Read/write
			40132	CANopen bit rate	1.3.6.1.4.1.50811.103.2.1.4.xx.40132	Bit rate of CANopen slave device in Kbps. Valid values: 0 (autobaud), 10, 20, 50, 125, 250, 500, 800, 1000. AdelBus Master device always runs at 125Kbps.	0	0-1000					Read/write
	Battery		40066	Reset battery parameters to default	1.3.6.1.4.1.50811.103.2.1.4.xx.40066	Set the configuration parameters to the default value of the currently selected chemistry	0	0-1				write only 1	Read/write

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Configuration	Battery	40071	Deep discharge battery prevention	1.3.6.1.4.1.50811.103.2.1.4.xx.40071	Battery voltage at which, during backup, the device shuts down to prevent the battery from being deeply discharged	1670 [Lead] 1000 [NiCd] 2500 [LiFePO4] 3150 [Lilon]	1400-2250 [Lead] 900-1350 [NiCd] 2500-3875 [LiFePO4] 2850-3875 [Lilon]			mV/cell	CBI devices only	Read/write
		40072	Maximum charge current	1.3.6.1.4.1.50811.103.2.1.4.xx.40072	Sets the maximum allowed charging current (12/24/48V)	35000 [12V] 20000 [24V] 10000 [48V]	1750-35000 [12V] 1000-20000 [24V] 500-10000 [48V]			mA		Read/write
		40073	Bulk voltage in fast charge	1.3.6.1.4.1.50811.103.2.1.4.xx.40073	Bulk voltage setting per cell, used only in fast charge. If fast charge is not enabled the value of register 40082 "Float voltage" is used	2400 [Lead] 1450 [NiCd] 3650 [LiFePO4] 4100 [Lilon]	2200-2500 [Lead] 1400-1550 [NiCd] 3400-3700 [LiFePO4] 3950-4200 [Lilon]			mV/cell		Read/write
		40074	Max bulk timer	1.3.6.1.4.1.50811.103.2.1.4.xx.40074	Maximum bulk duration timer. If this timer expires, the device transitions to absorption charge	8	1-24			h		Read/write
		40075	Min bulk timer	1.3.6.1.4.1.50811.103.2.1.4.xx.40075	Minimum bulk duration timer	2	1-5			min		Read/write
		40077	Absorption voltage in fast charge	1.3.6.1.4.1.50811.103.2.1.4.xx.40077	Absorption voltage setting per cell, used only in fast charge. If fast charge is not enabled the value of register 40082 "Float voltage" is used	2375 [Lead] 1450 [NiCd] 3650 [LiFePO4] 4100 [Lilon]	2200-2500 [Lead] 1300-1550 [NiCd] 3400-3700 [LiFePO4] 3950-4200 [Lilon]			mV/cell		Read/write
		40078	Max absorption timer	1.3.6.1.4.1.50811.103.2.1.4.xx.40078	Maximum absorption duration timer. If this timer expires, the device transitions to float charge	8	1-24			h		Read/write
		40079	Min absorption timer	1.3.6.1.4.1.50811.103.2.1.4.xx.40079	Minimum absorption duration timer	15	1-240			min		Read/write
		40080	Return Amperes to float	1.3.6.1.4.1.50811.103.2.1.4.xx.40080	Return current value (% of maximum charge current) to go to float. Magnitude of the battery charge current below which the transition from absorption to float charge occurs	6	1-100			%		Read/write
		40081	Return amps timer	1.3.6.1.4.1.50811.103.2.1.4.xx.40081	Return current timer to go to float. Timer enabled when the battery charge current remains below the return current value parameter (40080). When it expires, the device transitions to float charge	30	1-240			s		Read/write
		40082	Float voltage	1.3.6.1.4.1.50811.103.2.1.4.xx.40082	Float voltage setting per cell. If fast charge is not enabled this value is used also for bulk and absorption charge.	2230 [Open Lead] 2250 [AGM Lead] 2300 [GEL Lead] 1400 [NiCd] 3450 [LiFePO4] 4100 [Lilon]	2200-2450 [Lead] 1300-1550 [NiCd] 3400-3700 [LiFePO4] 3950-4200 [Lilon]			mV/cell		Read/write
		40083	Fast charge enable	1.3.6.1.4.1.50811.103.2.1.4.xx.40083	Activates fast charge. If set to 1 during float charge, it forces a transition to bulk charge	0	0-1					Read/write
		40084	Return to bulk voltage from float	1.3.6.1.4.1.50811.103.2.1.4.xx.40084	Voltage (per cell) below which the device transitions from float to bulk charge	2000 [Lead] 1200 [NiCd] 3000 [LiFePO4] 3850 [Lilon]	1833-2133 [Lead] 1100-1280 [NiCd] 2750-3700 [LiFePO4] 3700-3900 [Lilon]			mV/cell		Read/write
		40085	Return to bulk delay	1.3.6.1.4.1.50811.103.2.1.4.xx.40085	Float-to-bulk transition delay after the battery voltage has been found lower than the return to bulk voltage level parameter (40084)	30	1-240			s		Read/write
		40091	Select battery chemistry	1.3.6.1.4.1.50811.103.2.1.4.xx.40091	Set the battery type and its respective charging algorithm: 0 = Open lead (float voltage 2.23V per cell) / 1 = AGM lead (float voltage 2.25V per cell) / 2 = GEL lead (float voltage 2.30V per cell) / 3 = NiCd / 4 = LiFePO4 (nominal cell voltage 3.2V) / 5 = Reserved for future use/ 6 = Lilon (nominal cell voltage 3.6V). This parameter can be written only when the battery is disconnected. Changing this parameter restores the default values for the selected chemistry.	0	0-6					Read/write
		40157	Select number of battery cells	1.3.6.1.4.1.50811.103.2.1.4.xx.40157	Number of battery cells of the selected chemistry in the battery, must be in accordance to the nominal output voltage of the device (12/24/48V)	6 [Lead,12V] 12 [Lead,24V] 24 [Lead,48V] 10 [NiCd,12V] 20 [NiCd,24V] 40 [NiCd,48V] 4 [LiFePO4,12V] 8 [LiFePO4,24V] 16 [LiFePO4,48V] 3 [Lilon,12V] 7 [Lilon,24V] 14 [Lilon,48V]	6-6 [Lead,12V] 12-12 [Lead,24V] 24-24 [Lead,48V] 10-10 [NiCd,12V] 20-20 [NiCd,24V] 40-40 [NiCd,48V] 4-4 [LiFePO4,12V] 7-8 [LiFePO4,24V] 13-16 [LiFePO4,48V] 3-3 [Lilon,12V] 6-7 [Lilon,24V] 12-15 [Lilon,48V]					Read/write
		40090	Temperature compensation coefficient in float charge	1.3.6.1.4.1.50811.103.2.1.4.xx.40090	The temperature compensation coefficient, expressed in (1/10) (mV/°C)/cell, that is applied to the charging voltage in float charge and also in bulk and absorption in the case the fast charge is not enabled when the battery temperature sensor is connected. Not enabled for LiFePO4 or Lilon. When LiFePO4 or Lilon is selected, this parameter is read only zero	30 [Lead] 25 [NiCd] 0 [LiFePO4] 0 [Lilon]	0-100 [Lead] 0-100 [NiCd] 0-0 [LiFePO4] 0-0 [Lilon]	0.1		mV/°C/cell		Read/write
		40110	Temperature compensation coefficient in fast charge	1.3.6.1.4.1.50811.103.2.1.4.xx.40110	The temperature compensation coefficient, expressed in (1/10) (mV/°C)/cell, that is applied to the charging voltage in bulk and absorption charge in the case the fast charge is enabled when the battery temperature sensor is connected. Not enabled for LiFePO4 or Lilon. When LiFePO4 or Lilon is selected, this parameter is read only zero	50 [Lead] 25 [NiCd] 0 [LiFePO4] 0 [Lilon]	0-100 [Lead] 0-100 [NiCd] 0-0 [LiFePO4] 0-0 [Lilon]	0.1		mV/°C/cell		Read/write
		40092	Lifetest enable	1.3.6.1.4.1.50811.103.2.1.4.xx.40092	0 = Battery lifetest disabled 1 = Battery lifetest enabled	0	0-1					Read/write
		40093	Max alarm temp	1.3.6.1.4.1.50811.103.2.1.4.xx.40093	Battery overtemperature alarm threshold. If the battery temperature is higher than this value the bit 5 of the battery status alarm (HR40032) is set to 1	333 (+60°C)	293-333 (+20°C ... +60°C)			K		Read/write
		40094	Min alarm temp	1.3.6.1.4.1.50811.103.2.1.4.xx.40094	Battery undertemperature alarm threshold. If the battery temperature is lower than this value the bit 5 of the battery status alarm (HR40032) is set to 1	253 (-20°C)	233-293 (-40°C ... +20°C)			K		Read/write

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Configuration	Battery	40097	Low battery threshold	1.3.6.1.4.1.50811.103.2.1.4.xx.40097	Low battery alarm threshold during backup	1833 [Lead] 1100 [NiCd] 2750 [LiFePO4] 3600 [Lilon]	1600-2290 [Lead] 1000-1375 [NiCd] 2500-3937 [LiFePO4] 3300-3937 [Lilon]			mV/cell		Read/write
		40147	Float mode	1.3.6.1.4.1.50811.103.2.1.4.xx.40147	0 = Auto float / trickle 1 = Trickle charge	0	0-1					Read/write
		40148	Force stop charging	1.3.6.1.4.1.50811.103.2.1.4.xx.40148	0 = Do charging 1 = Stop charging	0	0-1					Read/write
	Device	40034	Load output off duration after PC shutdown	1.3.6.1.4.1.50811.103.2.1.4.xx.40034	Duration of the time interval where the load output is kept deactivated prior to returning to charging if, during the PC shutdown, mains has become available again	20	2-300			s		Read/write
		40041	Force PC shutdown	1.3.6.1.4.1.50811.103.2.1.4.xx.40041	Writing the value 1, during backup, immediately triggers the shutdown of the PC	0	0-1				write only 1	Read/write
		40065	History clear all	1.3.6.1.4.1.50811.103.2.1.4.xx.40065	Write 1 at any time to clear all the histories	0	0-1				write only 1	Read/write
		40088	UPS disable	1.3.6.1.4.1.50811.103.2.1.4.xx.40088	0 = Backup allowed 1 = Backup allowed only if external contact closed	0	0-1					Read/write
		40104	Time buffering	1.3.6.1.4.1.50811.103.2.1.4.xx.40104	Time buffering setting in backup. If set to 0 the buffering time is unlimited. Expressed in seconds up to 60000 (=1000 minutes). Every unit above 60000 adds 1 minute, e.g. 60001 => 1001 minutes, up to 65000 => 6000 minutes or 100 hours	0 (no time limit)	0-65000			s	above 60000 unit becomes min	Read/write
		40111	PC power supply removal delay	1.3.6.1.4.1.50811.103.2.1.4.xx.40111	Time between the PC shutdown initiated alarm (HR40046, bit1 = 1) and the output load deactivation (irrespective of the mains presence). If 0 PC shutdown is disabled	0	0-65535			s		Read/write
		40154	Identify device	1.3.6.1.4.1.50811.103.2.1.4.xx.40154	Generates a sequence of LED blinks to identify a device among others	0	0-1				write only 1	Read/write
		40158	Load voltage without battery	1.3.6.1.4.1.50811.103.2.1.4.xx.40158	Output load voltage when battery is disconnected, in mV. If the chemistry is set to LiFePO4 then the output voltage must not be lower than the bulk voltage when no battery is connected; therefore, this parameter will be ignored if less than HR40073 x HR40157.	12200 [12V] 24200 [24V] 48400 [48V]	12000-14800 [12V] 24000-29600 [24V] 48000-59200 [48V]			mV		Read/write
		40159	Minimum load voltage setting	1.3.6.1.4.1.50811.103.2.1.4.xx.40159	Minimum voltage that is acceptable at the load output when the device is on mains	11000 [12V] 22000 [24V] 44000 [48V]	9000-11000 [12V] 18000-22000 [24V] 36000-44000 [48V]					Read/write
		40231	System programming configuration 1	1.3.6.1.4.1.50811.103.2.1.4.xx.40231	Custom configuration parameter for system programming	0	0-65535					Read/write
		40232	System programming configuration 2	1.3.6.1.4.1.50811.103.2.1.4.xx.40232	Custom configuration parameter for system programming	0	0-65535					Read/write
		40233	System programming configuration 3	1.3.6.1.4.1.50811.103.2.1.4.xx.40233	Custom configuration parameter for system programming	0	0-65535					Read/write
		48052	Datalog sampling period	1.3.6.1.4.1.50811.102.2.0.1.1.3.48052	Time interval between two subsequent acquired data points	60	30-43200			s		Read/write
		48053	Datalog CSV list and decimal separators	1.3.6.1.4.1.50811.102.2.0.1.1.3.48053	0 = values separated by semicolon and decimal part separated by comma 1 = values separated by semicolon and decimal part separated by dot	0	0-1					Read/write
	Input	40036	Low mains input voltage alarm threshold	1.3.6.1.4.1.50811.103.2.1.4.xx.40036	Mains input voltage level below which the low mains input voltage alarm (HR40045, bit 1) becomes active	100	85-369			VAC		Read/write
		40037	High mains input voltage alarm threshold	1.3.6.1.4.1.50811.103.2.1.4.xx.40037	Mains input voltage level above which the high mains input voltage alarm (HR40045, bit 0) becomes active	277	86-370			VAC		Read/write
	Output	40118	Mains input voltage alarm delay	1.3.6.1.4.1.50811.103.2.1.4.xx.40118	Time delay to confirm that the mains input voltage is lower than the Low mains input voltage alarm threshold (HR40036) or higher than the High mains input voltage alarm threshold (HR40037)	15	5-600			s		Read/write
		40107	Device switchoff delay	1.3.6.1.4.1.50811.103.2.1.4.xx.40107	Delay of the device power off in backup after the battery voltage has been found lower than the deep-discharge battery prevention voltage parameter (40071)	10	1-240			s		Read/write
Alarm	Battery	40032	Battery status alarm	1.3.6.1.4.1.50811.103.2.1.4.xx.40032	See description of each bit (unused bits are reserved for future use)		0-65535				bitx=1-->alarm	Read only
		40032.00	Reversed battery		bit0 = reversed polarity		0-1				1-->alarm	Read only
		40032.01	Battery disconnected		bit1 = battery not connected		0-1				1-->alarm	Read only
		40032.02	Shorted cell(s)		bit2 = internal cell shorted		0-1				1-->alarm	Read only
		40032.03	Battery faulty or high impedance		bit3 = damaged / sulphated battery		0-1				1-->alarm	Read only
		40032.04	Power boost ongoing		bit4 = power boost		0-1				1-->alarm	Read only
		40032.05	Battery temperature		bit5 = battery temperature outside the battery temperature alarm thresholds set through the battery overtemperature (40093) and undertemperature (40094) threshold parameters		0-1				1-->alarm	Read only
		40032.07	Bad battery wiring		bit7 = bad battery cables or connection		0-1				1-->alarm	Read only
		40032.08	Check battery sense cables		bit8 = check battery sense cables		0-1				1-->alarm	Read only
		40032.09	Battery sense cables reversed		bit9 = battery sense cables wired with reverse polarity		0-1				1-->alarm	Read only
		40032.10	NIMH battery charging not possible: no battery temperature cable		bit10 = NIMH battery charging not possible because the battery temperature cable is not connected		0-1				1-->alarm	Read only
		40032.11	Battery disconnection forced by service		bit11 = service mode active: charging and backup are disabled (HR40156)		0-1				1-->alarm	Read only
		40032.12	Battery charging stopped by service		bit12=battery charging stopped by service (HR40148)		0-1				1-->alarm	Read only
		40032.13	Emergency battery temperature		bit13=battery temperature above the emergency overtemperature threshold (HR40160)		0-1				1-->alarm	Read only
		40033	Battery State of Health alarm	1.3.6.1.4.1.50811.103.2.1.4.xx.40033	See description of each bit (unused bits are reserved for future use)		0-65535				bitx=1-->alarm	Read only

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Alarm	Battery	40033.00	Low SoH (Rint above threshold)		bit 0: low state-of-health, internal resistance of the battery too high. It is not updated when the Manual SoH test is requested by writing 1 to the Manual SoH Request parameter (40099)		0-1				1-->alarm	Read only
		40033.07	Battery SOH low by manual test		bit 7: low state-of-health by Manual SoH test, battery internal resistance is too high		0-1				1-->alarm	Read only
		40033.10	Measurement of Rint not possible: check battery sense cables		bit 10: measurement of Rint not possible: check battery sense cables		0-1				1-->alarm	Read only
		40033.11	SoH calculation not possible: reference Rint value missing		bit 11: SoH calculation not possible because no reference Rint value has been provided		0-1				1-->alarm	Read only
		40033.12	Measurement of Rint not possible: battery resistance is too high		bit 12: measurement of Rint not possible: battery resistance is too high		0-1				1-->alarm	Read only
		40033.14	Measurement of Rint not possible: excessive battery voltage drop		bit 14: measurement of Rint not possible: low signal from battery output and battery sense cables during the Rint measurement. Make sure that such cables are securely fastened both to the battery and the CBI and that the battery output cables are of adequate size		0-1				1-->alarm	Read only
		40033.15	Measurement of Rint not possible: output load current too high		bit 15: measurement of Rint not possible: the CBI load output current may be too high		0-1				1-->alarm	Read only
		40035	Battery voltage alarm	1.3.6.1.4.1.50811.103.2.1.4.xx.40035	See description of each bit (unused bits are reserved for future use)		0-65535				bitx=1-->alarm	Read only
		40035.00	High battery voltage		bit 0: high battery voltage; Alarm in the case of battery connected with nominal voltage Higher than the nominal Voltage setting, such as a 24V battery connected to a 12V device		0-1				1-->alarm	Read only
		40035.01	Low battery		bit 1: low battery		0-1				1-->alarm	Read only
		40035.02	Power up from flat battery		bit 2: device was powered up by pressing the BATTERY START button with a battery almost flat (voltage lower than the deep-discharge battery prevention voltage, parameter 40071)		0-1				1-->alarm	Read only
		40035.03	Battery is recovering from deep discharge		bit 3: battery is recovering from deep discharge: load may not be powered correctly in the event of a mains failure		0-1				1-->alarm	Read only
		40035.04	Low SoC		bit 4: low SoC		0-1				1-->alarm	Read only
		40035.05	Low battery voltage		bit 5: low battery voltage		0-1				1-->alarm	Read only
		40035.08	Battery low V or SoC setting below end of discharge V or SoC		bit 8: configuration error: parameter 40097 cannot be lower than 40071, and parameter 40113 cannot be lower than 40076		0-1				1-->alarm	Read only
	Device	40035.09	Absorption voltage setting above bulk voltage setting		bit 9: configuration error: parameter 40077 cannot be higher than 40073		0-1				1-->alarm	Read only
		40035.10	Float voltage setting above absorption voltage setting		bit 10: configuration error: parameter 40082 cannot be higher than 40077		0-1				1-->alarm	Read only
		40035.11	Return to bulk voltage setting above float voltage setting		bit 11: configuration error: parameter 40084 cannot be higher than 40082		0-1				1-->alarm	Read only
		40035.12	Number of cells x charging voltage exceeds max output voltage		bit 12: configuration error: set number of cells * charging voltage per cell exceeds maximum output voltage		0-1				1-->alarm	Read only
		40035.13	Number of cells x float voltage below min output voltage		bit 13: configuration error: set number of cells * float voltage per cell below minimum output voltage		0-1				1-->alarm	Read only
		40044	Battery temperature sensor failure alarm	1.3.6.1.4.1.50811.103.2.1.4.xx.40044	See description of each bit (unused bits are reserved for future use)		0-3				bitx=1-->alarm	Read only
		40044.1	Battery temperature sensor disconnected		bit 1: battery temperature sensor has been detached and is currently not connected		0-1				1-->alarm	Read only
		40043	Device alarm	1.3.6.1.4.1.50811.103.2.1.4.xx.40043	See description of each bit (unused bits are reserved for future use)		0-255				bitx=1-->alarm	Read only
		40043.0	Rectifier failure		bit 0: rectifier failure		0-1				1-->alarm	Read only
		40043.1	Mains detector fail		bit 1: mains detector failure		0-1				1-->alarm	Read only
		40043.2	Calibration data missing		bit 2: device not calibrated		0-1				1-->alarm	Read only
		40043.3	Lifetest failure		bit 3: lifetest not possible		0-1				1-->alarm	Read only
		40043.6	Alarm from system programming		bit 6: custom alarm from system programming		0-1				1-->alarm	Read only
		40047	On board temperature alarm	1.3.6.1.4.1.50811.103.2.1.4.xx.40047	See description of each bit (unused bits are reserved for future use)		0-3					Read only
		40047.0	Internal overtemperature		bit 0: device temperature is high: the battery charge current is gradually limited to reduce overheating		0-1				1-->alarm	Read only
		40047.1	Critical internal overtemperature		bit 1: device temperature has reached a critical value: battery charging is stopped and the output load is de-energized		0-1				1-->alarm	Read only
Input	Input	40045	Mains input voltage alarm	1.3.6.1.4.1.50811.103.2.1.4.xx.40045	See description of each bit (unused bits are reserved for future use)		0-3					Read only
		40045.0	High AC voltage		bit 0: high mains input voltage. The threshold is set using parameter 40037		0-1				1-->alarm	Read only
		40045.1	Low AC voltage		bit 1: low mains input voltage. The threshold is set using parameter 40036		0-1				1-->alarm	Read only
		40046	Input mains on / backup	1.3.6.1.4.1.50811.103.2.1.4.xx.40046	See description of each bit (unused bits are reserved for future use)		0-4				bitx=1-->alarm	Read only
		40046.0	Mains not available		bit 0: mains not available		0-1				1-->alarm	Read only
		40046.1	Start PC shutdown		bit 1: PC shutdown must be initiated		0-1				1-->alarm	Read only
Output	Output	40038	Output overload or short circuit	1.3.6.1.4.1.50811.103.2.1.4.xx.40038	Short circuit or overload at the output load terminals		0-1					Read only

(*) xx = device node ID