

Dynamic Load Management

RDC Charger supports power consumption (current draw) control to prevent circuit breaker tripping (overloading).

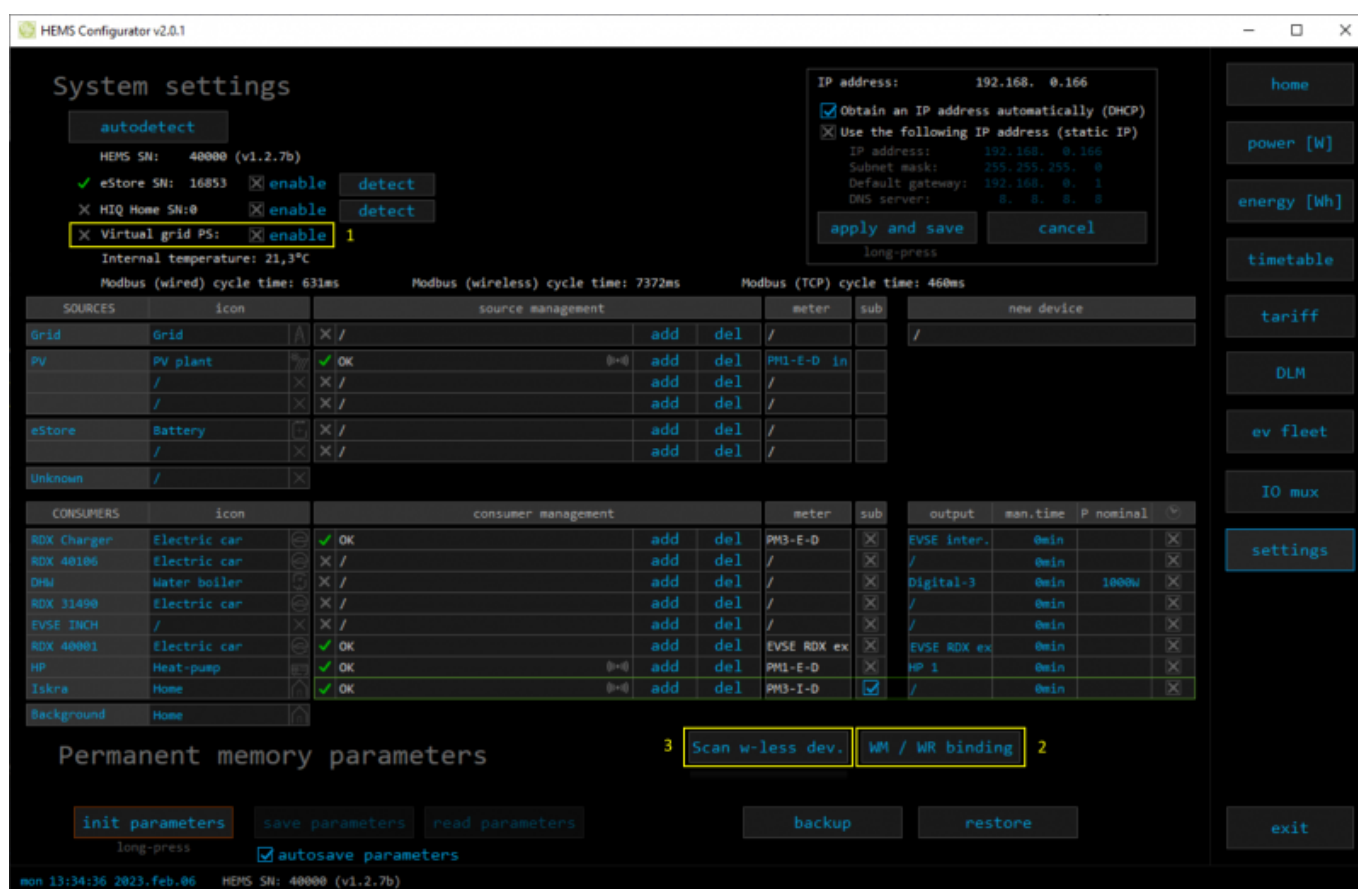
Overloading causes multiple high-energy appliances working at the same time, such as an oven, dishwasher, heat pump and EV charging.

RDC Charger monitors a current draw by appliances and in real time allocates (limits) available capacity allowing them to run without overloading.

NOTE: Power sensor must be mounted so that it can measure power & current on grid (power supply for home/facility).

Procedure to activate Dynamic Load Management is as follows:

- [HEMS Configurator](#) → settings → Virtual grid PS must be disabled (1)
- Wire [PM1-E-D](#) or [PM3-E-D](#) to [WM-1](#) module (use default address 149 or manually set address to 150)
- [HEMS Configurator](#) → settings → select WM/WR pairing button and follow [WM/WR pairing instructions](#) (2) (3)



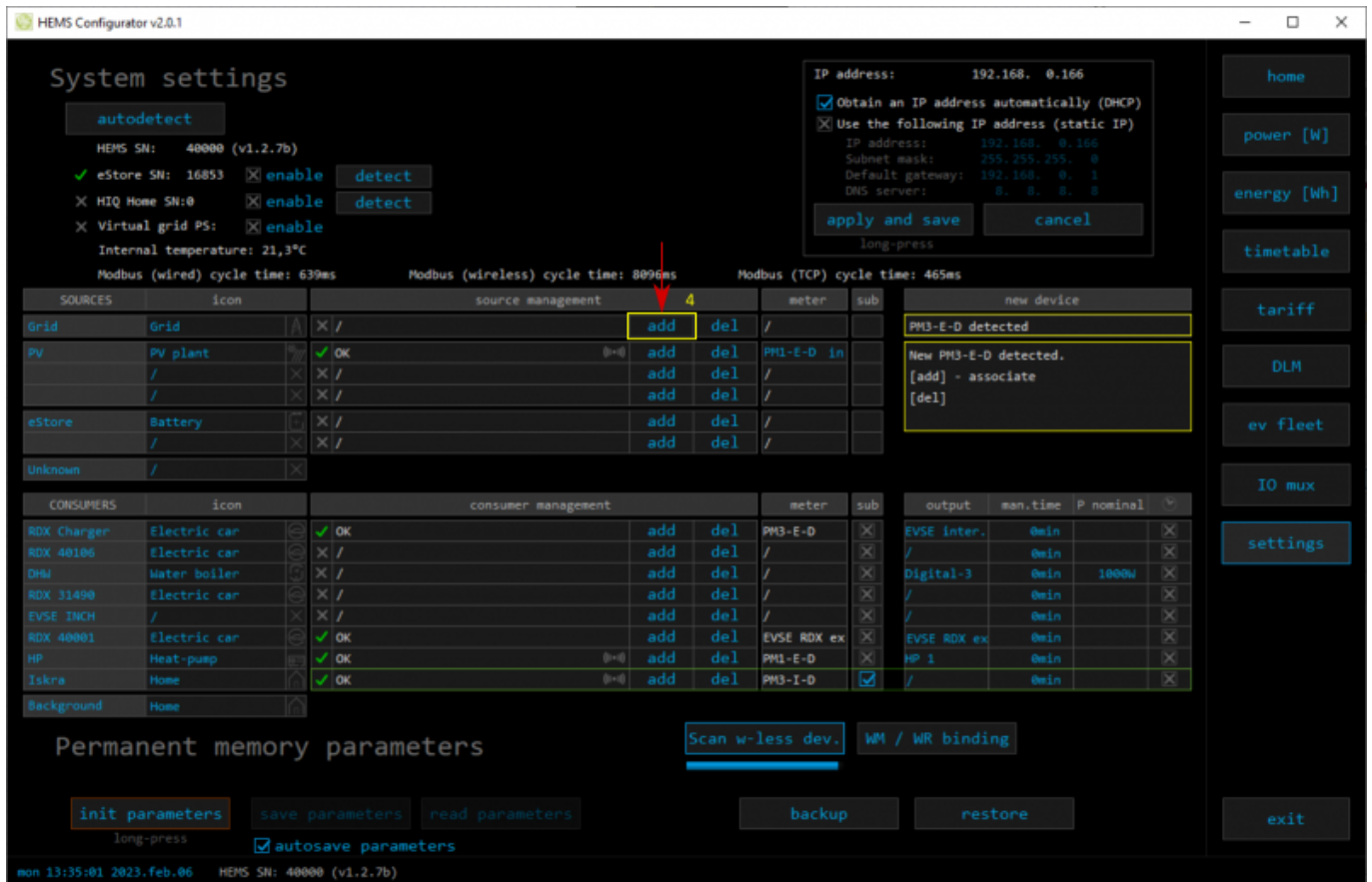
The screenshot shows the HEMS Configurator v2.0.1 interface. The 'System settings' tab is active, showing various configuration options. A modal window for IP settings is open, showing options for DHCP and static IP. The 'Virtual grid PS' is set to 'enable' with a '1' next to it. The 'Permanent memory parameters' section at the bottom shows 'Scan wireless dev.' and 'WM / WR binding' with a '2' next to it. The interface includes a sidebar with buttons for home, power [W], energy [Wh], timetable, tariff, DLM, ev fleet, IO mux, settings, and exit. The main area displays a table of sources and consumers, and a table of permanent memory parameters.

SOURCES	icon	source management	meter	sub	new device
Grid	Grid	X /	add	del	/
PV	PV plant	OK	add	del	PM1-E-D in
	/	X /	add	del	/
	/	X /	add	del	/
eStore	Battery	X /	add	del	/
	/	X /	add	del	/
Unknown	/	X /	add	del	/

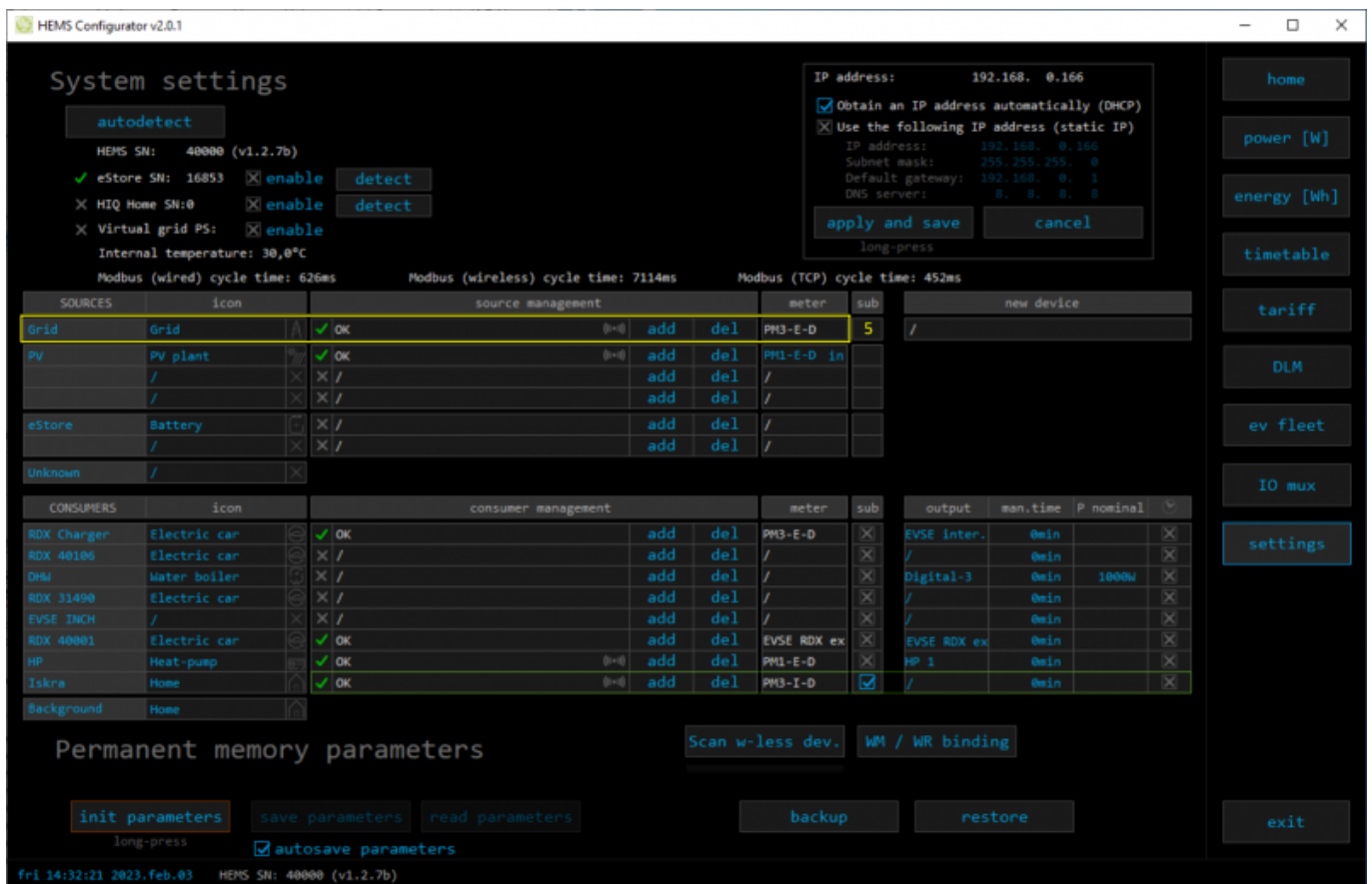
CONSUMERS	icon	consumer management	meter	sub	output	man.time	P nominal
RDX Charger	Electric car	OK	PM3-E-D	X	EVSE inter.	0min	X
RDX 40106	Electric car	X /	/	X	/	0min	X
DHW	Water boiler	X /	/	X	Digital-3	0min	1000w X
RDX 31490	Electric car	X /	/	X	/	0min	X
EVSE INCH	/	X /	/	X	/	0min	X
RDX 40001	Electric car	OK	EVSE RDX ex	X	EVSE RDX ex	0min	X
HP	Heat-pump	OK	PM1-E-D	X	HP 1	0min	X
Iskra	Home	OK	PM3-E-D	X	/	0min	X
Background	Home	X /	/	X	/	0min	X

Permanent memory parameters	
3	Scan wireless dev.
2	WM / WR binding

- Power sensor is detected. Add it to grid position (4)



- Power sensor configured successfully (5)



- HEMS Configurator → DLM, enter allowed current value of grid fuses (6)
- make sure to configure correct phase order (7), otherwise dynamic load management may not

work properly

- select limiter priority for RDC Charger (8): no limiter, limit last (last to be limited), limit second, limit first (first to be limited)

HEMS Configurator v2.0.1

Dynamic Load Management

		Grid current limit [A]		
		L1	L2	L3
Used current limit:		25	25	25
MAX current limit:		25	25	25

6

☒ Enable cluster slave connection

Master current limit:		L1	L2	L3
Limit if connection with master is lost:		0	0	0

☒ Enable limiting from cloud

Cloud current limit:		L1	L2	L3
Limit if connection with cloud is lost:		1200	1200	1200

		Power [W]				Current [A]			Voltage [V]			Phase order	Priority
		Total	L1	L2	L3	L1	L2	L3	L1	L2	L3		
Grid	A	13920	4620	4640	4660	20,0	20,0	20,3	230	230	230	L1 L2 L3	7
	X												
	X												
	X												
	X												
RDC charger		13920	4620	4640	4660	20,0	20,0	20,3	231	232	233	L1 L2 L3	Limit first
Oil radiator		0	0	0	0	0,0	0,0	0,0	230	230	230	L1 L2 L3	Limit last
Chiller		0	0	0	0	0,0	0,0	0,0	0	0	0	L1 L2 L3	No limiter
		0	0	0	0	0,0	0,0	0,0	229	0	0	L1 L2 L3	No limiter
Background		0	0	0	0	0,0	0,0	0,0					

GRID FREQUENCY [Hz] 0,00

mon 15:30:00 2023.feb.06 HEMS SN: 40105 (v1.2.7b)

home

power [W]

energy [Wh]

timetable

tariff

DLM

ev fleet

IO mux

settings

exit