

Designation	Resolution	signed	register	Data type	Unit
active energy import L123 Total (all tariffs)	0.001 kWh	no	6000	4 ulnt64	
active energy import L123 T1	0.001 kWh	no	6004	4 ulnt64	
active energy import L123 T2	0.001 kWh	no	6008	4 ulnt64	
active energy import L123 T3	0.001 kWh	no	6012	4 ulnt64	
active energy import L123 T4	0.001 kWh	no	6016	4 ulnt64	
active energy export L123 Total (all tariffs)	0.001 kWh	no	6020	4 ulnt64	
active energy export L123 T1	0.001 kWh	no	6024	4 ulnt64	
active energy export L123 T2	0.001 kWh	no	6028	4 ulnt64	
active energy export L123 T3	0.001 kWh	no	6032	4 ulnt64	
active energy export L123 T4	0.001 kWh	no	6036	4 ulnt64	
active energy import L1 Total (all tariffs)	0.001 kWh	no	6100	4 ulnt64	
active energy import L1 T1	0.001 kWh	no	6104	4 ulnt64	
active energy import L1 T2	0.001 kWh	no	6108	4 ulnt64	
active energy import L1 T3	0.001 kWh	no	6112	4 ulnt64	
active energy import L1 T4	0.001 kWh	no	6116	4 ulnt64	
active energy export L1 Total (all tariffs)	0.001 kWh	no	6120	4 ulnt64	
active energy export L1 T1	0.001 kWh	no	6124	4 ulnt64	
active energy export L1 T2	0.001 kWh	no	6128	4 ulnt64	
active energy export L1 T3	0.001 kWh	no	6132	4 ulnt64	
active energy export L1 T4	0.001 kWh	no	6136	4 ulnt64	
active energy import L2 Total (all tariffs)	0.001 kWh	no	6140	4 ulnt64	
active energy import L2 T1	0.001 kWh	no	6144	4 ulnt64	
active energy import L2 T2	0.001 kWh	no	6148	4 ulnt64	
active energy import L2 T3	0.001 kWh	no	6152	4 ulnt64	
active energy import L2 T4	0.001 kWh	no	6156	4 ulnt64	
active energy export L2 Total (all tariffs)	0.001 kWh	no	6160	4 ulnt64	
active energy export L2 T1	0.001 kWh	no	6164	4 ulnt64	
active energy export L2 T2	0.001 kWh	no	6168	4 ulnt64	
active energy export L2 T3	0.001 kWh	no	6172	4 ulnt64	
active energy export L2 T4	0.001 kWh	no	6176	4 ulnt64	
active energy import L3 Total (all tariffs)	0.001 kWh	no	6180	4 ulnt64	

Modbus TCP register

CMD EEG-54 / -104

CMD 68-V2

active energy import L3 T1	0.001 kWh	no	6184	4 uInt64
active energy import L3 T2	0.001 kWh	no	6188	4 uInt64
active energy import L3 T3	0.001 kWh	no	6192	4 uInt64
active energy import L3 T4	0.001 kWh	no	6196	4 uInt64
active energy export L3 Total (all tariffs)	0.001 kWh	no	6200	4 uInt64
active energy export L3 T1	0.001 kWh	no	6204	4 uInt64
active energy export L3 T2	0.001 kWh	no	6208	4 uInt64
active energy export L3 T3	0.001 kWh	no	6212	4 uInt64
active energy export L3 T4	0.001 kWh	no	6216	4 uInt64
reactive energy import L123 Total (all tariffs) (induktiv)	0.001 kvarh	no	6300	4 uInt64
reactive energy import L123 T1	0.001 kvarh	no	6304	4 uInt64
reactive energy import L123 T2	0.001 kvarh	no	6308	4 uInt64
reactive energy import L123 T3	0.001 kvarh	no	6312	4 uInt64
reactive energy import L123 T4	0.001 kvarh	no	6316	4 uInt64
reactive energy export L123 Total (all tariffs)	0.001 kvarh	no	6320	4 uInt64
reactive energy export L123 T1	0.001 kvarh	no	6324	4 uInt64
reactive energy export L123 T2	0.001 kvarh	no	6328	4 uInt64
reactive energy export L123 T3	0.001 kvarh	no	6332	4 uInt64
reactive energy export L123 T4	0.001 kvarh	no	6336	4 uInt64
reactive energy import L1 Total (all tariffs)	0.001 kvarh	no	6400	4 uInt64
reactive energy import L1 T1	0.001 kvarh	no	6404	4 uInt64
reactive energy import L1 T2	0.001 kvarh	no	6408	4 uInt64
reactive energy import L1 T3	0.001 kvarh	no	6412	4 uInt64
reactive energy import L1 T4	0.001 kvarh	no	6416	4 uInt64
reactive energy export L1 Total (all tariffs)	0.001 kvarh	no	6420	4 uInt64
reactive energy export L1 T1	0.001 kvarh	no	6424	4 uInt64
reactive energy export L1 T2	0.001 kvarh	no	6428	4 uInt64
reactive energy export L1 T3	0.001 kvarh	no	6432	4 uInt64
reactive energy export L1 T4	0.001 kvarh	no	6436	4 uInt64
reactive energy import L2 Total (all tariffs)	0.001 kvarh	no	6440	4 uInt64
reactive energy import L2 T1	0.001 kvarh	no	6444	4 uInt64

Modbus TCP register

reactive energy import L2 T2	0.001 kvarh	no	6448	4 ulnt64
reactive energy import L2 T3	0.001 kvarh	no	6452	4 ulnt64
reactive energy import L2 T4	0.001 kvarh	no	6456	4 ulnt64
reactive energy export L2 Total (all tariffs)	0.001 kvarh	no	6460	4 ulnt64
reactive energy export L2 T1	0.001 kvarh	no	6464	4 ulnt64
reactive energy export L2 T2	0.001 kvarh	no	6468	4 ulnt64
reactive energy export L2 T3	0.001 kvarh	no	6472	4 ulnt64
reactive energy export L2 T4	0.001 kvarh	no	6476	4 ulnt64
reactive energy import L3 Total (all tariffs)	0.001 kvarh	no	6480	4 ulnt64
reactive energy import L3 T1	0.001 kvarh	no	6484	4 ulnt64
reactive energy import L3 T2	0.001 kvarh	no	6488	4 ulnt64
reactive energy import L3 T3	0.001 kvarh	no	6492	4 ulnt64
reactive energy import L3 T4	0.001 kvarh	no	6496	4 ulnt64
reactive energy export L3 Total (all tariffs)	0.001 kvarh	no	6500	4 ulnt64
reactive energy export L3 T1	0.001 kvarh	no	6504	4 ulnt64
reactive energy export L3 T2	0.001 kvarh	no	6508	4 ulnt64
reactive energy export L3 T3	0.001 kvarh	no	6512	4 ulnt64
reactive energy export L3 T4	0.001 kvarh	no	6516	4 ulnt64

register with kWh - resolution

active energy import L123 Total (all tariffs)	1 kWh	no	7000	4 ulnt64
active energy import L123 T1	1 kWh	no	7004	4 ulnt64
active energy import L123 T2	1 kWh	no	7008	4 ulnt64
active energy import L123 T3	1 kWh	no	7012	4 ulnt64
active energy import L123 T4	1 kWh	no	7016	4 ulnt64
active energy export L123 Total (all tariffs)	1 kWh	no	7020	4 ulnt64
active energy export L123 T1	1 kWh	no	7024	4 ulnt64
active energy export L123 T2	1 kWh	no	7028	4 ulnt64
active energy export L123 T3	1 kWh	no	7032	4 ulnt64
active energy export L123 T4	1 kWh	no	7036	4 ulnt64
active energy import / Export scaling factor				

CMD EEG-54 / -104

CMD 68-V2

Modbus TCP register

CMD EEG-54 / -104

CMD 68-V2

active energy import L1 Total (all tariffs)	1 kWh	no	7100	4 ulnt64
active energy import L1 T1	1 kWh	no	7104	4 ulnt64
active energy import L1 T2	1 kWh	no	7108	4 ulnt64
active energy import L1 T3	1 kWh	no	7112	4 ulnt64
active energy import L1 T4	1 kWh	no	7116	4 ulnt64
active energy export L1 Total (all tariffs)	1 kWh	no	7120	4 ulnt64
active energy export L1 T1	1 kWh	no	7124	4 ulnt64
active energy export L1 T2	1 kWh	no	7128	4 ulnt64
active energy export L1 T3	1 kWh	no	7132	4 ulnt64
active energy export L1 T4	1 kWh	no	7136	4 ulnt64
active energy import L2 Total (all tariffs)	1 kWh	no	7140	4 ulnt64
active energy import L2 T1	1 kWh	no	7144	4 ulnt64
active energy import L2 T2	1 kWh	no	7148	4 ulnt64
active energy import L2 T3	1 kWh	no	7152	4 ulnt64
active energy import L2 T4	1 kWh	no	7156	4 ulnt64
active energy export L2 Total (all tariffs)	1 kWh	no	7160	4 ulnt64
active energy export L2 T1	1 kWh	no	7164	4 ulnt64
active energy export L2 T2	1 kWh	no	7168	4 ulnt64
active energy export L2 T3	1 kWh	no	7172	4 ulnt64
active energy export L2 T4	1 kWh	no	7176	4 ulnt64
active energy import L3 Total (all tariffs)	1 kWh	no	7180	4 ulnt64
active energy import L3 T1	1 kWh	no	7184	4 ulnt64
active energy import L3 T2	1 kWh	no	7188	4 ulnt64
active energy import L3 T3	1 kWh	no	7192	4 ulnt64
active energy import L3 T4	1 kWh	no	7196	4 ulnt64
active energy export L3 Total (all tariffs)	1 kWh	no	7200	4 ulnt64
active energy export L3 T1	1 kWh	no	7204	4 ulnt64
active energy export L3 T2	1 kWh	no	7208	4 ulnt64
active energy export L3 T3	1 kWh	no	7212	4 ulnt64
active energy export L3 T4	1 kWh	no	7216	4 ulnt64

Modbus TCP register

CMD EEG-54 / -104

CMD 68-V2

reactive energy import L123 Total (all tariffs) (induktiv)	1 kvarh	no	7300	4 ulnt64
reactive energy import L123 T1	1 kvarh	no	7304	4 ulnt64
reactive energy import L123 T2	1 kvarh	no	7308	4 ulnt64
reactive energy import L123 T3	1 kvarh	no	7312	4 ulnt64
reactive energy import L123 T4	1 kvarh	no	7316	4 ulnt64
reactive energy export L123 Total (all tariffs)	1 kvarh	no	7320	4 ulnt64
reactive energy export L123 T1	1 kvarh	no	7324	4 ulnt64
reactive energy export L123 T2	1 kvarh	no	7328	4 ulnt64
reactive energy export L123 T3	1 kvarh	no	7332	4 ulnt64
reactive energy export L123 T4	1 kvarh	no	7336	4 ulnt64
reactive energy import L1 Total (all tariffs)	1 kvarh	no	7340	4 ulnt64
reactive energy import L1 T1	1 kvarh	no	7344	4 ulnt64
reactive energy import L1 T2	1 kvarh	no	7348	4 ulnt64
reactive energy import L1 T3	1 kvarh	no	7352	4 ulnt64
reactive energy import L1 T4	1 kvarh	no	7356	4 ulnt64
reactive energy export L1 Total (all tariffs)	1 kvarh	no	7360	4 ulnt64
reactive energy export L1 T1	1 kvarh	no	7364	4 ulnt64
reactive energy export L1 T2	1 kvarh	no	7368	4 ulnt64
reactive energy export L1 T3	1 kvarh	no	7372	4 ulnt64
reactive energy export L1 T4	1 kvarh	no	7376	4 ulnt64
reactive energy import L2 Total (all tariffs)	1 kvarh	no	7380	4 ulnt64
reactive energy import L2 T1	1 kvarh	no	7384	4 ulnt64
reactive energy import L2 T2	1 kvarh	no	7388	4 ulnt64
reactive energy import L2 T3	1 kvarh	no	7392	4 ulnt64
reactive energy import L2 T4	1 kvarh	no	7396	4 ulnt64
reactive energy export L2 Total (all tariffs)	1 kvarh	no	7400	4 ulnt64
reactive energy export L2 T1	1 kvarh	no	7404	4 ulnt64
reactive energy export L2 T2	1 kvarh	no	7408	4 ulnt64
reactive energy export L2 T3	1 kvarh	no	7412	4 ulnt64
reactive energy export L2 T4	1 kvarh	no	7416	4 ulnt64
reactive energy import L3 Total (all tariffs)	1 kvarh	no	7420	4 ulnt64
reactive energy import L3 T1	1 kvarh	no	7424	4 ulnt64
reactive energy import L3 T2	1 kvarh	no	7428	4 ulnt64

Modbus TCP register

CMD EEG-54 / -104

CMD 68-V2

reactive energy import L3 T3	1 kvarh	no	7432	4 ulnt64
reactive energy import L3 T4	1 kvarh	no	7436	4 ulnt64
reactive energy export L3 Total (all tariffs)	1 kvarh	no	7440	4 ulnt64
reactive energy export L3 T1	1 kvarh	no	7444	4 ulnt64
reactive energy export L3 T2	1 kvarh	no	7448	4 ulnt64
reactive energy export L3 T3	1 kvarh	no	7452	4 ulnt64
reactive energy export L3 T4	1 kvarh	no	7456	4 ulnt64

register with kWh - Resolution as 32bit value !

active energy import L123 Total (all tariffs)	1 kWh	no	8000	2 ulnt32
active energy import L123 T1	1 kWh	no	8002	2 ulnt32
active energy import L123 T2	1 kWh	no	8004	2 ulnt32
active energy import L123 T3	1 kWh	no	8006	2 ulnt32
active energy import L123 T4	1 kWh	no	8008	2 ulnt32
active energy export L123 Total (all tariffs)	1 kWh	no	8010	2 ulnt32
active energy export L123 T1	1 kWh	no	8012	2 ulnt32
active energy export L123 T2	1 kWh	no	8014	2 ulnt32
active energy export L123 T3	1 kWh	no	8016	2 ulnt32
active energy export L123 T4	1 kWh	no	8018	2 ulnt32
active energy import L1 Total (all tariffs)	1 kWh	no	8100	2 ulnt32
active energy import L1 T1	1 kWh	no	8102	2 ulnt32
active energy import L1 T2	1 kWh	no	8104	2 ulnt32
active energy import L1 T3	1 kWh	no	8106	2 ulnt32
active energy import L1 T4	1 kWh	no	8108	2 ulnt32
active energy export L1 Total (all tariffs)	1 kWh	no	8110	2 ulnt32
active energy export L1 T1	1 kWh	no	8112	2 ulnt32
active energy export L1 T2	1 kWh	no	8114	2 ulnt32
active energy export L1 T3	1 kWh	no	8116	2 ulnt32
active energy export L1 T4	1 kWh	no	8118	2 ulnt32
active energy import L2 Total (all tariffs)	1 kWh	no	8120	2 ulnt32
active energy import L2 T1	1 kWh	no	8122	2 ulnt32
active energy import L2 T2	1 kWh	no	8124	2 ulnt32

Modbus TCP register

CMD EEG-54 / -104 CMD 68-V2

active energy import L2 T3	1 kWh	no	8126	2 ulnt32
active energy import L2 T4	1 kWh	no	8128	2 ulnt32
active energy export L2 Total (all tariffs)	1 kWh	no	8130	2 ulnt32
active energy export L2 T1	1 kWh	no	8132	2 ulnt32
active energy export L2 T2	1 kWh	no	8134	2 ulnt32
active energy export L2 T3	1 kWh	no	8136	2 ulnt32
active energy export L2 T4	1 kWh	no	8138	2 ulnt32
active energy import L3 Total (all tariffs)	1 kWh	no	8140	2 ulnt32
active energy import L3 T1	1 kWh	no	8142	2 ulnt32
active energy import L3 T2	1 kWh	no	8144	2 ulnt32
active energy import L3 T3	1 kWh	no	8146	2 ulnt32
active energy import L3 T4	1 kWh	no	8148	2 ulnt32
active energy export L3 Total (all tariffs)	1 kWh	no	8150	2 ulnt32
active energy export L3 T1	1 kWh	no	8152	2 ulnt32
active energy export L3 T2	1 kWh	no	8154	2 ulnt32
active energy export L3 T3	1 kWh	no	8156	2 ulnt32
active energy export L3 T4	1 kWh	no	8158	2 ulnt32
reactive energy import L123 Total (all tariffs) (induktiv)	1 kvarh	no	8200	2 ulnt32
reactive energy import L123 T1	1 kvarh	no	8202	2 ulnt32
reactive energy import L123 T2	1 kvarh	no	8204	2 ulnt32
reactive energy import L123 T3	1 kvarh	no	8206	2 ulnt32
reactive energy import L123 T4	1 kvarh	no	8208	2 ulnt32
reactive energy export L123 Total (all tariffs)	1 kvarh	no	8210	2 ulnt32
reactive energy export L123 T1	1 kvarh	no	8212	2 ulnt32
reactive energy export L123 T2	1 kvarh	no	8214	2 ulnt32
reactive energy export L123 T3	1 kvarh	no	8216	2 ulnt32
reactive energy export L123 T4	1 kvarh	no	8218	2 ulnt32
reactive energy import L1 Total (all tariffs)	1 kvarh	no	8300	2 ulnt32
reactive energy import L1 T1	1 kvarh	no	8302	2 ulnt32
reactive energy import L1 T2	1 kvarh	no	8304	2 ulnt32
reactive energy import L1 T3	1 kvarh	no	8306	2 ulnt32

Modbus TCP register

CMD EEG-54 / -104 CMD 68-V2

reactive energy import L1 T4	1 kvarh	no	8308	2 ulnt32
reactive energy export L1 Total (all tariffs)	1 kvarh	no	8310	2 ulnt32
reactive energy export L1 T1	1 kvarh	no	8312	2 ulnt32
reactive energy export L1 T2	1 kvarh	no	8314	2 ulnt32
reactive energy export L1 T3	1 kvarh	no	8316	2 ulnt32
reactive energy export L1 T4	1 kvarh	no	8318	2 ulnt32
reactive energy import L2 Total (all tariffs)	1 kvarh	no	8320	2 ulnt32
reactive energy import L2 T1	1 kvarh	no	8322	2 ulnt32
reactive energy import L2 T2	1 kvarh	no	8324	2 ulnt32
reactive energy import L2 T3	1 kvarh	no	8326	2 ulnt32
reactive energy import L2 T4	1 kvarh	no	8328	2 ulnt32
reactive energy export L2 Total (all tariffs)	1 kvarh	no	8330	2 ulnt32
reactive energy export L2 T1	1 kvarh	no	8332	2 ulnt32
reactive energy export L2 T2	1 kvarh	no	8334	2 ulnt32
reactive energy export L2 T3	1 kvarh	no	8336	2 ulnt32
reactive energy export L2 T4	1 kvarh	no	8338	2 ulnt32
reactive energy import L3 Total (all tariffs)	1 kvarh	no	8340	2 ulnt32
reactive energy import L3 T1	1 kvarh	no	8342	2 ulnt32
reactive energy import L3 T2	1 kvarh	no	8344	2 ulnt32
reactive energy import L3 T3	1 kvarh	no	8346	2 ulnt32
reactive energy import L3 T4	1 kvarh	no	8348	2 ulnt32
reactive energy export L3 Total (all tariffs)	1 kvarh	no	8350	2 ulnt32
reactive energy export L3 T1	1 kvarh	no	8352	2 ulnt32
reactive energy export L3 T2	1 kvarh	no	8354	2 ulnt32
reactive energy export L3 T3	1 kvarh	no	8356	2 ulnt32
reactive energy export L3 T4	1 kvarh	no	8358	2 ulnt32

Instantaneous values

active power L123	0.001 kW	yes	9000	2 sFloat32
active power L1	0.001 kW	yes	9002	2 sFloat32
active power L2	0.001 kW	yes	9004	2 sFloat32
active power L3	0.001 kW	yes	9006	2 sFloat32
reactive power L123	0.001 kvar	yes	9010	2 sFloat32
reactive power L1	0.001 kvar	yes	9012	2 sFloat32
reactive power L2	0.001 kvar	yes	9014	2 sFloat32
reactive power L3	0.001 kvar	yes	9016	2 sFloat32
apparent power L123	0.001 kVA	yes	9020	2 sFloat32
apparent power L1	0.001 kVA	yes	9022	2 sFloat32
apparent power L2	0.001 kVA	yes	9024	2 sFloat32
apparent power L3	0.001 kVA	yes	9026	2 sFloat32
current L123	0.001 A	yes	9100	2 sFloat32
current L1	0.001 A	yes	9102	2 sFloat32
current L2	0.001 A	yes	9104	2 sFloat32
current L3	0.001 A	yes	9106	2 sFloat32
current L4 (neutral; only at CT type, at direct type it is allways "0")	0.001 A	yes	9108	2 sFloat32
voltage L1-N	0.1 V	no	9200	2 sFloat32
voltage L2-N	0.1 V	no	9202	2 sFloat32
voltage L3-N	0.1 V	no	9204	2 sFloat32
voltage L1-L2	0.1 V	no	9206	2 sFloat32
voltage L2-L3	0.1 V	no	9208	2 sFloat32
voltage L3-L1	0.1 V	no	9210	2 sFloat32
voltage L1-N	0.001 V	no	9218	2 sFloat32
voltage L2-N	0.001 V	no	9220	2 sFloat32
voltage L3-N	0.001 V	no	9222	2 sFloat32
voltage L1-L2	0.001 V	no	9224	2 sFloat32
voltage L2-L3	0.001 V	no	9226	2 sFloat32
voltage L3-L1	0.001 V	no	9228	2 sFloat32

Modbus TCP register

power factor L1
power factor L2
power factor L3
frequency
frequency scale factor
power average

CMD EEG-54 / -104

CMD 68-V2

100 Cos	no	9300	2 sFloat32
100 Cos	no	9302	2 sFloat32
100 Cos	no	9304	2 sFloat32
100 Hz	no	9310	2 sFloat32
		9312	2 sFloat32
		9314	2 sFloat32