

## Modbus parameters in VAMP devices

Name	Scaling	Setting for scaling	Read	Write	Holding Register	Note
Reread event	1 = 1	-	1	0	401991...401995	Mirror of registers 402490...402494
Events	1 = 1	-	1	0	401996...402000	Mirror of registers 402101...402105
Alive indicator (0...255 increments once per second)	1 = 1	-	1	0	402001	
Digital Inputs	1 = 1	-	1	0	402007	
DIs after DI16 for Modbus	1 = 1	-	1	0	402008	
Phase current IL1	1 A = 1	-	1	0	402009	
Phase current IL2	1 A = 1	-	1	0	402010	
Phase current IL3	1 A = 1	-	1	0	402011	
Io1 residual current	1.00 A = 100	-	1	0	402012	
Io2 residual current	1.000 A = 100	-	1	0	402013	
Line-to-line voltage U12	1000 V = 1000	Voltage scaling	1	0	402014	
Line-to-line voltage U23	1000 V = 1000	Voltage scaling	1	0	402015	
Line-to-line voltage U31	1000 V = 1000	Voltage scaling	1	0	402016	
Phase-to-earth voltage UL1	1000 V = 1000	Voltage scaling	1	0	402017	
Phase-to-earth voltage UL2	1000 V = 1000	Voltage scaling	1	0	402018	
Phase-to-earth voltage UL3	1000 V = 1000	Voltage scaling	1	0	402019	
Zero sequence voltage	1.0 % = 10	-	1	0	402020	
Frequency	50.000 Hz = 5000	Frequency scaling	1	0	402021	
Active power	1000 Kw = 1000	Power scaling	1	0	402022	
Reactive power	1000 kvar = 1000	Power scaling	1	0	402023	
Apparent power	1000 kVA = 1000	Power scaling	1	0	402024	
Power factor	1.00 = 100	PF and cosine scaling	1	0	402025	
Energy Eexp	1 = 1	-	1	0	402026	
Eexp/10 <sup>4</sup>	10 <sup>4</sup> = 1	-	1	0	402027	
Eexp/10 <sup>8</sup>	10 <sup>8</sup> = 1	-	1	0	402028	
Energy EqExp	1 = 1	-	1	0	402029	
EqExp/10 <sup>4</sup>	10 <sup>4</sup> = 1	-	1	0	402030	

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EqExp/10 <sup>8</sup>	10 <sup>8</sup> = 1	-	1	0	402031	
Energy Eimp	1 = 1	-	1	0	402032	
Eimp/10 <sup>4</sup>	10 <sup>4</sup> = 1	-	1	0	402033	
Eimp/10 <sup>8</sup>	10 <sup>8</sup> = 1	-	1	0	402034	
Energy EqImp	1 = 1	-	1	0	402035	
EqImp/10 <sup>4</sup>	10 <sup>4</sup> = 1	-	1	0	402036	
EqImp/10 <sup>8</sup>	10 <sup>8</sup> = 1	-	1	0	402037	
Tan phi	1.000 = 1000	Tan phi scaling	1	0	402038	
Phase current IL	1 A = 1	-	1	0	402039	
Average line voltage	1000 V = 1000	Voltage scaling	1	0	402040	
Average phase voltage	1000 V = 1000	Voltage scaling	1	0	402041	
Obj1 state	Open = 0, Close = 1, Undef = 2	-	1	0	402042	
Obj2 state	Open = 0, Close = 1, Undef = 2	-	1	0	402043	
Obj3 state	Open = 0, Close = 1, Undef = 2	-	1	0	402044	
Obj4 state	Open = 0, Close = 1, Undef = 2	-	1	0	402045	
Obj5 state	Open = 0, Close = 1, Undef = 2	-	1	0	402046	
Obj6 state	Open = 0, Close = 1, Undef = 2	-	1	0	402047	
Remote/Local State	Remote = 0, Local = 1	-	1	1	402048	
Output relays	1 = 1	-	1	0	402049	
Obj7 state	Open = 0, Close = 1, Undef = 2	-	1	0	402050	
Obj8 state	Open = 0, Close = 1, Undef = 2	-	1	0	402051	
Digital inputs 21...32	1 = 1	-	1	0	402052	
Run hours/10 <sup>0</sup> to Modbus	1 = 1	-	1	0	402057	
Run hours/10 <sup>4</sup> to Modbus	1 = 1	-	1	0	402058	
Engine running seconds	1 s = 1	-	1	1	402059	
Start counter	1 = 1	-	1	1	402060	
Phase current I'L1	1 A = 1	-	1	0	402061	

Name	Scaling	Setting for scaling	Read	Write	Holding Register	Note
Phase current I'L2	1 A = 1	-	1	0	402062	
Phase current I'L3	1 A = 1	-	1	0	402063	
IL1 difference	1.00 x In = 100	-	1	0	402064	
IL2 difference	1.00 x In = 100	-	1	0	402065	
IL3 difference	1.00 x In = 100	-	1	0	402066	
Events	1 = 1	-	1	0	402101...402105	
Event code		-			402101	See Modbus Application Note
Event time stamp: bits 15...6 = milliseconds, bits 5...0 = seconds		-			402102	
Event time stamp: upper byte = minutes, lower byte = hours		-			402103	
Event time stamp: upper byte = days, lower byte = month		-			402104	
Event time stamp		-			402105	
Last fault current	1.00 x In = 100	-	1	1	402110	
Fault current	1.00 x In = 100	-	1	0	402111	
Fault current	1.00 x In = 100	-	1	0	402112	
Fault current	1.00 x In = 100	-	1	0	402113	
Fault reactance	1.00 ohm = 100	-	1	0	402115	
Algorithm condition	OK = 0, NegX = 1, BigX = 2, LongFlt = 3, NoDI = 4, NoPreFlt = 5, NoPostFlt = 6, ShrtFlt = 7	-	1	0	402116	
Alarm L1...L3: bit 0 = L1, bit 1 = L2, bit 2 = L3	1 = 1	-	1	0	402121	

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Fault L1...L3: bit 0 = L1, bit 1 = L2, bit 2 = L3	1 = 1	-	1	0	402122	
Last fault Io current	1.00 pu = 100	-	1	0	402130	
Fault current	1.00 pu = 100	-	1	0	402131	
Fault current	1.00 pu = 100	-	1	0	402132	
Fault current	1.00 pu = 100	-	1	0	402133	
Fault current	1.00 pu = 100	-	1	0	402134	
Diagnostic register 1	1 = 1	-	1	0	402191	
Diagnostic register 2	1 = 1	-	1	0	402192	
Diagnostic register 3	1 = 1	-	1	0	402193	
Diagnostic register 4	1 = 1	-	1	0	402194	
HARMONICS of IL1: 402201 = DC component, 402202 = 1. harmonic, ... 402216 = 15. harmonic	1 % = 1	-	1	0	402201...402216	
HARMONICS of IL2	1 % = 1	-	1	0	402221...402236	
HARMONICS of IL3	1 % = 1	-	1	0	402241...402256	
HARMONICS of Ua	1 % = 1	-	1	0	402301...402316	
HARMONICS of Ub	1 % = 1	-	1	0	402321...402336	
HARMONICS of Uc	1 % = 1	-	1	0	402341...402356	
HARMONICS of I'L1	1 % = 1	-	1	0	402401...402416	
HARMONICS of I'L2	1 % = 1	-	1	0	402421...402436	
HARMONICS of I'L3	1 % = 1	-	1	0	402441...402456	
Reread event	1 = 1	-	1	0	402490...402494	
Release latches	Release = 1	-	1	1	402501	
Synchronize minutes	1 = 1	-	1	1	402502	
Grp. 2 remote scaling	1 % = 1	-	1	1	402503	

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Set RTC: 402504 = seconds, 402505 upper byte = minutes, 402505 lower byte = hours, 402506 upper byte = day, 402506 lower byte = month, 402507 = year	1 = 1	-	0	1	402504...402507	
Open select Obj1	1 = 1	-	1	1	402508	
Close select Obj1	1 = 1	-	1	1	402509	
Execute operation Obj1	1 = 1	-	0	1	402510	
Max ctrl pulse length of Obj1	1.00 s = 100	-	1	1	402511	
Open select Obj2	1 = 1	-	1	1	402512	
Close select Obj2	1 = 1	-	1	1	402513	
Execute operation Obj2	1 = 1	-	0	1	402514	
Max ctrl pulse length of Obj2	1.00 s = 100	-	1	1	402515	
Cancel selected operation	1 = 1	-	0	1	402516	
Open select Obj3	1 = 1	-	1	1	402517	
Close select Obj3	1 = 1	-	1	1	402518	
Execute operation Obj3	1 = 1	-	0	1	402519	
Max ctrl pulse length of Obj3	1.00 s = 100	-	1	1	402520	
Open select Obj4	1 = 1	-	1	1	402521	
Close select Obj4	1 = 1	-	1	1	402522	
Execute operation Obj4	1 = 1	-	0	1	402523	
Max ctrl pulse length of Obj4	1.00 s = 100	-	1	1	402524	
Ambient temperature	1 °C = 100	-	1	1	402525	
SetGrp common change	1 = 0, 2 = 1	-	1	1	402526	
Open select Obj5	1 = 1	-	1	1	402527	
Close select Obj5	1 = 1	-	1	1	402528	
Execute operation Obj5	1 = 1	-	0	1	402529	
Max ctrl pulse length of Obj5	1.00 s = 100	-	1	1	402530	
Open select Obj6	1 = 1	-	1	1	402531	
Close select Obj6	1 = 1	-	1	1	402532	
Execute operation Obj6	1 = 1	-	0	1	402533	

Name	Scaling	Setting for scaling	Read	Write	Holding Register	Note
Max ctrl pulse length of Obj6	1.00 s = 100	-	1	1	402534	
Reset diagnostics	Reset = 1	-	1	1	402535	
Clear min & max	Clear = 1	-	1	1	402536	
Pos. sequence I1	1 A = 1	-	1	0	403001	
Neg. sequence I2	1 A = 1	-	1	0	403002	
Current -seq./+seq.	1.0 % = 10	-	1	0	403003	
Current phase seq.	?? = 0, OK = 1, Reverse = 2	-	1	0	403004	
Phase current THD	1.0 % = 10	-	1	0	403005	
IL1 THD	1.0 % = 10	-	1	0	403006	
IL2 THD	1.0 % = 10	-	1	0	403007	
IL3 THD	1.0 % = 10	-	1	0	403008	
Phase current IL	1 A = 1	-	1	0	403009	
Min. of IL1 IL2 IL3	1 A = 1	-	1	0	403010	
Max. of IL1 IL2 IL3	1 A = 1	-	1	0	403011	
Phase current ILRMS	1 Arms = 1	-	1	0	403012	
Phase current IL1RMS	1 Arms = 1	-	1	0	403015	
Phase current IL2RMS	1 Arms = 1	-	1	0	403016	
Phase current IL3RMS	1 Arms = 1	-	1	0	403017	
Temperature rise	1.0 % = 10	-	1	1	403018	
Ambient temperature	1 °C = 100	-	1	1	403019	
IL1da demand	1 A = 1	-	1	0	403020	
IL2da demand	1 A = 1	-	1	0	403021	
IL3da demand	1 A = 1	-	1	0	403022	
IoCalc demand	1.00 pu = 100	-	1	0	403023	
Io1 demand	1.000 pu = 1000	-	1	0	403024	
Io2 demand	1.000 pu = 1000	-	1	0	403025	
Pos. sequence U1	1000 V = 1000	Voltage scaling	1	0	403031	
Neg. sequence U2	1000 V = 1000	Voltage scaling	1	0	403032	
Voltage -seq./+seq.	1.0 % = 10	-	1	0	403033	
Voltage phase seq.	?? = 0, OK = 1, Reverse = 2	-	1	0	403034	
Voltage THD	1.0 % = 10	-	1	0	403035	

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Ua THD	1.0 % = 10	-	1	0	403036	
Ub THD	1.0 % = 10	-	1	0	403037	
Uc THD	1.0 % = 10	-	1	0	403038	
Average line voltage	1000 V = 1000	Voltage scaling	1	0	403039	
Min of line voltages	1000 V = 1000	Voltage scaling	1	0	403040	
Max of line voltages	1000 V = 1000	Voltage scaling	1	0	403041	
Average phase voltage	1000 V = 1000	Voltage scaling	1	0	403042	
Min. of phase voltages	1000 V = 1000	Voltage scaling	1	0	403043	
Max. of phase voltages	1000 V = 1000	Voltage scaling	1	0	403044	
Voltage mean	1000 Vrms = 1000	Voltage scaling	1	0	403045	
Input voltage Ua	1000 Vrms = 1000	Voltage scaling	1	0	403048	
Input voltage Ub	1000 Vrms = 1000	Voltage scaling	1	0	403049	
Input voltage Uc	1000 Vrms = 1000	Voltage scaling	1	0	403050	
U12 demand	1000 V = 1000	Voltage scaling	1	0	403051	
U23 demand	1000 V = 1000	Voltage scaling	1	0	403052	
U31 demand	1000 V = 1000	Voltage scaling	1	0	403053	
UL1 demand	1000 V = 1000	Voltage scaling	1	0	403054	
UL2 demand	1000 V = 1000	Voltage scaling	1	0	403055	
UL3 demand	1000 V = 1000	Voltage scaling	1	0	403056	
Cosine phi	1.00 = 100	PF and cos scaling	1	0	403058	
Tan phii	1.000 = 1000	Tan phi scaling	1	0	403059	
Power angle	1° = 1	-	1	0	403060	
RMS active power	1000 kW = 1000	Power scaling	1	0	403061	
RMS reactive power	1000 kvar = 1000	Power scaling	1	0	403062	
RMS apparent power	1000 kVA = 1000	Power scaling	1	0	403063	
Active power demand	1000 kW = 1000	Power scaling	1	0	403066	
Reactive power demand	1000 kvar = 1000	Power scaling	1	0	403067	
Apparent power demand	1000 kVA = 1000	Power scaling	1	0	403068	
Power factor demand	1.00 = 100	PF and cos scaling	1	0	403069	
RMS active power demand	1000 kW = 1000	Power scaling	1	0	403071	
RMS reactive power demand	1000 kvar = 1000	Power scaling	1	0	403072	
RMS apparent power demand	1000 kVA = 1000	Power scaling	1	0	403073	

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Phase L1 active power	1000 kW = 1000	Power scaling	1	0	403081	
Phase L2 active power	1000 kW = 1000	Power scaling	1	0	403082	
Phase L3 active power	1000 kW = 1000	Power scaling	1	0	403083	
Phase L1 reactive power	1000 kvar = 1000	Power scaling	1	0	403084	
Phase L2 reactive power	1000 kvar = 1000	Power scaling	1	0	403085	
Phase L3 reactive power	1000 kvar = 1000	Power scaling	1	0	403086	
Phase L1 apparent power	1000 kVA = 1000	Power scaling	1	0	403087	
Phase L2 apparent power	1000 kVA = 1000	Power scaling	1	0	403088	
Phase L3 apparent power	1000 kVA = 1000	Power scaling	1	0	403089	
Cosine of phase L1	1.00 = 100	PF and cos scaling	1	0	403090	
Cosine of phase L2	1.00 = 100	PF and cos scaling	1	0	403091	
Cosine of phase L3	1.00 = 100	PF and cos scaling	1	0	403092	
Frequency fy	50.000 Hz = 5000	Frequency scaling	1	0	403101	Synchrocheck
Line-to-line voltage U12y	1000 V = 1000	Voltage scaling	1	0	403102	Synchrocheck
Synchrocheck 1 Phase angle difference	1° = 1	-	1	0	403103	Synchrocheck
Frequency fz	50.000 Hz = 5000	Frequency scaling	1	0	403111	Synchrocheck
Line-to-line voltage U12z	1000 V = 1000	Voltage scaling	1	0	403112	Synchrocheck
Synchrocheck 2 Phase angle difference	1° = 1	-	1	0	403113	Synchrocheck
Positive sequence I'1	1 A = 1	-	1	0	403151	
Negative sequence I'1	1 A = 1	-	1	0	403152	
Current I' -seq./+seq.	1.0 % = 10	-	1	0	403153	
Current I' phase sequence	?? = 0, OK = 1, Reverse = 2	-	1	0	403154	
Phase current I'THD	1.0% = 10	-	1	0	403155	
I'L1 THD	1.0% = 10	-	1	0	403156	
I'L2 THD	1.0% = 10	-	1	0	403157	
I'L3 THD	1.0% = 10	-	1	0	403158	
Phase current I'L	1 A = 1	-	1	0	403159	
Min. of I'L1, I'L2, I'L3	1 A = 1	-	1	0	403160	
Max. of I'L1, I'L2, I'L3	1 A = 1	-	1	0	403161	
Phase current I'Lrms	1 Arms = 1	-	1	0	403162	



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Phase current I'L1rms	1 Arms = 1	-	1	0	403165	
Phase current I'L2rms	1 Arms = 1	-	1	0	403166	
Phase current I'L3rms	1 Arms = 1	-	1	0	403167	
DI1 counter	1 = 1	-	1	1	403301	
DI2 counter	1 = 1	-	1	1	403302	
DI3 counter	1 = 1	-	1	1	403303	
DI4 counter	1 = 1	-	1	1	403304	
DI5 counter	1 = 1	-	1	1	403305	
DI6 counter	1 = 1	-	1	1	403306	
DI7 counter	1 = 1	-	1	1	403307	
DI8 counter	1 = 1	-	1	1	403308	
DI9 counter	1 = 1	-	1	1	403309	
DI10 counter	1 = 1	-	1	1	403310	
DI11 counter	1 = 1	-	1	1	403311	
DI12 counter	1 = 1	-	1	1	403312	
DI13 counter	1 = 1	-	1	1	403313	
DI14 counter	1 = 1	-	1	1	403314	
DI15 counter	1 = 1	-	1	1	403315	
DI16 counter	1 = 1	-	1	1	403316	
DI17 counter	1 = 1	-	1	1	403317	
DI18 counter	1 = 1	-	1	1	403318	
DI19 counter	1 = 1	-	1	1	403319	Optional DI19/DI20 card
DI20 counter	1 = 1	-	1	1	403320	Optional DI19/DI20 card
DI21 counter	1 = 1	-	1	1	403350	
DI22 counter	1 = 1	-	1	1	403351	
DI23 counter	1 = 1	-	1	1	403352	
DI24 counter	1 = 1	-	1	1	403353	
DI25 counter	1 = 1	-	1	1	403354	
DI26 counter	1 = 1	-	1	1	403355	
DI27 counter	1 = 1	-	1	1	403356	
DI28 counter	1 = 1	-	1	1	403357	

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DI29 counter	1 = 1	-	1	1	403358	
DI30 counter	1 = 1	-	1	1	403359	
DI31 counter	1 = 1	-	1	1	403360	
DI32 counter	1 = 1	-	1	1	403361	
Shot1 start counter	1 = 1	-	1	1	403331	
Shot2 start counter	1 = 1	-	1	1	403332	
Shot3 start counter	1 = 1	-	1	1	403333	
Shot4 start counter	1 = 1	-	1	1	403334	
Shot5 start counter	1 = 1	-	1	1	403335	
AR start counter	1 = 1	-	1	1	403336	
AR fail counter	1 = 1	-	1	1	403337	
AR shot number	1, 2, 3, 4, 5, END = 6	-	1	0	403402	
Critical AR req.	1 = 1	-	1	0	403403	
Reclose locked	1 = 1	-	1	0	403404	
Reclose running	1 = 1	-	1	0	403405	
Final trip	1 = 1	-	1	0	403406	
Autoreclose on	1 = 1	-	1	0	403407	
Voltage interrupt	LOW = 0, OK = 1	-	1	0	403413	
Voltage status	OK = 0, LOW = 1, HIGH = 3, (OK) = 4, (LOW) = 5, (HIGH) = 6, (LOW)/(HIGH) = 7	-	1	0	403414	
Timer 1 status	0 = 1, 1 = 2	-	1	1	403415	
Timer 2 status	0 = 1, 1 = 2	-	1	1	403416	
Timer 3 status	0 = 1, 1 = 2	-	1	1	403417	
Timer 4 status	0 = 1, 1 = 2	-	1	1	403418	
Logic output states 1...10	1 = 1	-	1	0	403419	
CBWAlarm 1	1 = 1	-	1	0	403420	
CBWAlarm 2	1 = 1	-	1	0	403421	
Logic output states 9...16	1 = 1	-	1	0	403422	

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Logic output states 17...20	1 = 1	-	1	0	403423	
Virtual outputs	0, 1	-	1	0	403426	
Virtual input 1	0, 1	-	1	1	403427	
Virtual input 2	0, 1	-	1	1	403428	
Virtual input 3	0, 1	-	1	1	403429	
Virtual input 4	0, 1	-	1	1	403430	
Synchrocheck 1 request	1 = 1	-	1	0	403431	
Synchrocheck 1 OK	1 = 1	-	1	0	403432	
Synchrocheck 1 bypass	1 = 1	-	1	1	403433	
Synchrocheck 1 fail	1 = 1	-	1	0	403434	
Synchrocheck 2 request	1 = 1	-	1	0	403441	
Synchrocheck 2 OK	1 = 1	-	1	0	403442	
Synchrocheck 2 bypass	1 = 1	-	1	1	403443	
Synchrocheck 2 fail	1 = 1	-	1	0	403444	
Logic Cntr1	1 = 1	-	1	0	403451	
Logic Cntr2	1 = 1	-	1	0	403452	
Logic Cntr3	1 = 1	-	1	0	403453	
Logic Cntr4	1 = 1	-	1	0	403454	
Logic Cntr5	1 = 1	-	1	0	403455	
Logic Cntr6	1 = 1	-	1	0	403456	
External AI1	1.00 °C = 100	-	1	0	403500	External IO must be active
External AI2	1.00 °C = 100	-	1	0	403501	External IO must be active
External AI3	1.00 °C = 100	-	1	0	403502	External IO must be active
External AI4	1.00 °C = 100	-	1	0	403503	External IO must be active
External AI5	1.00 °C = 100	-	1	0	403504	External IO must be active
External AI6	1.00 °C = 100	-	1	0	403505	External IO must be active
External AI7	1.00 °C = 100	-	1	0	403506	External IO must be active
External AI8	1.00 °C = 100	-	1	0	403507	External IO must be

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						active
External AI9	1.00 °C = 100	-	1	0	403508	External IO must be active
External AI10	1.00 °C = 100	-	1	0	403509	External IO must be active
External AI11	1.00 °C = 100	-	1	0	403510	External IO must be active
External AI12	1.00 °C = 100	-	1	0	403511	External IO must be active
External AI13	1.00 °C = 100	-	1	0	403512	External IO must be active
External AI14	1.00 °C = 100	-	1	0	403513	External IO must be active
External AI15	1.00 °C = 100	-	1	0	403514	External IO must be active
External AI16	1.00 °C = 100	-	1	0	403515	External IO must be active
External DI1	1 = 1	-	1	0	403600	
External DI2	1 = 1	-	1	0	403601	
External DI3	1 = 1	-	1	0	403602	
External DI4	1 = 1	-	1	0	403603	
External DI5	1 = 1	-	1	0	403604	
External DI6	1 = 1	-	1	0	403605	
External DI7	1 = 1	-	1	0	403606	
External DI8	1 = 1	-	1	0	403607	
External DI9	1 = 1	-	1	0	403608	
External DI10	1 = 1	-	1	0	403609	
External DI11	1 = 1	-	1	0	403610	
External DI12	1 = 1	-	1	0	403611	
External DI13	1 = 1	-	1	0	403612	
External DI14	1 = 1	-	1	0	403613	
External DI15	1 = 1	-	1	0	403614	
External DI16	1 = 1	-	1	0	403615	
External DI17	1 = 1	-	1	0	403616	
External DI18	1 = 1	-	1	0	403617	

Name	Scaling	Setting for scaling	Read	Write	Holding Register	Note
Minimum frequency	50.000 Hz = 50000	-	1	1	404001	
Minimum active power	1 kW = 1	-	1	1	404002	
Minimum react. power	1 kvar = 1	-	1	1	404003	
Minimum apparent power	1 kVA = 1	-	1	1	404004	
Min power factor	1.000 = 1000	-	1	1	404005	
Minimum of Io	1.0 % = 10	-	1	1	404006	
Minimum of Io2	1.0 % = 10	-	1	1	404007	
Minimum active power	1 kW = 1	-	1	1	404008	
Minimum react. power	1 kvar = 1	-	1	1	404009	
Minimum apparent power	1 kVA = 1	-	1	1	404010	
15 min minimum power factor	1.000 = 1000	-	1	1	404011	
Minimum active power	1 kW = 1	-	1	1	404012	
Minimum react. power	1 kvar = 1	-	1	1	404013	
Minimum apparent power	1 kVA = 1	-	1	1	404014	
Minimum of IL1	1 A = 1	-	1	1	404015	
Minimum of IL2	1 A = 1	-	1	1	404016	
Minimum of IL3	1 A = 1	-	1	1	404017	
RMS minimum of IL1	1 Arms = 1	-	1	1	404018	
RMS minimum of IL2	1 Arms = 1	-	1	1	404019	
RMS minimum of IL3	1 Arms = 1	-	1	1	404020	
Minimum of IL1	1 A = 1	-	1	1	404021	
Minimum of IL2	1 A = 1	-	1	1	404022	
Minimum of IL3	1 A = 1	-	1	1	404023	
RMS minimum of IL1	1 Arms = 1	-	1	1	404024	
RMS minimum of IL2	1 Arms = 1	-	1	1	404025	
RMS minimum of IL3	1 Arms = 1	-	1	1	404026	
Minimum of U12	1 V = 1	-	1	1	404030	
Minimum of U23	1 V = 1	-	1	1	404031	
Minimum of U31	1 V = 1	-	1	1	404032	
Maximum frequency	50.000 Hz = 50000	-	1	1	404101	
Maximum active power	1 kW = 1	-	1	1	404102	

Name	Scaling	Setting for scaling	Read	Write	Holding Register	Note
Maximum react. power	1 kvar = 1	-	1	1	404103	
Maximum apparent power	1 kVA = 1	-	1	1	404104	
Max power factor	1.000 = 1000	-	1	1	404105	
Maximum of Io	1.0 % = 10	-	1	1	404106	
Maximum of Io2	1.0 % = 10	-	1	1	404107	
Maximum active power	1 kW = 1	-	1	1	404108	
Maximum react. power	1 kvar = 1	-	1	1	404109	
Maximum apparent power	1 kVA = 1	-	1	1	404110	
15 min maximum power factor	1.000 = 1000	-	1	1	404111	
Maximum active power	1 kW = 1	-	1	1	404112	
Maximum react. power	1 kvar = 1	-	1	1	404113	
Maximum apparent power	1 kVA = 1	-	1	1	404114	
Maximum of IL1	1 A = 1	-	1	1	404115	
Maximum of IL2	1 A = 1	-	1	1	404116	
Maximum of IL3	1 A = 1	-	1	1	404117	
RMS maximum of IL1	1 Arms = 1	-	1	1	404118	
RMS maximum of IL2	1 Arms = 1	-	1	1	404119	
RMS maximum of IL3	1 Arms = 1	-	1	1	404120	
Maximum of IL1	1 A = 1	-	1	1	404121	
Maximum of IL2	1 A = 1	-	1	1	404122	
Maximum of IL3	1 A = 1	-	1	1	404123	
RMS maximum of IL1	1 Arms = 1	-	1	1	404124	
RMS maximum of IL2	1 Arms = 1	-	1	1	404125	
RMS maximum of IL3	1 Arms = 1	-	1	1	404126	
Maximum of U12	1 V = 1	-	1	1	404130	
Maximum of U23	1 V = 1	-	1	1	404131	
Maximum of U31	1 V = 1	-	1	1	404132	
Z12 primary impedance	1.00 ohm = 100	-	1	0	404201	
Z23 primary impedance	1.00 ohm = 100	-	1	0	404202	
Z31 primary impedance	1.00 ohm = 100	-	1	0	404203	
Z12 secondary impedance	1.00 ohm = 100	-	1	0	404204	
Z23 secondary impedance	1.00 ohm = 100	-	1	0	404205	

Name	Scaling	Setting for scaling	Read	Write	Holding Register	Note
Z31 secondary impedance	1.00 ohm = 100	-	1	0	404206	
Z12 angle	1° = 1	-	1	0	404207	
Z23 angle	1° = 1	-	1	0	404208	
Z31 angle	1° = 1	-	1	0	404209	

This table was generated from firmware version 10.108. New firmware versions might bring additions to this list.

Please note that all of these registers are not necessarily available on all devices or with some device configurations. For instance, the holding registers marked with the comment "Synchrocheck" in the Note column require a device that is capable of performing synchrocheck as well as having its Voltage measurement mode set appropriately.