



The Energy Management Platform

Doc: Monitoring Parameters

Internet of Things

Solar Energy



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Information

All monitored parameter are defined by Manufacturers in a defined Modbus memory registers which are then accessed by TrackSo

This document contains the list of parameters monitored/logged on TrackSo Solar.

For any further queries related to the document please email us at support@trackso.in

Note

No. of Monitoring parameters provided on TrackSo Solar is dependent on the type of license purchased, for any queries reach sales@trackso.in

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Inverters

1. Delta

- Series- RPI
- Only Applicable Model- RPI-H3, RPI-H5, RPI-M6A, RPI-M10A, RPI-M15A, RPI-M20A, RPI-M30A, RPI-M50A, RPI-M42U, RPI-M36U, RPI-M80U, RPI-M60U, RPI-M88H, RPI-M70A, RPI-M100, RPI-M125HV

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
DC Input Power [MPPT] [1, 2, 3]	kWp	
Output Active Power	kWp	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency Phase [A, B, C]	Hz	
Operating State		
Daily Energy	kWh	
Daily Runtime	hr	
Total Energy	MWh	
Total Runtime	Hr	
Ambient Temperature	deg C	
Inverter Temperature	deg C	
Fault Code		
Previous Fault		
DC Input Voltage [MPPT] [4, 5, 6]	V	Only Applicable for RPI-M70A
DC Input Current [MPPT] [4, 5, 5]	A	
DC Input Power [MPPT] [4, 5, 6]	kWp	
String Current [1-X]	A	Only Applicable for RPI-M80U, RPI-M60U, RPI-M88H, RPI-M70A

- Series: DelCEN
- Model No.: DelCEN 1000, DelCEN 1000 x 2

Parameter name	Unit of Measure	Comments
AC Voltage Phase AN	V	
AC Current Phase A	A	
Output Active Power	kWp	
Total AC Apparent Power	kVA	
Converter Module Temperature	deg C	
Inverter Temperature	deg C	
Total DC Input Power	kWp	
Ambient Temperature	deg C	
DC Input Voltage 1	V	
Total Energy	MWh	
Daily Energy	kWh	
Operating State		
Fault Code		

2. Sungrow

- Only Applicable Model- SG5KTL-MT, SG6KTL-MT, SG8KTL-M, SG10KTL-M, SG12KTL-M, SG15KTL-M, SG17KTL-M, SG20KTL-M, SG30KTL-M, SG30CX, SG33CX-US, SG33KTL-M, SG33CX, SG36KTL-M, SG40CX, SG50CX, SG55CX-US, SG49K5J, SG50KTL-M, SG60KTL, SG80KTL-20, SG60KU-M, SG111HV, SG125HV, SG110CX, SG250HX, SG250HX-US

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
DC Input Power [MPPT] [1, 2, 3]	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
Power Factor		
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Daily Runtime	hr	
Monthly Energy	kWh	
Total Energy	MWh	
Total Runtime	hr	
Ambient Temperature	deg C	
Inverter Temperature	deg C	
Fault Code		
DC Input Voltage [MPPT] [4-9]	V	Only Applicable for SG50CX, SG55CX-US, SG50KTL-M, SG60KTL, SG80KTL-20, SG60KU-M SG111HV, SG125HV, SG110CX, SG250HX, SG250HX-US
DC Input Current [MPPT] [4-9]	A	
DC Input Power [MPPT] [4- 9]	kWp	
String Current [1-X]	A	

3. ABB

- Only Applicable Model- TRIO-20.0-TL-OUTD, TRIO-27.6-TL-OUTD

Parameter name	Unit of Measure	Comments
Operating State		
Fault Code		
Daily Energy	kWh	
Total Energy	MWh	
Monthly Energy	kWh	
Yearly Energy	kWh	
Grid Voltage	V	
Total AC Current	A	
Output Active Power	kWp	
AC Frequency	Hz	
DC Input Power [MPPT] [1, 2]	kWp	
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
Converter Module Temperature	deg C	
Booster Temperature	deg C	
Power Factor		

- Only Applicable Model -PRO-33.0-TL-OUTD, TRIO-TM-50.0-SUNSPEC

Parameter name	Unit of Measure	Comments
Inverter Operation		
DC Input Voltage	V	
Total AC Current	A	
AC Frequency	Hz	
Total AC Apparent Power	kVAr	
Output Active Power	kWp	
Power Factor		
Total DC Input Current	A	
Warning Code 1		
Warning Code 2		
Operating State		
Disconnect Diagnostic		
Output Power Diagnostic		
Total Uptime	hr	
Total Runtime	hr	
Board Temperature	deg C	
Total Energy	MWh	
AC Voltage Phase [AN, BN, CN]	V	
String Current [1-X]	A	Only Applicable for models supporting String Monitoring

- Only Applicable Model -TRIO-50.0/60.0-TL-OUTD, TRIO-TM-50.0-400, TRIO-TM-60.0-480

Parameter name	Unit of Measure	Comments
Operating State		
Fault Code		
DC DC Converter State		
DC AC Converter State		
Derating State		
Daily Energy	kWh	
Total Energy	MWh	
Weekly Energy	kWh	
Monthly Energy	kWh	
Yearly Energy	kWh	
Grid Voltage	V	
Output Grid Current	A	
Output Active Power	kWp	
Power Factor		
AC Frequency	Hz	
DC Input Power [MPPT] [1, 2, 3]	kWp	
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
Inverter Temperature	deg C	

- Only Applicable Model -PVS-100/120-TL

Parameter name	Unit of Measure	Comments
Total AC Current	A	
AC Current Phase [A, B, C]	A	
AC Output Voltage [AB, BC, CA]	V	
AC Output Voltage [AN, BN, CN]	V	
Output Active Power	kWp	
AC Frequency	Hz	
Total AC Apparent Power	kVA	
Total AC Reactive Power	VAr	
Power Factor		
Total Energy	MWh	
Total DC Input Current	A	
Total DC Input Power	kWp	
Inverter Temperature	deg C	
Heat Sink Temperature	deg C	
Operating State		
Fault Code 1		
Fault Code 2		
Vendor Operating State		
Active Power Derating State		
Apparent Power Derating State		
Status of Auxiliary Devices		
DC Input Current [1, 2, 3]	A	
DC Input Voltage [1, 2, 3]	V	
DC Input Power [1, 2, 3]	kWp	
DC Input Voltage	V	
String Current [1-X]	A	Only Applicable for models supporting String Monitoring

- Only Applicable Model -PVS800 (Central Inverter)

Parameter name	Unit of Measure	Comments
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
Output Active Power	kWp	
AC Frequency	Hz	
Power Factor		
Total AC Reactive Power	KVAr	
DC Input Voltage	V	
DC Input Current	A	
Total DC Input Power	kWp	
Inverter Temperature	deg C	
Inverter Status		
Inv Failure		
Runtime	Hr	
Total Energy	MWh	
Energy Limiting Counter	A	
Inverter Temperature	deg C	
String Current [1-24]	A	
Main Status Word		
DI Status Word		
Ext DI Status Word		
PVA Status		
PVA Status Word		
GND State		
GND Status Word		
Supply Fault Word		
Supply Alarm Word		
PVA Fault Word		
PVA Alarm Word		
Inv Last Fault Code		
PVA Alarm Word 2		
Fault Code [1, 2, 3, 4, 5]		
Warn Code [1, 2, 3, 4, 5]		
Grid Fault Word		

4. SMA

- Only Applicable Model- SMA SOLID-Q 50 / PRO 60

Parameter name	Unit of Measure	Comments
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	h	
Operating State		
Fault Code		
Inverter Temperature	deg C	
Connection Mode of PV Strings		
DC Bus Voltage	V	
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Output Active Power	kWp	
Power Factor		
String Current [1-x]	A	

- Only Applicable Model- SUNNY TRIPOWER 15000TL, SUNNY TRIPOWER 20000TL, SUNNY TRIPOWER 25000TL, SUNNY TRIPOWER 60

Parameter name	Unit of Measure	Comments
AC Current	A	
AC Current Phase [A, B, C]	A	
AC Voltage Phase [AN, BN, CN]	V	
Output Active Power	kWp	
AC Frequency	Hz	
Total AC Apparent Power	kWp	
Total AC Reactive Power	kWp	
Total Energy	MWh	
Inverter Temperature	deg C	
Operating State		
Event fields		
Vendor defined events		
DC Input Current [MPPT][1, 2, 3]	A	
DC Input Voltage [MPPT][1, 2, 3]	V	
DC Input Power [MPPT][1, 2, 3]	kWp	

- Only Applicable Model- SMA Core 2

Parameter name	Unit of Measure	Comments
Total AC Current	A	
AC Current Phase [A, B, C]	A	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
Output Active Power	kWp	
AC Frequency	Hz	
Total AC Apparent Power	kVA	
Total AC Reactive Power	VAr	
Power Factor		
Total Energy	MWh	
Total DC Input Current	A	
DC Input Voltage	V	
Total DC Input Power	kWp	
Inverter Cabinet Temperature	deg C	
Operating State		
Fault Code 1		
Fault Code 2		
DC Input Current [1-12]	A	
DC Input Voltage [1-12]	V	
DC Input Power [1-12]	kWp	

5. Schneider Electric

- Only Applicable Model- Conext CL-18/25, Conext CL-20/25, Conext CL36, Conext CL-60E, Conext CL125

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input Power [MPPT] [1, 2]	kWp	
Output Active Power	kWp	
Output Total Current	A	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating Mode		
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	hr	
Ambient Temperature	deg C	
Fault Code		
String Current [1-X]	A	Only Applicable for Conext CL-60E, Conext CL125

6. Growatt

- Only Applicable Model- 1000-S, 2000-S, 3000-S, 4000-S, 5000-S, 5000-UE, 6000-UE, 8000-UE, 10000-UE, 12000-UE, 18000-UE, 20000-UE, 30000-UE, 33000-UE, 40000-UE, 50000-TL3-HE, 60000-TL3-HE

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2,]	A	
DC Input Power [MPPT] [1, 2]	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Daily Runtime	hr	
Total Energy	MWh	
Total Runtime	hr	
Inverter Temperature	deg C	
Fault Code		
Grid Fault Record		

- Only Applicable Model- MAX 50000 TL3-L, MAX 60000 TL3-L, MAX 70000 TL3-L, MAX 80000 TL3-L

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	hr	
Inverter Temperature	deg C	
Fault Code		
Derating Mode		
String Current [1-X]	A	
String Voltage [1-X]	V	

- Only Applicable Model- MID 15KTL3-X, MID 17KTL3-X, MID 20KTL3-X, MID 22KTL3-X, MID 25KTL3-X, MID 25KTL3-X1, MID 30KTL3-X, MID 33KTL3-X, MID 36KTL3-X, MID 40KTL3-X

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
Output Active Power	kWp	
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2,]	A	
DC Input Power [MPPT] [1, 2]	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	Hr	
Inverter Temperature	deg C	
Operating State		
Fault Code		
Derating State		
DC Input Voltage [MPPT] [3, 4]	V	Only Applicable for MID 25KTL3-X1, MID 30KTL3-X, MID 33KTL3-X, MID 36KTL3-X, MID 40KTL3-X
DC Input Current [MPPT] [3, 4]	A	
DC Input Power [MPPT] [3, 4]	kWp	
String Current [1-8]	A	

- Only Applicable Model- MAC 50KTL3-X LV, MAC 60KTL3-X LV, MAC 70KTL3-X LV

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
Output Active Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
DC Input Power [MPPT] [1, 2, 3]	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	Hr	
Inverter Temperature	deg C	
Operating State		
Fault Code		
Derating State		

- Only Applicable Model- W3-4K , W3-5K, W3-6K, W3-8K, W3-9K, W3-25, W3-30, W3-50, W3-60, W3-65, W3-80

Parameter name	Unit of Measure	Comments
Total Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input Power [MPPT] [1, 2]	kWp	
Output Active Power	kWp	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency Phase [A, B, C]	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Inverter Temperature	deg C	
Fault Code [1,2,3,4]		
DC Input Voltage [MPPT] [1, 2]	V	Only Applicable for W3-50, W3-60, W3-65, W3-80
DC Input Current [MPPT] [1, 2]	A	
DC Input Power [MPPT] [1, 2]	kWp	
String Current [1-X]		
String Status		

8. Solax Power

- Only Applicable Model- X3 ZDNY-TL 10000, X3 ZDNY-TL 12000, X3 ZDNY-TL 15000, X3 ZDNY-TL 17000, X3 ZDNY-TL 20000,X3-8.0P-T, X3-10.0P-T, X3-12.0P-T, X3-15.0P-T, X3-30-T, X3-36-T

Parameter name	Unit of Measure	Comments
Total Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input Power [MPPT] [1, 2]	kWp	
Output Active Power	kWp	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency Phase [A, B, C]	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Inverter Temperature	deg C	
Fault [1-4]		
Inverter Status		

9. GoodWe

- Only Applicable Model- GW4000-DT, GW5000-DT, GW5000L-DT, GW6000-DT, GW6000L-DT, GW8000-DT, GW10KN-DT, GW10KL-DT, GW12KN-DT, GW15KN-DT, GW17KN-DT, GW20KN-DT, GW12KLN-DT, GW12KLV-DT, GW15KLV-DT, GW17K-DT, GW20K-DT, GW25K-DT, GW25K-MT, GW30K-MT, GW36K-MT, GW15KLV-MT, GW20KLV-MT, GW80KBF-MT, GW70KHV-MT, GW80KHV-MT, GW80K-MT, GW30KLV-MT, GW35KLV-MT, GW50KLV-MT, GW50K-MT, GW60K-MT, GW50KN-MT, GW60KN-MT, GW50KBF-MT, GW60KBF-M

Parameter name	Unit of Measure	Comments
Total Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input Power [MPPT] [1, 2]	kWp	
Output Active Power	kWp	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency Phase [A, B, C]	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Inverter Temperature	deg C	
Fault Code		
DC Input Voltage [MPPT] [3, 4]	V	Only Applicable for GW30KLV-MT, GW35KLV- MT, GW50KLV-MT, GW50K-MT, GW50KN-MT, GW50KBF-MT, GW60K- MT, GW60KN-MT, GW60KBF-MT, GW75KBF- MTGW80KBF-MT, GW70KMF-MT, GW70KHV-MT, GW80KHV-MT, GW75K- MT, GW80K-MT
DC Input Current [MPPT] [3, 4]	A	
DC Input Power [MPPT] [3,4]	kWp	
String Current [1-X]	A	

- Only Applicable Model- Primo 3.0-1, Primo 3.5-1, Primo 3.6-1, Primo 4.0-1, Primo 4.6-1, Primo 5.0-1, Primo 6.0-1, Primo 8.2-1Symo 3.0-3-M, Symo 3.0-3-S, Symo 3.7-3-M, Symo 3.7-3-S, Symo 4.5-3-M, Symo 4.5-3-S, Symo 5.0-3-M, Symo 6.0-3-M, Symo 7.0-3-M, Symo 8.2-3-M, Symo 10.0-3-M, Symo 12.5-3-M, Symo 15.0-3-M, Symo 17.5-3-M, Symo 20.

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT]	V	
DC Input Current [MPPT]	A	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Total Current	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Total AC Apparent Power		
Total AC Reactive Power		
Power Factor		
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Event Flags [1-2]		

11. Huawei

- Only Applicable Model- SUN2000-15/20KTL-M0, SUN2000 42KTL, SUN2000 36KTL, SUN2000 33KTL-JP, SUN2000 40KTL-JP, SUN2000 43KTL-IN-C1, SUN2000-185KTL-INH0, SUN2000-185KTL-INH0

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [1-8]	V	
DC Input Current [1-8]	A	
DC Input Power [MPPT] [1, 2, 3, 4]	kWp	
Output Active Power	kWp	
Total AC Reactive Power		
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]		
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Device Status		
Daily Energy	kWh	
Total Energy	MWh	
Monthly Energy		
Yearly Energy		
Inverter Temperature	deg C	
Inverter efficiency		
Inverter Status		
Yield Collection Time		

- Only Applicable Model- SUN2000-50KTL-M0

Parameter name	Unit of Measure	Comments
DC Input Voltage [1-12]	V	
DC Input Current [1-12]	A	
Total DC Input Power	kWp	
Output Active Power	kWp	
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Daily Energy	kWh	
Total Energy	MWh	
Monthly Energy	kWh	
Yearly Energy	kWh	
Operating State		
Inverter Temperature	deg C	
Inverter efficiency	%	
Fault code		

- Only Applicable Model- Evershine TLC4000, Evershine TLC5000, Evershine TLC6000, Evershine TLC8000, Evershine TLC10000, Evershine TLCS15K, Evershine TLCS17K, Evershine TLC20K, Zeverlution Pro 33K

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
Output Active Power	kWp	
Power Factor		
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	Hr	
DC Bus Voltage	V	
Utility Connect Time	sec	
Inverter Temperature	deg C	
Fault Code		
Connection Mode of PV Strings		

13. Ingeteam

- Only Applicable Model- INGECON SUN 3Play 100TL, INGECON SUN 3PLAY 160TL 1500V

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT]	V	
DC Input Current [MPPT]	A	
Output Active Power	kWp	
Power Factor		
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	hr	
Stop Event		
Warning Code		
Status Unit		
Fault Code [1, 2, 3, 4]		
String Current [1-X]	A	

- Only Applicable Model- INGECON SUN 1Play-2.5TLM / 3TLM / 3.3TLM / 5TLM / 6TLM 3PLAY 20TL / 33TL / 20TLM / 33TLM

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT]	V	
DC Input Current [MPPT]	A	
Output Active Power	kWp	
Power Factor		
Grid Voltage	V	
AC Total Current	A	
AC Frequency	Hz	
Operating State		
Total Energy	MWh	
Total Runtime	hr	
Times Connected to Grid		
No. of Errors/Internal State		
Bus Voltage		
Inverter Alarms		

14. Polycab Solar

- Only Applicable Model- PSIS-1K, PSIS-1.5K, PSIS-2K, PSIS-3K, PSIS-4K, PSIS-5K, PSIT-6K, PSIT-10K, PSIT-15K, PSIT-20K, PSIT-25K, PSIT-36K, PSIT-40K, PSIT-50K, PSIT-60K

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3, 4]	V	
DC Input Current [MPPT] [1, 2, 3, 4]	A	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Monthly Energy	KWh	
Yearly Energy	KWh	
Inverter Temperature	deg C	
Fault Code [0-5]		
Inverter Status		

15. KSTAR

- Only Applicable Model- KSG10K, KSG12.5K, KSG15K, KSG17K, KSG20K, KSG25K, KSG-36K, KSG30K, KSG40K, KSG50K, KSG60K

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
DC Input Power [MPPT] [1, 2, 3]	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency Phase [A, B, C]	Hz	
DC Bus Voltage	V	
Daily Energy	kWh	
Total Energy	MWh	
Radiator Temperature	deg C	
Converter Module Temperature	deg C	
Warning Code		
Fault Code		
Operating State		

16. REFUsol

- Only Applicable Model- REFUsol 08K, REFUsol 10K, REFUsol 13K, REFUsol 17K, REFUsol 20K, REFUsol 23K, REFUsol 40K, REFUsol 46K

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT]	V	
DC Input Current [MPPT]	A	
Output Active Power	kWp	
Total AC Apparent Power	KVA	
Total AC Reactive Power	KVAr	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
Total AC Active Current	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Daily Energy	kWh	
Total Energy	MWh	
Heat Sink Temperature	deg C	
Inverter Temperature	deg C	
Operating State		
Vendor Operating State		
Fault Code		

- Only Applicable Model- Blueplanet 3.0 TL3, Blueplanet 4.0 TL3, Blueplanet 5.0 TL3, Blueplanet 7.5 TL3, Blueplanet 8.6 TL, Blueplanet 9.0 TL3, Blueplanet 10.0 TL3, Blueplanet 15.0 TL3, Blueplanet 20.0 TL3, Blueplanet 29.0 TL3, Blueplanet 50.0 TL3, Blueplanet 87.0 TL3, Blueplanet 92.0 TL3, Blueplanet 110 TL3, Blueplanet 125 TL3, Blueplanet 137 TL3, Blueplanet 150 TL3

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT]	V	
DC Input Current [MPPT]	A	
Output Active Power	kWp	
Power Factor		
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Total Current	A	
AC Frequency	Hz	
Daily Energy	kWh	
Total Energy	MWh	
Inverter Temperature	deg C	
Operating State		
Vendor Operating State		
Fault Code		
Event Details		

- Only Applicable Model- Powador 39.0 TL3, Powador 60.0 TL3, Powador 48.0 TL3, Powador 72.0 TL3

Parameter name	Unit of Measure	Comments
Version		
Total DC Input Power	kWp	
DC Input Voltage [MPPT]	V	
DC Input Current [MPPT]	A	
Output Active Power	kWp	
Power Factor		
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
Daily Energy	kWh	
Operating State		
Vendor Operating State		
Circuit Board Temperature	deg C	

18. PowerOne

- Only Applicable Model- 10kW-SGTU-103, 12.5kW-SGTU-1253, 15kW-SGTU-153, 17kW-SGTU-173, 20kW-SGTU-203, POM SGTU 30kW, POM SGTU 50kW

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3, 4]	V	
DC Input Current [MPPT] [1, 2, 3, 4]	A	
Output Active Power	kWp	
Power Factor		
Total AC Apparent Power	KVA	
Total AC Reactive Power	KVAr	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Daily Energy	kWh	
Total Energy	MWh	
Displays Power	KWp	
IGBT temperature	deg C	
Warning Message word [1-2]		
Fault Info word [1-4]		
Operation State		

19. Solis

- Only Applicable Model- Solis-6K, Solis-10K, Solis-15K, Solis-20K, Solis-25K, Solis-30K, Solis-33K, Solis-36K-HV, Solis-40K-HV, Solis-40K, Solis-50K, Solis-50K-HV, Solis-60K-HV, Solis-70K-HV, Solis-80K-5G, Solis-100K-HV-5G, Solis-110K-BHV-5G, Solis-125K-EHV-5G

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1-4]	V	
DC Input Current [MPPT] [1-4]	A	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Monthly Energy	kWh	
Yearly Energy	kWh	
Inverter Temperature	deg C	
Fault [00-05]		
Inverter Status		
DC Input Voltage [MPPT] [5-10]	V	Only Applicable for Solis-80K-5G, Solis-100K-HV-5G, Solis-110K-BHV-5G, Solis-125K-EHV-5G
DC Input Current [MPPT] [5-20]	A	
String Current [1-X]	A	
String Voltage [1-X]	V	

- Only Applicable Model- Suntrio Plus 4K, Suntrio Plus 5K, Suntrio Plus 6K, Suntrio Plus 8K, Suntrio Plus 10K, Suntrio Plus 12K, Suntrio Plus 15K , Suntrio Plus 17K, Suntrio Plus 20K,Suntrio Plus 25K, Suntrio Plus 33K, Suntrio Plus 40K, Suntrio Plus 50K, Suntrio Plus 60K

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input Power [MPPT] [1, 2]	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Daily Runtime	hr	
Total Energy	MWh	
Total Runtime	hr	
Inverter Temperature	deg C	
Operating State		
Fault Code		

21. Consul Neowatt

- Only Applicable Model- Sunbird 1000, Sunbird 3000 , Falcon 8500

Parameter name	Unit of Measure	Comments
Grid Voltage Phase [A, B, C]	V	
Grid Current Phase [A, B, C]	A	
Grid Power Factor Phase [A, B, C]		
Grid Active Power Phase [A, B, C]	KW	
Grid Apparent Power Phase [A, B, C]	KVA	
Total Grid Power		
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	KWp	
Output Active Power	KW	
AC Frequency	Hz	
Output Power Factor Phase [U, V, W]		
Output Apparent Power Phase [U, V,W]	KVA	
Load % Phase [U, V, W]		
Bridge Current Phase [U, V, W]	A	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Hs Temperature [1, 2, 3]	deg C	
Battery Temperature	deg C	
Battery Voltage	V	
Battery Charging Current	A	
Battery Power		
Dc Bus Voltage	V	
Array Voltage	V	
Array Current	A	
Array Power		
Grid Import Power	kWh	
Grid Export Power	kWh	
Battery Charging		
Battery Discharging		

22. Electrower

- Only Applicable Model- VIRAJ 1KW /2KW /5KW /7.5KW /10KW /15KW, ONLINE UPS-CONTINUO 3KVA, 5KVA, 7.5KVA, 10KVA, 15KVA

Parameter name	Unit of Measure	Comments
Battery Voltage	V	
Battery Charging Current	A	
Solar Voltage	V	
Solar Current	A	
Solar Power	KWp	
Input Voltage	V	
Output Current	A	
Output Active Power	KWp	
Input Frequency	Hz	
AC Frequency	Hz	
Output Energy Remainder		
Total Energy	MWh	
Solar Energy		
Solar Energy Remainder		
Flash Writes		
Uptime	Mins	
Temperature	deg C	
Inverter Status & Fault		
PFC Charger Status & Fault		
MPPT Charger Status & Fault		
Mains/Grid Status & Fault		
Battery Status & Fault		

23. INVT

- Only Applicable Model- BG4KTR, BG5KTR, BG6KTR, BG8KTR, BG10KTR, BG12KTR, BG15KTR, BG17KTR, BG20KTR-M, BG20KTR, BG25KTR, BG30KTR, BG33KTR, BG35KTR, BG40KTR, BG50KTR, BG60KTR, BG50KTR-LD, BG60KTR-LD, BG70KTR-LD, BG80KTR-MD

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1,2]	V	
DC Input Current [MPPT] [1,2]	A	
Output Active Power	kWp	
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
Total Current	A	
BUS Voltage	V	
BUS Current	A	
AC Frequency	Hz	
Total Energy	MWh	
Daily Runtime	Hr	
Total Runtime	Hr	
Yearly Energy	kWh	
Temperature- Boost Circuit	deg C	
Temperature- Invert Circuit	deg C	
Operating State		
Current Fault State		

24. SOFAR Solar

- Only Applicable Model- Sofar 10000TL, Sofar 15000TL, Sofar 17000TL, Sofar 20000TL, Sofar 25000TL, Sofar 30000TL, Sofar 33000TL, Sofar 36000TL, Sofar 40000TL, , SOFAR 50000TL, SOFAR 60000TL, SOFAR 70000TL-HV

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input 1, 2	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Daily Runtime	hr	
Total Energy	MWh	
Total Runtime	hr	
Inverter Inner Temperature	deg C	
DC Bus Voltage		
Inverter Alert Message		
Input Mode		
Fault [1-5]		
String Current [1-X]	A	
String Voltage [1-X]	V	

- Only Applicable Model- CPS SCA8KTL, CPS SCA10KTL, CPS SCA12kW, CPS SC14KTL, CPS SCA36KTL, CPS SCA50KTL, CPS SCA60KTL, CPS SCH100KTL, CPS SCH100125KTL, CPS SCH166KTL, CPS SCH200KTL

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
Output Active Power	kWp	
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
Operating State		
Daily Energy	kWh	
Runtime	Hr	
Total Energy	MWh	
Ambient Temperature	deg C	
Fault Code 0- 4		
Inverter Work Mode		
Event Details-Fault Code		
Event Details-Warn Code		
Inverter Efficiency	%	

- Only Applicable Model- CPS SCA30KTL

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3, 4]	V	
DC Input Current [MPPT] [1, 2, 3, 4]	A	
Power on MPPT [1, 2, 3, 4]	Kwp	
Output Active Power	kWp	
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency Phase [A, B, C]	Hz	
Inverter Mode		
Daily Energy	kWh	
Runtime	Hr	
Total Energy	MWh	
Inner Temperature	deg C	
Fault Code		

- Only Applicable Model- Hiverter-Si 20K, Hiverter-Si 25K, Hiverter-Si 30K, Hiverter-Si 33K , Hiverter-Si 50K, Hiverter-Si 60K, Hiverter-Si 70K

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input 1, 2	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Daily Runtime	hr	
Total Energy	MWh	
Total Runtime	hr	
Inverter Inner Temperature	deg C	
DC Bus Voltage		
Inverter Alert Message		
Input Mode		
Fault [1-5]		
String Current [1-X]	A	
String Voltage [1-X]	V	

- Only Applicable Model- HiverterNP201i Series

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
DC Input Power [MPPT] [1, 2, 3]	kWp	
Output Active Power	kWp	
Total AC Reactive Power		
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Daily Energy	kWh	
Daily Runtime	hr	
Total Energy	MWh	
Total Runtime	hr	
Inverter Module Temp	deg C	
Inverter Inner Temp	deg C	
DC Bus Voltage		
Fault Code 1-5		

Operating State		
Inverter Alert Message		
Inverter inner Message		
A1 Fault Code [1-29]		
A2 Fault Code [1- 16]		
A3 Fault Code [1- 4]		

27. Ksolare

- Only Applicable Model- KSY 15KW, KSY 18KW, KSY 20KW, KSY 25KW, KSY 30KW, KSY 33KW, KSY 35KW, KSY 40KW, KSY 50KW, KSY 60KW, KSY 70KW, KSY 80KW

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
DC Input Power [MPPT] [1, 2, 3]	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]		
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Daily Energy	kWh	
Total Energy	MWh	
IGBT Module Temperature	deg C	
Alarm Code [1-2]		
Fault Code [1- 4]		
Operating State		

28. Microlyte

- Only Applicable Model- MLGS 6K-T, MLGS 10K-T, MLGS 15K-T, MLGS 20K-T, MLGS 30K-T, Microlyte 50K

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3, 4]	V	
DC Input Current [MPPT] [1, 2, 3, 4]	A	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Current Month Energy	KWh	
Current Year Energy	kWh	
Inverter Temperature	deg C	
Fault Code [1, 2, 3, 4, 5]		
Inverter Status		

- Only Applicable Model- PLUS Series 10 kW, PLUS Series 20 kW, PLUS Series 25 kW, PLUS Series 30 kW

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input Power	KWp	
Bus Voltage	V	
Bus Current	A	
Output Active Power	KW	
Output Voltage on Phase [A, B, C]	V	
Output Current on Phase [A, B, C]	A	
Power Factor		
AC Frequency	Hz	
Daily Energy	kWh	
Total Energy	MWh	
Temperature	deg C	

30. Gefran (Radius)

- Only Applicable Model- APV-S-10k-AE-TL-2,APV-S-12k-AE-TL-2, APV-S-15k-AE-TL-2, APV-S-20k-AE-TL-2, APV-S-20k-AE-TL-3,APV-S-25k-AE-TL-2,APV-S-34k-AE-TL-2

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
Power on DC Input [MPPT] [1, 2, 3]	kWp	
Output Active Power	kWp	
Power Factor		
Total AC Reactive Power	KVAr	
Total AC Apparent Power	KVA	
AC Frequency	Hz	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
Operating State		
Daily Energy	kWh	
Daily Runtime	hr	
Total Energy	MWh	
Total Runtime	hr	
Boost Temp	deg C	
Inverter Temperature	deg C	
Alarm A1-A2		

- Only Applicable Model- SE-TH 6.0 TL3, SE-TH 10.0 TL3, SE-TH 15.0 TL3, SE-TH 20.0 TL3, SE-TH 33.0 TL3, SE-TH 50.0 TL3, SE-TH 60.0 TL3

Parameter name	Unit of Measure	Comments
DC Input Power [MPPT] [1, 2, 3,4]	kWp	
DC Input Voltage [MPPT] [1, 2, 3, 4]	V	
DC Input Current [MPPT] [1, 2, 3, 4]	A	
Output Active Power	kWp	
Total AC Reactive Power	kVAr	
Power Factor		
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency Phase [A, B, C]	Hz	
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	Hr	
Inverter Temperature	deg C	
Operating State		
Fault Code		

32. Solar Edge

- Only Applicable Model- SE3K, SE4K, SE5K, SE6K, SE7K, SE8K, SE9K, SE10K, SE12.5K, SE15K, SE16K, SE17K, SE25K, SE27.6K, SE33.3k, SE50K, SE55K, SE82.8K, SE66.6K, SE100K

Parameter name	Unit of Measure	Comments
DC Input Current	A	
DC Input Voltage	V	
Total DC Input Power	KWp	
AC Total Current	A	
AC Phase Current [A, B, C]	A	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Total AC Apparent Power	KVA	
Total AC Reactive Power	KVAr	
Power Factor	%	
Total Energy	MWh	
Heat Sink Temperature	degC	
Operating State		
Status Vendor		
Event [1,2]		
Event Vendor [1, 2, 3, 4]		

33. Omnik

- Only Applicable Model- Omniksol-10k/13k-TL3, Omniksol-13k/17k/20k-TL, Omniksol-15k/17k/20k-TL2, Omniksol-50k-TL3-H

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage [MPPT] [1, 2, 3]	V	
DC Input Current [MPPT] [1, 2, 3]	A	
Output Active Power	kWp	
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]		
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	hr	
Connect Time	S	
DC Bus Voltage	V	
Inverter Temperature	deg C	
Fault Code		
Connection Mode of PV Strings		

34. ZTT Inverter

- Only Applicable Model- SI-10KE, SI-20KE, SI-30KE

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input Power [MPPT] [1, 2]	kWp	
Output Active Power	kWp	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Daily Energy	kWh	
Total Runtime	Hr	
Total Energy	MWh	
Inverter Temperature	deg C	
Ambient Temperature	deg C	
Operating State		

35. TMEIC

- Only Applicable Model- PVU-L0800ER,PVU-L0840ER,PVU-L0880ER,PVU-L0920ER

Parameter name	Unit of Measure	Comments
Fault Type		
Fault Code [1-8]		
Total Energy	MWh	
Output Active Power	kWp	
Total AC Reactive Power	kVAr	
Power Factor		
AC Frequency	Hz	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
Total DC Input Power	kWp	
DC Input Voltage	V	
Total DC Input Current	A	
Daily Energy	kWh	
Inverter Temperature	deg C	
String Current [1-X]		

- Only Applicable Model- Enviro GTi 5500TX, Enviro GTi 8800TX, Enviro GTi 11000TX, Enviro GTi 15000T, Enviro GTi 20000TD, Enviro GT i30000TD

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
DC Input Power [MPPT] [1, 2]	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Daily Runtime	hr	
Total Energy	MWh	
Total Runtime	Hr	
Inverter Inner Temperature	deg C	
DC Bus Voltage		
Inverter Alert Message		
Input Mode		
Fault Code [1-5]		
String Current [1-X]	A	
String Voltage [1-X]	V	

37. Sunways

- Only Applicable Model- STT-4KTL,STT-5KTL,STT-6KTL,STT-8KTL,STT-10KTL,STT-12KTL,STT-15KTL,STT-17KTL,STT-20KTL,STT-25KTL

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2]	V	
DC Input Current [MPPT] [1, 2]	A	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Voltage Phase [AN, BN, CN]	V	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	Hr	
Inverter Temperature	deg C	
DC Bus Voltage	V	
Fault Code [1, 2, 3]		

- Only Applicable Model- STT-50KTL,STT-60KTL,STT-70KTL-HV,STT-75KTL-HV

Parameter name	Unit of Measure	Comments
DC Input Voltage [MPPT] [1, 2 , 3, 4, 5, 6]	V	
DC Input Current [MPPT] [1, 2 , 3, 4 ,5, 6]	A	
DC Input Power [MPPT] [1, 2 , 3, 4 ,5, 6]	kWp	
Output Active Power	kWp	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Voltage Phase [AN, BN, CN]	V	
AC Frequency	Hz	
Operating State		
Daily Energy	kWh	
Total Energy	MWh	
Total Runtime	Hr	
Inverter Temperature	deg C	
Power Factor		
DC Bus Voltage	V	
Inverter Efficiency	%	
Total AC Apparent Power	kVA	
Total AC Reactive Power	kVAr	
Fault Code [1, 2, 3]		
String Current [1-X]	A	

Meters

38. Elmeasure

- Only Applicable Model- DC Energy Meter- EDC 4400, EDC 4100, EDC 1100

Parameter name	Unit of Measure	Comments
DC Amp Hours [Channel 1, 2, 3, 4]	AH	
DC Input Current [Channel 1, 2, 3, 4]	A	
DC Load Hours [Channel 1, 2, 3, 4]	H	
Total Energy	kWh	
DC Bus Voltage	V	
Total DC Input Power	kWp	
DC Energy [Channel 1, 2, 3, 4]	kWh	

- Only Applicable Model- Dual Source Meter- LG+3121, LG+5120L, LG+3220, LG+5220

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
AC Active Power Phase [A, B, C]	kWp	
Power Factor		
Power Factor Phase [A, B, C]		
Total Import Load ON Time	Hr	
Total Export Load ON Time	Hr	
Total AC Active Import Energy	kWh	
Total AC Apparent Import Energy	kVAh	Programmable [Refer Meter Manual]
Total AC Active Export Energy	kWh	
Total AC Apparent Export Energy	kVAh	
Total AC Apparent Power	kVA	
AC Apparent Power Phase [A, B, C]	kVA	Only Applicable for LG+5120L
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	V	
AC Voltage Avg LN	V	Only Applicable for LG+5120L, LG+5220
AC Voltage Avg LL	A	
AC Current Avg LN	A	
AC Frequency	Hz	

- Only Applicable Model- Unidirectional MFM- LG+ 5310, LG+ 5110

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
AC Active Power Phase [A, B, C]	kWp	
Total AC Reactive Power	kVAr	
Power Factor		
AC Voltage Avg LL	V	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Avg LN	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Avg LN	A	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Energy	kWh	
Total AC Apparent Energy	kVAh	
Total Load ON Time	Hr	Only Applicable for LG+ 5310
Total Power ON Time	Hr	

- Only Applicable Model- Load Manager- EM8400 LM, TM 7400

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
AC Active Power Phase [A, B, C]	kWp	
Total AC Apparent Power	kVA	
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
AC Current Avg LN	A	
Total AC Reactive Power	kVAr	
AC Apparent Power Phase [A, B, C]	kVA	
Power Factor Phase [A, B, C]		
AC Voltage Avg LN	V	
AC Voltage Avg LL	V	
Total AC Active Import Energy	kWh	Only Applicable for TM 7400
Total AC Apparent Import Energy	kVAh	
Total AC Reactive Inductive Import Energy	kVArh	
Total AC Reactive Capacitive Import Energy	kVArh	
Total AC Active Export Energy	kWh	
Total AC Apparent Export Energy	kVAh	
Total AC Reactive Inductive Export Energy	kVArh	
Total AC Reactive Capacitive Export Energy	kVArh	

- Only Applicable Model- Bidirectional MFM- Elite 442, Elite 443, Elite 444

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
AC Voltage Avg LN	V	
AC Current Avg LN	A	
AC Active Power Phase [A, B, C]	kWp	
Total AC Apparent Power	kVA	
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Energy	kWh	
Total AC Apparent Energy	kVAh	
Total Load ON Time	Hr	
Total Load OFF Time	Hr	
Total Power ON Time	Hr	Only Applicable for Elite 443, Elite 444
Total Power OFF Time	Hr	

- Only Applicable Model- Bidirectional MFM- Elite 445, Elite 446, Elite 447, Elite 448

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
AC Voltage Avg LN	V	
AC Current Avg LN	A	
AC Active Power Phase [A, B, C]	kWp	
Total AC Apparent Power	kVA	
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total Load ON Time	Hr	
Total Load OFF Time	Hr	
Total Power ON Time	Hr	
Total Power OFF Time	Hr	
Total AC Active Import Energy	kWh	
Total AC Active Export Energy	kWh	
Total AC Apparent Import Energy	kVAh	
Total AC Apparent Export Energy	kVAh	
Total AC Reactive Import Energy	kVARh	Only Applicable for Elite 445, Elite 447
Total AC Reactive Export Energy	kVARh	
Total AC Reactive Inductive Import Energy	kVARh	Only Applicable for Elite 446, Elite 448
Total AC Reactive Capacitive Export Energy	kVARh	
Total AC Reactive Capacitive Import Energy	kVARh	
Total AC Reactive Inductive Export Energy	kVARh	

- Only Applicable Model- Elite 103-2/1, Elite 303-2/1, Elite 307-2/1

Parameter name	Unit of Measure	Comments
AC Voltage Avg LN	V	
AC Current Avg LN	A	
Total AC Active Power	kWp	
Total AC Reactive Power	kVAr	
Total AC Apparent Power	kVA	
Power Factor		
AC Active Power Phase [A, B, C]	kWp	
AC Reactive Power [A, B, C]	kVAr	
AC Apparent Power [A, B, C]	KVA	
Power Factor Phase [A, B, C]		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
Total Runtime	Hr	
AC Frequency	Hz	
Total AC Active Import Energy	kWh	
Total AC Active Export Energy	kWh	
Total AC Active Net Energy	kWh	
Total AC Apparent Import Energy	kVAh	
Total AC Apparent Export Energy	kVAh	
Total AC Reactive Import Energy	kVArh	
Total AC Reactive Export Energy	kVArh	

- Only Applicable Model- Bidirectional MFM- MRJ385-G-PNW , MFM384-R-C, MFM284-C

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
Total AC Reactive Power	kVAr	
Total AC Apparent Power	kVA	
Power Factor		
AC Active Power Phase [A, B, C]	kWp	
AC Reactive Power [A, B, C]	kVAr	
AC Apparent Power [A, B, C]	kVA	
Power Factor [A, B, C]		
AC Voltage Avg LL	V	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Avg LN	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Avg LN	A	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Import Energy	kWh	
Total AC Reactive Import Energy	kVArh	
Total AC Apparent Import Energy	kVAh	
KW Active Power [Max , MIN]	kWp	
KVAr Reactive Power [Max , MIN]	kVAr	
KVA Apparent Power [Max]	kVA	
Total AC Active Export Energy	kWh	
Total AC Reactive Export Energy	kVArh	
Run hour	Hr	
Total AC Active Import Energy [A, B, C]	kWh	
Total AC Reactive Import Energy [A, B, C]	kVArh	
Total AC Active Export Energy [A, B, C]	kWh	
Total AC Reactive Export Energy [A, B, C]	kVArh	
Total Active Energy [Import, Export]	kWh	
Total Reactive Energy [Import, Export]	kVArh	
Total AC Apparent Energy [A, B, C]	kVAh	
		Only Applicable for MRJ385

- Only Applicable Model- Unidirectional MFM- MFM384-C , MFM383A-C , MFM376-C

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
Total AC Reactive Power	kVAr	
Total AC Apparent Power	kVA	
Power Factor		
AC Active Power Phase [A, B, C]	kWp	
AC Reactive Power [A, B, C]	kVAr	
AC Apparent Power [A, B, C]	kVA	
Power Factor [A, B, C]		
AC Voltage Avg LL	V	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Avg LN	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Avg LN	A	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Energy	kWh	
Total AC Reactive Energy	kVArh	
Total AC Apparent Energy	kVAh	
Run hour	Hr	

- Only Applicable Model- Unidirectional EM- EM368-C, EM306A-C

Parameter name	Unit of Measure	Comments
Total AC Active Energy	kWh	
Total AC Reactive Energy	kVArh	
Total AC Apparent Energy	kVAh	
Total AC Active Power	kWp	
Total AC Reactive Power	kVAr	
AC Reactive Power [A, B, C]	kVAr	Only Applicable for EM368-C

- Only Applicable Model- Unidirectional MFM- WL4400 , WL4410 , WL4420

Parameter name	Unit of Measure	Comments
AC Voltage Avg LL	V	
AC Voltage Avg LN	V	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Avg LN	A	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Power	kWp	
AC Active Power Phase [A, B, C]	kWp	
Total AC Apparent Power	kVA	
AC Apparent Power Phase [A, B, C]	kVA	
Power Factor		
Power Factor Phase [A, B, C]		
Total AC Active Energy	kWh	Only Applicable for WL4410 , WL4420
Total AC Apparent Energy	kVAh	
Total Load ON Time	Hr	
Total AC Reactive Power	kVAr	
AC Reactive Power Phase [A, B, C]	kVAr	
Total AC Reactive Inductive Energy	kVArh	
Total AC Reactive Capacitive Energy	kVArh	

- Only Applicable Model- Bidirectional MFM- WL4430 , WL5000 , WL5010

Parameter name	Unit of Measure	Comments
AC Voltage Avg LL	V	
AC Voltage Avg LN	V	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Avg LN	A	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Power	KWp	
AC Active Power Phase [A, B, C]	kWp	
Total AC Apparent Power	kVA	
AC Apparent Power Phase [A, B, C]	kVA	
Power Factor		
Power Factor Phase [A, B, C]		
AC Reactive Power	kVAr	
AC Reactive Power Phase [A, B, C]	kVAr	
Total AC Active Import Energy	kWh	
Total AC Apparent Import Energy	kVAh	
Import Load hours	Hr	
Total AC Reactive Inductive Export Energy	kVArh	
Total AC Reactive Inductive Export Energy	kVArh	
Total AC Active Export Energy	kWh	
Total AC Apparent Export Energy	kVah	
Export load hours	Hr	
Total AC Reactive Capacitive Export Energy	kVArh	
Total AC Reactive Capacitive Import Energy	kVArh	Only Applicable for WL5010, WL 4430

- Only Applicable Model- Dual Source MFM- WL4040

Parameter name	Unit of Measure	Comments
AC Voltage Avg LL	V	
AC Voltage Avg LN	V	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Avg LN	A	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Power	kWp	
AC Active Power Phase [A, B, C]	kWp	
Total AC Apparent Power	kVA	
AC Apparent Power Phase [A, B, C]	kVA	
Power Factor		
Power Factor Phase [A, B, C]		
Total AC Active Energy	kWh	
Total AC Apparent Energy	kVAh	

- Only Applicable Model- M-Kris AC Meter

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
AC Voltage Avg LL	V	
AC Voltage Avg LN	V	
Power Factor		
AC Active Power Phase [A, B, C]	kWp	
Power Factor [A, B, C]		
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Energy	kWh	

- Only Applicable Model- M-Kris DC Meter

Parameter name	Unit of Measure	Comments
Total DC Input Power	kWp	
DC Input Voltage	V	
Total DC Energy	kWh	
Total DC Input Current	A	

- Only Applicable Model- Bidirectional MFM- Conzerv EM6400NG, Conserv 6400 , PowerLogic EM7280

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
AC Active Power Phase [A, B, C]	kWp	
Total AC Reactive Power	kVAr	
Total AC Apparent Power	kVA	
Power Factor		
Power Factor [A, B, C]		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	

- Only Applicable Model- Unidirectional MFM- Conzerv EM1200, Conzerv EM1220

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
Total AC Active Energy	kWh	
Power Factor		
Total AC Reactive Power	kVAr	
Total AC Reactive Energy	kVArh	
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
Total AC Apparent Power	kVA	
Total AC Apparent Energy	kVAh	
AC Active Power Phase [A, B, C]	KWp	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total Runtime	Hr	
Total Load Hours	Hr	
No. of Error Connect		

Only Applicable for
Conzerv EM1220

- Only Applicable Model- DualSource Meter- EM6438, EM6436 Dual

Parameter name	Unit of Measure	Comments
AC Voltage Avg LL	V	
AC Voltage Avg LN	V	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Avg LN	A	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Power Factor		
Power Factor Phase [A, B, C]		
Total AC Active Power	kWp	
AC Active Power Phase [A, B, C]	kWp	
Total AC Apparent Power	kVA	
AC Apparent Power Phase [A, B, C]	kVA	
Total AC Reactive Power	kVAr	
AC Reactive Power Phase [A, B, C]	kVAr	
Active Energy utility	kWh	
Apparent Energy utility	kVAh	
On hours, utility	Hr	
Run hours, utility	Hr	
Apparent energy, generator	kVAh	
Active energy, generator	kWh	
On hours, generator	Hr	
Run hours generator	Hr	
		Only Applicable for EM6436 Dual

- Only Applicable Model- DC Meter- ET1300

Parameter name	Unit of Measure	Comments
DC Energy [Channel 1, 2, 3, 4]	kWh	
DC Input Current [Channel 1, 2, 3, 4]	A	
DC Bus Voltage	V	
DC Input Power [Channel 1, 2, 3, 4]	kWp	

- Only Applicable Model- Bidirectional MFM- Rish Master 3430, EM 1320, EM 1330 , EM 1340

Parameter name	Unit of Measure	Comments
Total AC Active Power	kWp	
AC Voltage Avg LN	V	
AC Current Avg LN	A	
AC Active Power Phase [A, B, C]	kWp	
Total AC Reactive Power	kVAr	
Total AC Apparent Power	kVA	
Power Factor		
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Import Energy	kWh	
Total AC Active Export Energy	kWh	
Total Power ON Time	Hr	
Total Load ON Time	Hr	

- Only Applicable Model- Bidirectional MFM- DiGi 620

Parameter name	Unit of Measure	Comments
AC Voltage Phase [AN, BN, CN]	V	
AC Voltage Phase [AB, BC, CA]	V	
AC Current Phase [A, B, C]	A	
AC Current Avg LN	A	
Total AC Active Power	kWp	
Power Factor		
AC Active Power Phase [A, B, C]	kWp	
AC Apparent Power Phase [A, B, C]	kVA	
AC Reactive Power Phase [A, B, C]	kVArh	
Power Factor Phase [A, B, C]		
AC Frequency	Hz	
AC Voltage Avg LN	V	
Total AC Reactive Power	kVAr	
Total AC Apparent Power	kVA	
Total AC Active Net Energy	kWh	
Total AC Reactive Net Energy	kVArh	
Total AC Apparent Net Energy	kVAh	
Total AC Active Import Energy	kWh	
Total AC Active Export Energy	kWh	
Total AC Reactive Import Energy	kVArh	
Total AC Reactive Export Energy	kVArh	

- Only Applicable Model- PM130EH Plus

Parameter name	Unit of Measure	Comments
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Active Power Phase [A, B, C]	kWp	
AC Apparent Power Phase [A, B, C]	kVA	
AC Reactive Power Phase [A, B, C]	kVArh	
Power Factor Phase [A, B, C]		
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
Total AC Active Power	kWp	
Total AC Reactive Power	kVAr	
Total AC Apparent Power	kVA	
AC Current Avg LN	A	
AC Voltage Avg LN	V	
AC Voltage Avg LL	V	
Total AC Active Import Energy	kWh	
Total AC Active Export Energy	kWh	
Total AC Apparent Import Energy	kWh	
Total AC Apparent Export Energy	kWh	
Total AC Reactive Import Energy	kVArh	
Total AC Reactive Export Energy	kVArh	

- Only Applicable Model- Unidirectional MFM- PEM3132

Parameter name	Unit of Measure	Comments
Total AC Active Power	KWp	
AC Current Avg LN	A	
AC Voltage Avg LL	V	
AC Voltage Avg LN	V	
Power Factor		
AC Active Power Phase [A, B, C]	KWp	
Power Factor [A, B, C]		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	
Total AC Active Energy	kWh	
Total AC Reactive Energy	KVA	
Total Runtime	Hr	
Total Load Hours	Hr	

49. Trinity

- Only Applicable Model- Unidirectional MFM-Trinity NF29

Parameter name	Unit of Measure	Comments
AC Voltage Avg LL	V	
AC Voltage Avg LN	V	
AC Current Avg LN	A	
Total AC Apparent Power	kVA	
Total AC Reactive Power	kVAr	
Total AC Active Power	kWp	
Total AC Active Energy	kWh	
Total AC Reactive Energy	kVArh	
Total AC Apparent Energy	KVAh	
Power Factor		
AC Voltage Phase [AB, BC, CA]	V	
AC Voltage Phase [AN, BN, CN]	V	
AC Current Phase [A, B, C]	A	
AC Frequency	Hz	

50. Unitron

- Only Applicable Model- DC Energy Meter

Parameter name	Unit of Measure	Comments
DC Bus Voltage	V	
DC Input Current 1	A	
Total DC Energy	kWh	

String Monitoring Units

51. Hensel

- Only Applicable Model- Monsol 1000/1500V

Parameter name	Unit of Measure	Comments
String Current [1-X]	A	
DC Bus Voltage	V	
Board Temperature	deg C	
Digital Input 1		

52. Kernel Sistemi

- Only Applicable Model- STON Series SMU (0825,1225,1625,2415,3215)

Parameter name	Unit of Measure	Comments
String Current [1-X]	A	
Fuse State		
DC Bus Voltage	V	
Board Temperature	C	
Total DC Input Current	A	
Total DC Input Power	kWp	
Digital Input Status		

53. Delta

- Only Applicable Model- Delta E-Series

Parameter name	Unit of Measure	Comments
Status Monitor		
Status of AC Drive		
Frequency Command		
AC Frequency		
Output Current	A	
DC Bus Voltage	V	
Output Voltage	V	
Temperature of IGBT	deg C	
Runtime M	minutes	
Runtime D	days	
Flow Ratio (Q)	lpm	
Flow in last 5 minutes	litres	
AC Frequency	Hz	
Run Status		
Total Runtime	minutes	
Output Active Power	Wp	
Daily Cumulative Flow (litres)	litres	

54. INVT

- Only Applicable Model- Gooddrive100-PV

Parameter name	Unit of Measure	Comments
AC Input Current	A	
Current Fault Type	Hz	
Current Running Time	minutes	
Current Set Frequency	Hz	
DC Bus Voltage	V	
Motor PF		
Motor Power	%	
Motor Speed	RPM	
Output Current	A	
Output Torque	Nm	
Output Torque %	%	
Output Voltage	V	
Torque Current	A	

55. Crompton

- Only Applicable Model- Emotron VSR, Emotron VSS

Parameter name	Unit of Measure	Comments
DC Bus Voltage	V	
DC Bus Voltage at Latest Fault	V	
Code of the latest fault		
Estimated motor speed	RPM	
Output Current	A	
Output Current at Latest Fault	A	
Output Power	kW	
Output Voltage	V	
Running Frequency	Hz	
Running Frequency at Latest Fault	Hz	
Set Frequency	Hz	
Temperature	deg C	
Power On Time	mins	
Run Time	mins	
Total Power On Time	h	
Total Running Time	h	

56. Fuji Electric

- Only Applicable Model- FRENIC Mini

Parameter name	Unit of Measure	Comments
Capacity Code		
Cumulative Operation Time	h	
Cumulative Operation Time (h)	h	
DC Link Circuit Voltage (V)	V	
Frequency Command (p.u)		
Frequency Command (p.u) (final command)		
Heat Sink Temperature (deg C)	deg C	
Input Power (%)	%	
Input Power Actual (kWp)	kWp	
Last Alarm		
Latest Alarm		
Load rotation speed (r/min)	r/min	
Operation Status		
Output Current (A)	A	
Output Voltage (Raw Value)	V	
Output Voltage (V)	V	
Output current (Raw Value)	A	
Output current effective value (%)	%	
Output frequency (Hz)	Hz	
Output frequency 1 (p.u)		
Output voltage effective value		
Pump Discharge (lps) (3HP - 30m head)		
Pump Discharge (lps) (3HP - 50m head)	lps	
Second Last Alarm		
Third Last Alarm		

57. VACON

- Only Applicable Model- Vacon 8000 Solar

Parameter name	Unit of Measure	Comments
AC Frequency	Hz	
AC Voltage	V	
DC Ref Voltage	%	
DC-Link Voltage	V	
Output Power	kW	
Output Current	A	

58. ABB

- Only Applicable Model- ACS355 Solar Pump Inverter

Parameter name	Unit of Measure	Comments
VFD Status		
DC Voltage	V	
Output Voltage	V	
Output Ampere	A	
Output Power	kWp	
Total Power	kWp	
VFD Speed	RPM	
Output Frequency	Hz	
Pump Run Hour	h	
Flow Rate	lit/day	
Today's Flow		
This Year's Flow		

59. YASKAWA

- Only Applicable Model- A1000

Parameter name	Unit of Measure	Comments
Frequency Reference	Hz	
Drive Status [1,2]		
Fault Contents [1-7]		
Output Frequency	Hz	
Output Voltage Reference	V	
Output Current	A	
Output Power	kWp	
Alarm Contents [1-5]		
Input Terminal Status		
Output Terminal Status		
DC Bus Voltage	V	
Output Frequency	Hz	
Alarm Code		
Motor Speed	RPM	
Accumulated Operation Time	h	
Cooling Fan Operation Time	h	

60. Shakti Pumps

- Only Applicable Model- SI20-D3

Parameter name	Unit of Measure	Comments
Frequency Reference	Hz	
Output Frequency	Hz	
Output Current	A	
Output Voltage	V	
Output Power	kWp	
DC Bus Voltage	V	
DC Input Current	A	
Flow Speed	m3/h	
Open Circuit Voltage	V	
Daily Flow	m3	
Total Cumulative Flow	km3	
Daily Energy	kWh	
Total Energy	MWh	

61. Lubi Solar

- Only Applicable Model- LSZ Series

Parameter name	Unit of Measure	Comments
AI 1		
AI 2		
Day Flow		
DC Current	A	
DC Voltage	V	
DI Status		
DO Status		
Event Code		
Flow Accumulation		
Flow Rate	lit/day	
Total Energy	MWh	
Inverter Status Code		
Daily Energy	kWh	
Motor Speed	RPM	
Output Frequency	Hz	
Power Up Time	mins	
Preset Frequency	Hz	
Pump Running Speed	RPM	
PV Circuit Voltage	V	
PV Current	A	
PV Power	kWp	
PV Voltage	V	
Rest Running Time	mins	

Running Time	mins	
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- Only Applicable Model- KE300A-01 Solar Pump

Parameter name	Unit of Measure	Comments
Actual Feedback Speed		
AI 1		
AI 2		
Bus Voltage	V	
Counting Value Input		
DC Current	V	
DC Power	kWp	
DC Torque		
DC Voltage	V	
DI Status		
DO Status		
Event Code		
Feedback Speed		
Length Value Input		
Load Speed		
PID Feedback		
PID Settings		
Power Up Time	h	
Preset Frequency	Hz	
Pump Running Speed		
Pump Running Speed		
Rest Running Time	h	
Running Time	h	
Status Code		
Temperature Radiator	deg C	

63. Mitsubishi

- Only Applicable Model- D700

Parameter name	Unit of Measure	Comments
Output Frequency	Hz	
Output Current	A	
Output Voltage	V	
Output Frequency Setting	Hz	
Converter Output Voltage	V	
Output Current Peak Value	A	
Converter Output Voltage Peak Value	V	
Output Power	kWp	
Input Terminal Status		
Output Terminal Status		
Cumulative Energization Time	h	
Actual Operation Time	h	
Motor Load Factor	%	
Cumulative Power	kWh	
PID Set Point	%	
PID Measured Value	%	
PID Deviation	%	
Motor Thermal Load Factor	%	
Inverter Thermal Load Factor	%	
Cumulative Power	kWh	
PTC Thermistor Resistance	kΩ	

- Only Applicable Model- PV100, PV200

Parameter name	Unit of Measure	Comments
DC Bus Voltage	V	
DC Bus Voltage at Latest Fault	V	
Code of the latest fault		
Estimated motor speed	RPM	
Output Current	A	
Output Current at Latest Fault	A	
Output Power	kW	
Output Voltage	V	
Running Frequency	Hz	
Running Frequency at Latest Fault	Hz	
Set Frequency	Hz	
Temperature	deg C	
Power On Time	mins	
Run Time	mins	
Total Power On Time	h	
Total Running Time	h	

- Only Applicable Model- S123, Si20, Si30

Parameter name	Unit of Measure	Comments
Frequency Reference	Hz	
Output Frequency	Hz	
Output Current	A	
Output Voltage	V	
Output Power	kWp	
DC Bus Voltage	V	
DC Current	A	
Flow Speed	m3/h	
Voc Voltage	V	
Flow Per Day	m3	
Cumulative Total Flow	m3	
Daily Energy	kWh	
Total Energy	MWh	
Module Temperature	deg C	Only Applicable for S123
Voltage DC Solar Array	V	Only Applicable for S130
Output Power Factor		

- Only Applicable Model- SINAMICS V20

Parameter name	Unit of Measure	Comments
Reference Frequency	%	
Start Command		
PID Setpoint Reference	%	
PID Enable		
Acceleration Time	s	
Deceleration Time	s	
Frequency Output	Hz	
Speed	RPM	
Current	A	
Torque	Nm	
Actual Power	kW	
Total KWh	kWh	
Dc Bus Voltage	V	
Voltage Output	V	
PID Setpoint Output	%	
PID Output	%	
PID Feedback	%	
Fault		
Last Fault		
Fault 1,2,3		
Warning		
Last Warning		

- Only Applicable Model- Altivar 312 Solar

Parameter name	Unit of Measure	Comments
Status Word		
Output Frequency	Hz	
Frequency Reference	Hz	
Motor Current	A	
Motor Torque	%	
Motor Power	%	
Line Voltage	V	
Drive Thermal State	%	
Max. Thermal State	%	
Motor Thermal State	%	
Operating Time	H	
Motor Speedin		
Extended Status Word [0,1,3]		
AI1 ,AI2, AI3		
Last Detected Fault		
Past Detected Fault No. [1 -4]		
Status Of Put Detected Fault No. [1-4]		

68. Lumiax

- Only Applicable Model- MT2010, MT2075, MT3075BT, MT3010, MT4010, MT4015, MT6020-Pro

Parameter name	Unit of Measure	Comments
Total Runtime	hrs	
Battery State		
Charge State		
Discharge State		
Ambient Temperature	deg C	
System Temperature	deg C	
Battery Remaining Capacity	%	
Battery Voltage	V	
Battery Current	A	
Battery Power	kWp	
DC Load Voltage	V	
DC Load Current	A	
DC Load Power	kWp	
DC Input Voltage	V	
Total DC Input Current	A	
Total DC Input Power	kWp	
Daily Energy	kWh	
Total Energy	MWh	
Daily Energy	kWh	
Total Energy	MWh	
Daily DC Load Energy	kWh	
Total DC Load Energy	MWh	
Daily Runtime	mins	
Monthly Energy	kWh	
Yearly Energy	kWh	