

# Sungrow Energy Meter Selection Guide

The Sungrow Energy Meter presents a clear overview of energy consumption in combination with Sungrow iSolarCloud. The Sungrow Energy Meter is ideally suited for use with the Sungrow single-phase inverters and three-phase string inverters.

| Type                    | Inverter type of application   | CT requirement  |
|-------------------------|--|---|
| <b>S100</b>             | SG2/2.5/3K-S, SG3/5/8K-D, SH5K-30, SG2.0/2.5/3.0RS-S, SG3.0/4.0/5.0/6.0/8.0/9.0/10RS, SG5.0RS-DA, SH3.0/4.0/5.0/6.0RS  | CT is included in the meter package   |
| <b>DTSU666</b>          | SG2/2.5/3K-S, SG3/5/8K-D, SH5K-30, SG5/10KTL-MT, SG15/20KTL-M, SG30CX, SG2.0/2.5/3.0RS-S, SG3.0/4.0/5.0/6.0/8.0/9.0/10RS, SG5.0RS-ADA, SG8.0/9.0/10RS, SG3.0/4.0/5.0/6.0RS, SG5.0/6.0/7.0/8.0/10/12/15/17/20RT, SH5.0/8.0/10RT | Meter with built-in CT  |
| <b>DTSU666-20</b>       | SH3.0/3.6/4.0/5.0/6.0RS, SG5.0/6.0/7.0/8.0/10/12/15/17/20RT*, SH5.0/8.0/10RT   | CT is included in the meter package or is separate  |
| <b>DTSD1352-C/1(6)A</b> | SG30CX*, SG50CX, SG110CX.<br>(Must be used in conjunction with Logger1000 / COM100 or EyeM4 Dongle)<br><br>* only applicable for the phase current > 80A   | CT must be purchased separately as per the requirements of the power supply. The CTs Sungrow recommended list as below:<br><br><b>IPD CTME-3 Series for Single Turn Primary</b><br>a. 150A, CTME3150<br>b. 200A, CTME3200<br>c. 300A, CTME3300<br>d. 400A, CTME3400<br>e. 500A, CTME3500<br><br><b>SOCOMEK TCA 21/TCA14 SERIES</b><br>a. 75A, TCA21-75/5<br>b. 80A, TCA21-80/5<br>c. 100A, TCA21-100/5<br>d. 125A, TCA21-125/5<br>e. 150A, TCA21-150/5<br>f. 200A, TCA21-200/5<br><br><b>SOCOMEK TCB 18 - 20 SERIES</b><br>a. 100A, 192T3310<br>b. 150A, 192T3315<br>c. 200A, 192T3320<br>d. 250A, 192T3325 |

Above CTs are only recommended for customers. Customers also can select the CTs by themselves.

\* available at the end of March.

## Selection criteria for choosing the CT's:

• **Primary current**

The CT's primary current should be equal to or greater than the maximum expected AC current from the grid, per phase. The closer the expected AC current is to the chosen primary current value, the more precise the measurement will be.

• **Secondary current**

5 A

• **Accuracy class**

Class 0.5 or better (Class 0.2, etc.) is recommended. Class 0.5 is equivalent to a deviation of  $\pm 0.5\%$  of the secondary current at maximum power.

## S100 Single-phase Smart Energy Meter



|                                |                   |
|--------------------------------|-------------------|
| Type designation               | S100              |
| <b>Electrical Parameter</b>    |                   |
| Nominal voltage                | 240 Vac           |
| Input voltage range            | 180 Vac - 286 Vac |
| Power consumption              | <2W (10 VA)       |
| Max. operating current         | 100 A             |
| Grid frequency                 | 50 Hz             |
| Measurement accuracy           | Class 1           |
| Interface and communication    | RS485             |
| <b>Environmental Condition</b> |                   |
| Ingress protection rating      | IP20              |
| Operating ambient temperature  | -25 to 75 °C      |
| Relative humidity              | 0 - 95 %          |
| <b>Mechanical Data</b>         |                   |
| Dimensions (W * H * D)         | 18 * 117 * 65 mm  |
| Weight                         | 0.2 kg            |
| Installation                   | 35 mm DIN-rail    |

## DTSU666 Three-phase Smart Energy Meter



|                                |                                |
|--------------------------------|--------------------------------|
| Type designation               | DTSU666                        |
| <b>Electrical Parameter</b>    |                                |
| Nominal voltage                | 230 Vac / 400 Vac              |
| Input voltage range            | 57.7 / 100 Vac - 265 / 460 Vac |
| Power consumption              | < 1.5W (6 VA)                  |
| Max. operating current         | 80 A                           |
| Grid frequency                 | 50/60 Hz                       |
| Measurement accuracy           | Class 1                        |
| Interface and communication    | RS485                          |
| <b>Environmental Condition</b> |                                |
| Ingress protection rating      | IP20                           |
| Operating ambient temperature  | -30 °C - +60 °C                |
| Relative humidity              | 75 %                           |
| <b>Mechanical Data</b>         |                                |
| Dimensions (W * H * D)         | 72 * 65 * 100 mm               |
| Weight                         | 0.4 kg                         |
| Installation                   | 35 mm DIN-rail                 |

# DTSD1352-C/1 (6)A\* Three-phase Smart Energy Meter



|                                |                                |
|--------------------------------|--------------------------------|
| Type designation               | DTSD1352-C/1 (6)A              |
| <b>Electrical Parameter</b>    |                                |
| Nominal voltage                | 230 Vac / 400 Vac              |
| Input voltage range            | 57.7 / 100 Vac - 268 / 464 Vac |
| Power consumption              | <2W (10 VA)                    |
| Max. operating current         | 3×1 (6) A (via CTs)            |
| Grid frequency                 | 50 Hz / 60 Hz                  |
| Measurement accuracy           | Class 0.5 (Active)             |
| Interface and communication    | RS485                          |
| <b>Environmental Condition</b> |                                |
| Ingress protection rating      | IP20                           |
| Operating ambient temperature  | -25 to 55 °C                   |
| Relative humidity              | 0 - 95 %                       |
| <b>Mechanical Data</b>         |                                |
| Dimensions (W * H * D)         | 126 * 91 * 74 mm               |
| Weight                         | 0.35 kg                        |
| Installation                   | 35 mm DIN-rail                 |

\* DTSD1352-C/1 (6)A needs to be used with CT externally.

# DTSU666-20 Three-phase Smart Energy Meter



|  |   |
|--|---|
| Type designation                                 | DTSU666 (333mV)   |
| <b>Electrical Parameter</b>                      |   |
| Nominal voltage                                  | 230 Vac / 400 Vac   |
| Input voltage range                              | 57.7 / 100 Vac - 265 / 460 Vac  |
| Power consumption                                | < 1.5W (6 VA)   |
| Max. operating current (Compatible with CT Type) | 100A / 333mV(default)<br>250A / 333mV<br>1000A / 333mV<br>3000A / 333mV |
| Grid frequency                                   | 50/60 Hz  |
| Measurement accuracy                             | Class 1   |
| Interface and communication                      | RS485   |
| <b>Environmental Condition</b>                   |   |
| Ingress protection rating                        | IP20  |
| Operating ambient temperature                    | -25 °C - +70 °C   |
| Relative humidity                                | 75 %  |
| <b>Mechanical Data</b>                           |   |
| Dimensions (W * H * D)                           | 72 * 65.5* 118 mm   |
| Weight   | 0.4 kg  |
| Installation                                     | 35 mm DIN-rail  |

The recommended parameters listed in this section may be updated or revised due to product development.