

# Overzicht energiemonitoring-assortiment

## Energie- en stroommeters

| Producttype                    |  | Energimeters EQ meters – 1-fase         |          |               |             |                    |            |            |            | Energimeters EQ meters – 3-fase |                  |                    |                  |                    |                  |                  |                  | Netwerk-analysers M4M |                      |                                  |                      |                      |                                |                      |       |
|--------------------------------|--|---|----------|---------------|-------------|--------------------|------------|------------|------------|---------------------------------|------------------|--------------------|------------------|--------------------|------------------|------------------|------------------|-----------------------|----------------------|----------------------------------|----------------------|----------------------|--------------------------------|----------------------|-------|
| Productserie                   |  | C serie – C11                           |          | B serie – B21 |             | A serie – A41, A42 |            |            |            | C serie – C13                   |                  | B serie – B23, B24 |                  | A serie – A43, A44 |                  |                  |                  | M4M 2X                | M4M 20               |                                  |                      | M4M 30               |                                |                      |       |
|                                |  | Staal                                   | Staal    | Zilver        | Staal       | Zilver             | Goud       | Platina    | Staal      | Staal                           | Bronz            | Zilver             | Staal            | Bronz              | Zilver           | Goud             | Platina          | M4M 2X+ PQ1, PQ2, RTS | M4M 20               | M4M 20-M                         | M4M 20 Rogowski      | M4M 30               | M4M 30-M                       | M4M 30 Rogowski      |       |
| Montage                        |  | DIN-rail                                | DIN-rail | DIN-rail      | DIN-rail    | DIN-rail           | DIN-rail   | DIN-rail   | DIN-rail   | DIN-rail                        | DIN-rail         | DIN-rail           | DIN-rail         | DIN-rail           | DIN-rail         | DIN-rail         | DIN-rail         | DIN-rail              | Front paneel (96x96) | Front paneel (96x96)             | Front paneel (96x96) | Front paneel (96x96) | Front paneel (96x96)           | Front paneel (96x96) |       |
| Kostenverrekening (MID, METAS) |  | MID                                     | MID      | MID/METAS     | MID         | MID/METAS          | MID/METAS  | MID/METAS  | MID        | MID                             | MID/METAS        | MID/METAS          | MID              | MID/METAS          | MID/METAS        | MID/METAS        | MID/METAS        |                       |                      |                                  |                      |                      |                                |                      |       |
| HMI                            |  | Display                                 | LCD      | LCD segment   | LCD segment | LCD pixel          | LCD pixel  | LCD pixel  | LCD pixel  | LCD                             | LCD segment      | LCD segment        | LCD segment      | LCD pixel          | LCD pixel        | LCD pixel        | LCD pixel        |                       | Kleuren-scherm       | Kleuren-scherm                   | Kleuren-scherm       | Kleuren touch-screen | Kleuren touch-screen           | Kleuren touch-screen |       |
| Meting                         |  | Nauwkeurigheidsklasse (actieve energie) | Klasse 1 | Klasse 1      | Klasse 1    | Klasse 1           | Klasse 1   | Klasse 1   | Klasse 0,5 | Klasse 1                        | Klasse 1         | Klasse 1           | Klasse 0,5       | Klasse 1           | Klasse 1         | Klasse 1         | Klasse 0,5       | Klasse 1              | Klasse 0,5           | Klasse 0,5                       | Klasse 0,5           | Klasse 0,5           | Klasse 0,5                     | Klasse 0,5           |       |
|                                |  | IEC 61557-12 PMD                        |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  |                       | PMD/S/ K70/0,5       | PMD/S/ K70/0,5                   | PMD/S/ K70/0,5       | PMD/S/ K70/0,5       | PMD/S/ K70/0,5                 | PMD/S/ K70/0,5       |       |
|                                |  | Directe meting                          | ≤40A     | ≤65A          | ≤65A        | ≤80A               | ≤80A       | ≤80A       | ≤80A       | ≤40A                            | ≤65A             | ≤65A               | ≤65A             | ≤80A               | ≤80A             | ≤80A             | ≤80A             | ≤80A                  |                      |                                  |                      |                      |                                |                      |       |
|                                |  | Meting via stroomtrafo                  |          |               |             |                    |            |            |            | .../1A of .../5A                | .../1A of .../5A | .../1A of .../5A   | .../1A of .../5A | .../1A of .../5A   | .../1A of .../5A | .../1A of .../5A | .../1A of .../5A | .../1A of .../5A      | .../1A of .../5A     | .../1A of .../5A                 | .../1A of .../5A     | .../1A of .../5A     | .../1A of .../5A               | .../1A of .../5A     |       |
|                                |  | Meting via Rogowski spoelen             |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  |                       |                      |                                  | R4M spoelen          |                      | R4M spoelen                    |                      |       |
| Real-time                      |  | Stroom (I), Spanning (U, V), f          | X        | X             | X           | X                  | X          | X          | X          | X                               | X                | X                  | X                | X                  | X                | X                | X                | X                     | X                    | X                                | X                    | X                    | X                              | X                    |       |
|                                |  | Actief stroomverbruik (P), PF           | X        | X             | X           | X                  | X          | X          | X          | X                               | X                | X                  | X                | X                  | X                | X                | X                | X                     | X                    | X                                | X                    | X                    | X                              | X                    |       |
|                                |  | Blind- (Q), Schijn- (S) vermogen        |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  |                       | X                    | X                                | X                    | X                    | X                              | X                    |       |
| Energie                        |  | Actieve energie                         | X        | X             | X           | X                  | X          | X          | X          | X                               | X                | X                  | X                | X                  | X                | X                | X                | X                     | X                    | X                                | X                    | X                    | X                              | X                    |       |
|                                |  | Blindenergie                            |          |               | X           | X                  | X          | X          |            |                                 |                  | X                  | X                | X                  | X                | X                | X                | X                     | X                    | X                                | X                    | X                    | X                              | X                    |       |
|                                |  | 4 kwadranten energie (import/export)    |          |               | X           | X                  | X          | X          |            |                                 | X                | X                  | X                | X                  | X                | X                | X                | X                     | X                    | X                                | X                    | X                    | X                              | X                    |       |
|                                |  | Multi-tarieven                          |          |               | 4           | 4                  | 4          | 4          |            |                                 |                  | 4                  |                  |                    | 4                | 4                | 4                |                       |                      |                                  |                      | 6                    | 6                              | 6                    |       |
| Netkwaliteit                   |  | THD                                     |          |               |             |                    |            | X          |            |                                 |                  |                    |                  |                    |                  |                  | X                | X                     | X                    | X                                | X                    | X                    | X                              | X                    |       |
|                                |  | Harmonischen                            |          |               |             |                    |            | 16e        |            |                                 |                  |                    |                  |                    |                  |                  |                  | 40e                   | 40e                  | 40e                              | 40e                  | 40e                  | 40e                            | 40e                  |       |
|                                |  | Neutraalstroom                          |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  |                       |                      |                                  |                      |                      |                                |                      |       |
|                                |  | Fasen, golfvormen                       |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  | Gemeten               | Berekend             |                                  |                      | Gemeten              | Gemeten                        | Gemeten              |       |
| Logging                        |  | Alarmen                                 | 25       | 25            | 25          | 25                 | 25         | 25         | 25         | 25                              | 25               | 25                 | 25               | 25                 | 25               | 25               | 25               | 25                    | 25                   | 25                               | 25                   | 25                   | 25                             | 25                   |       |
|                                |  | Complexe alarmen met logica             |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  | 4                     |                      |                                  |                      | 4                    | 4                              | 4                    |       |
|                                |  | Min/max/verbruik                        |          |               |             |                    |            | X          | X          |                                 |                  |                    |                  |                    |                  | X                | X                | X                     | X                    |                                  |                      | X                    | X                              | X                    |       |
|                                |  | Flash memory voor historie              |          |               |             |                    |            |            | 16MB       |                                 |                  |                    |                  |                    |                  |                  | 16MB             | 32MB                  |                      |                                  |                      | 32MB                 | 32MB                           | 32MB                 |       |
|                                |  | RTC                                     |          |               |             |                    |            | X          | X          |                                 |                  |                    |                  |                    |                  | X                | X                | X                     | X                    |                                  |                      | X                    | X                              | X                    |       |
| Communicatie                   |  | I/O                                     | 1 DO     | 1DO           | 2 DI, 2 DO  | 1DO                | 2 DI, 2 DO | 2 DI, 2 DO | 4 I/O      | 1 DO                            | 1DO              | 1DO                | 2 DI, 2 DO       | 1DO                | 1DO              | 2 DI, 2 DO       | 2 DI, 2 DO       | 4 I/O                 | -2DO<br>-4 I/O       | -2DO<br>-2DO +2I/<br>O+2AO (I/O) | 2DO                  | 2DO                  | -4 I/O<br>-6 I/O +2AO<br>(I/O) | 4 I/O                | 4 I/O |
|                                |  | M-Bus                                   |          | X             | X           | X                  | X          | X          |            |                                 | X                | X                  | X                | X                  | X                | X                | X                |                       |                      |                                  |                      |                      |                                |                      |       |
|                                |  | Modbus RTU                              |          | X             | X           | X                  | X          | X          |            |                                 | X                | X                  | X                | X                  | X                | X                | X                |                       |                      |                                  |                      | X                    | X                              | X                    |       |
|                                |  | Modbus TCP/IP                           |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  |                       |                      |                                  |                      | X                    | X                              |                      |       |
|                                |  | Profibus DP-V0                          |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  |                       |                      |                                  |                      | X                    |                                |                      |       |
|                                |  | BACnet/IP                               |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  |                       |                      |                                  |                      | X                    |                                |                      |       |
|                                |  | Bluetooth                               |          |               |             |                    |            |            |            |                                 |                  |                    |                  |                    |                  |                  |                  |                       | X                    | X                                | X                    | X                    | X                              | X                    |       |
|                                |  | ABB Ability™ Energy & Asset Manager     |          | X**           | X**         | X**                | X**        | X**        | X**        |                                 | X**              | X**                | X**              | X**                | X**              | X**              | X**              | X**                   | X**                  | X**                              | X**                  | X**                  | X**                            | X**                  |       |

\* via CMS control unit of InSite SCU100 \*\* via extra Gateway, kijk op de homepage voor meer informatie

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## Uitgaande meting externe sensoren en geïntegreerde meting

| Producttype                         |   | Aftakcircuit monitoring CMS |                     |              |                     |  | Geïntegreerde meting                   |  |                               |                     |  |                                |                          |
|-------------------------------------|---|-----------------------------|---------------------|--------------|---------------------|--|--|--|-------------------------------|---------------------|--|--------------------------------|--------------------------|
| Productserie                        |   | Open-core sensoren          | Solid-core sensoren |              | Control Unit        |  | ACB                                    | MCCB                                   | Digital unit                  | ATS                 | Lastscheideners en zekeringlastscheideners |                                |                          |
|                                     |   |                             |                     |              |                     |  |  |  |                               |                     |  |                                |                          |
|                                     |   | CMS-12x 18mm                | CMS-10x 18mm        | CMS-20x 25mm | CMS-700             | CMS-600                                | Emax 2                                 | Tmax XT                                | Ekip UP                       | TrueOne ATS         | SlimLine XRG (optioneel met ITS2)          | InLine II (optioneel met ITS2) | ITS2 t.b.v. OT en OS     |
| Montage                             |   | Universeel                  | Universeel          | Universeel   | DIN-rail            | DIN-rail                               | -                                      | -                                      | Front paneel (296x110)        | -                   | -  | -                              | Din-rail of montage-voet |
| Kostenverrekening (MID, METAS)      |   |                             |                     |              |                     |  |  |  |                               |                     |  |                                |                          |
| HMI                                 | Display                                 |                             |                     |              |                     |  | Kleuren touchscreen                    | Kleuren touchscreen                    | Kleuren touchscreen           | Kleuren touchscreen | -  | -                              | -                        |
| Meting                              | Nauwkeurigheidsklasse (actieve energie) | 1% (I)                      | 0,5% (I)            | 0,5% (I)     | 2%                  |  | Klasse 1                               | Klasse 1                               | 2%                            | -                   | -  | -                              | -                        |
|                                     | IEC 61557-12 PMD                        |                             |                     |              |                     |  |  |  |                               |                     |  |                                |                          |
|                                     | Directe meting                          | ≤80A                        | ≤80A                | ≤160A        |                     |  |  |  |                               |                     |  |                                |                          |
| Real-time                           | Meting via stroomtrafo                  |                             |                     |              | .../5A              |  |  |  |                               |                     |  |                                |                          |
|                                     | Meting via Rogowski spoelen             |                             |                     |              |                     | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | Stroom (I), Spanning (U, V), f          | I                           | I                   | I            | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
| Energie                             | Actief stroomverbruik (P), PF           |                             |                     |              | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | Blind- (Q), Schijn- (S) vermogen        |                             |                     |              | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | Actieve energie                         | X*                          | X*                  | X*           | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
| Netkwaliteit                        | Blindenergie                            |                             |                     |              | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | 4 kwadranten energie (import/export)    |                             |                     |              | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | Multi-tarieven                          |                             |                     |              |                     |  |  |  |                               |                     |  |                                |                          |
| Logging                             | THD                                     |                             |                     |              | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | Harmonischen                            |                             |                     |              | X                   | 50e                                    | 50e                                    | 50e                                    | 15e                           | X                   | X  | X                              | X                        |
|                                     | Neutraalstroom                          |                             |                     |              |                     | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
| Communicatie                        | Fasen, golfvormen                       |                             |                     |              |                     | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | Alarmen                                 |                             |                     |              | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | Complexe alarmen met logica             |                             |                     |              |                     | Programmeerbare status                 | Programmeerbare status                 | Programmeerbare status                 |                               |                     |  |                                |                          |
| Communicatie                        | Min/max/verbruik                        |                             |                     |              | max                 |  |  |  |                               |                     |  |                                |                          |
|                                     | Flash geheugen voor historie            |                             |                     |              | X                   | Ja voor Datalogger bestand             | Ja voor Datalogger bestand             | Ja voor Datalogger bestand             |                               |                     |  |                                |                          |
|                                     | RTC                                     |                             |                     |              |                     |  |  |  |                               |                     |  |                                |                          |
| Communicatie                        | I/O                                     |                             |                     |              | 2 DI                | -3 ingangen PT100 - 1 AI - Max. 10 I/O | -3 ingangen PT100 - 1 AI - Max. 10 I/O | -3 ingangen PT100 - 1 AI - Max. 10 I/O | - Temp. Sensoren - Max. 2 I/O |                     |  |                                |                          |
|                                     | Modbus RTU                              |                             |                     |              | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | Modbus TCP/IP                           |                             |                     |              | X                   | X                                      | X                                      | X                                      | X                             | X                   | X  | X                              | X                        |
|                                     | IEC61850                                |                             |                     |              |                     | X                                      | X                                      | X                                      |                               |                     |  |                                |                          |
|                                     | Profibus DP-V0                          |                             |                     |              |                     | X                                      | X                                      | X                                      | X                             |                     |  |                                |                          |
|                                     | Profinet                                |                             |                     |              |                     | X                                      | X                                      | X                                      | X                             |                     |  |                                |                          |
|                                     | Ethernet/IP                             |                             |                     |              | X                   | X                                      | X                                      | X                                      | X                             |                     |  |                                |                          |
|                                     | SNMP                                    |                             |                     |              | X                   |  |  |  |                               |                     |  |                                |                          |
|                                     | Bluetooth                               |                             |                     |              |                     | X                                      | X                                      |  |                               |                     |  |                                |                          |
|                                     | CMS-bus platte kabel                    | X                           | X                   | X            | X (max 96 sensoren) | X (max 24 sensoren)                    |  |  |                               |                     |  |                                |                          |
| ABB Ability™ Energy & Asset Manager |   |                             |                     | X**          | X**                 | X**                                    | X**                                    | X**                                    | X**                           | X**                 | X**  | X**                            |                          |

\* via CMS control unit of InSite SCU100 \*\* via extra Gateway, kijk op de homepage voor meer informatie

## Gateway en dataverzameling

| Producttype                         | EQmatic  |                     | InSite pro M compact  |  |                   | ABB Ability™ Gateway |  |  |
|-------------------------------------|--|---------------------|---|--|-------------------|----------------------|--|--|
|                                     | Energy analyzer  |                     | Control unit  | I/O modules  |                   | COM-Hub              | Edge Industrial Gateway  |  |
| Productserie                        | QA/S 3.xx.1  | QA/S 4.xx.1         | SCU100  | DM11   | DM00              | DM10                 | COM-Hub  | Edge Industrial Gateway  |
| Belangrijkste kenmerken             | Monitoring, logging en analyse van energiedata van elektriciteits-, gas-, water- of warmtemeters |                     | Data verzamelen, logging, info verzamelen van veldapparatuur en besturing | Monitoring van alarmen/status van MCCBs, RCDs, MCCBs. Reageert op aangesloten hulp- en storingscontacten |                   |                      | Plug-and-play gateway naar ABB Ability™ Energy and Asset Manager | Plug-and-play gateway naar ABB Ability™ Energy and Asset Manager, incl. data van elektriciteit, gas, water |
| Netmeting                           | -  | -                   | I, U, V, Vermogen PF, Energie THD   | -  | -                 | -                    | -  | -  |
| Modbus TCP/IP                       | X  | X                   | X   |  |                   |                      | X  | X  |
| SNMP                                |  |                     | X   |  |                   |                      |  |  |
| Modbus RTU Master                   |  | X                   | X   |  |                   |                      |  | X  |
| Max Modbus RTU slaves               |  | 16 of 64            | 16  |  |                   |                      |  | 16   |
| M-Bus Master                        | X  |                     |   |  |                   |                      |  |  |
| Max M-Bus slaves                    | 16 of 64   |                     |   |  |                   |                      |  |  |
| InSite-bus platte kabel             |  |                     | X   | X  | X                 | X                    |  |  |
| Max n. CMS sensoren en I/O kanalen* |  |                     | 96  |  |                   |                      |  |  |
| I/O                                 | -  | -                   | via DMxx modules  | 4 DI   | 4 DO              | 2 DI, 2 DO           |  | 6 DI, 4 AI   |
| Visualisatie                        | Geïntegreerde webUI  | Geïntegreerde webUI | Geïntegreerde webUI   | via InSite SCU100  | via InSite SCU100 | via InSite SCU100    | ABB Ability™   | ABB Ability™   |

\* Één I/O module is 4 adressen