

SINGLE PHASE **SMART METER**

JAM2000 Series

- Ability to add different communication modules like GPRS, G3 & PRIME PLC
- Includes different log files with various event types; Records 1,000 events
- Flexible event / Alarm management / Fraud detection
- Remote / Local manual Connection & Disconnection
- Ability to communicate with wired or wireless submeters
- Power quality process & Load profile management
- Message / Access authentication & Encryption
- Remote tariff programming
- Remote firmware update
- Support push mechanism









SINGLE PHASE SMART METER

JAM2000 Series



IEC 62053-21, IEC 62053-22, IEC 62053-23 Mechanical Compliance IEC 62053-21, IEC 62053-22, IEC 62053-23 Mechanical Compliance IEC 62053-21, IEC 62053-22, IEC 62053-23 Mechanical Compliance IEC 62053-21, IEC 62053-22, IEC 62053-23 Methanical Compliance IEC 62053-23, IEC 62053-23 Methanical Compliance IEC 62053-23	Meter Type	Static, Single Phase, Active and Reactive Energy, Bidirectional	
Mechanical Compliance Sistandard (JAM2000) / ANSI standard (JAM2000 A) Connection Type Single phase 2 wire Reference Voltage / Frequency 220 / 230 / 240 v - 50 − 60Hz Operating Voltage Range 100 − 320 V Over Voltage Operation The meter has been designed to withstand a voltage of 460 V Class Index Active class 1 / Reactive class 2 Basic Current Active class 1 / Reactive class 2 Basic Current 100A (Permanent) Class Accuracy Current Range Extended from 100 mA up to 120 A Starting Current Short Time Over Current Active class 1 / Reactive class 2 Basic Current Meter Constant 100A (Permanent) Class Accuracy Current Range Extended from 100 mA up to 120 A Starting Current Short Time Over Current Meter Constant 100A (Permanent) Double insulation Optical Part Meter Constant 100A (Permanent) Double insulation None-Volatilie Memory Read Without Power (RWP) Shows meter data on LCD without power Read Without Power (RWP) Shows meter data on LCD without power Supported xDLMS Services Block Transfer with Get, Get, Block, Transfer with, Set, Selective Access, Multiple, References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totally separated at future proof design communication Pulp Link Communication Could be wifed an wireless MBUS Pulp Indiana Active Could be wifed an wireless MBUS P	Approvals	IEC 62052-11, IEC 62053-21, IEC 62052-21	
Connection Type Reference Voltage Frequency 220 / 230 / 230 / 2400 - 50 - 60Hz Departing Voltage Range 100 - 320 V Over Voltage Operation The meter has been designed to withstand a voltage of 460 V Class Index Active class 1 / Reactive class 2 Rosic Current 5 A Maximum Current 100A (Permanent) Class Accuracy Current Range Extended from 100 mA up to 120 A Starling Current 315 mA Short Time Over Current 7 KA for 1 line cycle Meter Constant 2000 imp/kWn/kvam Insulation Class Double Insulation Refer Constant 2000 imp/kWn/kvam Insulation Class Double Insulation Deptition Double Insulation Deptition Double Insulation Refer Constant 2000 imp/kWn/kvam Insulation Class Double Insulation Deptition Double Insulation Deptition Double Insulation Refer Constant 2000 imp/kWn/kvam Insulation Class Double Insulation Deptition Double Insulation Refer Constant 2000 imp/kWn/kvam Insulation Class Double Insulation Deptition Double Insulation Refer Constant 2000 imp/kWn/kvam Insulation Provided Insulation Provided Insulation Refer Constant 2000 imp/kWn/kvam Insulation Class Double Insulation Refer Constant 2000 imp/kWn/kvam Insulation Class Double Insulation Refer Constant 2000 imp/kWn/kvam Insulation Class Double Insulation Refer Constant 2000 imp/kWn/kvam Insulation Provided Insulation Refer Constant 2000 imp/kWn/kvam Insulation Class Double Insulation Refer Constant 2000 imp/kWn/kvam Insulation Class 2000 imp/kWn/kvam Refer Constant 2000 imp/kWn/kvam Insulation Class 2000 imp/kWn/kvam Refer Constant 2000		IEC 62054-21, IEC 62053-22, IEC 62053-23	
Reference Voltage / Frequency Departing Voltage Range 100 − 320 V Volver Voltage Operation The meter has been designed to withstand a voltage of 460 V Class Index Active class 1 / Reactive class 2 Basic Current 100A (Permanent) Class Accuracy Current Range Extended from 100 mA up to 120 A Starting Current 1 No For Time Cycle Meter Constant 2000 imp/kWh/kvarh Insulation Class Double Insulation Double (Insulation Class) Insulation Class (Insulation Class) Double (Insulation Class) Insulation Class (Insulation Class) Double (Insulation Class) Insulation Class (Insulation Class) Insulation Class (Insulation Class) Double (Insulation Class) Insulation Class (Insula	Mechanical Compliance	BS standard (JAM2000) / ANSI standard (JAM2000 A)	
Operating Voltage Range 100 ~ 320 V Over Voltage Operation The meter has been designed to wilhstand a voltage of 460 V Class Index Active class 1 / Reactive class 2 Basic Current 5 A Maximum Current 100A (Permanent) Class Accuracy Current Range Extended from 100 mA up to 120 A Starting Current 5 T KA for 1 line cycle Extended from 100 mA up to 120 A Starting Current 7 KA for 1 line cycle Meter Constant Insulation Class Double Insulation Optical Port Application layer: COSEM-DLMS / Link Layer: HDLC Internal long life lithium battery + supercap for supporting RTC and R.W.P with ability to add external battery easily Long life 8 digit LCD (from zero to nine) 9 mm X 4.5 mm LCD with Colls code 5 digit 6 mm. 3 mm None-Volatile Memory Retention time more than 40 years Read Without Power (RWP) Shows meter data on LCD without power Supported x DLMS Services Block Transfer with Get, Sed ets Circuiser with Set, Set, Selective Access, Multiple, References, Data Notification, Action, Genetal Protection Communication Module Fully modular and tuture proof design communication module tofally separated from methology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Quick to the country of the co	Connection Type	Single phase 2 wire	
Over Voltage Operation The meter has been designed to withstand a voltage of 460 V Class Index Active class 1 / Reactive class 2 Basic Current 5 A Maximum Current 100A (Permanent) Etended from 100 mA up to 120 A Starting Current Short Time Over Current 7 KA for 1 line cycle Meter Constant Insulation Class Accuracy Current Range 2000 imp/Wh/kvarth Insulation Class Dubble insulation Optical Port Application layer: COSEM-DLMS / Link Layer: HDLC Battery Internal long life lithium battery + supercap for supporting RTC and R.W.P with ability to add external battery assity Long life 8 digit LCD (from zero to nine) 9mm X 4.5mm LCD with OBIS code 5 digit 6mm X 3mm None-Volatile Memory Retention time more than 40 years Read Without Power (RWP) Shows meter data on LCD without power Supported x DLMS Services Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GRRS, G3 and RRIME PLC Sub Meters Communication Could be GRRS, G3 and RRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-61/62 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Linti Temperature Range Of Operation List, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Meter registration Remote Infrared programming On demand meter reading Remote Immangement Found detection Power outrole, General Prover outroleges, sags & swells process	Reference Voltage / Frequency	220 / 230 / 240V - 50 ~ 60Hz	
Class Index Active class 1 / Reactive class 2	Operating Voltage Range	100 ~ 320 V	
Basic Current S A	Over Voltage Operation	The meter has been designed to withstand a voltage of 460 V	
Maximum Current Class Accuracy Current Range Extended from 100 mA up to 120 A Storting Current ≤15 mA Short Time Over Current 7 KA for 1 line cycle Meter Constant Insulation Class Double Insulation Optical Port Application layer: COSEM-DLMS / Link Layer: HDLC Internal long life lithium battery + supercap for supporting RTC and R.W.P with ability to add external battery essily Long life 8 digit LCD (from zero to nine) 9mm X 4.5mm LCD with 08lS code 5 digit form x 3 mm None-Volatile Memory Retention time more than 40 years Read Without Power (RWP) Shows meter data on LCD without power Supported xDLMS Services Block Transfer, with, Get, Get, Block, Transfer, With, Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totality separated from metrology part Up Link Communication Could be GRRs, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS Application layer: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 G3 Protocol Stack Application layer: IEC 62056-63 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range 30°C to +65°C Umit Temperature Range Of Operation Very Conference of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection of load Very Cook of the	Class Index	Active class 1 / Reactive class 2	
Extended from 100 mA up to 120 A	Basic Current	5 A	
Storting Current ≤15 mA	Maximum Current	100A (Permanent)	
Short Time Over Current 7 KA for 1 line cycle	Class Accuracy Current Range	Extended from 100 mA up to 120 A	
Meter Constant Insulation Class Double Insulation Optical Port Application layer: COSEM-DLMS / Link Layer: HDLC Battery Internal long life lithium battery + supercap for supporting RTC and R.W.P with ability to add external battery + supercap for supporting RTC and R.W.P with ability to add external battery easily Display Long life 8 digit LCD (from zero to nine) 9mm X 4.5mm LCD with OBIS code 5 digit form X 3mm None-Volatile Memory Retention time more than 40 years Read Without Power (RWP) Shows meter data on LCD without power Supported x DLMS Services Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be Wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range J30°C to +65°C Limit Temperature Range Of Operation A9°C to +86°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tarift programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process	Starting Current	≤15 mA	
Insulation Class Double Insulation Optical Port Application layer: COSEM-DLMS / Link Layer: HDLC Battery Internal long life lithium battery + supercap for supporting RTC and R.W.P with ability to add external battery easily Long life 8 digit LCD (from zero to nine) 9mm X 4.5mm LCD with OBIS code 5 digit 6mm X 3mm None-Volatile Memory Retention time more than 40 years Read Without Power (RWP) Shows meter data on LCD without power Supported xDLMS Services Block, Transfer with, Get, Get, Block, Transfer With, Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totalty separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-63 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation Storage Temperature -40°C to +70°C Relative Humicity Up to 95% for 30 days per year Mean Temperature Coefficient > 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection Est of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote disconnection & reconnection Remote disconnection & reconnection Power control (e- meters)	Short Time Over Current	7 KA for 1 line cycle	
Optical Port Application layer: COSEM-DLMS / Link Layer: HDLC Battery Internal long life lithium battery + supercap for supporting RTC and R.W.P with ability to add external battery easily Display Long life 8 digit LCD (from zero to nine) 9mm X 4.5mm LCD with OBIS code 5 digit 6mm X 3mm None-Valatile Memory Retention time more than 40 years Read Without Power (RWP) Shows meter data on LCD without power Supported x DLMS Services Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully reprodued from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-63 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C United Temperature Range -40°C to +70°C Storage Temperature Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient \$0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection P54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters)	Meter Constant	2000 imp/kWh/kvarh	
Bottery Internal long life lithium battery + supercap for supporting RTC and R.W.P with ability to add external battery easily Long life 8 digit LCD (from zero to nine) 9mm X 4.5mm LCD with OBIS code 5 digit 6mm X 3mm None-Volatile Memory Retention time more than 40 years Read Without Power (RWP) Shows meter data on LCD without power Supported x DLMS Services Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS Application model: IEC 62056-63 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-63 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation Storage Temperature -40°C to +70°C Storage Temperature -40°C to +85°C Mean Temperature Coefficient Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Meter registration Remote disconnection & reconnection Remote dismogramming On demand meter reading Remote disconnection & reconnection Power control (e- meters)	Insulation Class	Double insulation	
with ability to add external battery easily Long life 8 digit LCD (from zero to nine) 9mm X 4.5mm LCD with OBIS code 5 digit 6mm X 3mm None-Volatile Memory Retention time more than 40 years Read Without Power (RWP) Shows meter data on LCD without power Supported x DLMS Services Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-63 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation -40°C to +70°C Storage Temperature -40°C to +85°C Relative Humicity Up to 95% for 30 days per year Mean Temperature Coefficient = 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters)	Optical Port	Application layer: COSEM-DLMS / Link Layer: HDLC	
Display Long life 8 digit LCD (from zero to nine) 9mm X 4.5mm LCD with OBIS code 5 digit 6mm X 3mm None-Volatile Memory Redention time more than 40 years Shows meter data on LCD without power Supported xDLMS Services Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-63 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process	Battery	Internal long life lithium battery + supercap for supporting RTC and R.W.P	
LCD with OBIS code 5 digit 6mm X 3mm		with ability to add external battery easily	
None-Volatile Memory Retention time more than 40 years Read Without Power (RWP) Shows meter data on LCD without power Supported x DLMS Services Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack Operating Temperature Range -30°C to +65°C Unitif Temperature Range Of Operation -40°C to +70°C Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LIs, H.S (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote firmware update Remote f	Display	The state of the s	
Read Without Power (RWP) Shows meter data on LCD without power Supported x DLMS Services Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient \$\leq 0.02 \% @ PF=1 \text{ or PF=0.5 ind over -40°C to +75°C}} Degree of Protection Bets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Production Action, General Protection Production, Action, General Protection Should a filter programming On demand meter reading Remote disconnection & reconnection Power outages, sags & swells process			
Supported x DLMS Services Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access, Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation 40°C to +70°C Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient \$\leq 0.02 \% @ PF=1 \text{ or PF=0.5 ind over -40°C to +75°C}\$ Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process	None-Volatile Memory	Retention time more than 40 years	
Multiple_References, Data Notification, Action, General Protection Communication Module Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation 40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection Power outages, sags & swells process	Read Without Power (RWP)	Shows meter data on LCD without power	
Fully modular and future proof design communication module totally separated from metrology part Up Link Communication Could be GPR\$, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLM\$ UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLM\$ UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power outages, sags & swells process	Supported x DLMS Services	Block_Transfer_with_Get, Get, Block_Transfer_With_Set, Set, Selective Access,	
module totally separated from metrology part Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication Could be wired or wireless MBUS PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection Power control (e- meters) Power outages, sags & swells process		Multiple_References, Data Notification, Action, General Protection	
Up Link Communication Could be GPRS, G3 and PRIME PLC Sub Meters Communication PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation Storage Temperature -40°C to +70°C Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process	Communication Module	Fully modular and future proof design communication	
Sub Meters Communication Could be wired or wireless MBUS Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation 40°C to +70°C Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≥ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process		module totally separated from metrology part	
PLC Protocol Stack Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0 Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation -40°C to +70°C Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process	Up Link Communication	Could be GPRS, G3 and PRIME PLC	
Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0 G3 Protocol Stack PRIME Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation -40°C to +70°C Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming Remote tariff programming Remote firmware update On demand meter reading Alarms and events management Fruad detection Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process	Sub Meters Communication	Could be wired or wireless MBUS	
G3 Protocol Stack Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation -40°C to +70°C Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) PRIME Protocol Stack ### A0°C to +5°C ### C	PLC Protocol Stack	Application model: IEC 62056-61/62 in conjunction with DLMS UA 1000-1 Ed.10.0	
Operating Temperature Range -30°C to +65°C Limit Temperature Range Of Operation 5torage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process		Application layer: IEC 62056-53 in conjunction with DLMS UA 1000-2 Ed.7.0	
Limit Temperature Range Of Operation -40°C to +70°C Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process		G3 Protocol Stack	IME Protocol Stack
Storage Temperature -40°C to +85°C Relative Humidity Up to 95% for 30 days per year Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Alarms and events management Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Power outages, sags & swells process	Operating Temperature Range	-30°C to +65°C	
Relative Humidity We note that the process of the second	Limit Temperature Range Of Operation	-40°C to +70°C	
Mean Temperature Coefficient ≤ 0.02 % @ PF=1 or PF=0.5 ind over -40°C to +75°C Degree of Protection IP54 Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Clock synchronization Remote firmware update On demand meter reading Alarms and events management Scheduled (Billing) meter reading Fruad detection Remote disconnection & reconnection Load profile management Power outages, sags & swells process	Storage Temperature	-40°C to +85°C	
Degree of Protection Sets of Associations LLS, HLS (GMAC) Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection Remote disconnection Power control (e- meters) Power outages, sags & swells process	Relative Humidity	Up to 95% for 30 days per year	
Sets of Associations Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection Remote disconnection Power control (e- meters) Load profile management Power outages, sags & swells process	Mean Temperature Coefficient		
Latching Relay For demand control and remote or manual connection / disconnection of load Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection Remote disconnection Power control (e- meters) For demand control of load Clock synchronization Remote firmware update Alarms and events management Fruad detection Load profile management Power outages, sags & swells process	Degree of Protection	IP54	
Supported AMI use Cases Meter registration Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection Remote disconnection Power control (e- meters) Clock synchronization Remote firmware update Alarms and events management Fruad detection Load profile management Power outages, sags & swells process	Sets of Associations	LLS, HLS (GMAC)	
Remote tariff programming On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Remote firmware update Alarms and events management Fruad detection Load profile management Power outages, sags & swells process	Latching Relay	•	
On demand meter reading Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Alarms and events management Fruad detection Load profile management Power outages, sags & swells process	Supported AMI use Cases	Meter registration	Clock synchronization
Scheduled (Billing) meter reading Remote disconnection & reconnection Power control (e- meters) Fruad detection Load profile management Power outages, sags & swells process		Remote tariff programming	Remote firmware update
Remote disconnection & reconnection Power control (e- meters) Load profile management Power outages, sags & swells process		On demand meter reading	Alarms and events management
Power control (e- meters) Power outages, sags & swells process		Scheduled (Billing) meter reading	Fruad detection
		Remote disconnection & reconnection	Load profile management
Dimension 200 / 217 (Short / Long Cover) x 1/1 x 85 mm (H x L x \\ \) / D=175 mm (IAM2000 A)		Power control (e- meters)	Power outages, sags & swells process
2007 217 (UNDIT) LONG COVERT X TO THE HIT (LIXE X VV) / IX—170 THE COMMISSION A)	Dimension	200 / 217 (Short / Long Cover) x 141 x 85 m	nm (H x L x W) / R=175 mm (JAM2000 A)









