

AMR
Systemwww.spic.co.krA leading company in measuring instruments,
Shinhan Precision Co., Ltd.

SHINHAN 신한

SHINHAN®

Trademark and Service Registration

AUTOMATIC METER READING SYSTEM



SHINHAN®
신한정밀주식회사

- Received presidential citation in invention part
- Jang Yeong Sil Science & Culture Award
- Grand prize in Excellent Small & Medium Businesses
- Vision Enterprise
- Korea's Representative Brand Company
- A company acknowledged of affiliated research institute
- KEPCO qualified registered certification



「Broadcasted in a SBS show, Small & Medium
Businesses, power of Korea」



The History of Shinhan Precision

- 1992** 12. Founded Shinhan Precision Co., Ltd.
- 1993** 05. Measuring instrument manufacturing license
05. Factory registration (Nam-gu Office, Incheon-si)
05. Obtained KS Mark certification (Water meter)
11. Registered of class A trade business (Korea International Trade Association)
- 1994** 02. Registered for participating in procurement bidding (Public Procurement Service)
10. Joined Korea Measuring Instrument Industry Cooperative
- 1995** 06. Designated as a measuring instrument company to grow to world-best company (Industrial Advancement Administration)
07. Obtained KS Mark certification (Gas meter)
08. Designated as a promising advanced technology company (Small & Medium Business Administration)
- 1996** 06. Established second factory of Shinhan Precision Co., Ltd (734, Dohwa-dong, Nam-gu, Incheon-si)
- 1997** 05. Factory registration (Nam-gu Office, Incheon-si)
05. Registration of measuring instrument manufacturing business
12. Obtained KS Mark certification (KS B 5330 Hot water meter)
- 1998** 02. Registered of trade business (Korea International Trade Association)
06. Joined Korean Standards Association
06. Obtained KS certification for water meter and hot water meter
10. Obtained KSA/ISO 9001 Quality System Certification (Korea Foundation for Quality)
- 1999** 05. GQ (Good Quality Product) Mark certification for water meter (Small & Medium Business Administration)
05. Selected as a promising small & medium business
12. Selected as a venture company (Small & Medium Business Administration)
- 2001** 03. Obtained type approval for water meter (Korean Agency for Technology and Standards)
12. Obtained ISO 14001 environment management system certification (EAGLE Registration INC.)
- 2002** 01. CE Mark certification (Remote water meter EN 55022 : 1998)
03. Award of New Intellectual, Patent Person (Korean Intellectual Property Office)
07. Designated as a promising small and medium exporting company (Small & Medium Business Administration)
- 2003** 05. Award presidential citation on Invention Day
11. Admitted as a Clean Workplace
- 2004** 02. Registered a patent of electronic flow meter using magnetic tube (Korean Intellectual Property Office)
04. Award Won a grand prize in invention part of Science & Culture (Jang Young Sil Science & Culture Award)
05. Environment Mark certification (Environment Mark Association)-Water meter
09. Selected as a venture company, Recertified of new technology company (Inchon Regional Small & Medium Business Administration)
09. GQ (Good Quality Product) Mark certification (Small & Medium Business Administration)-Electronic flow meter, water meter
11. Selected as a part · material company (Ministry of Commerce, Industry and Energy)
11. Obtained G1.6 type approval for gas meter (Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)
11. Selected as a good technology company (Technology Credit Guarantee Insurance)
12. Selected as a good product by Public Procurement Service- Electronic flow meter
12. Admitted as a national correction Institution (Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)

The History of Shinhan Precision

- 2005**
 - 05. Signed third unit price agreement with Public Procurement Service
 - 05. Obtained type approval for wireless remote digital water meter
(Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)
 - 06. Obtained G2.5, G4.0 type approval
(Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)
 - 06. Development of electronic calorie meter
 - 07. Obtained type approval for hot water meter
(Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)
- 2006**
 - 01. Obtained type approval for water meter and heat meter
(Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)
 - 01. Signed third unit price agreement again for electronic flow meter with Public Procurement Service
- 2007**
 - 03. Development of freeze protection meter
 - 03. Obtained type approval for wireless remote digital water meter
(Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)
 - 05. Obtained 250 multiple type approval for electronic (digital) water meter
(Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)
- 2008**
 - 08. Korea's first KS product certification-Water meter 15~50 mm
 - 08. 2008 Excellent Design certification
- 2009**
 - 01. Development of automatic meter system(AMR)-Wireless, wired
 - 05. Development of digital gas meter G1.6, G2.5, G4.0
 - 05. Registration of construction business (Water supply · Sewer Facility construction business)
 - 06. Development of freeze protection digital water meter
 - 07. Development of wireless digital water meter and wireless outdoors meter reading device
 - 09. Silver prize and bronze prize in Korea International Invention Show - Digital water meter, Electronic flow meter
 - 11. Acknowledged of company-affiliated research institute by Korea Industrial Technology Promotion Association
 - 11. Designated as a good quality product (Incheon-si)
 - 12. Award a grand prize of small & medium business
 - 12. Award a Minister prize of Ministry of Knowledge Economy
 - 12. Obtained 2008 SUCCESS DESIGN GOODS certification
- 2010**
 - 02. KS Product certification-Water meter, Hot water meter
 - 04. Selected as a promising exporters (Korea International Trade Association)
 - 08. Selected as a technology innovative small and medium business
(Administrator of Small & Medium Business Administration)
- 2011**
 - 07. Broadcasted in a SBS show, Small & Medium Businesses, power of Korea
 - 10. Selected as a Incheon vision company (Mayor of Incheon-si)
 - 11. Selected as a promising small & medium business (Mayor of Incheon-si)
 - 12. Citation (Small & medium Business Corporation)
- 2012**
 - 03. Award a grand prize in 2012 Korea excellent innovation company (Hankook Daily News)
 - 03. KC certification of Health and Safety Standard (Korea Water and Wastewater Works Association)
- 2013**
 - 01. Assignment and acquisition of Electricity meter business division (including remote meter reading system)
 - 01. Obtained type approval for 9 models of Electricity meter
(Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)
 - 04. Obtained type approval for 5 models of Electricity meter
(Korean Agency for Technology and Standards, Ministry of Commerce, Industry and Energy)
 - 04. Development of object intelligent communication (M2M) remote meter reading system

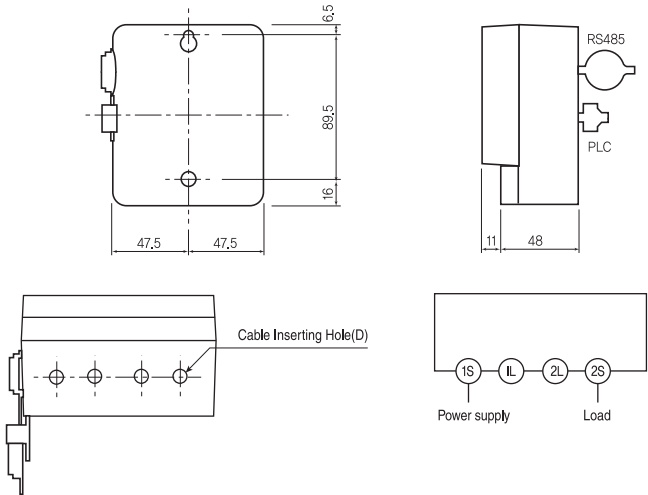
Electricity meter low pressure for KEPCO (E-Type)

Electricity meter for remote meter reading

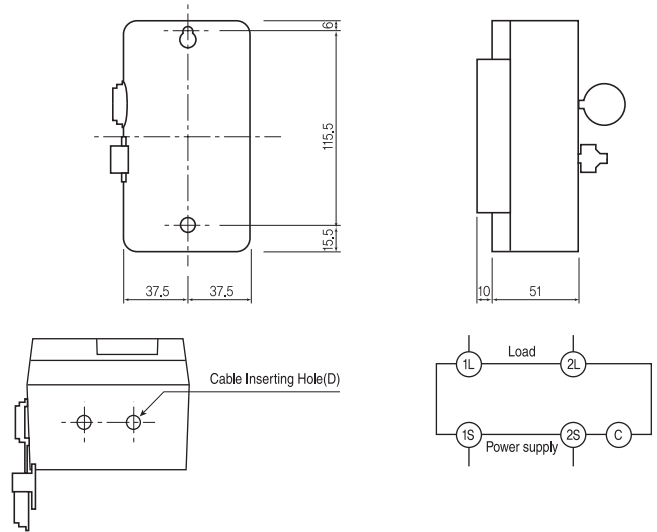
Low pressure standard Electricity meter developed to meet KEPCO'S procurement specification and type approval standard for remote meter reading, measuring active power (kWh), reactive power (kVarh) and volt-ampere (kVAh) being installed in the low pressure single-phase two wire system and 3-phase four wire system alternating current circuit, with the measurement data compatible with modem (RS485, wireless, PLC, etc.) devices.

KEPCO'S Low Pressure Standard Single-phase

CNM-12040B



CNM-12040U



Features

Measurement function	Power receiving active power amount
External interface	RS-485 communication port for near distance or remote meter reading. Communicate with data integration equipment or power line modem
Data storage	Semi-permanent storage, adopting power cut compensation function and non-volatile memory. LP (Load Profile)
Additional functions	Power supply monitoring device
Self-diagnosis information display	Memory error
Applied standard	IEC 62053-21/IEC, 62052-11/KSC, IEC 62053-21
Communication method	RS-485, PLC

Details

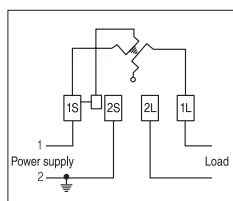
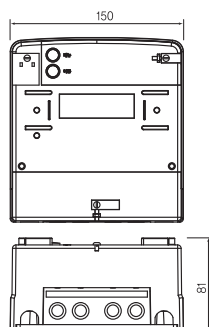
Model name	CNM-12040B	CNM-12040U
Kinds of instrument	E-Type watt-hour meter	
Phase and wire type	Single-phase 2 wire system	
Voltage (V)	220	
Current (C)	40(10)	
Frequency (Hz)	60	
Instrument class	level 1.0 (Error range: $\pm 1.0\%$)	
Calibrating constant(Pulse/kWh)	1,000	
Installation method	Bottom surface	Top and bottom

Electricity meter low pressure for KEPCO (G-Type)

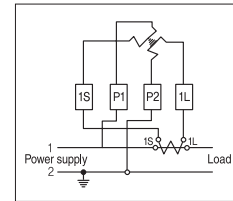
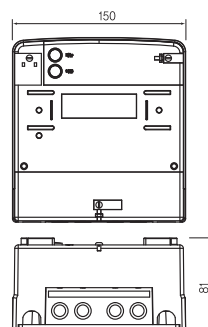
Low pressure standard Electricity meter developed to meet KEPCO'S procurement specification and type approval standard for remote meter reading, measuring active power (kWh), reactive power (kVarh) and volt-ampere (kVAh) being installed in the low pressure single-phase two wire system and 3-phase four wire system alternating current circuit, with the measurement data compatible with modem (RS485, wireless, PLC, etc.) devices.

KEPCO'S Low Pressure Standard Single-phase

CNM-12100G (single-phase two wire system 220V 100(10)A)

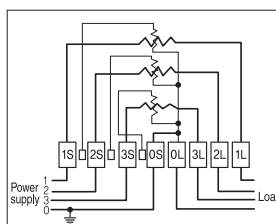
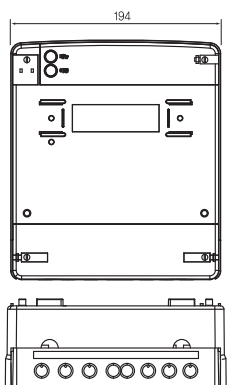


CNM-12005G (single-phase two wire system 220V 5(2.5)A)

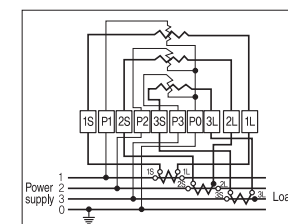
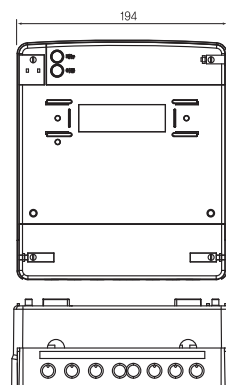


KEPCO'S Low Pressure Standard 3-phase

CNM-34100G (3-phase four wire system 220/380V 100(10)A)



CNM-34005G (3-phase four wire system 220/380V 5(2.5)A)



Electricity meter low pressure for KEPCO (G-Type)

Electricity meter for remote meter reading

Details

Model name	CNM-12100G	CNM-12005G	CNM-34100G	CNM-34005G
Kinds of instrument	G-type Electricity meter (Single instrument)	G-type Electricity meter (Transformer instrument)	G-type Electricity meter (Single instrument)	G-type Electricity meter (Transformer instrument)
Phase and wire type	Single-phase, 2 wire system		3 phase, 4 wire system	
Voltage (V)	220		220 / 380	
Current (A)	100(10)	5(2.5)	100(10)	5(2.5)
Frequency (Hz)	60			
Instrument class	Active, level 1.0	Active, level 1.0	Active, level 1.0	Active, level 1.0
	Reactive, level 2.0	Reactive, level 2.0	Reactive, level 2.0	Reactive, level 2.0
	Volt-ampere, level 1.0	Volt-ampere, level 1.0	Volt-ampere, level 1.0	Volt-ampere, level 1.0
Calibrating constant (Pulse/kWh)	1,000	20,000	1,000	10,000
Installation method	Bottom surface			
Max. demand time (min.)	15			

Features

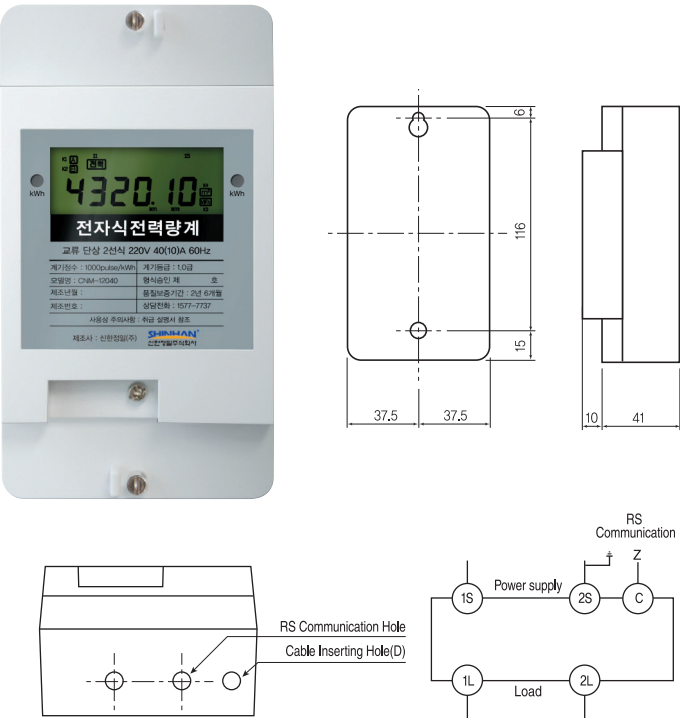
Measurement function	Power receiving, power transmission, active power (kWh), max. power demand (kW), power factor(%), power transmission and receiving active, reactive and volt-ampere power
External interface	RS485 circuit function to connect with external modem for remote meter reading by KEPCO
Data storage	Semi-permanent storage, adopting power cut compensation function and non-volatile memory
Electric conduction prevention	Magnetic field detection sensor part, Switch circuit function for detecting electric conduction in cover part
Additional functions	Remote load opening and closing, Opening and closing of time switch, Current restriction, Initial current flow function
Various measuring method	Charging per time slot (TOU) and measurement per time slot by using built-in calendar and clock, Measurement of max. power demand, Automatic periodic meter reading function
Self-diagnosis information display	Memory, battery, voltage phase, erroneous connection of neutral line, cover open, erroneous connection, magnetic field detection, abnormal instrument temperature, Display of sag and swell, etc. on LCD, server transmission
Anticreep function	Built-in creeping circuit

“ If made by Shinhan Precision, it is surely different ”



Single-phase, 2 wire system

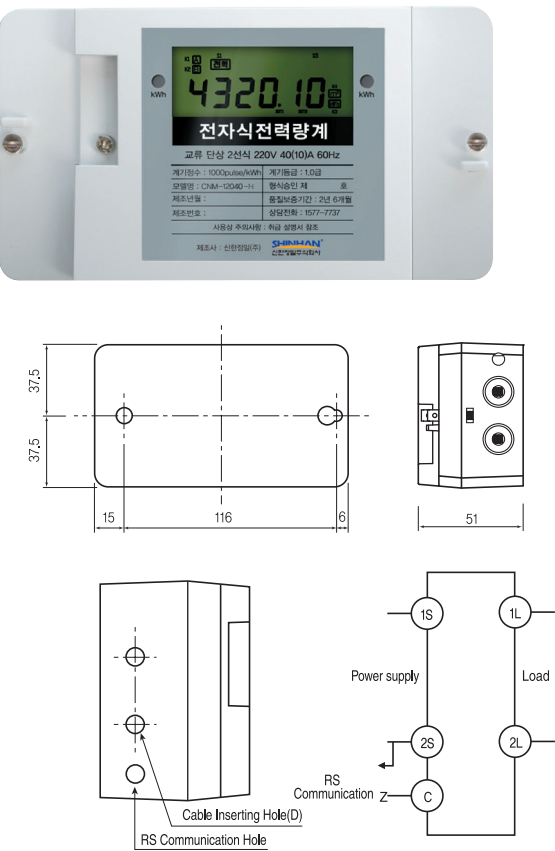
CNM-12040 (Top-bottom type)



Technical specification

Structure type	CNM-12040
Phase and wire system	Single-phase, 2 wire system
Connection type	Top and bottom connection type
Rating	AC 220V 40(10)A 60Hz
Instrument class	Level 1.0 (Error range: $\pm 1.0\%$)
Calibrating constant	1,000pulse/kWh
Measuring items	Two-way power transmission · receiving active power
Display	Type: 7 Segment, 6 Digit Items: Power / hot water / water / heat / gas
Communication method	DCPLC, RS-485
Applied standard	IEC 62053-21 / IEC, 62052-11 / KSC, IEC 62053-21
Certification	Machinery & Electricity · Electronics Test
Material	Base: Flame retardant PC Main cover: Polycarbonate (PC)
Size	75 x 137 x 51

CNM-12040-H (Right-left type)



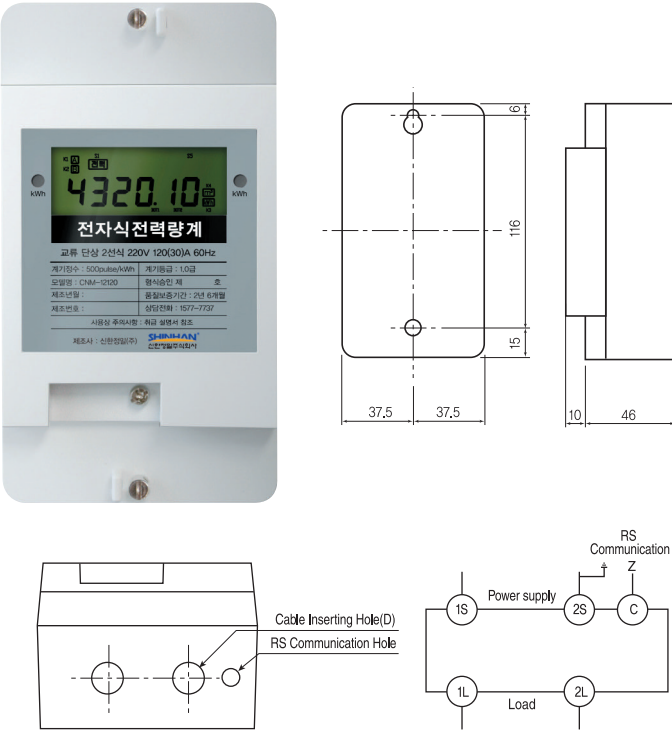
Technical specification

Structure type	CNM-12040-H
Phase and wire system	Single-phase, 2 wire system
Connection type	Right-left connection type
Rating	AC 220V 40(10)A 60Hz
Instrument class	Level 1.0 (Error range: $\pm 1.0\%$)
Calibrating constant	1,000pulse/kWh
Measuring items	Two-way power transmission · receiving active power
Display	Type: 7 Segment, 6 Digit Items: Power / hot water / water / heat / gas
Communication method	DCPLC, RS-485
Applied standard	IEC 62053-21 / IEC, 62052-11 / KSC, IEC 62053-21
Certification	Machinery & Electricity · Electronics Test
Material	Base: Flame retardant PC Main cover: Polycarbonate (PC)
Size	137 x 75 x 51

Single-phase, 2 wire system

Electricity meter for remote meter reading

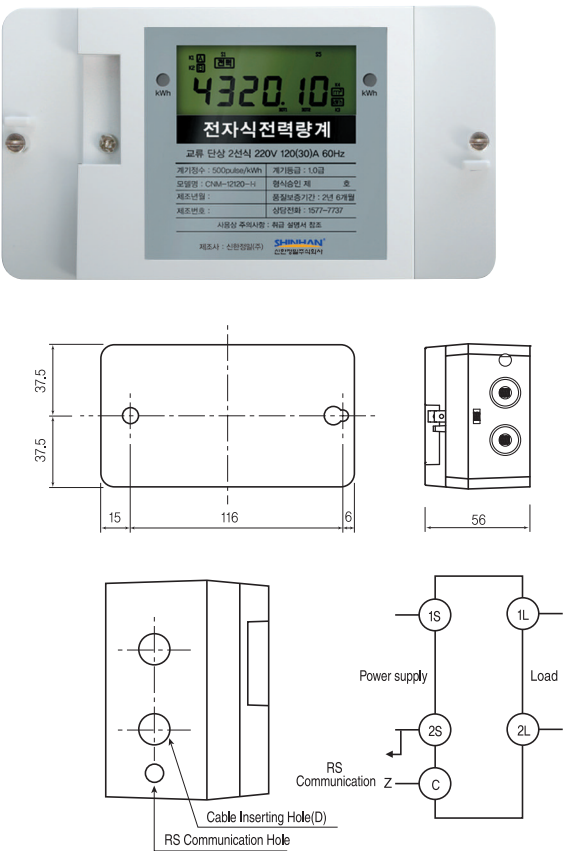
CNM-12080/12120(Top-bottom type)



Technical specification

Structure type	CNM-12080	CNM-12120
Phase and wire system	Single-phase, 2 wire system	
Connection type	Top and bottom connection type	
Rating	AC 220V 80(20)A 60Hz	AC 220V 120(30)A 60Hz
Instrument class	Level 1.0 (Error range: $\pm 1.0\%$)	
Calibrating constant	500pulse/kWh	
Measuring items	Two-way power transmission · receiving active power	
Display	Type	7 Segment, 6Digit
	Items	Power / hot water / water / heat / gas
Communication method	DCPLC, RS-485	
Applied standard	IEC 62053-21/IEC, 62052-11/KSC, IEC 62053-21	
Certification	Machinery & Electricity · Electronics Test	
Material	Base	Flame retardant PC
	Main cover	Polycarbonate (PC)
Size	75 x 137 x 56	

CNM-12080/12120-H (Right-left type)

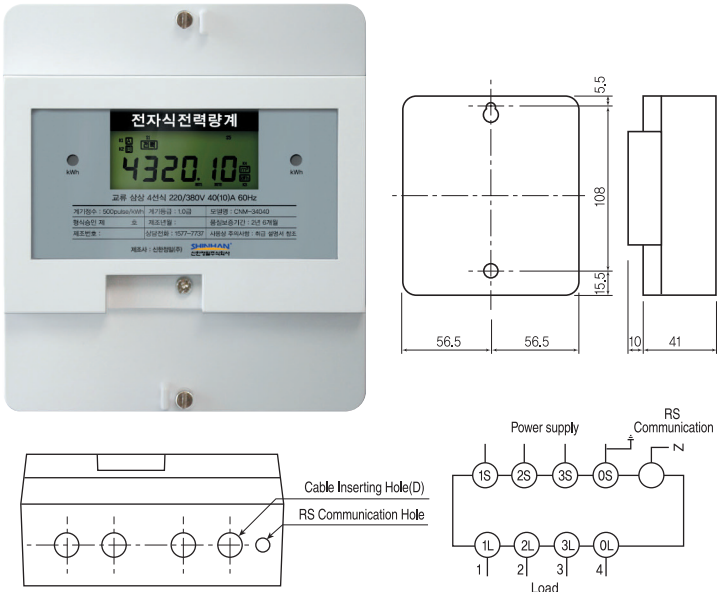


Technical specification

Structure type	CNM-12080-H	CNM-12120-H
Phase and wire system	Single-phase, 2 wire system	
Connection type	Right-left connection type	
Rating	AC 220V 80(20)A 60Hz	AC 220V 120(30)A 60Hz
Instrument class	Level 1.0 (Error range: $\pm 1.0\%$)	
Calibrating constant	500pulse/kWh	
Measuring items	Two-way power transmission · receiving active power	
Display	Type	7 Segment, 6Digit
	Items	Power / hot water / water / heat / gas
Communication method	DCPLC, RS-485	
Applied standard	IEC 62053-21/IEC, 62052-11/KSC, IEC 62053-21	
Certification	Machinery & Electricity · Electronics Test	
Material	Base	Flame retardant PC
	Main cover	Polycarbonate (PC)
Size	137 x 75 x 56	

3-phase, 4 wire system

CNM-34040 (Top-bottom type)



Technical specification

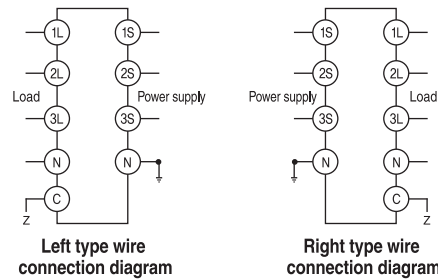
Structure type		CNM-34040
Phase and wire system		3-phase, 4 wire system
Connection type		Top and bottom connection type
Rating		AC 220V/380V 40(10)A 60Hz
Instrument class		Level 1.0 (Error range: $\pm 1.0\%$)
Calibrating constant		500pulse/kWh
Measuring items		Two-way power transmission · receiving active power
Display	Type	7 Segment, 6 Digit
	Items	Power / hot water / water / heat / gas
Communication method		DCPLC, RS-485
Applied standard		IEC 62053-21 / IEC, 62052-11 / KSC, IEC 62053-21
Certification		Machinery & Electricity · Electronics Test
Material	Base	Flame retardant PC
	Main cover	Polycarbonate (PC)
Size		113 x 129 x 51

CNM-34040-H (Right-left type)



Technical specification

Structure type		CNM-34040-H
Phase and wire system		3-phase, 4 wire system
Connection type		Right-left connection type
Rating		AC 220V/380V 40(10)A 60Hz
Instrument class		Level 1.0 (Error range: $\pm 1.0\%$)
Calibrating constant		500pulse/kWh
Measuring items		Two-way power transmission · receiving active power
Display	Type	7 Segment, 6 Digit
	Items	Power / hot water / water / heat / gas
Communication method		DCPLC, RS-485
Applied standard		IEC 62053-21 / IEC, 62052-11 / KSC, IEC 62053-21
Certification		Machinery & Electricity · Electronics Test
Material	Base	Flame retardant PC
	Main cover	Polycarbonate (PC)
Size		129 x 113 x 51

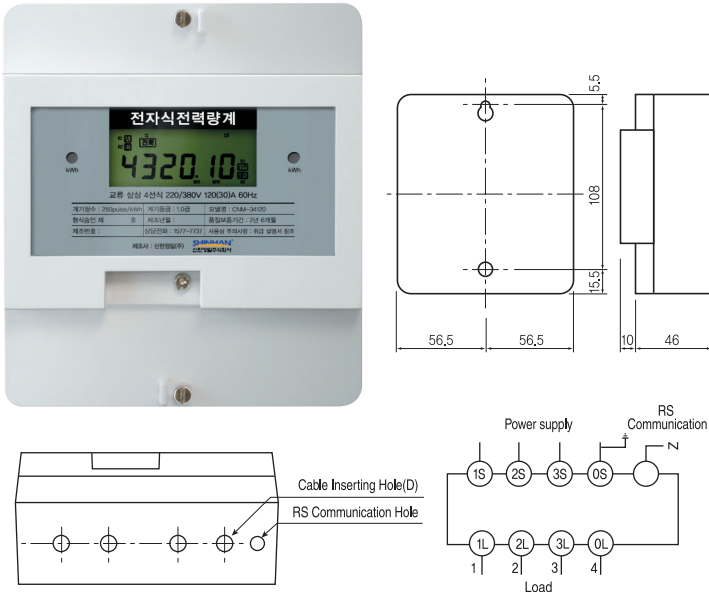


※ During installation, power transmission and receiving may be changed according to wire connection direction. So please refer to the wire connection direction of neutral line (N), load line (L) and S, L connection direction on the side of product.

3-phase, 4 wire system

Electricity meter for remote meter reading

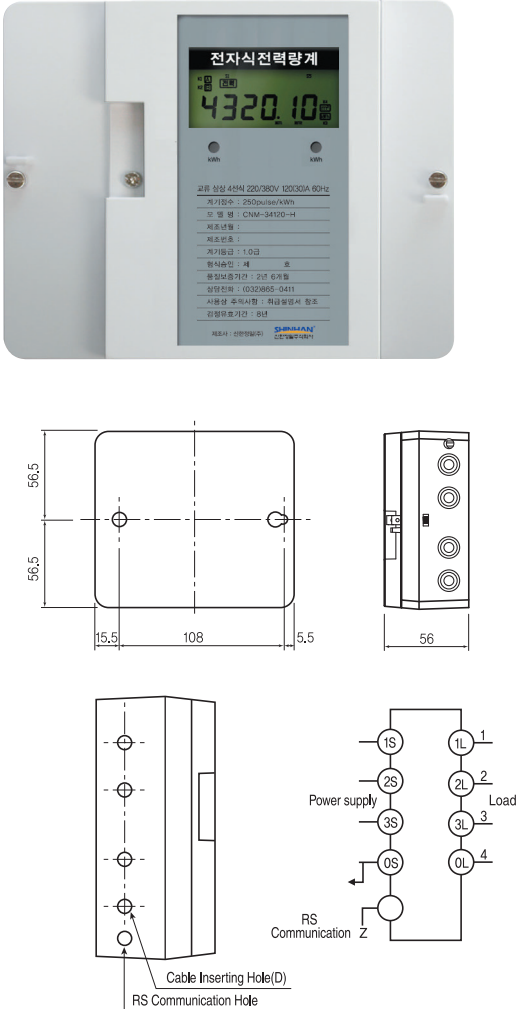
CNM-34080/34120(Top-bottom type)



Technical specification

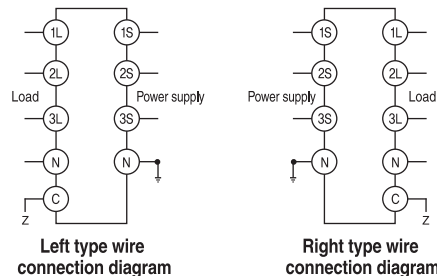
Structure type	CNM-34080	CNM-34120
Phase and wire system	3-phase, 4 wire system	
Connection type	Top and bottom connection type	
Rating	AC 220V 80(20)A 60Hz	AC 220V 120(30)A 60Hz
Instrument class	Level 1.0 (Error range: $\pm 1.0\%$)	
Calibrating constant	250pulse/kWh	
Measuring items	Two-way power transmission · receiving active power	
Display	Type	7 Segment, 6 Digit
	Items	Power / hot water / water / heat / gas
Communication method	DCPLC, RS-485	
Applied standard	IEC 62053-21 / IEC, 62052-11 / KSC, IEC 62053-21	
Certification	Machinery & Electricity · Electronics Test	
Material	Base	Flame retardant PC
	Main cover	Polycarbonate (PC)
Size	113 x 129 x 56	

CNM-34080/34120-H(Right-left type)



Technical specification

Structure type	CNM-34080-H	CNM-34120-H
Phase and wire system	3-phase, 4 wire system	
Connection type	Right-left connection type	
Rating	AC 220V 80(20)A 60Hz	AC 220V 120(30)A 60Hz
Instrument class	Level 1.0 (Error range: $\pm 1.0\%$)	
Calibrating constant	250pulse/kWh	
Measuring items	Two-way power transmission · receiving active power	
Display	Type	7 Segment, 6 Digit
	Items	Power / hot water / water / heat / gas
Communication method	DCPLC, RS-485	
Applied standard	IEC 62053-21 / IEC, 62052-11 / KSC, IEC 62053-21	
Certification	Machinery & Electricity · Electronics Test	
Material	Base	Flame retardant PC
	Main cover	Polycarbonate (PC)
Size	129 x 113 x 56	



※ During installation, power transmission and receiving may be changed according to wire connection direction. So please refer to the wire connection direction of neutral line (N), load line (L) and S, L connection direction on the side of product.

3-phase, 4 wire system

CNM-340051



Technical specification

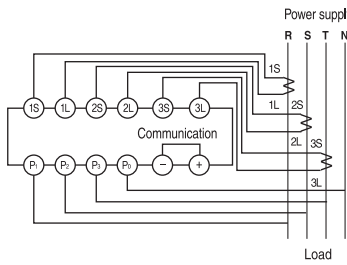
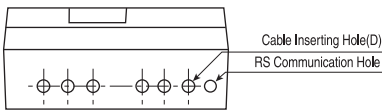
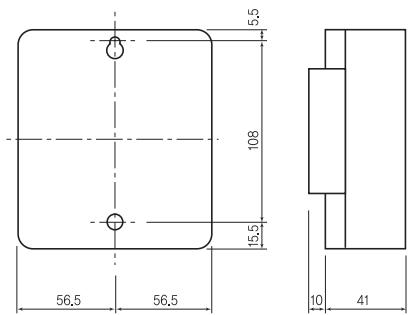
Structure type	CNM-340051	
Phase and wire system	3-phase, 4 wire system	
Connection type	Top and bottom connection type	
Rating	AC 110V/190V 5(2.5)A 60Hz	
Instrument class	Level 1.0 (Error range: $\pm 1.0\%$)	
Calibrating constant	1,000pulse/kWh	
Measuring items	Two-way power transmission · receiving active power	
Display	Type	7 Segment, 6 Digit
	Items	Power / hot water / water / heat / gas
Communication method	DCPLC, RS-485	
Applied standard	IEC 62053-21 / IEC, 62052-11 / KSC, IEC 62053-21	
Certification	Machinery & Electricity · Electronics Test	
Material	Base	Flame retardant PC
	Main cover	Polycarbonate (PC)
Size	113 x 129 x 51	

CNM-340052



Technical specification

Structure type	CNM-340052	
Phase and wire system	3-phase, 4 wire system	
Connection type	Top and bottom connection type	
Rating	AC 220V/380V 5(2.5)A 60Hz	
Instrument class	Level 1.0 (Error range: $\pm 1.0\%$)	
Calibrating constant	1,000pulse/kWh	
Measuring items	Two-way power transmission · receiving active power	
Display	Type	7 Segment, 6 Digit
	Items	Power / hot water / water / heat / gas
Communication method	DCPLC, RS-485	
Applied standard	IEC 62053-21 / IEC, 62052-11 / KSC, IEC 62053-21	
Certification	Machinery & Electricity · Electronics Test	
Material	Base	Flame retardant PC
	Main cover	Polycarbonate (PC)
Size	113 x 129 x 51	



Remote Meter Reading Central Control System

Electricity meter for remote meter reading

- Central control system for billing and administration, establishing DB of amount of use from energy (electricity, water, hot water, heat, meters, standby) meters of each house
- Composition : Meter reading computer and peripheral equipment, Central control system operation S/W (remote meter reading server software)

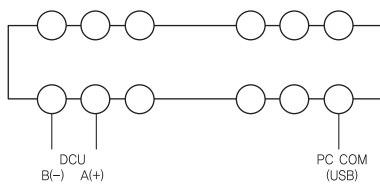


Program Configuration

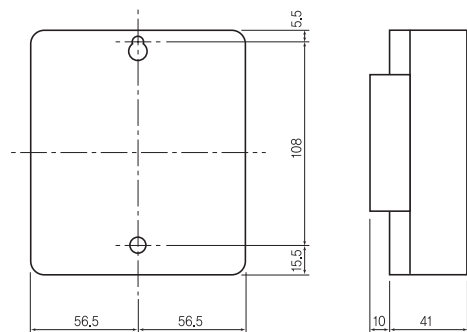
- Meter reading : Electricity meter reading in each house and establishment of DB
- Statistical data : Analysis of data per each house and building (per period, month, day and time slot)
- System error checking : Errors of DCU and TCU, Errors of each digital meter
- Output : EXCEL file, print
- Linkage : Home network, Data transmission to each energy supply company
- Generation of base data of billing in the link with billing company and transmission

※ Above description is subject to change depending on manufacturing company.
In case of specification change, products of equivalent or higher specification are to be supplied.
- Additional items besides scope of system supply (Window OS, remote meter reading SW) are to be discussed in advance.

Interface Unit



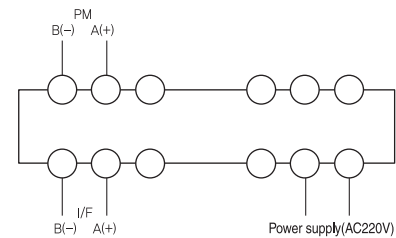
Interface Unit		
Function		
	Data transmission between central control system and DCU	
	Link to DCU	
	Data transmission function	
	LED display of communication condition	
Specification		
Communication	Central control system and communication	USB or RS-232
	DCU and communication	RS-485(1200~9600bps)
	Communication distance	Max. 1.2 km
	Number of Node	Max. linkage to 256 EA



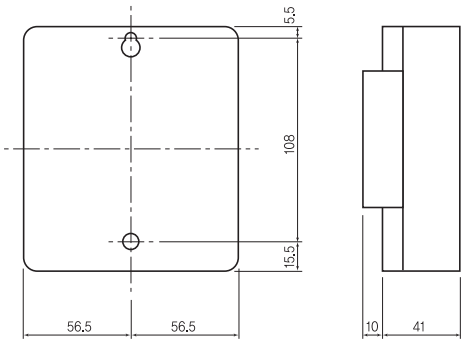
Remote Meter Reading Central Control System

DCU (Distributer Control Unit)

- DCU is a data integration equipment to store information of meters collected from communication terminals of houses and Electricity meters.

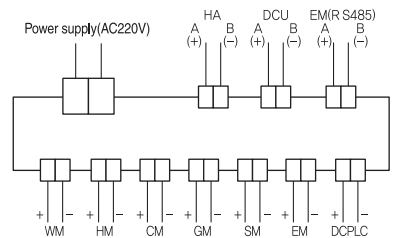


DCU		
Function		
Link to house TCU		
Data collection and storage		
LED display of communication condition		
Specification		
Communication	Communication with I/F	RS-485(1200~9600bps)
	Link to house TCU	RS-485(1200~9600bps)
	Communication distance	Max. 1.2 km
	Number of node	Max. 256 EA

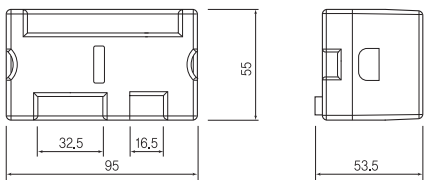


TCU (Terminal Control Unit)

- TCU is a high performance product to provide data integration equipment (DCU) real-time with information collected from Electricity meters and various equipment meters. It stores and transmits cumulative and real-time amount of use of various equipment meters including power transmission and receiving amount.



TCU		
Function		
Transmission of data of each equipment meter to Electricity meter		
Transmission of meter reading data, communicating with DCU		
Link to home network system		
Specification		
Communication	Communication with I/F	RS-485(1200~9600bps)
	Communication with each equipment meter	DCPLC(4800bps) or Pulse signal
	Communication with Electricity meter	RS-485



Remote Meter Reading Central Control System

Electricity meter for remote meter reading

Electricity meter selection criteria

Selection method	Criteria	Division		
Phase and wire system	Single-phase, 2 wire system 220V	Single-phase, 2 wire system		
	3-phase, 4 wire system(110/190V, 220/380V)	3-phase, 4 wire system		
Current capacity	Single instrument (0~120A)	40(10)A	80(20)A	120(30)A
	Transformer-attached instrument (In case of exceeding 120A)	5(2.5)A		
Installation method	Surface attachment Surface Contact	Exposed type		
	Flush attachment Back side contact	Flush type		
Preciseness	Transformer-attached instrument	Level 1.0		
	Electronic, For home use			

- 40(10)A : means max. rated current 40A and basic current 10A of the specification.
- Level 1.0 : means preciseness of within $\pm 1\%$ of error of electricity meter.
- CT(Current Transformer) and PT(Potential Transformer) of transformer-attached instrument is separately installed with electricity meter and is wire-connected, paying attention to CT polarity and PT phase.

Single Instrument Selection Criteria

Rated current (A)	Single-phase, 2 wire system 220V	3-phase, 4 wire system 220V/380V
40	Not more than 8.8kWA	Not more than 26.4kWA
80	Not more than 17.6kWA	Not more than 52.8kWA
120	Not more than 26.3kWA	Not more than 79.2kWA

- Where voltage exceeds 220V or current exceeds 120A, use transformer-attached instrument (combination of PT and CT)

Selection of wire according to rated current

Rated current (A)	Min. thickness (Dia. of element wire)	Max. thickness (Dia. of element wire)
40	8SQ(7/1.2)	14SQ(7/1.6)
80	14SQ(7/2.0)	38SQ(7/2.6)
120	38SQ(7/2.6)	60SQ(19/2.0)

- Wire is to be equal to KSC 3301 [600V vinyl insulation wire(IV)].

Electricity meter mounting case



