



# The New Future of Lightning Protection Research

K-Surge is a lightning protection company addressing damages from lightning and surge and providing total solutions such as surge protectors, surge damage analysis, and countermeasure design.



Korean Intellectual  
Property Office







We at **K-Surge** will keep our **customers safe**  
with reliable **technologies** and years of **know-how**.

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## • GREETING •

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Greetings!

It gives us great pleasure to introduce our products.

K-surge is a surge protection specialist company that provides total solutions for surge protection, surge damage, and surge design.

K-surge is ready to deal with damage caused by lightning strikes and surges and is committed to providing better-quality products and customer satisfaction.

We sincerely thank you for your kind interest and support. With your support and loyalty, we are successfully entering overseas markets.

K-surge always tries its best with a humble mind to realize your satisfaction.

Thank you.

From the entire staff of K-Surge

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# INTRODUCTION

K-Surge is a company specializing in the field of lightning protection, challenging itself with new changes based on years of extensive experience and know-how in the field of surge protection, such as designing surge protection solutions and manufacturing surge protectors, and constantly striving for customer satisfaction.

<b>2008</b> <b>Jul.</b> Established K-Surge <b>Nov.</b> Designated as a Venture Company	<b>2009</b> <b>Jan.</b> 4 test reports released for surge protectors <b>Apr.</b> Registered the factory <b>May.</b> Approved for 3 CE certificates <b>Jun.</b> Patent registration no. 10-0906305 (Device for preventing surge voltage for bidirectional suppression)  Patent registration no. 10-0906304 (Leak current-isolating control device of the surge voltage-protecting circuit) <b>Sep.</b> Quality management certified (ISO 9001)	<b>2010</b> <b>Apr.</b> Dedicated corporate lab certified <b>May.</b> Standard test reporting certified (40kA) by Korea Land & Housing Corporation  Approved for 3 CE certificates (3-phase parallel, Single-phase serial, Single-phase parallel for power supply) <b>Jun.</b> Designated as supplier for the Industry-Academe Joint Technology Development Project of SMB Administration <b>Jul.</b> Quality management certified (ISO14001) <b>Oct.</b> Standard test reporting certified (80kA) by Korea Land & Housing Corporation	<b>2011</b> <b>Jan.</b> Patent registration no. 10-1013244 (Surge voltage-preventing system non-grounding pedigree) <b>Aug.</b> Performance certified (Signal/Telecom Line) <b>Nov.</b> Performance certified (Power Line)  <b>2012</b> <b>Aug.</b> Certified as INNO-BIZ company Certified as Venture Company	<b>2013</b> <b>Sep.</b> Commenced construction of the main office and factory  <b>2014</b> <b>Jan.</b> Registered as Family Company of the Korea Electrotechnology Research Institute <b>Jun.</b> Completed construction, moved to the new building <b>Jul.</b> Patent registration no. 10-1422420 Patent registration no. 10-1425269 <b>Aug.</b> Established K-surge, Inc. <b>Nov.</b> Awarded the Bronze medal for Smart Power Supply at the Korea Water Technology Competition by K-Water Certified as a Benefit-Sharing Partner by K-Water	<b>2015</b> <b>Jan.</b> Patent registration no. 10-1481061 <b>Jul.</b> KS-certified (3-phase 4 wires, 3-phase 3 wires, Single phase for power supply)  <b>2016</b> <b>Jan.</b> Designated as Family Company of the Korea Electrotechnology Research Institute <b>Mar.</b> Approved for 4 CE certificates (Power Line) <b>May.</b> KS-certified (Power L 3-phase 4 wires, Power L 3-phase 4 wires in 40Ka) <b>Sep.</b> Awarded for Technology Innovation at the Water Management Symposium (by the Environment Times, Korea Environmental Industry & Technology Institute)	<b>2017</b> <b>Feb.</b> Awarded for Excellence in Water Management at the Water Management Symposium (by the Environment Times, Water Newspaper, K-Water) <b>Jul.</b> ISO certification (ISO 9001) Patent registration no. 10-1736675 <b>Dec.</b> Certified as a Benefit-Sharing Partner by K-Water  Awarded a commendation by the Ministry of SMEs and Startups	<b>2018</b> <b>May.</b> Approved for 4 CE certificates (Power supply) <b>Jun.</b> Designated as a Global Excellence Company at the Global Innovation Contest (University of Texas in Austin) <b>Jul.</b> Approved for 2 CE certificates (Signal/Telecom Line) <b>Sep.</b> Designated as a Venture start-up innovation procurement product by the Public Procurement Service	<b>2019</b> <b>Mar.</b> Designated as Excellent Water Technology at the Water Technology Competition by K-Water <b>Apr.</b> Operated a booth at the International Electrical Equipment and Security Systems Expo in Poland - Top award in all areas - 1st place in telecommunications technology (for Signal/Telecom line) - 2nd place in telecommunications technology (for LAN line) - Telecommunications Association Award Winner (for Power line) - Telecommunications Association Award Winner (for Signal/Telecom line) <b>May.</b> Designated as Pilot Supplier by K-Water <b>Nov.</b> Patent registration no. 10-2042379	<b>2020</b> <b>Nov.</b> CE certificate (LAN Line)  <b>2022</b> <b>Feb.</b> CE certificate(Power Line) <b>May.</b> CE certificate(Power Line) <b>Sep.</b> Designated as G-PASS company by the Public Procurement Service
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# VISION

K-surge is a lightning protection company addressing damages from lightning and surge and providing total solutions such as surge protectors, surge damage analysis, and countermeasure design.



## Manufacture of surge protector

Surge protectors from K-surge combine years of know-how and technologies and boast of high quality and perfect protection performance as well as thorough safety system and surge information.

Our products provide perfect protection to critical facilities to ensure stability and management efficiency.



## Surge damage analysis

K-surge's technical teams have extensive experience and accumulated know-how, and they are making every effort to satisfy customers with complete surge damage analysis and alternatives.



## Design of countermeasures addressing surge damage

K-surge will do its best to satisfy customers by minimizing surge damage through bold process innovations and endless customer services.

Find your future with  
**K-surge**



POWER LINE SURGE PROTECTOR

SPD Type	Class	Surge Current	Phase/Wire	Voltage(DC V)	Connection	Model	Function		
Special I	I	limp 12.5kA	3P 4W	380	Parallel	KOP-B-20KI-KS(S1)	Surge Counter, Rated voltage, Individual leakage current display		
		limp 20kA	1P 2W	220		KOP-A-20KI-KS(S1)			
	II	In 40kA	3P 4W	380		KOP-B-500K-KS(S1)			
		In 20kA	3P 4W	380		KOP-B-400K-KS(S1)			
			1P 2W	220		KOP-A-240K-KS(S1)			
			III	Uoc 20KV /10kA		3P 4W		380	KOP-B-400K(S1)
	3P 3W	KOP-B-360K(S1)							
	1P 2W	220			Parallel / Serial	KOP-A-360K(S1)			
						KOP-A-320K(S1)			
			KOP-A-240K(S1)						
Special II	I	limp 50kA	3P 4W	380	Parallel	KOP-B-50KI(S2)	Surge event display, power quality analysis display (over voltage/under voltage events), Rated voltage, Individual leakage current display, Temperature display, Hourmeter, Communication function (RS485, Ethernet, Bluetooth)		
		limp 12.5kA				KOP-B-20KI-KS(S2)			
		limp 50kA	1P 2W	220		KOP-A-50KI(S2)			
		limp 20kA				KOP-A-20KI-KS(S2)			
	II	In 40kA	3P 4W	380		KOP-B-500K-KS(S2)			
		In 20kA	3P 4W			KOP-B-400K-KS(S2)			
			1P 2W	220		KOP-A-240K-KS(S2)			
			III	Uoc 20KV /10kA		3P 4W		380	KOP-B-400K(S2)
	3P 3W	KOP-B-360K(S2)							
	1P 2W	220			Parallel / Serial	KOP-A-360K(S2)			
						KOP-A-320K(S2)			
						KOP-A-240K(S2)			
	Special III	II			In 40kA	3P 4W		380	Parallel
Normal	II	In 40kA	3P 4W	380	Parallel	KOP-D-80P	Lamp and buzzer for normal or abnormal state check		
		In 20kA				KOP-D-40P			
		In 40kA	1P 2W	220		KOP-C-80P			
		In 20kA				KOP-C-40P			

SIGNAL/TELECOM LINE SURGE PROTECTOR

Wire	Voltage(DC V)	Surge Current Capacity	Display	Model	Application
2	5	100kA	Counter-Type / General-Type	KOS-A-5DC	4-20 mA Analog Signal Line, RS485, F-net Telecom Line, Load cell, Data Line, ADSL Modem Surge Protection
	12			KOS-A-12DC	
	24			KOS-A-24DC	
	185			KOS-A-185DC	
3	5	150kA		KOS-C-5DC	RTD, RS232 Surge Protection
	24			KOS-C-24DC	
4	12	200kA		KOS-B-12DC	RS422, Dedicated Line Modem Surge Protection
	48			KOS-B-48DC	

LAN LINE SURGE PROTECTORS

Wire	Voltage[DC V]	Surge Current Capacity	Display	Model	Application
1	48	150kA	Counter-Type / General-Type	KOX-A-48DC-E100	POE, 10/100 BASE Cat.5
		200kA		KOX-A-48DC-E1000	10/1000 BASE Cat.6

COAXIAL SURGE PROTECTORS

Wire	Voltage[DC V]	Surge Current Capacity	Display	Model	Application
1	24	50kA	General-Type	KOX-A-24DC	Antenna, RF Communication
	48			KOX-A-48DC	



# PRODUCT DESCRIPTION

- Power Line Surge Protector Special I Type
- Power Line Surge Protector Special II Type
- Power Line Surge Protector Special III Type
- Power Line Surge Protector Power Meter
- Power Line Surge Protector Normal Type

- Signal/Telecom Line Surge Protector 2-Wire Type
- Signal/Telecom Line Surge Protector 3,4-Wire Type
- LAN/Coaxial Surge Protectors
- Integrated Surge Protector
- Hourmeter

Power Line SPD

Signal/Telecom  
SPD

LAN/ Coaxial  
SPD

Power+LAN Integrated  
Surge Protector

Program

## [SP I TYPE] POWER LINE SPECIAL-TYPE SPD



RS485

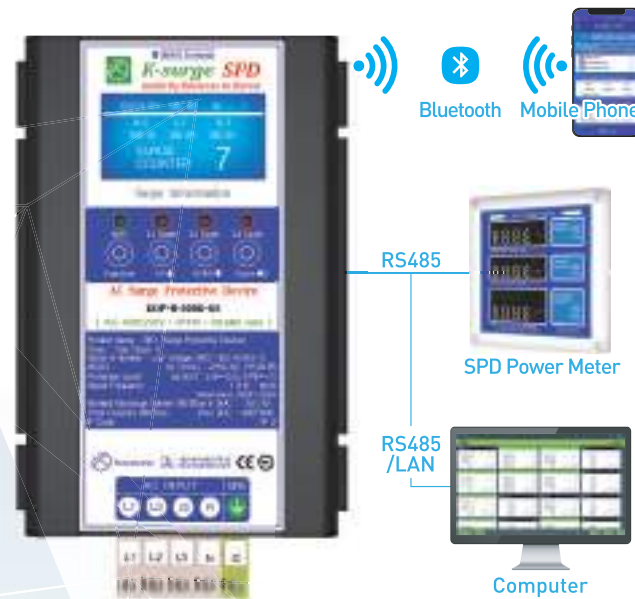


SPD Power Meter

Function	<ul style="list-style-type: none"><li>Surge Counter</li><li>Rated voltage (3-phase: R-S, S-T, R-T/single-phase: L-N, L-G N-G), Individual leakage current display (L1, L2, L3 Mode)</li><li>External display connected (RS485 data transmitted)</li></ul>	
Specification	Voltage	AC 460V / 440V / 380V / 220V / 110V DC 600V / 440V / 380V / 200V
	Type	3-Phase 4-Wire / 3-Phase 3-Wire Single-Phase 2-Wire (Serial/Parallel)
	Capacity	800KA / 500KA / 400KA / 360KA / 320KA / 240KA Total
Feature	<ul style="list-style-type: none"><li>CE certificate, KS certificate, Patents</li><li>High-performance, high-capacity SPD (Total 800, 500, 400, 360, 320, 240kA)</li><li>Full mode protection (Line-Neutral, Line-Ground, Line-Line)</li><li>Performance in compliance with KS C IEC 61643-11</li><li>Surge counter memory (non-volatile)</li><li>Surge protector diagnosis (leakage current measurement by phase, failure indicator, buzzer)</li><li>Dual safety design (current &amp; thermal fuse)</li><li>Rated voltage measurement (3-phase: R-S, S-T, R-T/single-phase: L-N, L-G N-G)</li><li>Communication function (RS485)</li><li>Surge protection external display (SPD Power Meter)(optional)</li><li>Aluminum case for proven safety against surge protector failure</li></ul>	

## PRODUCT DESCRIPTION

### [SP II TYPE] POWER LINE SPECIAL-TYPE SPD



#### Function

- Surge event display, Power quality analysis display (over voltage/under voltage events)
- Rated voltage (3-phase: R-S, S-T, R-T/single-phase: L-N, L-G N-G)
- Individual leakage current display
- External display connected (RS485 data transmitted)/RS485, Ethernet, Mobile app (Bluetooth)

#### Specification

Voltage	AC 460V / 440V / 380V / 220V / 110V DC 600V / 440V / 380V / 200V
Type	3-Phase 4-Wire / 3-Phase 3-Wire Single-Phase 2-Wire (Serial/Parallel)
Capacity	800KA / 500KA / 400KA / 360KA / 320KA / 240KA Total

#### Feature

- CE certificate, KS certificate, Patents
- High-performance, High-capacity SPD (Total 800, 500, 400, 360, 320, 240kA)
- Full mode protection (Line-Neutral, Line-Ground, Line-Line)
- Performance in compliance with KS C IEC 61643-11
- Surge counter, Over voltage counter, Under voltage counter memory (non-volatile)
- Surge protector diagnosis (Leakage current measurement by phase, Failure indicator, Buzzer)
- Dual safety design (current & thermal fuse)
- Hourmeter (1/10 h) recording and temperature measurement
- Rated voltage measurement (3-phase: R-S, S-T, R-T/single-phase: L-N, L-G N-G)
- Communication function (RS485, Ethernet, Bluetooth)
- Surge Protector information Display (PD Power Meter) (optional)
- Aluminum case for proven safety against surge protector failure

### [SP III TYPE] POWER LINE SPECIAL-TYPE SPD



#### Function

- Surge event display, Power quality analysis display (over voltage/under voltage events)
- Rated voltage display (R-S, S-T, R-T/L-N, L-G, N-G), Individual leakage current display (L1, L2, L3 Mode)
- Rated current display (R, S, T, Z), Power quality display
- External display connected (RS485 data transmitted)/RS485, Ethernet, Mobile app (Bluetooth)

#### Specification

Voltage	AC 440V / 380V / 220V / 110V
Type	3-Phase 4-Wire/3-Phase 3-Wire Single-Phase 2-Wire (Serial/Parallel)
Capacity	800KA / 500KA / 400KA / 360KA / 320KA / 240KA Total

#### Feature

- CE certificate, KS certificate, Patents
- High-performance, High-capacity SPD
- Full mode protection (Line-Neutral, Line-Ground, Line-Line)
- Performance in compliance with KS C IEC 61643-11
- Surge counter, Over voltage counter, Under voltage counter memory (non-volatile)
- Surge protector diagnosis (Leakage current measurement by phase, Failure indicator, Buzzer)
- Dual safety design (current & thermal fuse)
- Hourmeter (1/10 h) recording and temperature measurement
- Rated voltage measurement(R-S, S-T, R-T, R-N, S-N, T-N), Rated current Measurement(R, S, T, Z)
- Rated current measurement Power quality measurement(Active power, Reactive power, Apparent power, Power factor, Integrated power, ...)
- Communication function (RS485, Ethernet, Bluetooth)
- Surge Protector information Display (PD Power Meter) (optional)
- Aluminum case for proven safety against surge protector failure



PRODUCT DESCRIPTION

[SPD POWER METER] SURGE PROTECTOR INFORMATION DISPLAY



Specification	Voltage	9 ~ 24 DC		
	Type	Slim type / External -bolt panel mounting type		
	Communication	Connect the surge protector to the RS485 communication wire		
Feature	<ul style="list-style-type: none"><li>· Applicable device - Power Line Surge Protector Special I, II, III Type/ Communication function (RS485)</li><li>· Slim type - easy external installation due to simple power communication connection</li></ul>			
	Special I Type	Special II Type	Special III Type	
Voltage display	3-phase R-S, S-T, R-T Single-phase L-N, L-G, N-G	3-phase R-S, S-T, R-T Single-phase L-N, L-G, N-G	3-phase R-S, S-T, R-T, R-N, S-N, T-N/ Single-phase L-N, L-G, N-G	
Current & Leakage current display	Leakage current display R, S, T	Leakage current display R, S, T	Leakage current display R, S, T Rated current display R, S, T, Z	
Surge & power quality indication	Surge counter	Surge counter Over voltage counter Under voltage counter SPD temperature	Active power, Reactive power, Apparent power, Power factor, Integrated power, SPD temperature, Surge counter, Over voltage counter, Under voltage counter	
Purpose	<ul style="list-style-type: none"><li>· Device that displays the information of the Power Line Surge Protector Special Type (I, II, III)</li></ul>			

[SPD NORMAL TYPE] POWER LINE NORMAL-TYPE SPD



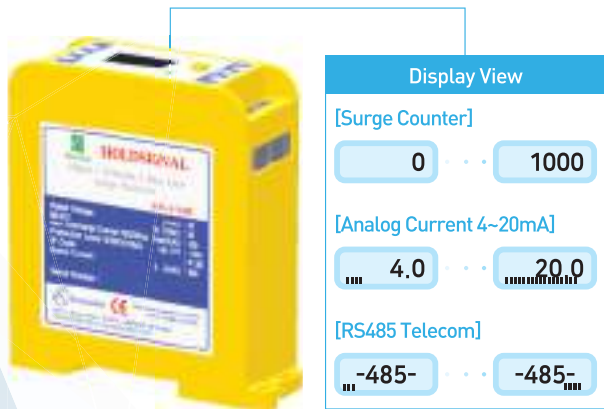
Specification	Voltage	AC 460V / 440V / 380V / 220V / 110V DC 600V / 440V / 380V / 200V
	Type	3-Phase 4-Wire / 3-Phase 3-Wire Single-Phase 2-Wire (Parallel)
	Capacity	40kA - mode / 80kA - mode

Feature	<ul style="list-style-type: none"><li>· CE-certified product</li><li>· High-performance, High-capacity SPD [40kA - mode / 80kA - mode]</li><li>· Full mode protection [Line-Neutral, Line-Ground, Line-Line] - &lt;For Class I, II&gt;</li><li>· Performance in compliance with KS C IEC standard</li><li>· Dual safety design [Current &amp; Thermal fuse]</li><li>· Lamp and buzzer for normal or abnormal state check</li><li>· Steel case for proven safety against surge protector failure</li></ul>
	<ul style="list-style-type: none"><li>· Distribution ACB 2nd Panel, Distribution 1st Panel, Distribution 2nd Panel, UPS input-output, Instrument power</li><li>· [Flowmeter, Water gauge, Electronic scale etc.], Actuator power, Other device power</li></ul>

Purpose	
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PRODUCT DESCRIPTION

[2-WIRE SIGNAL / TELECOM LINE] SIGNAL/TELECOM COUNTER-TYPE SPD



Function	· Surge counter (battery-type counter, Battery life ≥ 10 years, replaceable)	
	· 4~20 mA analog signal display (easy-to-inspect and easy-to-maintain)	
Specification	· Communication status display (easy-to-inspect and easy-to-maintain)	
Specification	Voltage	DC 185V/ 48V/ 24V/ 12V /5V
	Type	Signal/Telecom Line 2-Wire Type (Serial)
	Capacity	100kA - total / 50kA - mode
Feature	· Jointly developed with K-Water	
	· CE certificate, Patented [No. 10-1736675]	
Feature	· Achievement sharing system certified, 2018 Korea Invention Competition Award, 2019 Water Industry Technology Competition Award	
	· Performance in compliance with KS C IEC standard	
Feature	· [When 20 kV/10 kA (Voltage 1.2/50μs, Current 8/20μs) is applied, within 150V-300V]	
	· High surge capacity - 100 kA in all, the highest in the world	
Feature	· Indicator function - first in the world, Domestically patented	
	· [Surge counter, Analog signal detection, Communication state detection, Battery life - 10 years, Replaceable]	
Feature	· Quadruple hybrid design - first in the world	
	· Reverse surge protection - first in the world	
Feature	· Fastening by DIN-rail or Bolt	
	· Flame Retardant ABS casenal	
Purpose	· 4~20 mA Analog Signal Line, RS485, F-net Telecom Line, Load cell, Data Line, ADSL Modem Surge Protection	

[3,4-WIRE SIGNAL/TELECOM LINE] SIGNAL/TELECOM COUNTER-TYPE SPD



Specification	Voltage	DC 185V / 48V / 24V / 12V / 5V
	Type	Signal/Telecom Line 3, 4-Wire Type (Serial)
	Capacity	[3-Wire Type] 150kA - total / 50kA - mode [4-Wire Type] 200kA - total / 50kA - mode
Feature	· CE-certified, Patented	
	· Performance in compliance with KS C IEC standard	
Feature	· [When 20 kV/10 kA (Voltage 1.2/50μs, Current 8/20μs) is applied, within 150V-300V]	
	· High surge capacity - 200 kA/150 kA in all, the highest in the world	
Feature	· LCD surge counter	
	· [Battery life ≥ 10 years, Replaceable]	
Feature	· Quadruple hybrid design - first in the world Reverse surge protection - first in the world	
	· Fastening by DIN-rail or Bolt	
Feature	· Flame-retardant ABS case	
Purpose	· 3-Wire type: RTD (Resistance Temperature Detector), RS232, etc.	
	· 4-Wire type: RS422, Dedicated Line Modem Surge Protection	



## SIGNAL/TELECOM LINE

### [SIGNAL/TELECOM COUNTER-TYPE SPD]

#### Failure suspected?

Complex processes  
High cost, low efficiency

1. Disconnect the surge protector.
2. Diagnose the surge protector.
3. Check the cable connections.
4. Connect the instrument or computer.
5. Check the operation status of signal communication.



Complicated procedures



#### Improvement! Easier and faster check

Simple steps  
Low cost, better efficiency

**Just press the button!**

Smart surge protector  
with easy and simple signal communication check



Display of 4 to 20 Ma



Communication  
status information

Simple procedures

### [HUGE IMPROVEMENT - TIME FOR EQUIPMENT CHECK]

General SPD : Fault check time

Approx. 3 hours



measuring  
instrument



SPD

Need to remove SPD  
and inefficiency



SPD



PLC

Hard Check



K-surge SPD : Fault check time

Just 3 minutes!



measuring  
instrument



SPD Self-Diagnosis  
/ Efficiency!



SPD



PLC

Easy Check



PRODUCT DESCRIPTION

[LAN RJ45 TYPE]



Specification	Voltage	DC 48V
	Type	LAN Line RJ45 Type
	Capacity	[10/100] 150kA - total / 25kA - mode [10/1000] 200kA - total /25kA - mode

- Feature**
- CE-certified, Patented
  - Performance in compliance with KS C IEC standard
  - [When 10 kV/5 kA (Voltage 1.2/50 μs, Current 8/20 μs) is applied, within 150 V]
  - High surge capacity - 150 kA/200kA in all, the highest in the world
  - RJ45 Jack
  - LCD surge counter [Battery life ≥ 10 years, replaceable]
  - Aluminum case
  - 1 → 10/100 BASE Cat.5
  - 2 → 10/1000 BASE Cat.6

**Purpose** Ethernet, LAN, F-NET, CCTV Data transmission line protection

[COAXIAL BNC TYPE]



Specification	Voltage	DC 24V / 5V
	Type	Coaxial (Serial)
	Capacity	50kA - total / 25kA - mode

- Feature**
- CE-certified, Patented
  - Performance in compliance with IEC standard
  - [When 20 kV/10 kA (Voltage 1.2/50 μs, Current 8/20 μs) is applied, Within 150 V]
  - High surge capacity - 50 kA in all, the highest in the world
  - Reverse surge protection - first in the world
  - BNC Connector
  - Aluminum case

**Purpose** · CCTV/DVR Video Line, Ultrasonic Flowmeter Line, Wireless Antenna, etc.



## PRODUCT DESCRIPTION

### [INTEGRATED SURGE PROTECTOR]

#### POWER+LAN INTEGRATED SURGE PROTECTOR FOR CCTV [POWER LINE+LAN]



##### Integrated configuration of surge protection

Power line surge protection	Connectable to the terminal block
LAN surge protection	Connectable to the RJ45 Connector

Specification	Voltage	Power Line : AC 220V / LAN : DC 48V
	Type	Power(terminal block) + LAN(RJ45) type
	Capacity	Power Line : 40kA - mode LAN : 150kA - total, 25kA - mode
Feature		<ul style="list-style-type: none"><li>Power+LAN integrated product that can provide surge protection at low cost (low cost, High efficiency)</li><li>Installation in small space (easy-to-install)</li><li>Performance in compliance with KS C IEC standard<ul style="list-style-type: none"><li>Power: When 20kV/10kA (Voltage 1.2/50 <math>\mu</math>s, Current 8/20 <math>\mu</math>s) is applied within 2.5kV</li><li>LAN: When 10kV/5kA (Voltage 1.2/50 <math>\mu</math>s, Current 8/20 <math>\mu</math>s) is applied, within 150V</li></ul></li><li>Safety design [Thermal fuse]</li><li>Lamp and buzzer for normal or abnormal state check</li><li>Aluminum case for proven safety against surge protector failure</li></ul>
Purpose	Power line for CCTV protection, LAN line integrated protection	

### [HOURMETER]

#### ELECTRONIC RS485 COMMUNICATION TYPE



Specification	Voltage	AC 90V ~ 240V
	Type	RS 485 Communication
	Feature	Unable to carry out manual or re- mote initialization, which can be used for meter reading and verification
Feature		<ul style="list-style-type: none"><li>Record hour meter operating time</li><li>Check data of hour meter operating time in remote location (RS485 communication)</li><li>Save cumulative data during blackout</li><li>FND display with good visibility</li><li>Aluminum case with good durability</li><li>Display - 000.0 (1/10 h)</li><li>* 0.1 up every 6 minutes- Aluminum case</li></ul>
Purpose	<ul style="list-style-type: none"><li>Device operating hour check for maintenance and replacement</li><li>Verification during blackout</li><li>Verification for AS and product warranty</li></ul>	

## PRODUCT PROGRAM

### SPD MONITORING PROGRAM (PC)



#### Feature

- Graph of voltage fluctuations over the last 60 seconds
- Display of voltage at each phase
- Display of surge protector leak current and temperatures
- Display of current time and operating time (hour meter) of SPD
- Display of alarm and external input status
- Display of last five of surge count items
- Display of last five of overvoltage items
- Display of last five of low-voltage items
- Settings of over / under voltage (voltage and cycle)
- Settings of output signal ON/OFF
- Settings of SPD time synchronization
- Automatic SPD status report (PDF, Excel)

#### Product support monitoring program

Surge Protector for Power Supply - Special 2, 3

### SPD MONITORING MOBILE APP (BLUETOOTH)



#### Feature

- Retrieves surge event history, over and undervoltage history
- Creates SPD status report as PDF file
- Resets event history, hourmeter history
- SPD scanning (Bluetooth)
- Synchronizes the SPD date and time with smart device
- SPD communication settings (RS485, Ethernet)
- Shows SPD connection (product ID) and current status
- Displays current voltage and leak current of SPD
- Displays hourmeter / SPD temperature / SPD time

Search on Google Play with: ksurgesp

#### Product support monitoring program

Products with mobile application support :  
Surge Protector for Power Supply - Special 2, 3



# CUSTOMER SUPPLIED

## - CUSTOMERS IN KOREA



- |                              |                             |
|------------------------------|-----------------------------|
| - Paldang Office             | - Jeongeup Office           |
| - Northwest Gyeonggi Office  | - Southwest Jeonnam Office  |
| - Northeast Gyeonggi Office  | - Yeosu Office              |
| - Southwest Gyeonggi Office  | - Northern Jeonnam Office   |
| - Southeast Gyeonggi Office  | - Central Jeonnam Office    |
| - Hwaseong Office            | - Dongwha Office            |
| - Taebaek Office             | - Wando Water Supply Office |
| - Hwaseong & Wonju Office    | - Naju Water Supply Office  |
| - Chungju Office             | - Seomjingang Dam           |
| - Ara Waterway               | - Andong Office             |
| - Yeoncheon & Pocheon Office | - Cheongsong Office         |
| - Asan Office                | - Gumi Office               |
| - Seosan Office              | - Pohang Office             |
| - Cheonan Office             | - Goryeong Office           |
| - Cheongju Office            | - Weolsan Office            |
| - Daechong Dam Office        | - Miryang Office            |
| - Boryeong Office            | - Changwon Office           |
| - Geumsan Office             | - Namgang Dam Office        |
| - Jeonju Office              | - South Gyeongnam Office    |
| - Buan Office                | - Geoje Office              |



- |  |   |
|--|---|
| <b>- Gyeonggi Regional Headquarters</b>  | Hwaseong Suwon, Paju, Goyang, Gimpo, Yeosu Icheon, Pyeongtaek, Anseong, Yeoncheon Pocheon Gapyeong, Ganghwa Ongjin, Yangpyeong, Gwangju Seoul Branch  |
| <b>- Chungnam Regional Headquarters</b>  | Asan, Seosan Taeae, Yesan, Dangjin, Boryeong, Seochon, Hongseong, Nonsan, Buyeo, Cheongyang, Cheonan, Gongju, Sejong Daejeon Geumsan Branch   |
| <b>- Jeonbuk Regional Headquarters</b>   | Dongjin, Buan, Gochang, Jeongeup, Namwon, Sunchang, Mujinjang, Gunsan, Iksan, Jeonju Wanjimjang Office Branch   |
| <b>- Jeonnam Regional Headquarters</b>   | Gwangju, Damyang, Hwasun, Hampyeong, Jangseong, Naju, Muanshin, Yeonggwang, Haenam Wando, Yeongam, Jindo, Suncheon Gwangyang Yeosu, Gokseong, Gurye, Goheung, Boseong, Jangheung, Gangjin Branch                                |
| <b>- Gangwon Regional Headquarters</b>   | Hongcheonchuncheon, Wonju, Gangneung, Yeonbuk, Cheorwon Branch  |
| <b>- Chungbuk Regional Headquarters</b>  | Cheongju, Boeun, Okcheonyeong-dong, Jincheon, Goesan Jeungpyeong, Eumseong, Chungju. Jecheon Danyang Branch   |
| <b>- Gyeongbuk Regional Headquarters</b> | Pohang Ulleung, Gyeongju, Andong, Gumi Gimcheon, Yeongju Bonghwa, Yeongcheon, Sangju, Mungyeong, Gyeongsan Cheongdo, Uiseong Gunwi, Cheongsong Nutrition, Yeongdeok Ullin, Goryeong, Seongju, Chilgok, Yecheon, Dalseong Branch |
| <b>- Gyeongnam Regional Headquarters</b> | Uiryeong, Changnyeong, Geochang Hamyang, Hapcheon, Hadong Namhae, Jinju Sancheong, Sacheon, Haman, Changwon, Goseong Tongyeongje, Gimhae Yangsan Busan, Ulsan, Miryang Branch   |



### Gyeonggi-do

Suwon, Seongnam, Uijeongbu, Anyang, Bucheon, Gwangmyeong, Pyeongtaek, Dongducheon, Ansan, Goyang, Gwacheon, Guri, Namyangju, Osan, Siheung, Gunpo, Uiwang, Hanam, Yongin, Paju, Icheon, Anseong, Gimpo, Hwaseong, Gwangju, Yangju, Pocheon, Yeosu, Yeoncheon, Yeoncheon, Gapyeong, Yangpyeong

### Chungcheongbuk-do

Cheongju, Chungju, Jecheon, Boeun, Okcheon, Yeongdong, Jeungpyeong, Jincheon, Goesan, Eumseong, Danyang

### Jeollabuk-do

Jeonju, Gunsan, Iksan, Jeongeup, Namwon, Gimje, Wanju, Jinan, Muju, Jangsu, Imsil, Sunchang, Gochang, Buan

### Jeollanam-do

Mokpo, Yeosu, Suncheon, Naju, Gwangyang, Damyang, Gokseong, Gurye, Goheung, Boseong, Hwasun, Jangheung, Gangjin, Haenam, Yeongam, Muan, Hampyeong, Yeonggwang, Jangseong, Wando, Jindo, Shinan

### Gangwon-do

Chuncheon, Wonju, Gangneung, Donghae, Taebaek, Sokcho, Samcheok, Hongcheon, Hoengseong, Yeongwol, Pyeongchang, Jeongseon, Cheorwon, Hwacheon, Yanggu, Inje, Goseong, Yangyang

### Chungcheongnam-do

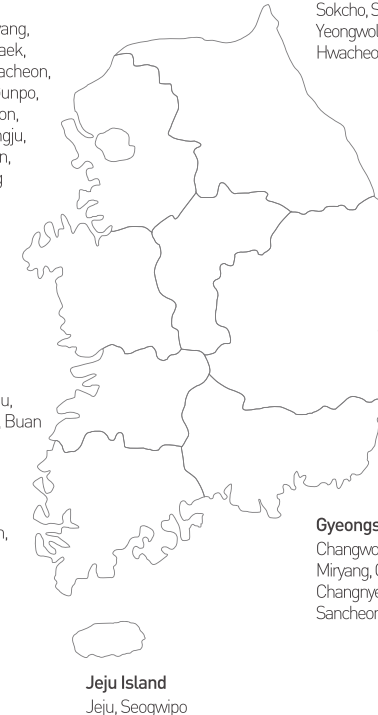
Cheonan, Gongju, Boryeong, Asan, Seosan, Nonsan, Gyeryong, Dangjin, Geumsan, Buyeo, Seochon, Cheongyang, Hongseong, Yesan, Taeae

### Gyeongsangbuk-do

Pohang, Gyeongju, Gimcheon, Andong, Gumi, Yeongju, Yeongcheon, Sangju, Mungyeong, Gyeongsan, Gunwi, Uiseong, Cheongsong, Yeongyang, Yeongdeok, Cheongdo, Goryeong, Seongju, Chilgok, Yecheon, Bonghwa, Ullin, Ulleung

### Gyeongsangnam-do

Changwon, Jinju, Tongyeong, Sacheon, Gimhae, Miryang, Geoje, Yangsan, Uiryeong, Haman, Changnyeong, Goseong, Namhae, Hadong, Sancheong, Hamyang, Geochang, and Hapcheon



Jeju Island  
Jeju, Seogwipo



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