Surge Protective Devices (SPDs)

For Residential, Commercial and Industrial Applications

ORDERING GUIDE

There are different types of surge protective devices, categorized based on the service area they protect and where they are installed. **It's important to understand how they can be layered to ensure complete surge protection.**

TYPE 1

Installed **before or at the main breaker panel**, protecting against external surges caused by instances such as lightning or utility capacitor bank switching.

TYPE 2

Providing the same protection as Type 1 but mounted to the load side of an electric service panel, these devices protect against residual lightning energy, motor driven surges and other internally generated surges. Type 2 devices can be tiered on branch circuits for additional protection.

TYPE 3

Used at the protected equipment, such as computers, gaming systems and TVs, shielding from harmful transients and acting as the last line of defense.

THE LEVITON SPD PORTFOLIO

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TYPE **1**
TYPE **2**
TYPE **3**

BUILDING A LAYERED
APPROACH TO COMPLETE
SURGE PROTECTION

2023 National Electrical Code® (NEC) Updates
230.67 Surge Protection

Article 230.67 of the 2023 National Electrical Code® (NEC) requires all services supplying dwelling units to be provided with a surge protective device (SPD), as an integral part of equipment or located immediately adjacent. The SPD must be a Type 1 or Type 2 SPD. This requirement applies to residential service equipment being replaced as well.

NEC Article: 230.67 Surge Protection

A. SURGE-PROTECTIVE DEVICE

All services supplying the following occupancies shall be provided with a surge-protective device (SPD):

1. Dwelling units
2. Dormitory units
3. Guest rooms and guest suites of hotels and motels
4. Areas of nursing homes and limited-care facilities used exclusively as patient sleeping rooms

B. LOCATION

The SPD shall be an integral part of the service equipment or shall be located immediately adjacent thereto.
    EXCEPTION:
    The SPD shall not be required to be located at the service equipment as required in 230.67(B)
    if located at each next level distribution equipment downstream toward the load.

C. TYPE

The SPD shall be a Type 1 or Type 2 SPD.

D. REPLACEMENT

Where service equipment is replaced, all of the requirements of this section shall apply.

E. RATINGS

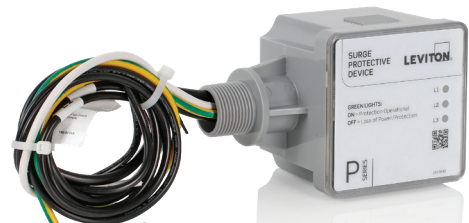SPDs shall have a nominal discharge current rating (I_n) of not less than 10kA.

TARGETED SOLUTIONS FOR COMPLIANCE

SURGE PROTECTIVE
CIRCUIT BREAKERS

R Series

P Series

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SURGE PROTECTIVE CIRCUIT BREAKERS

- Designed for easy in-panel installation, providing effective surge protection for the entire home
- An easy-to read LED indicator light displays power, protection status and remains lit, even if the breaker is off, or tripped
- ONLY for use with the Leviton Load Center

Ordering Guide: Surge Protective Circuit Breakers

Catalog Number	Description	Max Amp Rating	Voltage (AC) Configuration	Max Surge Current
LSPD1-T	(2) 1-Pole Thermal Magnetic Circuit Breakers	15A	120V / 240V	25 kA
LSPD2-T	(2) 1-Pole Thermal Magnetic Circuit Breakers	20A	120V / 240V	25 kA

Take power to new heights with the award-winning Leviton Load Center – the most intelligent circuit breaker system.

Smart Hub sold separately

Approachable
- Modern design with intuitive functionality and appealing aesthetics
- LEDs communicate trip condition and type of fault (AF/GF) and remain illuminated even when tripped.
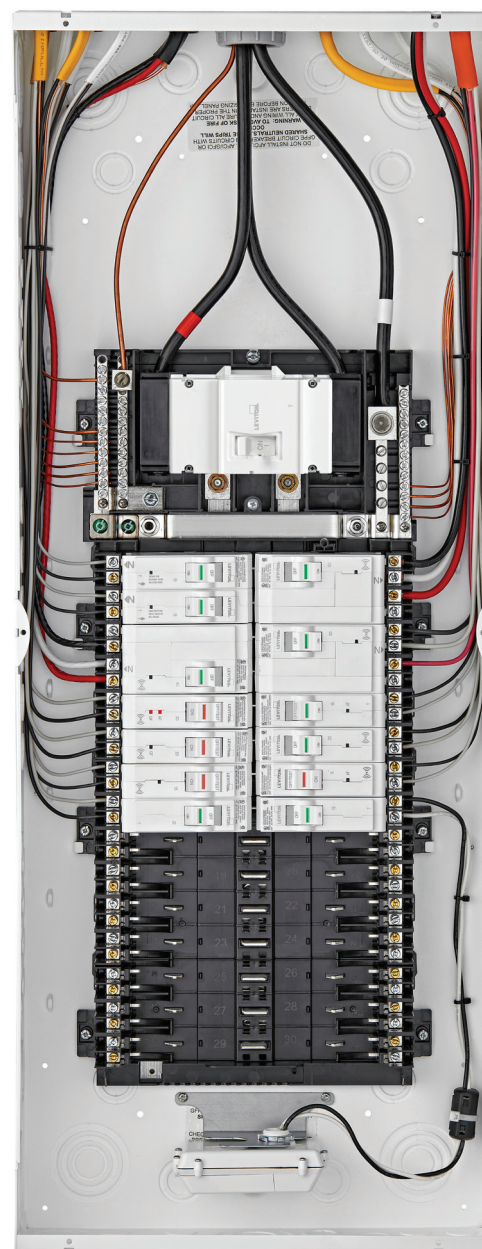
Safer
- As the first GFCI circuit breakers on the market that met the newest/May 2021 UL requirements[1], Leviton GFCIs set the bar for home safety.
- Leviton AFCI, GFCI and dual-function circuit breakers feature patented reset lockout technology, and will not reset if Ground or Arc Fault protection is compromised

Fastest Installation
- Allows for all wiring at rough-in, without any circuit breakers present[2]
- Only Fully Plug-On Breaker System (up to 60A)
- Circuit Breakers simply snap in for up to 25% faster install

1. The UL943 standard no longer exempts GFCI circuit breakers from detecting and warning when the trip solenoid and/or switching semiconductor fails in the "open" state, rendering the GFCI circuit breaker incapable of tripping in response to a fault condition, resulting in complete loss of GFCI protection. However, the effective date of this requirement is 8/11/24. Leviton GFCIs have always met the more stringent safety requirement.

2. For applications up to 60A when using copper wire; or 50A when using aluminum wire.

SURGE PROTECTIVE PANELS

SERIES DESCRIPTIONS	R SERIES	P SERIES	B SERIES	M SERIES	X SERIES
	Compact in size and easy to install; ideal for residential homes and light-use split phase systems	Ideal for residential homes and light use commercial applications	Ideal for the branch panel in commercial and industrial applications and the main panel in light commercial applications	Ideal for point-of-entry or main service entrance installations	Advanced features including surge counters and performance monitoring, designed to provide the greatest level of protection where surge damage would lead to excessive loss or downtime on expensive machinery

		R SERIES	P SERIES	B SERIES	M SERIES	X SERIES
SPECIFICATIONS	Type	**TYPE 1**	**TYPE 1**	**TYPE 2**	**TYPE 2**	**TYPE 2**
	I-nominal (I_n) Rating	10kA	20kA	20kA	20kA	20kA
	Protection Per Mode/ Per Phase	18kA/36kA	25kA/50kA	65kA/130kA	130kA/260kA	200kA/400kA
	Short Circuit Current Rating (SCCR)	200kA	200kA	200kA	200kA	200kA
	Enclosure Rating	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4	NEMA 4
FEATURES	Protection Status LED	●	●	●	●	●
	Audible Alarm		●	●	●	●
	EMI/RFI Filtering (UL 1283)			●	●	●
	LCD Screen with Surge/TOV Counter: • Event History • Statistics • Voltages …and more					●

Leviton Surge Panels

CODE COMPLIANCE:
Meet 2023 NEC Requirements

HIGH PERFORMANCE:
Leading I-nominal and short circuit current ratings

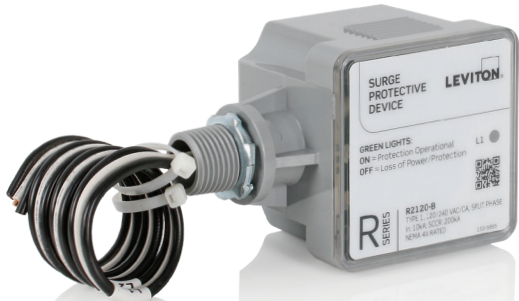**DURABLE:**
Feature NEMA 4 and 4X Ratings

SURGE PROTECTIVE PANELS

R Series Panels

Compact in size and easy to install; ideal for residential homes and light-use split phase systems

- 10kA I-nominal (I_n) Rating
- 18kA per Mode, 36kA per Phase
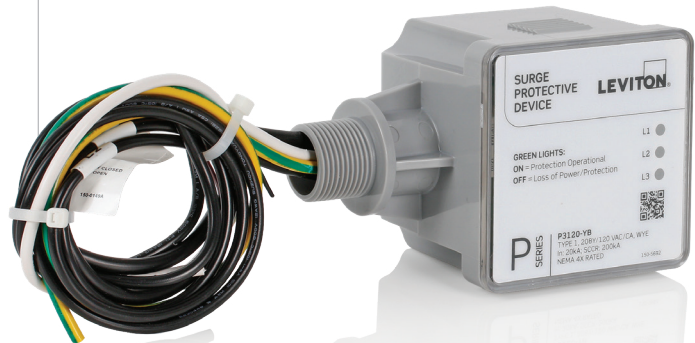- 200kA Short Circuit Current Rating (SCCR)
- NEMA 4X Enclosure

FEATURING Protection Status LED

P Series Panels

Ideal for residential homes and light use commercial applications

- 20kA I-nominal (I_n) Rating
- 25kA per Mode, 50kA per Phase
- 200kA Short Circuit Current Rating (SCCR)
- NEMA 4X Enclosure
- Three phase options available

FEATURING Protection Status LED | Audible Alarm

Ordering Guide: R & P Series Surge Protective Panels

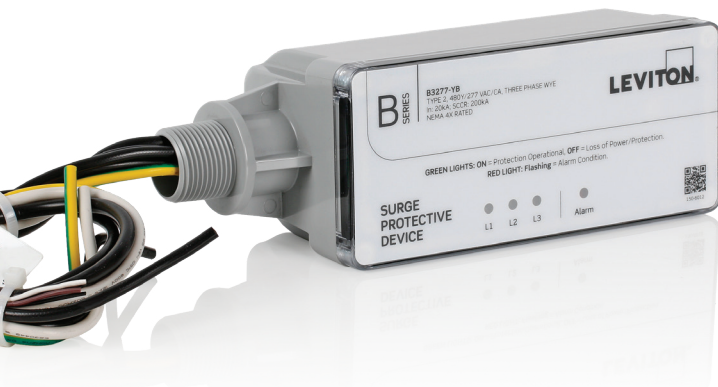| Series	Cat No.	Voltage	Phase	Maximum Continuous Operating Voltage (MCOV)	Voltage Protection Rating (VPR) Performance Data
R	R2120-B	120/240 VAC/CA	Split Phase	180V/360V*	L-N: 700V, L-L: 1200V
P	P2120-B	120/240 VAC/CA	Split Phase	180V/360V*	L-N: 700V, L-G: 1000V, N-G: 600V, L-L: 1000V
P	P3120-YB	208Y/120 VAC/CA	Three Phase WYE	150V/300V*	L-N: 600V, L-G: 1000V, N-G: 600V, L-L: 1000V
P	P3277-YB	480Y/277 VAC/CA	Three Phase WYE	350V/700V*	L-N: 1200V, L-G: 2500V, N-G: 1000V, L-L: 2000V

*Second voltage refers to L-L rating

B Series Panels

Ideal for the branch panel in commercial and industrial applications and the main panel in light commercial applications

- 20kA I-nominal (I_n) Rating
- 65kA per Mode, 130kA per Phase
- 200kA Short Circuit Current Rating (SCCR)
- NEMA 4X Enclosure

M Series Panels

Ideal for point-of-entry or main service entrance installations

- 20kA I-nominal (I_n) Rating
- 130kA per Mode, 260kA per Phase
- 200kA Short Circuit Current Rating (SCCR)
- NEMA 4 Enclosure

FEATURING   Protection Status LED | Audible Alarm | EMI/RFI Filtering (UL 1283)

Ordering Guide: B & M Series Surge Protective Panels

Series	Cat No.	Voltage	Phase	Maximum Continuous Operating Voltage (MCOV)	Voltage Protection Rating (VPR) Performance Data
B	B1120-B	120 VAC/CA	Single Phase	180V	L-N: 700V, L-G: 700V, N-G: 700V
B	B2120-B	120/240 VAC/CA	Split Phase	180V/360V*	L-N: 700V, L-G: 700V, N-G: 700V, L-L: 1200V
B	B3120-YB	208Y/120 VAC/CA	Three Phase WYE	150V/300V*	L-N: 700V, L-G: 700V, N-G: 600V, L-L: 1200V
B	B3240-DB	240 VAC/CA	Three Phase Delta	275V	L-G: 1000V, L-L: 1200V
B	B3240-HB	120/240 VAC/CA	Hi-Leg Delta	180/275V*	L-N: 800V, L-G: 700V, N-G: 700V, L-L: 1500V
B	B3277-YB	480Y/277 VAC/CA	Three Phase WYE	350V/700V*	L-N: 1200V, L-G: 1200V, N-G: 1200V, L-L: 2500V
B	B3347-YB	347/600 VAC/CA	Three Phase WYE	440V/880V*	L-N: 1500V, L-G: 1500V, N-G: 1500V, L-L: 3000V
B	B3480-DB	480 VAC/CA	Three Phase Delta	550V	L-G: 1800V, L-L: 1800V
M	M2120-B	120/240 VAC/CA	Split Phase	180V/360V*	L-N: 700V, L-G: 800V, N-G: 600V, L-L: 1200V
M	M3120-YB	208Y/120 VAC/CA	Three Phase WYE	150V/300V*	L-N: 600V, L-G: 700V, N-G: 600V, L-L: 1000V
M	M3240-DB	240 VAC/CA	Three Phase Delta	275V	L-G: 900V, L-L: 1800V
M	M3277-YB	480Y/277 VAC/CA	Three Phase WYE	350V	L-N: 1200V, L-G: 1200V, N-G: 1200V, L-L: 2500V
M	M3347-YB	347/600 VAC/CA	Three Phase WYE	440V/880V*	L-N: 1500V, L-G: 1500V, N-G: 1500V, L-L: 2500V
M	M3480-DB	480 VAC/CA	Three Phase Delta	550V	L-G: 1800V, L-L: 1800V
M	M3600-DB	600 VAC/CA	Three Phase Delta	680V	L-G: 2000V, L-L: 2000V

*Second voltage refers to L-L rating

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SURGE PROTECTIVE PANELS

X Series Panels

High levels of protection and advanced features including surge counters and performance monitoring, designed to provide the greatest level of protection where surge damage would lead to excessive loss or downtime on expensive machinery

- 20kA I-nominal (I_n) Rating
- 200kA per Mode, 400kA per Phase
- 200kA Short Circuit Current Rating (SCCR)
- NEMA 4 Enclosure

LCD Screen with Surge/TOV Counter:

- Event history
- Statistics
- Voltages
...and more

FEATURING   Protection Status LED | Audible Alarm | EMI/RFI Filtering (UL 1283)

Ordering Guide: X Series Surge Protective Panels

Series	Cat No.	Voltage	Phase	Maximum Continuous Operating Voltage (MCOV)	Voltage Protection Rating (VPR) Performance Data
X	X2120-C	120/240 VAC/CA	Split Phase	175V/300V*	L-N: 600V, L-G: 700V, N-G: 600V, L-L: 900V
X	X3120-YC	208Y/120 VAC/CA	Three Phase WYE	150V/300V*	L-N: 600V, L-G: 600V, N-G: 600V, L-L: 1000V
X	X3277-YC	480Y277 VAC/CA	Three Phase WYE	320V/700V*	L-N: 1200V, L-G: 1200V, N-G: 1200V, L-L: 2000V

*Second voltage refers to L-L rating

Surge Protective Receptacles

- EMI/RFI Noise Filtering
- Optional features include audible alarm, tamper-resistant, 4-in-1, isolated ground, and hospital grade
- Point-of-use protection for up to 18,000 amps of surge current total

*4-in-1 Offers NEC Code Compliance, allowing you to increase the number of receptacles in your facility without having to pull new wires.

Ordering Guide: Surge Protective Receptacles

Amp.	Outlet Config.	Color									Features
		Brown	Ivory	White	Gray	Red	Blue	Black	Orange	Lt. Almond	
COMMERCIAL SPECIFICATION GRADE											
Decora® Tamper-Resistant Surge Protective Receptacles											
15	Duplex	T5280	T5280-I	T5280-W	T5280-GY	—	T5280-B	T5280-E	—	T5280-T	■
20A	Duplex	T5380	T5380-I	T5380-W	T5380-GY	—	T5380-B	T5380-E	—	—	■
15A	Duplex	—	T7280-I	T7280-W	—	—	T7280-B	T7280-E	—	T7280-T	■ ‖‖‖
20A	Duplex	—	T7380-I	T7380-W	—	—	T7380-B	T7380-E	—	—	■ ‖‖‖
15A	Duplex	—	T8280-I	T8280-W	—	T8280-R	T8280-B	—	—	T8280-T	■ ‖‖‖ ●
20A	Duplex	—	T8380-I	T8380-W	T8380-GY	T8380-R	T8380-B	—	—	—	■ ‖‖‖ ●
Decora® Surge Protective Receptacles											
15A	Duplex	5280	5280-I	5280-W	5280-GY	—	5280-B	—	—	5280-T	■
20A	Duplex	5380	5380-I	5380-W	5380-GY	—	5380-B	—	—	—	■
15A	Duplex	5280-IG	5280-IGI	5280-IGW	—	—	5280-IGB	—	5280-IGO	—	▼ ■
20A	Duplex	5380-IG	5380-IGI	5380-IGW	5380-IGG	—	5380-IGB	—	5380-IGO	—	▼ ■
15A	Duplex	—	7280-I	7280-W	—	—	7280-B	—	—	7280-T	■ ‖‖‖
20A	Duplex	—	7380-I	7380-W	—	—	7380-B	—	—	—	■ ‖‖‖
4-in-1 Surge Protective Receptacles											
15A	Four-In-One	—	5480-I	5480-W	5480-GY	5480-R	5480-BU	—	—	—	■
20A	Four-In-One	—	5490-I	5490-W	5490-GY	—	5490-BU	—	—	—	■
15A	Four-In-One	—	—	—	—	—	—	—	5480-IG	—	▼ ■
20A	Four-In-One	—	5490-IGI	—	—	—	5490-IGB	—	5490-IG	—	▼ ■
HOSPITAL GRADE											
Decora® Surge Protective Receptacles											
15A	Duplex	8280	8280-I	8280-W	—	8280-R	8280-B	—	—	8280-T	■ ‖‖‖ ●
20A	Duplex	8380	8380-I	8380-W	8380-GY	8380-R	8380-B	—	—	—	■ ‖‖‖ ●
15A	Duplex	—	8280-IGI	8280-IGW	—	—	8280-IGB	—	8280-IGO	—	▼ ■ ‖‖‖ ●
20A	Duplex	—	8380-IGI	8380-IGW	8380-IGG	—	8380-IGB	—	8380-IGO	—	▼ ■ ‖‖‖ ●
4-in-1 Surge Protective Receptacles											
15A	Four-In-One	—	8480-I	8480-W	—	8480-R	—	—	—	—	■ ●
20A	Four-In-One	—	8490-I	8490-W	—	8490-R	—	—	—	—	■ ●
15A	Four-In-One	—	8480-IGI	8480-IGW	—	—	8480-IGB	—	—	—	▼ ■ ●
20A	Four-In-One	—	8490-IGI	—	—	—	8490-IGB	—	8490-IG	—	▼ ■ ●

*NEC Article® 517.19(B)(2) – Critical Care (Category 1) Spaces - Receptacle Requirements

Key:

▼	Isolated Ground (IG)	■	Indicator Light
‖‖‖	Audible Alarm	●	Hospital Grade

SURGE PROTECTIVE DEVICES

S1000 and S2000 Series Surge Protective Strips

- Internal circuit breaker
- Audible alarm
- Multi-line protection (L-N, L-G, N-G)
- 15A, 125VAC
- Thermoplastic enclosure

Ordering Guide: S1000 and S2000 Series Surge Protective Strips

Catalog Number	Joules	Data Protection	Number of Outlets	Cord Length
S1000-PS	1010J	—	6	6 Feet
S1000-S15	1010J	—	6	15 Feet
S1000-PTC	1010J	RJ-11, Coax	6	6 Feet
S2000-PS	2020J	—	9	6 Feet
S2000-S15	2020J	—	9	15 Feet
S2000-PTC	2020J	RJ-45, Coax	9	6 Feet

Commercial Grade

Hospital Grade

Industrial Grade

5100 and 5300 Series Surge Protective Strips

- Commercial Grade strips have a thermoplastic housing while Industrial Grade strips feature metal housings
- Industrial Grade strips include Tamper-Resistant or Hospital Grade receptacle components
- Multi-line protection (L-N, L-G, N-G)
- Onboard resettable circuit breaker

Ordering Guide: 51000 and 53000 Series Surge Protective Strips

Catalog Number	Application	Maximum Input Current	Joules	Alarm	On/Off Switch	Cord Length
5100-PS	Commercial	15 Amp	720	—	Yes	6 Feet
5100-S15		15 Amp	720	—	Yes	15 Feet
5300-PS		15 Amp	1520	—	Yes	6 Feet
5300-S15		15 Amp	1520	—	Yes	15 Feet
5100-IPS	Industrial	15 Amp	1330	Audible at Protection Loss	Yes	6 Feet
5100-IS2		20 Amp	900	Audible at Protection Loss	Yes	6 Feet
5300-IPS		15 Amp	1330	Audible at Protection Loss	Yes	6 Feet
5300-H15	Hospital	15 Amp	952	—	No	15 Feet
5300-HTS		15 Amp	952	—	No	6 Feet
5300-HT2		20 Amp	952	—	No	6 Feet

Medical Grade Power Strips

- Conforms to UL 1363A, UL 60601-1, UL 60950-1, and UL 1449
- Devices with Inform™ technology feature a line-of-sight, real-time LED indication when the NFPA 99 current limit (75%) has been reached
- All outlets and plug are hospital grade, ensuring dependable performance
- Heavy duty steel construction withstands the rigors of demanding environments
- Built-in overload protection shuts off the strip in case of excess power draw, and can be returned to service with the simple push of a button
- Easily accommodates surface mounting; IV pole mounting with the use of mounting bracket (5300M-BKT)

LEARN MORE

OVERCURRENT INDICATION

LOAD MONITOR
EXCEEDED NFPA 99 CURRENT LIMIT WHEN LIT

Surge Protective with Load Monitoring
Inform Technology

Ordering Guide: Surge Medical Grade Power Strips

Stock Configurations	Current Rating	AC Power Cord Length	2 Outlet	4 Outlet	6 Outlet
Surge Protective Medical Grade Power Strips	15A (12 A max continuous load)	7 Feet	5302M-1S7	5304M-1S7	5306M-1S7
		15 Feet	5302M-1S5	5304M-1S5	5306M-1S5
	20A (16 A max continuous load)	7 Feet	5302M-2S7	5304M-2S7	5306M-2S7
		15 Feet	5302M-2S5	5304M-2S5	5306M-2S5
Surge Protective Medical Grade Power Strips with Load Monitoring Inform™ Technology	15A (12 A max continuous load)	7 Feet	—	53C4M-1S7	53C6M-1S7
		15 Feet	—	53C4M-1S5	53C6M-1S5
	20A (16 A max continuous load)	7 Feet	—	53C4M-2S7	53C6M-2S7
		15 Feet	—	53C4M-2S5	53C6M-2S5

All strips available with flying leads - contact your Leviton sales representative for details.

Non-surge protective medical grade power strips are also available.
Please visit leviton.com/medstrips for more information.

Additional Accessories

Replacement Outlet Covers
Each will cover two outlets
5300M-CVR

Mounting Bracket
Includes top and bottom mounting mechanisms
5300M-BKT

Visit our Website at:
www.leviton.com/surge
email: commercial@leviton.com

Q-1186H   080923

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ISO 9001 : 2015 CERTIFIED
QUALITY MANAGEMENT SYSTEMS