

HAL-SPNL-20

20W Explosion Proof Solar Panel - Class I, Div 2 - 12V - IP65 Junction Box

Product ID: 264919



Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

HAL-SPNL-20 Explosion Proof Solar Panel

Listing: NRTL Listed for United States and Canada

Solar Cells: Crystalline Silicon

Panel Dimensions: 16.7" x 19.8" x 2"

Cells Orientation: 36 Cells

Weight: 6 lbs

Voltage: 12V (Nominal)

Maximum System Voltage: 50V

Watts: 20W

Current: 1.12A

Module Efficiency: 9.4%

Tolerance: +/- 10%

Limiting Reverse Current: 1.29A

Temperature Coefficient of Isc: 0.105%/°C

Temperature Coefficient of Voc: -0.360%/°C

Temperature Coefficient of Pmax: -0.45%/°C

Maximum Fuse Rating: 3A

Open Circuit Voltage - Voc: 22.1V

Short Circuit Current - Isc: 1.16A

Materials: Silver Anodized Aluminum (Frame), Polyester (Back), EVA (Encapsulant)

Cover: High Transmission 1/8" Glass

Connections: (4) Terminal Screw Connection Blocks

Hub Size: 1/2"

Color: White

Ratings/Approvals

Class I, Division 2

IP65 Junction Box

Certified to IEC

Certified to UL

Special Orders - Special Requirements

Contact us for special requirements

Intl: 1-903-270-1187

Toll Free: 1-800-369-6671

Fax: 1-903-498-3364

E-mail: sales@larsonelectronics.com

The HAL-SPNL-20 20-watt Explosion Proof Solar Panel from Larson

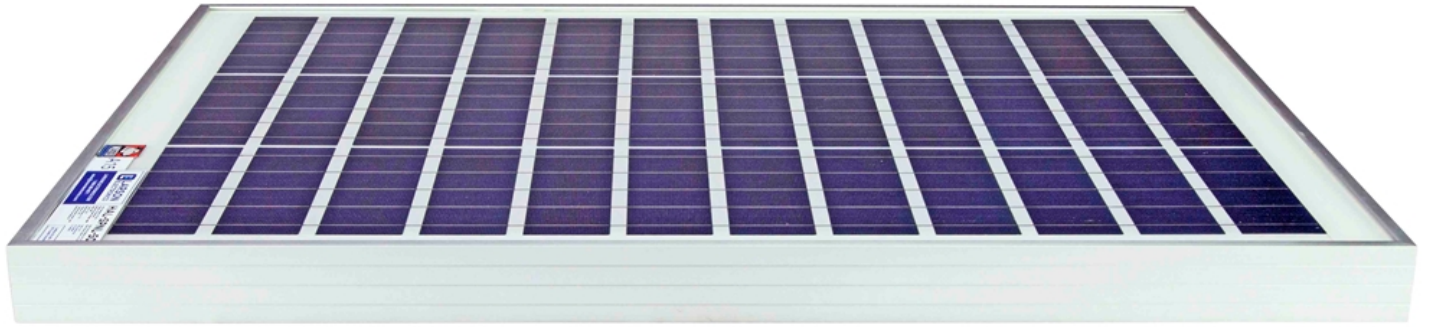
Electronics is a high output module designed for solar-powered systems in Class I, Division 2 hazardous locations. The 12V unit contains 36 crystalline silicon cells. An IP65 rated junction box is available for housing connections between the explosion proof solar panel and other system components.

This explosion proof module is a crucial component in solar-powered systems. The 20-watt solar panel operates on 12V (nominal) with a module efficiency rate of 9.4 percent. At maximum power, the unit offers 17.9V and a current of 1.12A. Featuring a Class C application class, the module comes with an 3A maximum fuse rating. The lightweight unit weighs 6 lbs and measures 16.7" x 19.8" x 2". This solar panel is certified to IEC and UL.

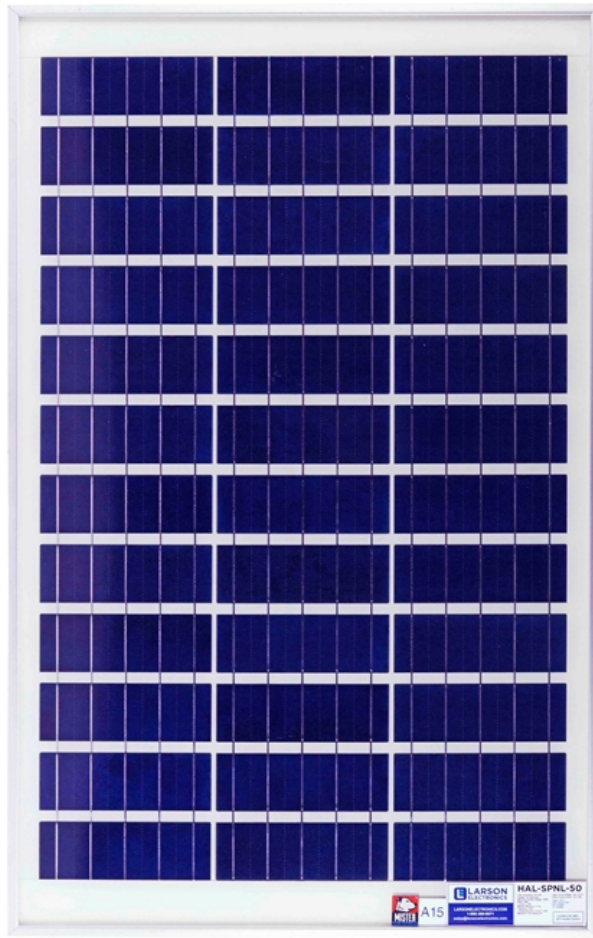
Durability/Wiring: The HAL-SPNL-20 is designed to withstand rugged, outdoor environments. The frame is constructed of silver anodized aluminum, while the back cover is made out of white polyester for insulation. For extra protection, the front cover is constructed of high transmission glass (1/8" thick). The hazardous location solar panel comes with a sturdy J-type junction box equipped with 1/2" hub with accessible terminals for connections to other components of the solar-powered system. A total of four terminal screw connection blocks is available, capable of accepting 8-14 AWG wires.

Applications: Hazardous locations, chemical processing plants, refineries, oil and gas, solar-powered systems, remote locations, alternative energy, sustainable energy systems, solar lighting, portable power, battery-powered systems, rechargeable lighting and more.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.











Certification

Manufacturer: Larson Electronics LLC
Address: 9419 US-HWY 175
Kemp, Texas 75143

Declare the following equipment conforms to the standard(s) as listed:

Model: HAL-SPNL Series
Description: Hazardous Location Solar Panel

Evaluated Listings:

ETL: NEC / United States standards (Panel)
ETL: CEC / United States standards (Panel)
ETL: Modifications to enclosure under UL 121201 – NEC / United States standards
ETL: Modifications to enclosure under CSA C22.2 No. 30– CEC / Canadian standards

The HAL-SPNL series is certified to NEC and CEC standards for hazardous locations for:

- NEC: Class I, Divisions 1 & 2, Groups C and D (light); Class II, Divisions 1 & 2, Groups F and G (light); Class I, Division 2, Groups C and D (Panel and battery system); Class II, Division 2, Groups F and G (Panel and battery system)
- CEC: Class I, Divisions 1 & 2, Groups C and D (light); Class II, Divisions 1 & 2, Groups F and G (light); Class I, Division 2, Groups C and D (Panel and battery system); Class II, Division 2, Groups F and G (Panel and battery system)

The HAL-SPNL Series is comprised of an Ameresco HLS series J, V, or J-V series solar array mounted to a non-sparking aluminum frame. The final assembly may include custom mounting of the panels, wiring, or junction boxes. This assembly is built to NEC and CEC standards for hazardous locations.

Signed for and on behalf of: Larson Electronics, LLC
Place of issue: Kemp, TX

Signature:

Name: James Thomas
Position: Operations Manager

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Product Description

Title: INDUSTRIAL CONTROL PANELS
Company: LARSON ELECTRONICS LLC - Kemp, TX USA
Product Information: Industrial Control Panels For General Use.
Evaluated to the following: A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Industrial Control Panels (UL-508A) and are identified with the ETL Listed Mark.

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Product Description

Title: EXPLOSION-PROOF & DUST IGNITION-PROOF ELECTRICAL EQUIPMENT FOR USE IN HAZARDOUS (CLASSIFIED) LOCATIONS

Company: LARSON ELECTRONICS LLC - Kemp, TX USA

Product Information: Explosion-proof or dust-ignition-proof Industrial Control Panels for use in Hazardous (Classified) Locations, Model Nos. Custom Industrial Control Panels

Evaluated to the following: A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Explosion-Proof and Dust Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations (UL-1203) and are identified with the ETL Listed Mark.

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Product Description

Title: INDUSTRIAL CONTROL EQUIPMENT
Company: LARSON ELECTRONICS LLC - Kemp, TX USA
Product Information: Industrial Control Panels For General Use.
Industrial Control Panels Relating to Hazardous (Classified) Locations, Custom Industrial Control Panels.

Power Distribution System, Model Nos. MGL, MPD, MGS series;
Followed by AAK-PBB.FFF-SCC.GGG-EEXCCC.DDD; Where AA = 2,3,5,7,9,15,20,25,30,45,50,75; BB = 1P, 3P; FFF = 480,240,208,120; CC = 1P,3P; GGG = 480,240,208,120; EE = # of outlets; CCC = voltage; DDD = outlet amperage.

Evaluated to the following: A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Industrial Control Equipment (CAN/CSA-C22.2 No. 14) and are identified with the cETL Listed Mark.

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Product Description

Title: ENCLOSURES
Company: LARSON ELECTRONICS LLC - Kemp, TX USA
Product Information: Explosion-proof or dust-ignition-proof Industrial Control Panels for use in Hazardous (Classified) Locations, Model Nos. Custom Industrial Control Panels

Luminaires, Model Nos. EPL-48-2L-LED-SFC, EPL-24-2L-LED-SFC. for use in Hazardous Locations: Class I, Div. 1, Groups C and D T5 or T6 -20°C < Tamb < 40°C Class II, Div. 1., Groups E, F, and G; Class III Div.1 T3B -20°C < Tamb < 40°C

Evaluated to the following: A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Enclosures for use in Class II, Groups E, F, G Hazardous Locations (CAN/CSA-C22.2 No. 25) and are identified with the cETL Listed Mark.

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Product Description

Title: EXPLOSION-PROOF ENCLOSURES FOR USE IN CLASS I HAZARDOUS LOCATIONS

Company: LARSON ELECTRONICS LLC - Kemp, TX USA

Product Information: Explosion-proof or dust-ignition-proof Industrial Control Panels for use in Hazardous (Classified) Locations, Model Nos. Custom Industrial Control Panels

Evaluated to the following: A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Explosion-Proof Enclosures for Use in Class I Hazardous Locations (CAN/CSA-C22.2 No. 30) and are identified with the cETL Listed Mark.

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Product Description

Title: Nonincendive Electrical Equipment For Use In Class I And II, Division 2 And Class III, Divisions 1 And 2 Hazardous (Classified) Locations

Company: AMERESCO SOLAR LLC - Framingham, MA USA

Product Information: Trade Name(s): AMERESCO SOLAR.

Crystalline Silicon Photovoltaic (PV) Modules, which suitable used for Class I, Division 2, Groups A, B, C and D Hazardous Locations, Model Nos. BSP-112, BSP-212, BSP-27, BSP5X5, BSP1-12-CLK, BSP-1012, BSP-1012-LSS,10J-V,BSP-1024-LSS, BSP-1512,15J-V, 20J-V,BSP-2012,20JB-V, BSP-3012,BSP-3012-LSS,30J-V, 35J-V, 40J-V,BSP-4012, 45J-V, 50J-V,BSP-5012, 50JB-V,55J-V,BSP-5512-LG,60J-V,65J-V,BSP-6512,75J-V,BSP-7512-LG,90J-V,BSP-9012,90JB-V,95J-V,100J-V,105J-V,110J-V,110JB-V,115J-V,120J-V,120JB-V,130J-V,130JB-V,140J-V,BSP-14012(M),150J-V,155J-V,155JB-V,BSP-15524,160J-V,165J-V,BSP-16512, 180J-V,190J-V,200J-V,200JC-V,200JB-V,205J-V,210J-V,215J-V,220J-V,225J-V,395J-V,400J-V,405J-V,410J-V,BSP-512,05M-V,VLS-5,VLS-5C,VESOL-12-12,10M-V,10M-V-20FT,VLS-10,VLS-10C,VESOL-12-24,15M-V,15L,20M-V,VLS-20,VLS-20C,VLS-20B,VLS-20B-C,23L,VLS-30,VLS-30C,35M-V,35L,VLS-40,VLS-40C,VLS-50,VLS-50C,VLS-50B,VLS-50B-C,VLS-60,VLS-60C,VLS-65,VLS-65C,VLS-90,VLS-90C,VLS-90B,VLS-90B-C,VLS-95,VLS-95C,VLS-100,VLS-100C,VLS-105,VLS-105C,VLS-120,VLS-120C,VLS-120B,VLS-120B-C,VLS-140,VLS-140C, VLS-150,VLS-150C,VLS-160,VLS-160C,VLS-180,VLS-180C,VLS-190,VLS-190C,VLS-200,VLS-200C,VLS-205,VLS-205C,VLS-210,VLS-210C,VS2B1962-255W.

Solar Electric Power System, Model Nos. HLS1, HLS2, HLS3, HLS4, HLS5, HLS6, HLS7, HLS8, HLS9.

Evaluated to the following: A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Nonincendive Electrical Equipment For Use In Class I And II, Division 2 And Class III, Divisions 1 And 2 Hazardous (Classified) Locations (UL-121201) and are identified with the ETL Listed Mark.

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Product Description

Title: NON-INCENDIVE ELECTRICAL EQUIPMENT FOR USE IN CLASS 1, DIVISION 2 HAZARDOUS LOCATIONS

Company: AMERESCO SOLAR LLC - Framingham, MA USA

Product Information: Trade Name(s): AMERESCO SOLAR.

Crystalline Silicon Photovoltaic (PV) Modules, which suitable used for Class I, Division 2, Groups A, B, C and D Hazardous Locations, Model Nos. BSP-112, BSP-212, BSP-27, BSP5X5, BSP1-12-CLK, BSP-1012, BSP-1012-LSS,10J-V,BSP-1024-LSS, BSP-1512,15J-V, 20J-V,BSP-2012,20JB-V, BSP-3012,BSP-3012-LSS,30J-V, 35J-V, 40J-V,BSP-4012, 45J-V, 50J-V,BSP-5012, 50JB-V,55J-V,BSP-5512-LG,60J-V,65J-V,BSP-6512,75J-V,BSP-7512-LG,90J-V,BSP-9012,90JB-V,95J-V,100J-V,105J-V,110J-V,110JB-V,115J-V,120J-V,120JB-V,130J-V,130JB-V,140J-V,BSP-14012(M),150J-V,155J-V,155JB-V,BSP-15524,160J-V,165J-V,BSP-16512, 180J-V,190J-V,200J-V,200JC-V,200JB-V,205J-V,210J-V,215J-V,220J-V,225J-V,395J-V,400J-V,405J-V,410J-V,BSP-512,05M-V,VLS-5,VLS-5C,VESOL-12-12,10M-V,10M-V-20FT,VLS-10,VLS-10C,VESOL-12-24,15M-V,15L,20M-V,VLS-20,VLS-20C,VLS-20B,VLS-20B-C,23L,VLS-30,VLS-30C,35M-V,35L,VLS-40,VLS-40C,VLS-50,VLS-50C,VLS-50B,VLS-50B-C,VLS-60,VLS-60C,VLS-65,VLS-65C,VLS-90,VLS-90C,VLS-90B,VLS-90B-C,VLS-95,VLS-95C,VLS-100,VLS-100C,VLS-105,VLS-105C,VLS-120,VLS-120C,VLS-120B,VLS-120B-C,VLS-140,VLS-140C, VLS-150,VLS-150C,VLS-160,VLS-160C,VLS-180,VLS-180C,VLS-190,VLS-190C,VLS-200,VLS-200C,VLS-205,VLS-205C,VLS-210,VLS-210C,VS2B1962-255W.

Solar Electric Power System, Model Nos. HLS1, HLS2, HLS3, HLS4, HLS5, HLS6, HLS7, HLS8, HLS9.

Evaluated to the following: A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Non-Incendive Electrical Equipment for Use in Class 1, Division 2 Hazardous Locations (CAN/CSA-C22.2 No. 213) and are identified with the cETL Listed Mark.

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Certification

Manufacturer: Larson Electronics LLC
Address: 9419 US-HWY 175
Kemp, Texas 75143

Declare the following equipment conforms to the standard(s) as listed:

Model: HAL-SPNL Series
Description: Hazardous Location Solar Panel

Evaluated Listings:

CE: DIRECTIVE 2014/35/EU - LOW VOLTAGE DIRECTIVE
CE: DIRECTIVE 2014/30/EU - EMC DIRECTIVE
CE: Regulation (EC) No 1907/2006 - REACH REGULATION
CE: DIRECTIVE 2015/863/EU - ROHS DIRECTIVE

The HAL-SPNL Series complies with the essential protection requirements of the European Parliament of the Council Directive for Low Voltage Directive, EMC Directive, REACH Regulation, and RoHS Directive. This certification applies to all specimens manufactured in accordance to the manufacture's drawings.

Signed for and on behalf of: Larson Electronics, LLC
Place of issue: Kemp, TX

Signature: *James Thomas*

Name: James Thomas
Position: Operations Manager



Certification

Manufacturer: Larson Electronics LLC
Address: 9419 US-HWY 175
Kemp, Texas 75143

Declare the following equipment conforms to the standard(s) as listed:

Model: HAL-SPNL Series
Description: Hazardous Location Solar Panel

Evaluated Listings:

CE: DIRECTIVE 2015/863/EU - ROHS DIRECTIVE

This is to certify that products offered by Larson Electronics LLC comply with the Reduction of Hazardous Substances (RoHS) directives. Directive 2002/95/EC became effective on 1 July 2006. It restricts the use of six substances in the manufacture of electrical and electronic equipment. This directive was revised in June 2011 and is now referred to as directive 2011/65/EU. Directive 2015/863/EU amending Annex II to Directive 2011/65/EU announced plans to add four substances from 22 July 2019.

We hereby certify that the equipment specified above conforms to the Directive(s) by containing less of the restricted substances than the stated limits.

Signed for and on behalf of: Larson Electronics, LLC
Place of issue: Kemp, TX

Signature: *James Thomas*

Name: James Thomas
Position: Operations Manager



Certification

Manufacturer: Larson Electronics LLC
Address: 9419 US-HWY 175
Kemp, Texas 75143

Declare the following equipment conforms to the standard(s) as listed:

Model: HAL-SPNL Series
Description: Hazardous Location Solar Panel

Evaluated Listings:

CE: Regulation (EC) No 1907/2006 - REACH REGULATION

This letter establishes the opinion of Larson Electronics LLC regarding the status, under the current European Union ("EU") Regulations on Registration, Evaluation, Authorization, and Restriction of Chemical Substances ("REACH").

REACH does not apply to manufactured products which are referred to as "completed articles". Substances (chemicals) are subject to REACH registration, NOT products.

In addition, Articles are exempt from the REACH requirements if (a) the Article does not contain a substance of very high concern or candidate substance in an amount exceeding 0.1% weight by weight, and (b) if substances present in the Article in excess of 1 ton per year per importer are not expected nor intended to be released.

Based on communication with our raw material suppliers, we conclude that to the best of our knowledge our products requiring REACH compliance do not contain any of the currently listed SVHC in concentrations of 0.1% or above.

Accordingly, we foresee no registration or pre-registration requirement for the products we supply.

Signed for and on behalf of: Larson Electronics, LLC
Place of issue: Kemp, TX

Signature:

Name: James Thomas
Position: Operations Manager

Frequently Asked Questions (FAQ)