

String Inverter Solutions



SolarBOS String Inverter Solutions provide a low-cost and space-saving solution for residential and commercial solar systems that are utilizing string inverters. All products are ETL listed to UL-1741 for 600 VDC and 1000 VDC photovoltaic systems and use compact NEMA-4X polycarbonate enclosures. They can be configured as combining or pass-through with or without integrated disconnects or contactors.



SolarBOS 4-circuit, floating pass-through disconnect F4SK32-1-4XP

Application

The String Inverter Solutions address recent shifts in the design architecture of residential and commercial solar projects. New electrical code requirements for Rapid Shutdown, as well as the growing number and range of more powerful and compact String Inverters offered by the top names in the inverter market, are changing the electrical balance balance-of-of-system needs for solar installers.



Product Features

- 2 to 6 input circuits per MPPT
- NEMA-4X Polycarbonate Enclosures
- Rated for 600 VDC, 1000 VDC, and continuous duty
- Touch-safe fuse holders
- Ground blocks included
- Configurations for negative grounded, positive grounded, or floating arrays

Available Options

- Combiners for single or dual MPPT inverters
- Junction boxes and pass-through load break solutions
- Integrated load break contactors for rapid shut down (per NEC 690.12)
- Integrated load break disconnects

Benefits

Remote Shutdown capable products for when it isn't feasible for the inverter to be within 10' of the array (per NEC 690.12). Combining and Pass-Through (non-combining) with or without integrated disconnects enabling the transition from multiple PV String wires to single, larger runs, or to less expensive THHN style wires in conduit. Single and dual MPPT configurations for both Grounded and Floating Topologies designed for every major manufacturer of String Inverters. NEMA 4X Enclosures supporting installations in any environment. Compact Sizes products appropriately sized for the smaller scale residential and commercial installations where space is tight.

About SolarBOS

SolarBOS is a leading developer and manufacturer of balance-of-system products. We draw on our deep expertise in PV systems to provide a wide array of high-quality standardized products, custom solutions for integrators and designers, instructive support, and outstanding customer service. SolarBOS has locations in Livermore, CA, and Grand Rapids, MI. For more information, visit www.solarbos.com

Junction Boxes / Pass-Through Disconnects & Contactors

Product Part Number	C6SK-1-4XP	C4S20C-1-4XP	F4S20C-1-4XP	C2SK32-1-4XP	C4SK32-1-4XP	F2SK32-1-4XP	F4SK32-1-4XP
Topology	Grounded/Floating	Grounded	Floating	Grounded	Grounded	Floating	Floating
Maximum Voltage	1000 VDC	600 VDC	600 VDC	1000 VDC	1000 VDC	1000 VDC	1000 VDC
Integrated Load Break Disconnect				✓	✓	✓	✓
Integrated Load Break Contactors		✓	✓				
Number of Input Circuits	6	4	4	2	4	2	4
Input/Output Conductor Size Range (AWG)	#20-6	#20-6	#20-6	#14 - 8	#14 - 8	#14 - 8	#14 - 8
Max Rated Current (ADC Continuous per circuit)	30	20	20	32	32	32	32
Power Requirement (After In-Rush) *	N/A	8.4 W @24 VDC	16.8 W @24 VDC	N/A	N/A	N/A	N/A
Enclosure Dimensions (Inches)	9x8x2	12x10x4	16x14x7	8x6x3	12x10x4	8x6x3	12x10x4
Approx. Weight (Pounds)	4	10	13	5	9	9	10
Enclosure NEMA Ratings	4X	4X	4X	4X	4X	4X	4X

* See SolarBOS Control Power Design Guide when considering contactor in-rush and multiple unit/site topologies.

Disconnect & Contactor Combiners

Product Part Number	CS75C-6-FF-4XP	FS75C-6-FF-4XP	FSK75C-6-FF-4XP	F2S75C-6-FF-4XP	F2SK75C-4-FF-4XP	F2S45-4-FF-4XP	F2SK32-3-FF-4XP
Topology	Grounded	Floating	Floating	Floating	Floating	Floating	Floating
Maximum Voltage	600 VDC	600 VDC	1000 VDC	600 VDC	1000 VDC	600 VDC	1000 VDC
Integrated Load Break Disconnect						✓	✓
Integrated Load Break Contactor	✓	✓	✓	✓	✓		
Number of Input Circuits	6	6	6	2 x 6	2 x 4	2 x 4	2 x 3
Input Conductor Size Range (AWG)	#14-8	#14 - 8	#14 - 8	#14 - 8	#14-8	#14-8	#14-8
Max Fuse Size (Amps)	30	30	30	30	30	30	30
Number of Outputs (Pos/Neg)	1	1	1	2	2	2	2
Max Rated Output Current (ADC Continuous)	75	75	75	2 x 75	2 x 75	2 x 45	2 x 32
Output Conductor Size Range (AWG)	#14 - 2	#14 - 2	#14 - 1/0	#14 - 2	#14 - 1/0	#14 - 2	#14 - 2
Power Requirement (After In-Rush) *	6 W @24 VDC	12 W @24 VDC	4.2 W @24 VDC	24 W @24 VDC	8.4 W @24 VDC	N/A	N/A
Enclosure Dimensions (Inches)	9x8x2	12x10x4	12x10x4	16x14x7	16x14x7	14x12x6	14x12x6
Approx. Weight (Pounds)	5	10	13	19	18	20	20
Enclosure NEMA Ratings	4X	4X	4X	4X	4X	4X	4X

* See SolarBOS Control Power Design Guide when considering contactor in-rush and multiple unit/site topologies.

Standard Combiners

Product Part Number	CSK-6-FF-4XP	FSK-6-FF-4XP	F2SK-6-FF-4XP
Topology	Grounded	Floating	Floating
Maximum Voltage	1000 VDC	1000 VDC	1000 VDC
Number of Input Circuits	6	6	2 x 6
Input Conductor Size Range (AWG)	#14-8	#14 - 8	#14 - 8
Max Fuse Size (Amps)	30	30	30
Number of Outputs (Pos/Neg)	1	1	2
Max Rated Output Current (ADC Continuous)	144	144	2 x 144
Output Conductor Size Range (AWG)	#14 - 2	#14 - 2	#14 - 2
Enclosure Dimensions (Inches)	9x8x2	12x10x4	16x14x7
Approx. Weight (Pounds)	4	9	14
Enclosure NEMA Ratings	4X	4X	4X