

SBS®X-75A

The SBS®X-75A sealed waterproof connectors come in a multiple of configuration offerings with up to a maximum of 140A of power and the durability of up to 5,000 mating cycles. Positive metal latches help safeguard against accidental disconnects that may be caused by vibration, while the built-in cable clamp allows for strain relief on wires.

The compact sleek high-power design of these environmentally rugged connectors makes them ideal for outdoor applications. The IP68 weatherproof rating ensures that the connector will be free of water for full protection up to 30 minutes at 6 feet in the mated conditions, or with the use of covers in unmated condition.



600 Volts / 140A



5,000 Mating Cycles



Operating Temperature
-20°C to 105°C / -4 °F to 221°F

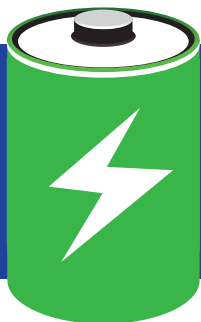


Dust - Water - Shock

SPECIFICATIONS

ELECTRICAL							
Current Rating Amperes ¹		Power Only		4 Pole		6 Pole	
Wire to Wire		No Signals		Signals Energized 20 AWG - 10 amps		Signals Energized Using PPMX Contacts (20 AWG - 3 amps)	
AWG	mm ²	UL	CSA	UL	CSA	UL	CSA
4 AWG	25	140	85	135	80	125	75
6 AWG	16	100	65	95	60	N/A	N/A
8 AWG	10	95	58	93	53	93	53
10 AWG	6	75	45	75	45	N/A	N/A
Wire to Wire & Wire to Panel Mount with Ground*		90	65	N/A	N/A	N/A	N/A
6 AWG (16 mm ²) Wire							
Wire Plug to Panel Mount Receptacle							
4 AWG (25 mm ²) Wire		145	90	140	85	N/A	N/A
Panel Mount Plug to Panel Mount Receptacle							
4 AWG (25 mm ²) Wire		140	85	135	80	N/A	N/A
Voltage Rating AC/DC							
UL 1977		600V		600V		600V	
Dielectric Withstanding Voltage							
Volts AC		2,200		2,200		2,200	
Average Mated Contact Resistance Milliohms ¹							
Power 1/4 in. of 4 AWG (25 mm ²) Wire		0.16m Ω		0.16m Ω		0.16m Ω	
Ground 1/4 in. of 6 AWG (16 mm ²) Wire		0.22m Ω		N/A		N/A	
Auxiliary 14 AWG (1.0 to 1.5 mm ²) Wire		2.50m Ω		2.50m Ω		20 AWG (.25mm ²) 3 amps - 9.0 Ω	
UL Hot Plug Current Rating Amperes		250 cycles at 120V DC		250 cycles at 120V DC			
4 AWG (25 mm ²) Wire		50A		50A			
Ground Short Time Current Test							
1530 Amps (6 AWG / 16mm ²) Wire		6 Seconds					
Touch Safe		Per UL 60950-1, UL 62368-1 & IEC 60529 ³			Per UL 60950-1, UL 62368-1 & IEC 60529 ³		
*Ground is not rated for current interruption (hot plug) when energized or touch safe.							

MECHANICAL	4 Pole	6 Pole		
Wire Size Range				
Power Contacts	10 to 4 AWG (2.5 to 25.0 mm ²)	10 to 4 AWG (2.5 to 25.0 mm ²)		
Auxiliary Contacts	14 to 24 AWG (1.5 mm ² to 0.50)	24 to 20 AWG (0.50 to 0.75 mm ²)		
Pre-Mate Contacts Ground Only 12 to 6 AWG (2.5 to 16mm ²)				
Maximum Wire Insulation Diameter				
Power/Ground	0.44 in. (11.18 mm)	0.44 in. (11.18 mm)		
Auxiliary	0.44 in.(11.18 mm)	Discrete Wires- 20 AWG; 0.09 in. (2.29 mm) 6 Cond. Jacketed Cable- 0.021 in. (5.33 mm)		
Operating Temperature ² -20° to 105°C (-4 to 221°F)				
Mating Cycles No Load by Plating 5,000				
Average Mating / Unmating Force				
Wire = Lbs / Kg	4 AWG (25 mm ²) = 6.5 Lbs (2.95 Kg)	4 AWG (25 mm ²) = 6.5 Lbs (2.95 Kg)		
Ground Wire = Lbs / Kg 6 AWG (16mm ²) / 12 Lbs (5.44 Kg)				
Minimum Creepage / Clearance Distance				
	Creepage	Clearance	Creepage	Clearance
Power to Power	1.50 in. (38.1 mm)	0.900 in. (22.86 mm)	1.50 in. (38.1 mm)	0.900 in. (22.86 mm)
Power to Signal	1.12 in. (28.4 mm)	0.640 in. (16.26 mm)	1.727 in. (43.87 mm)	0.397 in. (10.08 mm)
Pin to Pin	0.097 in. (2.46 mm)	0.097 in. (2.46 mm)	0.194 in. (4.93 mm)	0.194 in. (4.93 mm)
Socket to Socket	0.352 in. (8.94 mm)	0.352 in. (8.94 mm)	0.157 in. (3.99 mm)	0.157 in. (3.99 mm)
Pin to Socket	1.15 in. (29.21 mm)	0.485 in. (12.3 mm)	0.535 in. (13.59 mm)	0.337 in. (8.56 mm)
Power to Ground Creepage = 1.20" (30.5mm) Clearance =0.28" (7.1mm)				
Pull Out Force with Cable Clamp		60 lb. [267N]	60 lb. [267N]	
Pull Out Force with Cable Clamp Ground Only 60lb. [267N]				
Push Out Retention Force Auxiliary		35 lb. [156N]	35 lb. [156N]	
Pull Out Retention Contact Holder (part no. 2-8859P1)			20 lb. [89N]	
Drop Test		Per UL 486A-486B	Per UL 486A-486B	
Drop Test Ground		Per UL 486A-486B		
IP68		Per UL50E ⁴	Per UL50E ⁴	
IP68 Ground		Per UL50E ⁴		



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Step 1 Continued - Bulk Components Continued

	Minimum Quantity		200
	2-8840P1	Signal Housing - Red	Housing
	2-8840P2	Signal Housing - Blue	Housing
	2-8840P3	Signal Housing - Gray	Housing
	2-8840P4	Signal Housing - Black	Housing
	2-8862P1	Ground Housing- Green	Housing
	2-8860P1	6 Position Signal Housing- White	Housing
	2-8859P1	6 Position Contact Holder- Black	Contact Holder
	2-8841P1	Cable Clamp	Cable Clamp (set of two)
	2-8863P1	Ground Cable Clamp	Cable Clamp (set of two)
	H1120P62	#4 to 20 5/8" (15.88 mm) Plastite Head Screws - Cable Clamp	Screws
	108G1	Panel Mount Hardware Kit	Panel Mount Gasket, Mounting O-Rings