

SY® BATTERY CONNECTORS

SY50, 120, 175 & 350AMP

- Single piece housings of impact resistant polycarbonate offer both high physical strength and superior dielectric properties
- Silver plated solid copper contacts offer low resistance for superior conductivity
- Self cleaning contact design resists arcing by keeping conductive surfaces clean and free of corrosion
- Contacts have flared and heat treated barrels which readily accept fine stranded wire and allow easy, quality crimping
- Integral stainless steel springs maintain constant pressure on the contact to insure a consistent, low-resistance connection







|--|--|

CONNECTOR #	DESCRIPTION (1 HOUSING & 2 CONTACTS)	HOUSING #	CONTACT KIT #
50амр			
SY6319	50AMP gray connector with 6GA contacts	SY992	SY903G1
SY6319G1	50AMP gray connector with 10-12GA contacts	SY992	SY904G1
SY6319G2	50AMP gray connector with 8GA contacts	SY992	SY905G1
SY6331G1	50AMP red connector with 6GA contacts	SY992G1	SY903G1
SY6331G2	50AMP red connector with 10-12GA contacts	SY992G1	SY904G1
SY6331G3	50AMP black connector with 6GA contacts	SY992G2	SY903G1
SY6331G4	50AMP black connector with 10-12GA contacts	SY992G2	SY904G1
SY6331G5	50AMP blue connector with 6GA contacts	SY992G3	SY903G1
SY6331G6	50AMP blue connector with 10-12GA contacts	SY992G3	SY904G1
SY6331G7	50 _{AMP} yellow connector with 6 _{GA} contacts	SY992G4	SY903G1
SY6331G8	50AMP yellow connector with 10-12GA contacts	SY992G4	SY904G1
SY6331G9	50 _{AMP} yellow connector with 8 _{GA} contacts	SY992G4	SY905G1
120 AMP			
SY6330G2	120AMP gray connector with 2GA contacts	SY920	SY1319-G2
SY6330G4	120AMP gray connector with 4GA contacts	SY920	SY1319-G4
SY6330G6	120AMP gray connector with 6GA contacts	SY920	SY1319-G6
	120AMP blue connector with 2GA contacts	SY920G3	SY1319-G2
	120AMP blue connector with 4GA contacts	SY920G3	SY1319-G4
	120AMP blue connector with 6GA contacts	SY920G3	SY1319-G6
175AMP			
SY6325G1	175AMP gray connector with 1/0 contacts	SY940	SY944
SY6325G5	175AMP gray connector with 2GA contacts	SY940	SY944-2
SY6325G6	175AMP gray connector with 4GA contacts	SY940	SY944-4
SY6325G7	175AMP gray connector with 6GA contacts	SY940	SY944-6
SY6326G1	175AMP blue connector with 1/0 contacts	SY941	SY944
SY6326G5	175AMP blue connector with 2gA contacts	SY941	SY944-2
SY6326G6	175AMP blue connector with 4gA contacts	SY941	SY944-4
SY6326G7	175AMP blue connector with 6GA contacts	SY941	SY944-6
SY6327G1	175AMP orange connector with 1/0 contacts	SY942	SY944
SY6327G5	175AMP orange connector with 2GA contacts	SY942	SY944-2
SY6327G6	175AMP orange connector with 4GA contacts	SY942	SY944-4
SY6327G7	175amp orange connector with 6ga contacts	SY942	SY944-6



Recognized under the component program of Underwriters Laboratories, Inc. File No. E81817



Listed by Canadian Standards Association for use with certified equipment. File No. LR82704

See OEM Cross Reference on pages 2.23 - 2.27



SY® BATTERY CONNECTOR

SY50, 120, 175 & 350AMP - CONTINUED





CONNECTOR #	DESCRIPTION (1 HOUSING & 2 CONTACTS)	HOUSING #	CONTACT KIT #
175AMP CONTINUED			
SY6328G1	175AMP yellow connector with 1/0 contacts	SY943	SY944
SY6328G5	175AMP yellow connector with 2GA contacts	SY943	SY944-2
SY6328G6	175AMP yellow connector with 4GA contacts	SY943	SY944-4
SY6328G7	175AMP yellow connector with 6GA contacts	SY943	SY944-6
SY6329G1	175AMP red connector with 1/0 contacts	SY949	SY944
SY6329G5	175AMP red connector with 2ga contacts	SY949	SY944-2
SY6329G6	175AMP red connector with 4GA contacts	SY949	SY944-4
SY6329G7	175AMP red connector with 6GA contacts	SY949	SY944-6
350AMP			
SY6320G1	350AMP gray connector with 2/0 contacts	SY906	SY907
SY6320G2	350AMP gray connector with 4/0 contacts	SY906	SY908
SY6320G3	350AMP gray connector with 1/0 contacts	SY906	SY917
SY6320G5	350AMP gray connector with 3/0 contacts	SY906	SY916
SY6321G1	350AMP blue connector with 2/0 contacts	SY912	SY907
SY6321G2	350AMP blue connector with 4/0 contacts	SY912	SY908
SY6321G3	350AMP blue connector with 1/0 contacts	SY912	SY917
SY6321G5	350AMP blue connector with 3/0 contacts	SY912	SY916
SY6322G1	350AMP red connector with 2/0 contacts	SY913	SY907
SY6322G2	350AMP red connector with 4/0 contacts	SY913	SY908
SY6322G3	350AMP red connector with 1/0 contacts	SY913	SY917
SY6322G5	350AMP red connector with 3/0 contacts	SY913	SY916
SY6323G1	350AMP yellow connector with 2/0 contacts	SY914	SY907
SY6323G2	350 _{AMP} yellow connector with 4/0 contacts	SY914	SY908
SY6323G3	350 _{AMP} yellow connector with 1/0 contacts	SY914	SY917
SY6323G5	350 _{AMP} yellow connector with 3/0 contacts	SY914	SY916
SY6324G1	350AMP green connector with 2/0 contacts	SY931	SY907
SY6324G2	350AMP green connector with 4/0 contacts	SY931	SY908
SY6324G3	350AMP green connector with 1/0 contacts	SY931	SY917
SY6324G5	350 _{AMP} green connector with 3/0 contacts	SY931	SY916
SY6400G1	350 _{AMP} orange connector with 2/0 contacts	SY932	SY907
SY6400G2	350 _{AMP} orange connector with 4/0 contacts	SY932	SY908
SY6400G3	350 _{AMP} orange connector with 1/0 contacts	SY932	SY917
SY6400G5	350 _{AMP} orange connector with 3/0 contacts	SY932	SY916



 $$\mathbb{R}$$ Recognized under the component program of Underwriters Laboratories, Inc. $\,$ File No. E81817



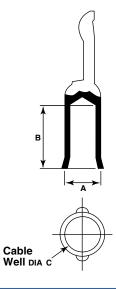
Listed by Canadian Standards Association for use with certified equipment. File No. LR82704

See OEM Cross Reference on pages 2.23 - 2.27

SY® BATTERY CONNECTORS

REPLACEMENT CONTACT KITS

CATALOG #	AWG WIRE	A	В	С	QUANTITY
SY50					
SY903G1	6	0.29"/7mm	0.48"/12mm	0.22"/6mm	2
SY905G1	8	0.29"/7mm	0.48"/12mm	0.19"/5mm	2
SY904G1	10-12	0.29"/7mm	0.48"/12mm	0.14"/4mm	2
SY120					
SY1319-G2	2	0.45"/11mm	0.82"/21mm	0.35"/9mm	2
SY1319-G4	4	0.44"/11mm	0.82"/21mm	0.30"/8mm	2
SY1319-G6	6	0.44"/11mm	0.82"/21mm	0.22"/6mm	2
SY175					
SY944	1/0	0.52"/13mm	1.04"/26mm	0.44"/11mm	2
SY944-1	1	0.58"/15mm	1.02"/26mm	0.39"/10mm	2
SY944-2	2	0.52"/13mm	0.97"/25mm	0.35"/9mm	2
SY944-4	4	0.52"/13mm	1.02"/26mm	0.30"/8mm	2
SY944-6	6	0.37"/9mm	1.10"/28mm	0.22"/6mm	2
SY350					
SY908	4/0	0.77"/20mm	1.30"/33mm	0.64"/16mm	2
SY916	3/0	0.70"/18mm	1.25"/32mm	0.58"/15mm	2
SY907	2/0	0.64"/16mm	1.27"/32mm	0.50"/13mm	2
SY917	1/0	0.52"/13mm	1.01"/26mm	0.44"/11mm	2



REDUCER BUSHINGS

PART #	DESCRIPTION			
SY5918	350amp	2/0 to 1/0 AWG		
SY5687	175AMP	1/0 to 1 AWG		
SY5690	175amp	1/0 to 2 AWG		

PART #	DESCRIPTION			
SY5693	175amp	1/0 to 4 AWG		
SY5910	50амр	6 AWG to 10-12 AWG		

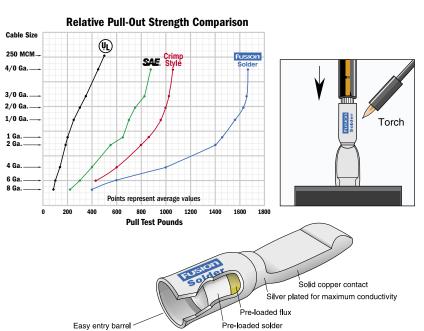


SY® FUSION CONTACT TIPS

- Contacts come with pre-loaded flux and solder
- ullet Contact come ready-to-use just add heat
- Especially good in presence of destructive vibration or corrosive chemicals
- Fast and convenient
- Pull-out strength better than any crimp method



PART #	AMP	GAUGE
SY121105	175amp	2ga
SY121107	175амр	1/0
SY121108	350AMP	2/0
SY121109	350амр	3/0
SY121110	350AMP	4/0





SY® BATTERY CONNECTORS

SPECIFICATIONS



MODEL	SY50	SY120	SY175	SY350
UL amperage*/voltage rating:	50AMPS/600VDC	120AMPS/600VDC	175AMPS/600VDC	350amps/600vdc
Operating temperature range:	-20° to 105°C	-20° to 105°C	-20° to 105°C	-20° to 105°C
Current rating*:	50 _{AMPS} on 6 _{AWG} wire produces 30°C rise	120 _{AMPS} on 2 _{AWG} wire produces 35°C rise	175AMPS on 1/0AWG wire produces 30°C rise	350AMPS on 750MCM wire produces 35°C rise
Insulation with standing test voltage (volts, dc):	2200pc	2200pc	2200pc	2200pc
Maximum wire insulation diameter:	0.44"/11mm	0.50"/13mm	0.75"/19mm	1.10"/28mm
Average contact retention force:	Approximately 50 _{LBS}	Approximately 150 _{LBS}	Approximately 300LBS	Approximately 500LBS
Average contact resistance:	With 1 ¹ / ₄ " (32mm) of 6awg wire 200 micro-ohms	With 1 ¹ / ₂ " (38mm) of 2 _{AWG} wire 150 micro-ohms	With $1^3/4$ " (45mm) of $1/0$ AWG wire 100 micro-ohms	With $2^{1}/_{2}$ " (64mm) of 300мсм wire 50 micro-ohms
Vibration resistance:	Excellent	Excellent	Excellent	Excellent
Mating cycles:	10,000 For disconnect use only	10,000 For disconnect use only	10,000 For disconnect use only	10,000 For disconnect use only
Impact resistance:	High	High	High	High
Environmental restrictions:	Protected-no hydrocarbon fluids	Protected-no hydrocarbon fluids	Protected-no hydrocarbon fluids	Protected-no hydrocarbon fluids
Average mating and unmating force:	15LBS (6.75kg)	20LBS (9.00kg)	25LBS (11.25kg)	30LBS (13.50kg)

^{*} For largest wire or cable size



Recognized under the component program of Underwriters Laboratories, Inc. File No. E81817

Flammability Rating: UL94V-0



Listed by Canadian Standards Association for use with certified equipment. File No. LR82704

HOUSI	HOUSING DIMENSIONS								
MODEL	A	В	C	D	E	F	G	Н	J DIA
SY50	0.75"/19mm	0.25"/6mm	0.72"/18mm	1.44"/37mm	1.88"/48mm	3.19"/81mm	0.45"/11mm	0.63"/16mm	0.14"/4mm
SY120	0.75"/19mm	0.34"/9mm	0.96"/24mm	1.92"/49mm	2.50"/64mm	4.13"/105mm	0.58"/15mm	0.81"/21mm	0.20"/5mm
SY175	1.13"/29mm	0.44"/11mm	1.09"/28mm	2.19"/56mm	3.13"/80mm	5.25"/133mm	0.75"/19mm	1.00"/25mm	0.27"/7mm
SY350	1.13"/29mm	1.38"/35mm	1.38"/35mm	2.75"/70mm	4.25"/108mm	7.19"/183mm	1.06"/27mm	1.31"/33mm	0.27"/7mm
		J Holes 2 PLC's		TVBVVV	D (F		G ↓H	

VOLTAGE COLOR CODE

- Mechanical keys molded in connectors will engage only with connectors of same color
- This color code given for various voltages is only a suggestion

Interconnectable with SB Connectors (® Registered trademark Anderson Power Products) and S Connectors (® Registered trademark Brad Harrison Co.)

COLOR	SUGGESTED VOLTAGE	
Yellow	12vdc	
Orange	18vdc	
Red	24vdc	
Gray	36vdc	
Blue	48vdc	
Green	72vdc	

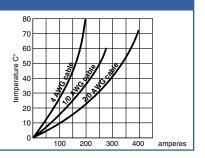


SY® BATTERY CONNECTORS

AMPERE/TEMPERATURE CURVES

 Ampere/Temperature curves help to evaluate and rate SY connectors in terms of applied load versus temperature rise. The graph shows some typical curves resulting from loading popular cable sizes into various connector housings**, curves for cables between the smallest and largest can be easily estimated. Thus with consideration of both ampere and temperature characteristics, connectors can be selected according to load and temperature limits or requirements of particular installations.





CHIDDENT

UL COMPATIBILITY REFERENCE GUIDE

SY50, SY175 & SY350 SERIES

• Underwriters Laboratories recognizes compatibility of SY Series Battery Connectors with Anderson Power Products SB® Series Connectors

CHIDDENT

Housings with 2 Contacts

WIRE SIZE	SMH #	ANDERSON #	COLOR	CURRENT RATING
SY50				
6ga	SY6319	6319	Gray	50амр
10ga	SY6319G1	6319G1	Gray	30амр
12ga	SY6319G1	6319G1	Gray	20 _{AMP}
6ga	SY6331G1	6331G1	Red	50амр
10ga	SY6331G2	6331G2	Red	30амр
12ga	SY6331G2	6331G2	Red	20амр
SY175				
1/0	SY6325G1	6325G1	Gray	175AMP
1/0	SY6326G1	6326G1	Blue	175амр
1/0	SY6327G1	6327G1	Orange	175амр
1/0	SY6328G1	6328G1	Yellow	175амр
1/0	SY6329G1	6329G1	Red	175амр
SY350				
2/0	SY6320G1	6320G1	Gray	225AMP
3/0	SY6320G5	6320G5	Gray	275амр
4/0	SY6320G2	6320G2	Gray	300amp
2/0	SY6321G1	6321G1	Blue	225амр
3/0	SY6321G5	6321G5	Blue	275амр
4/0	SY6321G2	6321G2	Blue	300amp
2/0	SY6322G1	6322G1	Red	225амр
3/0	SY6322G5	6322G5	Red	275амр
4/0	SY6322G2	6322G2	Red	300амр
2/0	SY6323G1	6323G1	Yellow	225амр
3/0	SY6323G5	6323G5	Yellow	275amp
4/0	SY6323G2	6323G2	Yellow	300амр
2/0	SY6324G1	6324G1	Green	225амр
3/0	SY6324G5	6324G5	Green	275амр
4/0	SY6324G2	6324G2	Green	300амр
2/0	SY6400G1	6400G1	Orange	225амр
3/0	SY6400G5	6400G5	Orange	275амр
4/0	SY6400G2	6400G2	Orange	300амр

Contacts (single)

			CURRENI
WIRE SIZE	SMH #	ANDERSON #	RATING
SY50			
6ga	SY903-1	5900	50amp
8ga	SY905-1	5952	40amp*
10ga	SY904-1	5915	30amp
12GA	SY904-1	5915	20амр
SY175			
1/0	SY56-0560	1382 (B00374P1)	175AMP
SY350			
2/0	SY56-0571	907 (B00416P1)	225AMP
3/0	SY916-1	916 (B00417P1)	275амр
4/0	SY908-1	908 (B00418P1)	300amp

Housings Only

SMH #	ANDERSON #	COLOR
SY50		
SY992	992	Gray
SY992G1	992G1	Red
SY175		
SY940	940	Gray
SY941	941	Blue
SY942	941	Orange
SY943	943	Yellow
SY949	949	Red
SY350		
SY906	906	Gray
SY912	912	Blue
SY913	913	Red
SY914	914	Yellow
SY931	931	Green
SY932	932	Orange

[®] Registered trademark, Anderson Power Products

^{*} UL requires minimum 65°C wire or cable for this rating

CONNECTOR HANDLES





- For 175AMP connectors
- Steel



* Connector not included

SY175-350H

- For 175AMP and 350AMP connectors
- Steel



* Connector not included

SY50H

- For 50_{AMP} connectors
- Steel



* Connector not included

SY911

- Handle and clamp
- For 350AMP connector
- Steel



SY994

- For 50-120_{AMP} connectors
- Polycarbonate
- Available in black, gray or red



* Connector not included

SIVIH #	DESCRIPTION
SY994	Gray handle kit
SY994BLACK	Black handle kit

SMH #	DESCRIPTION	
SY994RED	Red handle kit	

SY995

- For 175-350AMP connectors
- Polycarbonate
- Available in black, gray or red



* Connector not included

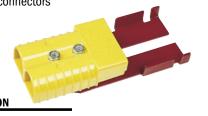
SMH #	DESCRIPTION
SY995	Gray handle kit
SY995BLACK	Black handle kit

SMH #	DESCRIPTION
SY995RED	Red handle kit

CONNECTOR MANUAL RELEASES

SY175M & SY350M

- Mounting half with hardware for charger or truck
- For 175 or 350 AMP connectors



SMH # APPLICATION

SY175M SY175 connector SY350M SY350 connector

* Connector not included

SY175L & SY350L

- Locking handle with cable clamps and hardware
- For 175 or 350 AMP connectors

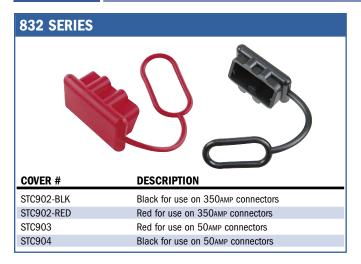


SMH #	APPLICATION	
SY175L	SY175 connector	
SY350L	SY350 connector	

* Connector not included



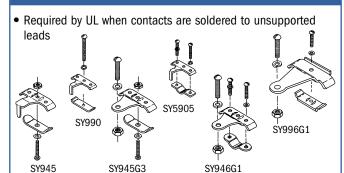
CONNECTOR DUST COVERS





SY® CONNECTOR ACCESSORIES

CABLE CLAMPS



CLAMP #	DESCRIPTION	
FOR SY50		
SY990	2 single conductor	
SY5905	1 twin conductor	
FOR SY175		
SY945	2 single conductor	
SY945G3	Used with handle only	
SY946G1	1 twin conductor	
FOR SY350		
SY996G1	2 single conductor	

SY CONNECTOR KEY KITS

- Key Kits can be mounted to prevent charger to SCR panel connector halves from engaging while still allowing battery and truck connector halves to engage
- Key Kits can also be mounted to prevent battery to truck connector halves from engaging on unsafe vehicles
- · Bright zinc plate

SMH #	AMPS
SY1105	50
SY1120	175/350
All k	key kits include 2 plated steel keys and all necessary hardware.

CONNECTOR LOCKOUTS

SY175-LOCKOUT & SY350-LOCKOUT

• For use with 175AMP or 350AMP connectors

Lock not included



See OEM Cross Reference on pages 2.25 - 2.26

SYE® BATTERY CONNECTORS

SYE 160 & 320AMP

- · Single piece housings of impact resistant velox offer both high physical strength and superior dielectric properties
- Silver plated solid copper contacts offer low resistance for superior conductivity
- · Self cleaning contact design resists arcing by keeping conductive surfaces clean and free of corrosion
- Contacts have flared and heat treated barrels that readily accept fine stranded wire and allow easy, quality crimping
- Integral stainless steel springs maintain constant pressure on the contact to insure a consistent, low resistance connection
- Mechanical keys in housing prevent mating of different color connectors, preventing mismatching of voltages
- Auxiliary contacts provide a secondary circuit connection









CONNECTOR #	DESCRIPTION (1 HOUSING & 2 CONTACTS)	HOUSING #	CONTACT KIT #
SYE160AMP		<u> </u>	
SYE6374G2	160 _{AMP} gray connector with 35sq mm contacts	SYE6380G1	SY6384G2
SYE6375G2	160AMP blue connector with 35sq mm contacts	SYE6381G1	SY6384G2
SYE6376G2	160AMP orange connector with 35sq mm contacts	SYE6382G1	SY6384G2
SYE6377G2	160 _{AMP} yellow connector with 35 _{SQ} mm contacts	SYE6383G1	SY6384G2
SYE6379G2	160 _{AMP} red connector with 35 _{SQ} mm contacts	SYE6385G1	SY6384G2
SYE6389G2	160 _{AMP} black connector with 35sq mm contacts	SYE6392G1	SY6384G2
SYE6391G2	160AMP green connector with 35sq mm contacts	SYE6390G1	SY6384G2
SY6384G1	Optional 1/0 contact kit of 2		
SYE320AMP			
SYE6345G1	320 _{AMP} gray connector with 2/0 contacts	SYE6350	SY6354
SYE6345G2	320 _{AMP} gray connector with 3/0 contacts	SYE6350	SY6355
SYE6346G1	320 _{AMP} blue connector with 2/0 contacts	SYE6351	SY6354
SYE6346G2	320 _{AMP} blue connector with 3/0 contacts	SYE6351	SY6355
SYE6347G1	320 _{AMP} red connector with 2/0 contacts	SYE6352	SY6354
SYE6347G2	320 _{AMP} red connector with 3/0 contacts	SYE6352	SY6355
SYE6348G1	320AMP green connector with 2/0 contacts	SYE6353	SY6354
SYE6348G2	320AMP green connector with 3/0 contacts	SYE6353	SY6355
SYE6363G1	320 _{AMP} black connector with 2/0 contacts	SYE6361	SY6354
SYE6363G2	320 _{AMP} black connector with 3/0 contacts	SYE6361	SY6355
SYE6364G1	320AMP yellow connector with 20 contacts	SYE6362	SY6354
SYE6364G2	320 _{AMP} yellow connector with 3/0 contacts	SYE6362	SY6355
SYE6369G1	320AMP orange connector with 2/0 contacts	SYE6339	SY6354
SYE6369G2	320AMP orange connector with 3/0 contacts	SYE6339	SY6355
SYE6334G1	320 _{AMP} brown connector with 2/0 contacts	SYE6336	SY6354
SYE6334G2	320 _{AMP} brown connector with 3/0 contacts	SYE6336	SY6355
SYE6335G1	320 _{AMP} purple connector with 2/0 contacts	SYE6349	SY6354
SYE6335G2	320AMP purple connector with 3/0 contacts	SYE6349	SY6355
SY6356	Optional 4/0 contact kit of 2		

C € EURO-NORM / EURO-STANDARD: EN1175-1 (1998)



SYE® BATTERY CONNECTORS





CONNECTOR # DESCRIPTION (1 HOUSING, 2 CONTACTS & AUXILIARY CONTACT KIT)

SYE160AMP	
SYE6370G2	160AMP gray connector with 35sq mm contacts and auxiliary contact kit
SYE6371G2	160AMP blue connector with 35so mm contacts and auxiliary contact kit
SYE6372G2	160AMP orange connector with 35so mm contacts and auxiliary contact kit
SYE6373G2	160AMP yellow connector with 35so mm contacts and auxiliary contact kit
SYE6378G2	160AMP red connector with 35sq mm contacts and auxiliary contact kit
SYE6387G2	160AMP green connector with 35sq mm contacts and auxiliary contact kit
SYE6388G2	160AMP black connector with 35sq mm contacts and auxiliary contact kit
SYE320AMP	
SYE6340G1	320AMP gray connector with 2/0 contacts and auxiliary contact kit
SYE6340G2	320AMP gray connector with 3/0 contacts and auxiliary contact kit
SYE6341G1	320AMP blue connector with 2/0 contacts and auxiliary contact kit
SYE6341G2	320AMP blue connector with 3/0 contacts and auxiliary contact kit
SYE6342G1	320AMP red connector with 2/0 contacts and auxiliary contact kit
SYE6342G2	320AMP red connector with 3/0 contacts and auxiliary contact kit
SYE6343G1	320 _{AMP} green connector with 2/0 contacts and auxiliary contact kit
SYE6343G2	320AMP green connector with 3/0 contacts and auxiliary contact kit
SYE6359G1	320AMP black connector with 2/0 contacts and auxiliary contact kit
SYE6359G2	320AMP black connector with 3/0 contacts and auxiliary contact kit
SYE6360G1	320AMP yellow connector with 2/0 contacts and auxiliary contact kit
SYE6360G2	320AMP yellow connector with 3/0 contacts and auxiliary contact kit
SYE6368G1	320AMP orange connector with 2/0 contacts and auxiliary contact kit
SYE6368G2	320AMP orange connector with 3/0 contacts and auxiliary contact kit
SYE6332G1	320AMP brown connector with 2/0 contacts and auxiliary contact kit
SYE6332G2	320AMP brown connector with 3/0 contacts and auxiliary contact kit
SYE6333G1	320AMP purple connector with 2/0 contacts and auxiliary contact kit
SYE6333G2	320AMP purple connector with 3/0 contacts and auxiliary contact kit

See previous page for housing and contact kit part numbers

€ EURO-NORM / EURO-STANDARD: EN1175-1 (1998)



SYX® BATTERY CONNECTORS

SYX 175 & 350AMP

CONNECTOR #

- Single piece housings of impact resistant polycarbonate offer both high physical strength and superior dielectric properties
- Silver plated solid copper contacts offer low resistance for superior conductivity
- Self cleaning contact design resists arcing by keeping conductive surfaces clean and free of corrosion
- · Contacts have flared and heat treated barrels that readily accept fine stranded wire and allow easy, quality crimping
- Integral stainless steel springs maintain constant pressure on the contact to insure a consistent, low resistance connection
- Mechanical keys in housing prevent mating of different color connectors, preventing mismatching of voltages
- Auxiliary contacts provide a secondary circuit connection





DESCRIPTION (4 HOUSING 9. 2 CONTACTS)



HUIISING #



CONTACT KIT #

CONNECTOR #	DESCRIPTION (1 HOUSING & 2 CONTACTS)	HOUSING #	CONTACT KIT #
SYX175AMP			
SY6374G1	175AMP gray connector with 1/0 contacts	SY6380G1	SY6384G1
SY6374G2	175AMP gray connector with 35mm contacts	SY6380G1	SY6384G2
SY6375G1	175AMP blue connector with 1/0 contacts	SY6381G1	SY6384G1
SY6375G2	175AMP blue connector with 35mm contacts	SY6381G1	SY6384G2
SY6376G1	175AMP orange connector with 1/0 contacts	SY6382G1	SY6384G1
SY6376G2	175AMP orange connector with 35mm contacts	SY6382G1	SY6384G2
SY6377G1	175AMP yellow connector with 1/0 contacts	SY6383G1	SY6384G1
SY6377G2	175AMP yellow connector with 35mm contacts	SY6383G1	SY6384G2
SY6379G1	175AMP red connector with 1/0 contacts	SY6385G1	SY6384G1
SY6379G2	175AMP red connector with 35mm contacts	SY6385G1	SY6384G2
SY6391G1	175AMP green connector with 1/0 contacts	SY6390G1	SY6384G1
SY6391G2	175AMP green connector with 35mm contacts	SY6390G1	SY6384G2
SYX350AMP			
SY6345G1	350AMP gray connector with 2/0 contacts	SY6350	SY6354
SY6345G2	350AMP gray connector with 3/0 contacts	SY6350	SY6355
SY6345G3	350AMP gray connector with 4/0 contacts	SY6350	SY6356
SY6346G1	350AMP blue connector with 2/0 contacts	SY6351	SY6354
SY6346G2	350AMP blue connector with 3/0 contacts	SY6351	SY6355
SY6346G3	350AMP blue connector with 4/0 contacts	SY6351	SY6356
SY6347G1	350AMP red connector with 2/0 contacts	SY6352	SY6354
SY6347G2	350AMP red connector with 3/0 contacts	SY6352	SY6355
SY6347G3	350AMP red connector with 4/0 contacts	SY6352	SY6356
SY6348G1	350AMP green connector with 2/0 contacts	SY6353	SY6354
SY6348G2	350AMP green connector with 3/0 contacts	SY6353	SY6355
SY6348G3	350AMP green connector with 4/0 contacts	SY6353	SY6356
SY6363G1	350AMP black connector with 2/0 contacts	SY6361	SY6354
SY6363G2	350AMP black connector with 3/0 contacts	SY6361	SY6355
SY6363G3	350AMP black connector with 4/0 contacts	SY6361	SY6356
SY6364G1	350 _{AMP} yellow connector with 2/0 contacts	SY6362	SY6354
SY6364G2	350AMP yellow connector with 3/0 contacts	SY6362	SY6355
SY6364G3	350 _{AMP} yellow connector with 4/0 contacts	SY6362	SY6356
SY6369G1	350 _{AMP} orange connector with 2/0 contacts	SY6339	SY6354
SY6369G2	350 _{AMP} orange connector with 3/0 contacts	SY6339	SY6355
SY6369G3	350AMP orange connector with 4/0 contacts	SY6339	SY6356



SYX® BATTERY CONNECTORS

SYX 175 & 350AMP



DESCRIPTION (1 HOUSING, 2 CONTACTS & AUXILIARY CONTACT KIT) CONNECTOR

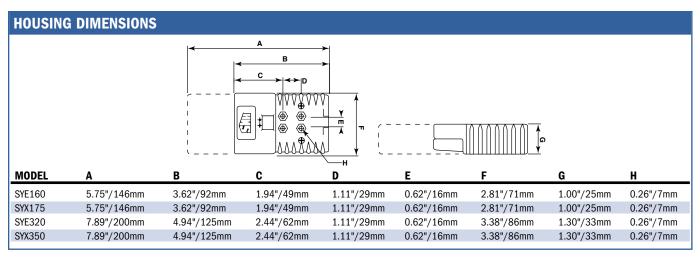
SYX175AMP	
SY6370G1	175AMP gray connector with $1/0$ contacts and auxiliary contact kit
SY6370G2	175AMP gray connector with 35mm contacts and auxiliary contact kit
SY6371G1	175AMP blue connector with 1/0 contacts and auxiliary contact kit
SY6371G2	175AMP blue connector with 35mm contacts and auxiliary contact kit
SY6372G1	175AMP orange connector with 1/0 contacts and auxiliary contact kit
SY6372G2	175AMP orange connector with 35mm contacts and auxiliary contact kit
SY6373G1	175AMP yellow connector with $1/0$ contacts and auxiliary contact kit
SY6373G2	175AMP yellow connector with 35mm contacts and auxiliary contact kit
SY6378G1	175AMP red connector with 1/0 contacts and auxiliary contact kit
SY6378G2	175AMP red connector with 35mm contacts and auxiliary contact kit
SY6387G1	175AMP green connector with 1/0 contacts and auxiliary contact kit
SY6387G2	175AMP green connector with 35mm contacts and auxiliary contact kit
SYX350amp	
SY6340G1	350AMP gray connector with 2/0 contacts and auxiliary contact kit
SY6340G2	350AMP gray connector with 3/0 contacts and auxiliary contact kit
SY6340G3	350AMP gray connector with 4/0 contacts and auxiliary contact kit
SY6341G1	350AMP blue connector with 2/0 contacts and auxiliary contact kit
SY6341G2	350AMP blue connector with 3/0 contacts and auxiliary contact kit
SY6341G3	350AMP blue connector with 4/0 contacts and auxiliary contact kit
SY6342G1	350AMP red connector with 2/0 contacts and auxiliary contact kit
SY6342G2	350AMP red connector with 3/0 contacts and auxiliary contact kit
SY6342G3	350AMP red connector with 4/0 contacts and auxiliary contact kit
SY6343G1	350AMP green connector with 2/0 contacts and auxiliary contact kit
SY6343G2	350AMP green connector with 3/0 contacts and auxiliary contact kit
SY6343G3	350AMP green connector with 4/0 contacts and auxiliary contact kit
SY6359G1	350AMP black connector with 2/0 contacts and auxiliary contact kit
SY6359G2	350AMP black connector with 3/0 contacts and auxiliary contact kit
SY6359G3	350AMP black connector with 4/0 contacts and auxiliary contact kit
SY6360G1	350AMP yellow connector with 2/0 contacts and auxiliary contact kit
SY6360G2	350AMP yellow connector with 3/0 contacts and auxiliary contact kit
SY6360G3	350 _{AMP} yellow connector with 4/0 contacts and auxiliary contact kit
SY6368G1	350AMP orange connector with 2/0 contacts and auxiliary contact kit
SY6368G2	350AMP orange connector with 3/0 contacts and auxiliary contact kit
SY6368G3	350AMP orange connector with 4/0 contacts and auxiliary contact kit

See previous page for housing and contact kit part numbers





SYE®/SYX® BATTERY CONNECTORS



VOLTAGE COLOR CODE

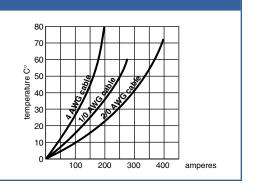
- · Mechanical keys molded in connectors will engage only with connectors of same color
- This color code given for various voltages is only a suggestion

COLOR	SUGGESTED VOLTAGE	COLOR	SUGGESTED VOLTAGE	COLOR	SUGGESTED VOLTAGE
Yellow	12vdc	Gray	36vdc	Black	80vdc
Orange	18vdc	Blue	48vdc	Brown	96vdc
Red	24vdc	Green	72vdc	Purple	120vbc

REPLACEMENT CONTACT KITS			
CATALOG #	AWG WIRE	A INCHES/mm	B INCHES/mm
160/175			
SY6384G1	1/0	0.44/11	0.80/20
SY6384G2	35mm	0.37/10	0.80/20
320/350			
SY6354	2/0	0.49/13	1.25/32
SY6355	3/0	0.58/15	1.25/32
SY6356	4/0	0.64/16	1.25/32
<u> </u>			
All kits contain 2 contacts			

AMPERE/TEMPERATURE CURVES

- Ampere/Temperature curves help to evaluate and rate SY connectors in terms
 of applied load versus temperature rise. The graph shows some typical curves
 resulting from loading popular cable sizes into various connector housings**,
 curves for cables between the smallest and largest can be easily estimated. Thus
 with consideration of both ampere and temperature characteristics,
 connectors can be selected according to load and temperature limits or
 requirements of particular installations.
- ** Detailed specifications are available.



SYE®/SYX® BATTERY CONNECTORS

SPECIFICATIONS

 All figures are for reference only and are not intended for specification purposes. Specific details will be furnished upon request.



CONNECTOR MODEL	SYE160	SYE320	SYX175	SYX350
Nominal amperage/voltage rating:	160AMPS/150VDC	320amps/150vdc	175AMPS/600VDC	350AMPS/600VDC
Operating temperature range:	-20° to 105°C	-20° to 105°C	-20° to 105°C	-20° to 105°C
Current Rating*:	160AMP	320AMP	175 _{AMP}	350AMP
Breakdown voltage to mounting:	10,000pc	10,000pc	10,000pc	10,000pc
Maximum wire insulation diameter:	0.75"/19mm	1.10"/28mm	0.75"/19mm	1.10"/28mm
Average contact retention force:	300 _{LBS} /135 _{kg}	500LBS/225kg	300LBS/135kg	500 _{LBS} /225kg
Vibration resistance:	Excellent	Excellent	Excellent	Excellent
Mating cycles	10,000 For disconnect use only	10,000 For disconnect use only	10,000 For disconnect use only	10,000 For disconnect use only
Impact resistance:	High	High	High	High
Environmental restrictions:	Protected- no hydrocarbon fluids	Protected- no hydrocarbon fluids	Protected- no hydrocarbon fluids	Protected- no hydrocarbon fluids
Average mating and	25LBS/11.25kg	30 _{LBS} /13.50 _{kg}	25LBS/11.25kg	30LBS/13.50kg
unmating force	C € _{EURO-NORM/} EURO-STANDARD: EN1175-1 (1998)	€ EURO-NORM/ EURO-STANDARD: EN1175-1 (1998)	.51 E81817	51 E81817
Flammability Rating: UL94V-0				
* For largest wire or cable size				

SYE® 320 CONNECTOR KIT

CR108800-9

- Polycarbonate housing
- Contact tips and hardware included





SYE®/SYX® BATTERY CONNECTOR ACCESSORIES

HANDLE KIT

SY995 (gray) SY995RED SY995BLACK

- SYE-160/320AMP
- SYX-175/350AMP
- Polycarbonate

OEM #AN995G1
AN995G2



OEM #	OEM #	
CT2I5343	HY3008074	
CU892786	RA590-732	

CHARGER KEY KIT

SY6337G1

- SYE-160/320AMP
- SYX-175/350AMP



AUXILIARY CONTACT KIT

SY6344

- SYE-160/320AMP
- SYX-175/350AMP



MANUAL RELEASE HANDLES





SMH #	DESCRIPTION
SY993G1	SYE/X-320/350 _{AMP} , locking handle with hardware, for charger or truck
SY993G2	SYE/X-160/175AMP, locking handle with hardware, for charger or truck
SY994G1	SYE/X-320/350AMP, mounting half with hardware, for battery
SY994G2	SYE/X-160/175amp, mounting half with hardware, for battery

CABLE CLAMPS

SMH #	DESCRIPTION
SY911G2	SYE-320AMP cable clamp
	SYX-350 _{AMP} cable clamp
SY945G2	SYE-160amp cable clamp
	SYX-175amp cable clamp
SY945G7	SYE and SYX cable clamp



SMH #	DESCRIPTION
SY945G7	SYE and SYX cable clamp



SY® 3-POLE CONNECTOR & HANDLE

SY69350 & SYU127482

- 160AMP
- 24v
- Red polycarbonate





SB® BATTERY CONNECTOR

SB® 3-POLE CONNECTOR

- Polycarbonate housing
- Contact tips and hardware included

 SMH #
 DESCRIPTION

 SY6316
 175AMP gray 1/0

 $SB^{\scriptsize \circledcirc}$ is a registered trademark of Anderson Power Products





SP® BATTERY CONNECTORS

SP15/30, 75, 120 & 180AMP

- Single piece housings of impact resistant polycarbonate offer both high physical strength and superior dielectric properties
- Silver plated solid copper contacts offer low resistance for superior conductivity
- Self cleaning contact design resists arcing by keeping conductive surfaces clean and free of corrosion
- Contacts have flared and heat treated barrels that readily accept fine stranded wire and allow easy, quality crimping
- Integral stainless steel springs maintain constant pressure on the contact to insure a consistent, low resistance connection
- Interchangeable, genderless design
- Allows custom multi-pole configurations









15/30AMP red connector with 30 AMP, 12-16 AWG contact 15/30AMP red connector with 15 AMP, 16-20 AWG contact 15/30AMP green connector with 30 AMP, 12-16 AWG contact 15/30AMP green connector with 15 AMP, 16-20 AWG contact
15/30amp red connector with 15 amp, 16-20 awg contact 15/30amp green connector with 30 amp, 12-16 awg contact 15/30amp green connector with 15 amp, 16-20 awg contact
15/30amp green connector with 30 amp, 12-16 awg contact 15/30amp green connector with 15 amp, 16-20 awg contact
15/30AMP green connector with 15 AMP, 16-20 AWG contact
, ,
15/20 AMD block connector with 20 AMD 12 16 AMD contact
15/30amp black connector with 30 amp, 12-16 awg contact
15/30amp black connector with 15 amp, 16-20 awg contact
15/30amp white connector with 30 amp, 12-16 awg contact
15/30amp white connector with 15 amp, 16-20 awg contact
15/30AMP blue connector with 30 AMP, 12-16 AWG contact
15/30AMP blue connector with 15 AMP, 16-20 AWG contact
75AMP blue connector with 6 AWG contact
75AMP blue connector with 8 AWG contact
75AMP blue connector with 10-12 AWG contact
75AMP black connector with 6 AWG contact
75AMP black connector with 8 AWG contact
75AMP black connector with 10-12 AWG contact
75AMP white connector with 6 AWG contact
75AMP white connector with 8 AWG contact
75AMP white connector with 10-12 AWG contact
75AMP red connector with 6 AWG contact
75AMP red connector with 8 AWG contact
75AMP red connector with 10-12 AWG contact
75AMP green connector with 6 AWG contact
75AMP green connector with 8 AWG contact
75AMP green connector with 10-12 AWG contact

CONTACT #	HOUSING #
SY1331	SY1327
SY1332	SY1327
SY1331	SY1327G5
SY1332	SY1327G5
SY1331	SY1327G6
SY1332	SY1327G6
SY1331	SY1327G7
SY1332	SY1327G7
SY1331	SY1327G8
SY1331	SY1327G8
SY903-1	SP5916
SY905-1	SP5916
SY904-1	SP5916
SY903-1	SP5916G4
SY905-1	SP5916G4
SY904-1	SP5916G4
SY903-1	SP5916G5
SY905-1	SP5916G5
SY904-1	SP5916G5
SY903-1	SP5916G7
SY905-1	SP5916G7
SY904-1	SP5916G7
SY903-1	SP5916G6
SY905-1	SP5916G6
SY904-1	SP5916G6





SP® BATTERY CONNECTORS

SP15/30, 75, 120 & 180AMP





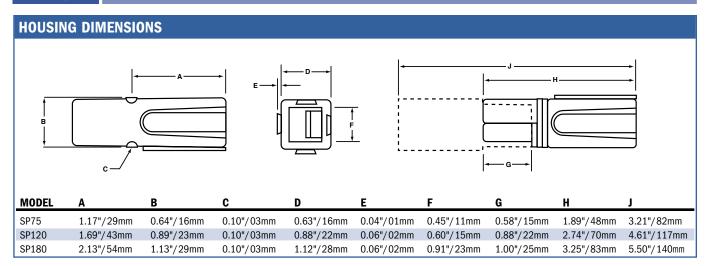


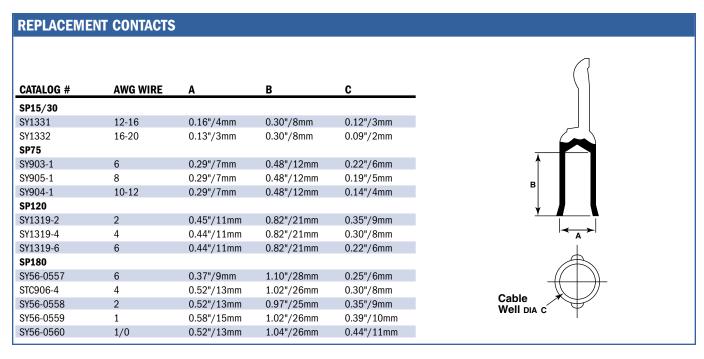
CONNECTOR #	DESCRIPTION (1 HOUSING & 1 CONTACT)	CONTACT #
SP120		
SP1320	120AMP blue connector with 2 AWG contact	SY1319-2
SP1320-4	120AMP blue connector with 4 AWG contact	SY1319-4
SP1320-6	120AMP blue connector with 6 AWG contact	SY1319-6
SP1320G1	120AMP black connector with 2 AWG contact	SY1319-2
SP1320G1-4	120AMP black connector with 4 AWG contact	SY1319-4
SP1320G1-6	120AMP black connector with 6 AWG contact	SY1319-6
SP1320G2	120AMP white connector with 2 AWG contact	SY1319-2
SP1320G2-4	120AMP white connector with 4 AWG contact	SY1319-4
SP1320G2-6	120AMP white connector with 6 AWG contact	SY1319-6
SP1320G3	120AMP red connector with 2 AWG contact	SY1319-2
SP1320G3-4	120AMP red connector with 4 AWG contact	SY1319-4
SP1320G3-6	120AMP red connector with 6 AWG contact	SY1319-6
SP1320G4	120AMP green connector with 2 AWG contact	SY1319-2
SP1320G4-4	120AMP green connector with 4 AWG contact	SY1319-4
SP1320G4-6	120AMP green connector with 6 AWG contact	SY1319-6
SP180		
SP1380	180AMP blue connector with 1/0 contact	SY1382 or SY5
SP1380-1	180AMP blue connector with 1 AWG contact	SY1347-1 or S
SP1380-2	180amp blue connector with 2 awg contact	SY1383 or SY5
SP1380-4	180AMP blue connector with 4 AWG contact	SY1384 or STO
SP1380G1	180AMP black connector with 1/0 contact	SY1382 or SY5
SP1380G1-1	180AMP black connector with 1 AWG contact	SY1347-1 or S
SP1380G1-2	180AMP black connector with 2 AWG contact	SY1383 or SY5
SP1380G1-4	180AMP black connector with 4 AWG contact	SY1384 or STO
SP1380G2	180AMP white connector with 1/0 contact	SY1382 or SY5
SP1380G2-1	180AMP white connector with 1 AWG contact	SY1347-1 or S
SP1380G2-2	180AMP white connector with 2 AWG contact	SY1383 or SY5
SP1380G2-4	180AMP white connector with 4 AWG contact	SY1384 or STO
SP1380G3	180AMP red connector with 1/0 contact	SY1382 or SY5
SP1380G3-1	180AMP red connector with 1 AWG contact	SY1347-1 or S
SP1380G3-2	180amp red connector with 2 awg contact	SY1383 or SY5
SP1380G3-4	180AMP red connector with 4 AWG contact	SY1384 or STO
SP1380G4	180AMP green connector with 1/0 contact	SY1382 or SY5
SP1380G4-1	180amp green connector with 1 awg contact	SY1347-1 or S
SP1380G4-2	180amp green connector with 2 awg contact	SY1383 or SY5
SP1380G4-4	180AMP green connector with 4 AWG contact	SY1384 or STO

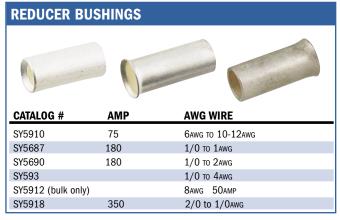
CONTACT #	HOUSING #
SY1319-2	SP1321
SY1319-4	SP1321
SY1319-6	SP1321
SY1319-2	SP1321G1
SY1319-4	SP1321G1
SY1319-6	SP1321G1
SY1319-2	SP1321G2
SY1319-4	SP1321G2
SY1319-6	SP1321G2
SY1319-2	SP1321G3
SY1319-4	SP1321G3
SY1319-6	SP1321G3
SY1319-2	SP1321G4
SY1319-4	SP1321G4
SY1319-6	SP1321G4
SY1382 or SY56-0560	SP1381
SY1347-1 or SY56-0558	SP1381
SY1383 or SY56-0559	SP1381
SY1384 or STC906-4	SP1381
SY1382 or SY56-0560	SP1381G1
SY1347-1 or SY56-0558	SP1381G1
SY1383 or SY56-0559	SP1381G1
SY1384 or STC906-4	SP1381G1
SY1382 or SY56-0560	SP1381G2
SY1347-1 or SY56-0558	SP1381G2
SY1383 or SY56-0559	SP1381G2
SY1384 or STC906-4	SP1381G2
SY1382 or SY56-0560	SP1381G3
SY1347-1 or SY56-0558	SP1381G3
SY1383 or SY56-0559	SP1381G3
SY1384 or STC906-4	SP1381G3
SY1382 or SY56-0560	SP1381G4
SY1347-1 or SY56-0558	SP1381G4
SY1383 or SY56-0559	SP1381G4
SY1384 or STC906-4	SP1381G4

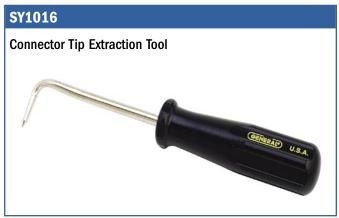


SP® BATTERY CONNECTORS









Recognized under the component program of Underwriters Laboratories, Inc. File No. E81817



Listed by Canadian Standards Association for use with certified equipment. File No. LR82704



SP® BATTERY CONNECTORS

SPECIFICATIONS SPECIFICATIONS					
MODEL	SP75	SP120	SP180		
UL amperage/ voltage rating	75AMP / 600VDC	120AMP / 600VDC	180AMP / 600VDC		
Operating Temperature range	-20 to 105 degree C	-20 to 105 degree C	-20 to 105 degree C		
Current Rating	75AMP on 6 AWG wire	120AMP on 2 AWG wire	180AMP on 1/0 wire		
	produces a 30°C rise	produces a 30°C rise	produces a 35°C rise		
Insulation with standing test	2200 vdc	2200 vdc	2200 vdc		
(VOLTS, DC)					
Maximum wire diameter	0.44" / 11 mm	0.50" / 13 mm	0.75" / 19 mm		
Average contact retention force	Approximately 50LBS	Approximately 100LBS	Approximately 150 _{LBS}		
Average contact resistance	with $1^{1}/_{4}$ " (32 mm) of 6	with $1^{1}/2$ " (38 mm) of 2	with $1^{3}/4$ " (45 mm) of $1/0$		
	Awg wire 200 micro-ohms	Awg wire 150 micro-ohms	wire 100 micro-ohms		
Vibration Resistance	Excellent	Excellent	Excellent		
Mating Cycles	10,000 For Disconnect	10,000 For Disconnect	10,000 For		
	Use Only	Use Only	Use Only		
Impact resistance	High	High	High		
Environmental Restrictions	Protected - No	Protected - No	Protected - No		
	hydrocarbon fluids	hydrocarbon fluids	hydrocarbon fluids		
Average mating and unmating force	7LBS (6.75 kg)	10 _{LBS} (9.00 kg)	12LBS (11.25 kg)		
Flammability Rating	UL94V-2	UL94V-2	UL94V-2		



Recognized under the component program of Underwriters Laboratories, Inc. File No. E81817

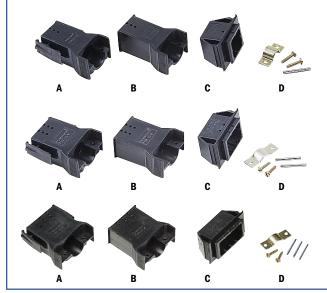


Listed by Canadian Standards Association for use with certified equipment. File No. LR82704

POWERPOLE® CONNECTORS

POWERPOLE® PACK HOUSINGS

- High impact and corrosion-resistant black nylon outer housings
- · Easy connection and disconnection of electrical equipment in commercial and industrial applications



- Cable clamps and integral latches prevent accidental disconnection of your equipment
- Accommodates 2 to 8, 20 AMP maximum circuits
- For 15/30AMP powerpole housings

SMH #	SIZE	
SY1460G1	4 pole housing with latch	(A)
SY1461G1	4 pole housing without latch	(B)
SY1470G1	4 pole receptacle	(C)
SY115G1	4 pole hardware kit	(D)
SMH #	SIZE	
SY1460G2	6 pole housing with latch	(A)
SY1461G2	6 pole housing without latch	(B)
SY1470G2	6 pole receptacle	(C)
SY115G2	6 pole hardware kit	(D)
SMH #	SIZE	
SY1460G3	8 pole housing with latch	(A)
SY1461G3	8 pole housing without latch	(B)
SY1470G3	8 pole receptacle	(C)
SY115G3	8 pole hardware kit (D)	

See OEM Cross Reference on pages 2.23 - 2.27

® Registered trademark, Anderson Power Products