

# Renewal parts for Power Xpert™ XGIS arc resistant gas insulated switchgear



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### Parts identification

This renewal parts list contains descriptions and style numbers for XGIS gas insulated switchgear.

When ordering renewal or spare parts, include as much information as possible. In many cases the style number of the new part can be obtained from identification on the old part. Always include a description of the part. Specify the rating, structure number, and project General Order (G. O.) number of the switch gear vertical section in which the part is to be used. The project G. O. number is specific to the customer project and can be found on Switchgear Ratings labels mounted on each vertical section. **Figure 1** shows an example Switchgear Ratings label, with the G.O. number field highlighted.

### Ordering information

1. G. O. number
2. Description and style number
3. Quantity

### NOTICE

**EATON'S ENGINEERING SERVICES & SYSTEMS (EESS) OFFERS PARTS INSTALLATION AND AUTHORIZED REPAIR.**

**CALL 1-800-498-2678 OR VISIT [HTTP://WWW.EATON.COM/EESS](http://www.eaton.com/eess) FOR THE EESS DISTRICT OPERATING CENTER NEAREST YOU.**

**FOR ADDITIONAL PRODUCT INFORMATION, PLEASE CONTACT YOUR LOCAL EATON AUTHORIZED SALES REPRESENTATIVE.**

<b>EATON</b>	Medium Voltage Switchgear Assembly		
SWITCHGEAR UNIT			
Type:	Gas Insulated Switchgear		
G.O:	XXXXXX	Date of Mfr:	
Item:	XXXXXX		
S.O:	XXXXXX	Section X of X	
Frequency:	50/60 Hz	Phase:	3
Max.Voltage:			38 kV
Power Frequency Withstand:			80 kV
LIWV (BIL):			170 kV
Normal Current:			1250 A
Peak Withstand Current:			40 /42 kA at 50/60 Hz
Short Time Withstand Current:			16 kA
Duration of Short Circuit:			3 Sec
Internal Arc:			16 kA/ 1 sec
Classification IAC			AFLR
Supply Voltage of Control Circuits			XXXXXXXX
Supply Voltage of Auxiliary Circuits			XXXXXXXX
Manufactured in:			Omaha, NE
Instructions:			XXXXXXXX
Applicable Standards:			IEC 62271-200
Loss of Service Continuity Category:			LSC2B
Degree of Protection:			IP4X
Total Weight of Gear (kg):			XXXXkg
SF6 Filling Pressure for Insulation:			0.13 MPa
SF6 Alarm Pressure for Insulation:			0.12 MPa
Minimum Functional SF6 Pressure for Insulation and/or Switching			0.12 MPa
NOTE: "Contains Fluorinated Greenhouse Gases Covered by the Kyoto Protocol"			
NOTE: Mass of SF6:			XXXX kg
NOTE: GWP of SF6 is 22,000 Times that of CO2			
NOTE: This Electrical Switchgear has a Tested Leak Rate of 0.1% per year			
70B1502H01			

Figure 1. XGIS switchgear vertical section ratings label

## SSIS busbar and bus joint renewal parts

**Table 1** is a list of SSIS busbar and bus joint part numbers. **Figure 2** shows an assembled SSIS bus and joints section. **Figure 3** shows busbar and bus joint components, with corresponding part numbers shown in bold.

Where a part is shown more than once, its part number is shown only once.

Where hardware part numbers are not shown, it is because those parts are included in their bus joint part numbers.

**Table 1. SSIS bus and bus joints hardware**

Busbar sections	1250 A busbars	2500 A busbars
Connecting 600 mm to 600 mm vertical sections	<b>87A1003H01</b> L=600mm (qty 3 required)	<b>87A1003H02</b> L=600mm (qty 3 required)
Connecting 600 mm to 800 mm vertical sections	Not applicable	<b>87A1003H03</b> L=650mm (qty 1), <b>87A1003H04</b> L=700mm (qty 1), <b>87A1003H05</b> L=750mm (qty 1)
Connecting 800 mm to 800 mm vertical sections	Not applicable	<b>87A1003H06</b> L=800mm (qty 3 required)
Bus joint component kits		
		2500 A joints (2500 A main bus and 1250 A tank):
Cross bus joint		<b>87A1004H04</b>
End bus joint		<b>87A1004H03</b>
F interface plug		<b>87A1004H06</b>
	1250 A joints (1250 A main bus and 1250 A tank)	2500 A joints (2500 A main bus and 2500 A tank):
Cross bus joint	<b>87A1004H02</b>	<b>87A1004H04</b>
End bus joint	<b>87A1004H01</b>	<b>87A1004H03</b>
C interface plug	<b>87A1004H05</b>	<b>87A1004H05</b>

### Notes

- Busbar is available in two current ratings: 1250 A and 2500 A.
- Due to tank main bus cone locations, busbar length varies depending upon the vertical sections being connected and must be specified in the catalog number. The above table identifies part numbers, busbar lengths and quantities required for the connection types and the busbar current ratings.
- Busbar lengths for each connection type will be the same for main bus connections and bus tie connections.
- Bus joints vary depending on the incoming bus rating and the outgoing bus rating.
- Bus joint hardware, including threaded rods, lock washers, nuts, clamshells, end discs and caps are furnished in a bus joint kit.
- Bus joint caps, discs and clamshells are furnished as part of the above component kits and are not available separately.



**Figure 2. Assembled end bus joint, SSIS bus and cross bus joint.**

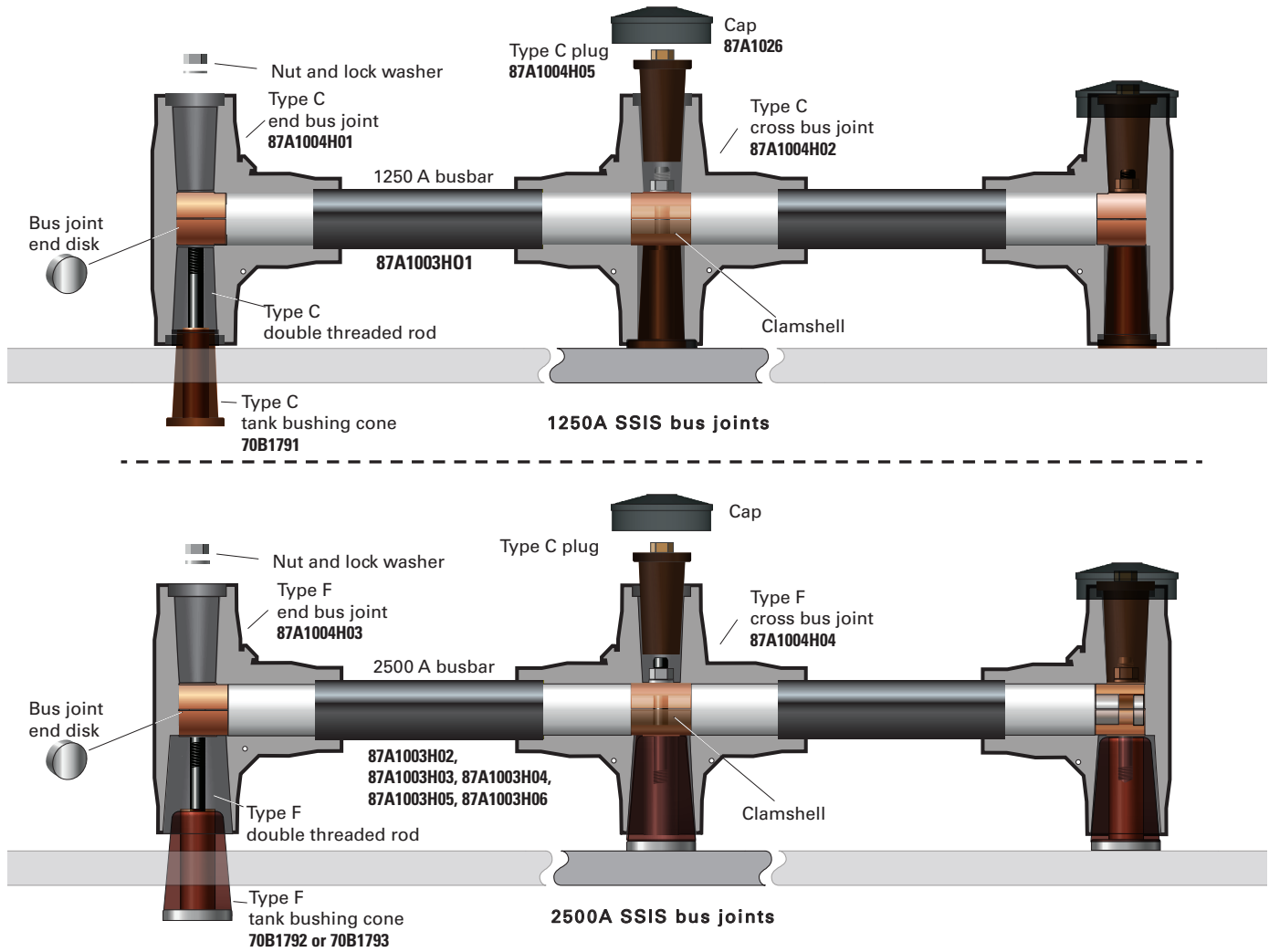
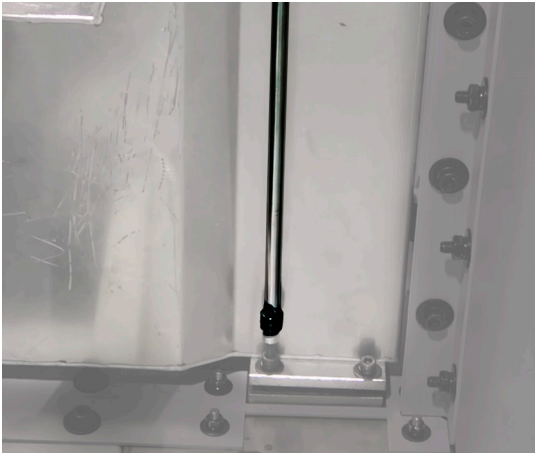
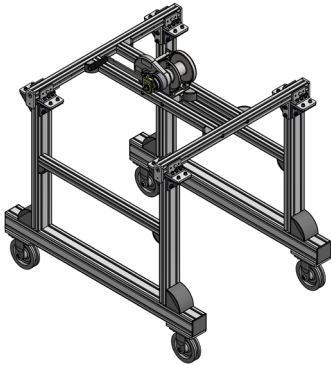




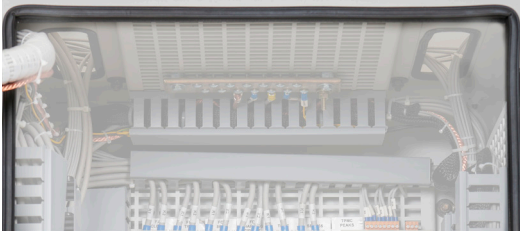










Figure 3. Representative busbar and bus joint components.

### XGIS miscellaneous parts

The parts tables in this document include part numbers that may define a family of items, not a specific part. It is best to order parts using the part number as a guide and including the G. O. number and a description of what is to be ordered.

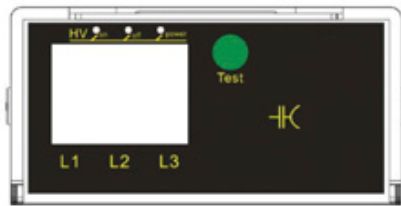
Table 2. XGIS other renewal parts

Description	Part description	Quantity	Part number
<b>VT Installation/removal tool</b>			
	VT Installation/removal tool	1	<b>87A1060G01</b>
<b>VT lifting truck</b>			
	Convertible VT lifting truck	1	<b>87A1090G01</b>
	Rail kit for front to back lifting	1 set	<b>87C2288</b>
	Rail kit for side lifting (basic)	1 set	<b>87C2289</b>
	Rail kit for side lifting (expansion kit) (additional rail sections and hardware for long lineup)	1 set	<b>87C2290</b>
<b>Three-position switch manual operating T-handle</b>			
	T-handle for 3PDS manual operation	1	<b>87A1027H01</b>
<b>SSIS accessories</b>			
<b>Cleaning cloths</b>	Cleaning cloths soaked in cleaning solvent (must be used; no alternative is acceptable)	1 set	<b>87A1045H01</b>
<b>Main bus grease</b>	Main bus silicone grease	1 pack	<b>87A1046H01</b>
<b>Cable tee connector grease</b>	Cable tee connector silicone grease	1 gal. bucket	<b>87A1098H01</b>
		5 gal. bucket	<b>87A1098H02</b>
		40 lb. bucket	<b>87A1098H03</b>

Description	Part description	Quantity	Part number
<b>Exterior components</b>			
<b>Door hardware, vertical section</b>			
	Vertical section door hardware kit	1	87A1001
<b>Door gasket, vertical section</b>			
	Vertical section door gasket	1	87A1002
<b>Circuit breaker indicating lights</b>			
	Green indicating light for circuit breaker status	1	10250T197LGP2D
	Red indicating light for circuit breaker status	1	10250T197LRP2D
<b>Three-Position Switch indicating lights</b>			
	Green indicating light for 3PDS position	1	10250T197LGP2D
	Red indicating light for 3PDS position	1	10250T197LRP2D
	Amber indicating light for 3PDS position	1	10250T197LAP2D
<b>Three-Position Switch operation pushbuttons</b>			
	Orange pushbutton for electrical 3PDS operation	1	10250T109
	Green pushbutton for electrical 3PDS operation	1	10250T103-2
	Red pushbutton for electrical 3PDS operation	1	10250T102-2
	White pushbutton for electrical 3PDS operation	1	10250T106-2
<b>Voltage presence indication device</b>			
	Capacitance voltage presence sensor and indicator	1	87A1061

Description	Part description	Quantity	Part number
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**Voltage detection system device (VDS)**



Voltage detection and indication with outputs

1

**87A1067**

**Interior components**

**Three-position switch  
 Motor controller firmware & ladder logic**

Firmware and logic software for 3PDS motor controller

1 set

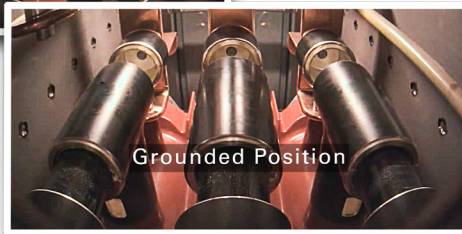
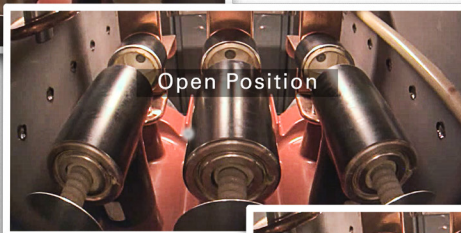
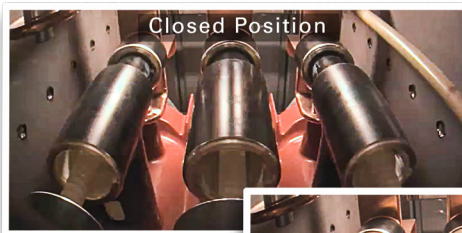
**87A1089**

**Three-position switch  
 Two-window position indicator**

XGIS Three-Position Switch Visual Reference

1

**87A1097**



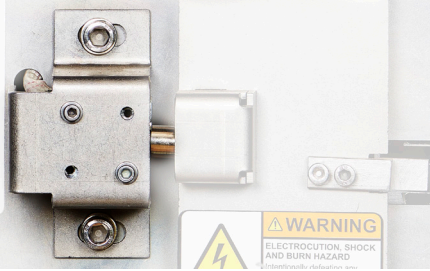
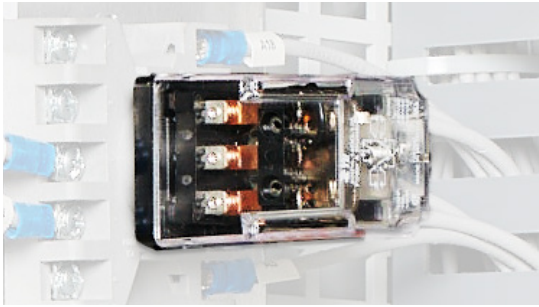



**Three-position switch Kirk lock / padlock mechanism limit switch**



Three-position switch limit switch used for Kirk lock/padlock PG (Prevent Grounding), PC (Prevent Closing) or PBO interlocks

1

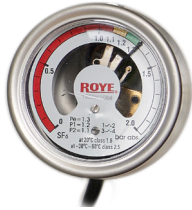
**E47BMS10**

Description	Part description	Quantity	Part number
<b>Three-position switch manual operation door blocking coil</b>			
 <p>Remove and insert                  Fully engaged                  and rotate in the                  direction                  reached the                  engagement will                  1 repeat steps 2                  next operating                  operation cover.</p> <p>70B1505H01</p> <p><b>WARNING</b>                  ELECTROCUTION, SHOCK                  AND BURN HAZARD</p>	Three-position switch solenoid coil for prohibiting manual operation access	1	<b>87A1110</b>
<b>Auxiliary relays and contacts</b>			
	24 VDC relays and contacts for auxiliary control	1	<b>KRPA-14DG-24</b>
<b>Low voltage control fuses</b>			
	Fuses for low voltage control applications	1	<b>NON series</b>
<b>Low voltage circuit breakers</b>			
	Circuit breakers for low voltage control application	1	<b>FAZ series</b>
<b>Voltage transformer fuses</b>			
Contact the factory and provide the GO# when ordering replacements or spares for these components			
<b>Breaker control switch kit</b>			
	Breaker Control Switch Kit (includes switch, nameplate, contact block)	1	<b>87A1029</b>



Description	Part description	Quantity	Part number
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**Pressure gauge**



SF6 Tank pressure gauge

1

**87A1043**

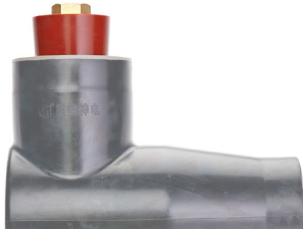
**Medium voltage main bus hardware**

**Dummy plug, #2 inner cone**

Dummy plug for cross or end bus joint top cone

1

**87A1025**



**Bushing cap, type C interface**

Cap for 1250A end or cross bus joint top cone

1

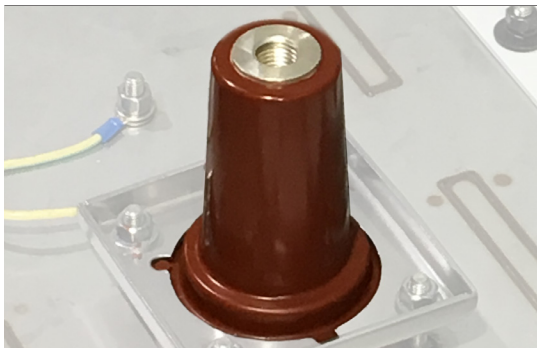
**87A1026**



**Current transformers**

Contact the factory and provide the GO# when ordering replacements or spares for these components.

**1250 A Type C outer cone**



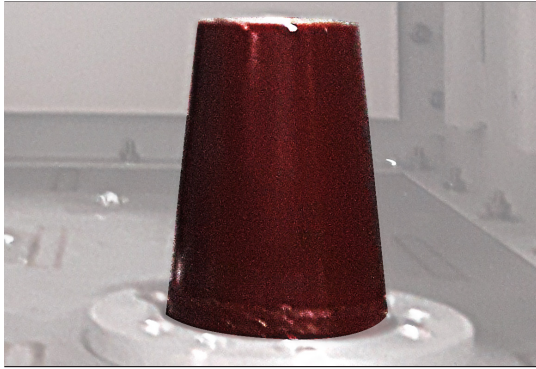
SF6 tank main bus or tie bus type C cone for 1250 A

1

**70B1791**

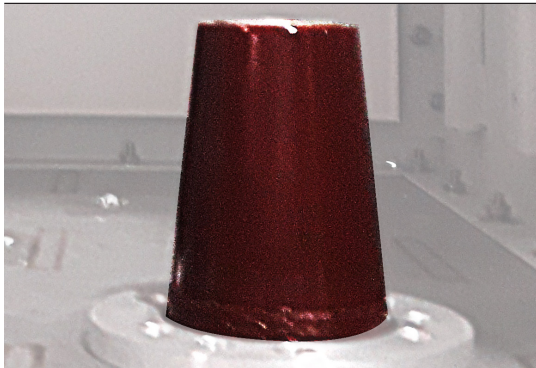
Description	Part description	Quantity	Part number
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**1250 A Type F outer cone**



SF <sub>6</sub> tank main bus or tie bus type F cone for 1250 A	1	<b>70B1792</b>
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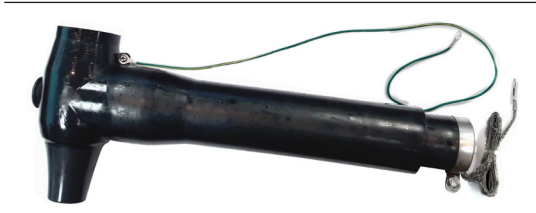
**2500 A Type F outer cone**



SF <sub>6</sub> tank main bus or tie bus type C cone for 2500 A	1	<b>70B1793</b>
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**Medium voltage cable compartment hardware**

**Surge arresters**



Cable connector surge arrester	1	<b>87A1007</b>
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**Cable cleats**







Cable compartment cable retaining cleats (part numbers cover cable diameters from 34 to 58 sq mm)	1	<b>87A1009</b>
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**Shear bolt lugs**



Cable connector cable attachment shear bolt	1	<b>87A1036</b>
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Description	Part description	Quantity	Part number
<b>Cable tee connector interface C no lug</b>	Tee body cable connector C without lug	1	<b>87A1037</b>
			
<b>Cable companion connector no lug</b>	Companion cable connector without lug	1	<b>87A1038</b>
			
<b>Cable tee connector interface C with mechanical lug</b>	Tee body cable connector C with lug	1	<b>87A1039</b>
			
<b>Cable companion connector with mechanical lug</b>	Companion cable connector with lug	1	<b>87A1040</b>
			

Description	Part description	Quantity	Part number
<b>Stud and rod for tee bolt</b>	Stud and rod for connecting Tee and companion connectors	1 set	<b>87A1070</b>
			
<b>Surge arrester hose clamp</b>	Cable compartment surge arrester retaining clamp	1	<b>87A1071</b>
			
<b>Cable bushing for CT and Tee connector</b>	SF <sub>6</sub> tank bushing for mounting CTs and Tee connector	1	<b>70B1790</b>
			
<b>Space Heater</b>	100W at 240 V	1	<b>3614A50H14</b>
			



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