SEL-311L-1, -7
Current Differential Relay and Backup Distance Protection
Standard with 14 Outputs, 6 Inputs, and Conventional Terminal Blocks
Standard Serial Protocols are SEL ASCII, SEL Fast Message and MIRRORED BITS
Available with Dual Failover Ethernet, Built-In Web Server, and IEC 61850 Compatibility

Part Number: 0 3 1 1 L 2 X

Firmware
Standard with Improved Functions
Standard with Improved Functions, Single-Pole Differential, and Single-Pole Zone 1 Distance Backup Protection*

Mounting
3U Horizontal Rack Mount H X
3U Horizontal Panel Mount 3 X
3U Vertical Panel Mount 4 X
3U Horizontal Projection Panel Mount* 5 X
4U Horizontal Rack Mount J
4U Horizontal Panel Mount K
4U Vertical Panel Mount L
4U Horizontal Projection Panel Mount* N

Line Current Differential Communications Channel X; Channel Y
Isolated EIA-422 None* A 0
Isolated EIA-422* A A
Isolated G.703 Co-Directional None* B 0
Isolated G.703 Co-Directional* B B
850nm IEEE C37.94 Fiber Channel X - 850nm IEEE C37.94 Fiber; Channel Y - None* C 0
Isolated EIA-422* C A
Isolated G.703 Co-Directional* C B
850nm IEEE C37.94 Fiber* C C
1300nm Fiber None* D 0
Isolated EIA-422* D A
Isolated G.703 Co-Directional* D B
850nm IEEE C37.94 Fiber* D C
1300nm Fiber* D D
1550nm Fiber None* E 0
Isolated EIA-422* E A
Isolated G.703 Co-Directional* E B
850nm IEEE C37.94 Fiber* E C
<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Options</th>
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<tbody>
<tr>
<td>1300nm Fiber*</td>
<td>E D</td>
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<td>H H</td>
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**Power Supply**

- 24/48 Vdc
- 48/125 Vdc or 125 Vac
- 125/250 Vdc or Vac

**Secondary Input Voltage**

- Wye-Connected Va, Vb, and Vc (150 Vac Maximum Phase-Neutral; channel Vs also rated to 150 Vac)

**Secondary Input Current**

- 1 Amp Phase and 1 Amp Polarizing Current Input
- 5 Amp Phase and 5 Amp Polarizing Current Input

**Control Input Voltage**

- 24 Vdc
- 48 Vdc
- 110 Vdc
- 125 Vdc
- 220 Vdc
- 250 Vdc

**I/O Board**

- No Additional I/O (3U Chassis Only)
- 8 Inputs, 12 Standard Outputs*
- 8 Inputs, 8 High-Speed High-Current Interrupting Outputs*
- 8 Inputs, 12 High-Current Interrupting Outputs*

**Communications Protocol**

- Standard Serial Protocols
- Serial DNP3 Level 2 Slave (Includes Standard Serial Protocols)*
- Standard Serial Protocols, Serial DNP3 with Two 10/100BASE-T Ethernet Ports, SEL ASCII Via Telnet*
- Standard Serial Protocols, Serial DNP3 with Two 100BASE-FX Ethernet Ports, SEL ASCII Via Telnet*
- Standard Serial Protocols, Serial DNP3 with Two 10/100BASE-T Ethernet Ports and IEC 61850*
- Standard Serial Protocols, Serial DNP3 with Two 100BASE-FX Ethernet Ports and IEC 61850*
Conformal Coat

| None | X |
| Conformal Coated Circuit Boards* | 2 |

**Accessories**

<table>
<thead>
<tr>
<th>Literature</th>
<th></th>
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<tbody>
<tr>
<td>SEL-311L-1,-7 Printed English Instruction Manual (4)</td>
<td>PM311L-02</td>
</tr>
</tbody>
</table>

* Additional Cost

(1) 14 Outputs consist of 8 Standard and 6 High-Speed High-Current Interrupting Contacts.
(2) Additional I/O requires the J, K, L, or N Mounting Option.
(3) All Ethernet options include two ports, however only one port is active.
(4) The SEL-311L-1,-7 comes standard with a CD manual. One complimentary printed instruction manual is available upon request with each product purchased.

Note: Download acSELERATOR® QuickSet SEL-5030 software for free at [https://www.selinc.com/softwaresolutions/](https://www.selinc.com/softwaresolutions/). acSELERATOR QuickSet on CD (503001WX4) is available upon request.

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*Making Electric Power Safer, More Reliable, and More Economical®*

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