**Explosion Protection Complaint with ATEX (**) and IECEx (***)**

### Gear Unit

**SEW-EURODRIVE**

- Model: SEW-14080-800-1000-12
- Type: 7A8.3.3
- Voltage: 230 V/AC
- Frequency: 50 Hz
- Horsepower: 0.75 kW
- Rpm: 1425 rpm
- Torque: 21 Nm
- Service Code: 950

---

### Motor

**SEW-EURODRIVE**

- Model: SEW-14080-800-1000-12
- Type: 7A8.3.3
- Voltage: 230 V/AC
- Frequency: 50 Hz
- Power: 0.75 kW
- Rpm: 1425 rpm
- Torque: 21 Nm

---

### FL operation

**SEW-EURODRIVE**

- Model: SEW-14080-800-1000-12
- Type: 7A8.3.3
- Voltage: 230 V/AC
- Frequency: 50 Hz
- Power: 0.75 kW
- Rpm: 1425 rpm
- Torque: 21 Nm

---

### Forc ed cooling fan

**SEW-EURODRIVE**

- Model: SEW-14080-800-1000-12
- Type: 7A8.3.3
- Voltage: 230 V/AC
- Frequency: 50 Hz
- Power: 0.75 kW
- Rpm: 1425 rpm
- Torque: 21 Nm

---

### Additional conditions

- **Conditions**
  - **Characteristics**
  - Equipment can be used without limitation.
  - Obtain special operating conditions (e.g., increased temperature range, frequency inverter operation)
  - "X" component with only partial certification not ready for use.

---

### Classification of electrical devices

**Gas explosion group and temperature class (IEC / EN 60079-0, -12, -20)**

**Group II**

- Zones: 1, 2, 21, 22
- Vessels: 1, 2, 21, 22

---

### Equipment Protection Level (EPL)

<table>
<thead>
<tr>
<th>IEC / EN 60079-0</th>
<th>50/50C</th>
<th>Group</th>
<th>Equipment protection level (EPL) Group</th>
<th>Group</th>
<th>Equipment group</th>
<th>Unit category</th>
<th>Zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sa</td>
<td>B</td>
<td>x</td>
<td>Sa</td>
<td>B</td>
<td>x</td>
<td>10</td>
<td>0-1 and 2</td>
</tr>
<tr>
<td>Gb</td>
<td>B</td>
<td>x</td>
<td>Gb</td>
<td>B</td>
<td>x</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Gc</td>
<td>B</td>
<td>x</td>
<td>Gc</td>
<td>B</td>
<td>x</td>
<td>10</td>
<td>20, 21 and 22</td>
</tr>
<tr>
<td>Db</td>
<td>B</td>
<td>x</td>
<td>Db</td>
<td>B</td>
<td>x</td>
<td>10</td>
<td>20, 21 and 22</td>
</tr>
<tr>
<td>Gx</td>
<td>B</td>
<td>x</td>
<td>Gx</td>
<td>B</td>
<td>x</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

---

### Operation with frequency inverter

- Project planning is an important component in avoiding overtemperatures. This is accomplished with maximum torques and frequencies during normal operation with the likeliness of overheating.

---

### Ex e IIC T3 Gb

Identification in accordance with EN 60079 and IEC 60079

**Ex e IIC T3 Gb**

- Marking showing that the electrical device complies with one or more protection types.

---

### Protection type

<table>
<thead>
<tr>
<th>Protection type</th>
<th>Standard EN</th>
<th>Standard IEC</th>
<th>Symbol</th>
<th>Unit protected</th>
<th>Protection principle</th>
<th>Application in zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>13435-3</td>
<td>80079-32</td>
<td>Ex</td>
<td>Proprietary</td>
<td>Design safety</td>
<td>1 and 2 21 and 22</td>
</tr>
<tr>
<td>k</td>
<td>13438-3</td>
<td>80079-32</td>
<td>Lp</td>
<td>Liquid arrestor</td>
<td>Ignition sources cannot become active or separate from the flammable atmosphere</td>
<td>1 and 2 21 and 22</td>
</tr>
</tbody>
</table>

---

### Classification of Zone – Category – Degree of Protection

<table>
<thead>
<tr>
<th>Zone</th>
<th>Category</th>
<th>Degree of protection</th>
<th>Frequency / duration</th>
<th>Guaranteed protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>G</td>
<td>Very high</td>
<td>21 and 22</td>
<td>M2</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2 G</td>
<td>High</td>
<td>Occasionally during normal operation</td>
<td>M3</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>Normal</td>
<td>Usually not or only briefly, during normal operation</td>
<td>M4</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Efficiency rating

IEC motors conform to the efficiency class IE2 in accordance with IEC 60034-34 and can, therefore, be used worldwide.

---

### Ex e IIC T3 Gb

Identification in accordance with EN 60079 and IEC 60079

**Ex e IIC T3 Gb**

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### Classification of electrical devices

**Gas explosion group and temperature class (IEC / EN 60079-0, -12, -20)**

**Group II**

- Zones: 1, 2, 21, 22
- Vessels: 1, 2, 21, 22

---

### Temperature information

<table>
<thead>
<tr>
<th>Temperature classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
</tr>
<tr>
<td>T2</td>
</tr>
<tr>
<td>T3</td>
</tr>
<tr>
<td>T4</td>
</tr>
<tr>
<td>T5</td>
</tr>
<tr>
<td>T6</td>
</tr>
<tr>
<td>T7</td>
</tr>
<tr>
<td>T8</td>
</tr>
</tbody>
</table>

---

### Additional conditions

- **Conditions**
  - **Characteristics**
  - Equipment can be used without limitation.
  - Obtain special operating conditions (e.g., increased temperature range, frequency inverter operation)
  - "X" component with only partial certification not ready for use.

---

### CE marking

Marking for the conformity of explosion-proof electrical equipment.

---

### Inspection authorities (excerpt)

<table>
<thead>
<tr>
<th>ID no.</th>
<th>Notified body</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>00102</td>
<td>TÜV SÜD</td>
<td>Germany</td>
</tr>
<tr>
<td>00158</td>
<td>UL</td>
<td>Germany</td>
</tr>
<tr>
<td>0102</td>
<td>PTB</td>
<td>Germany</td>
</tr>
<tr>
<td>0102</td>
<td>* DEKRA</td>
<td>Germany</td>
</tr>
<tr>
<td>0158</td>
<td>* PTB</td>
<td>Germany</td>
</tr>
</tbody>
</table>

---

### Classification of Zone – Category – Degree of Protection

- **Zone 1**: Category G, Degree of protection M2
- **Zone 20**: Category G, Degree of protection M2
- **Zone 21**: Category G, Degree of protection M2
- **Zone 22**: Category G, Degree of protection M2

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### Equipment group I

- Applies to units to be used in below-ground mining operations and their above-ground systems that may be subject to hazards from freely dispersed and flammable dusts.

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### Equipment group II

- Applies to units to be used in other areas that may be subject to hazards from a potentially explosive atmosphere.