

# DIN EN 12101-10:2006-01 (E)

## Smoke and heat control systems - Part 10: Power supplies

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
Introduction .....		6
<b>1</b>	<b>Scope .....</b>	<b>7</b>
<b>2</b>	<b>Normative references .....</b>	<b>7</b>
<b>3</b>	<b>Terms, definitions and abbreviations .....</b>	<b>8</b>
<b>3.1</b>	<b>Terms and definitions .....</b>	<b>8</b>
<b>3.2</b>	<b>Abbreviations .....</b>	<b>9</b>
<b>4</b>	<b>General requirements (electrical) .....</b>	<b>10</b>
<b>4.1</b>	<b>General .....</b>	<b>10</b>
<b>4.2</b>	<b>Batteries .....</b>	<b>11</b>
<b>4.3</b>	<b>Generator sets .....</b>	<b>11</b>
<b>5</b>	<b>General requirements (pneumatic) .....</b>	<b>12</b>
<b>5.1</b>	<b>General .....</b>	<b>12</b>
<b>5.2</b>	<b>Power sources .....</b>	<b>12</b>
<b>6</b>	<b>Functions .....</b>	<b>15</b>
<b>6.1</b>	<b>Power supply from the primary power source (electrical) .....</b>	<b>15</b>
<b>6.2</b>	<b>Power supply from the secondary power source (battery) .....</b>	<b>15</b>
<b>6.3</b>	<b>Power supply from the secondary power source (generators) .....</b>	<b>16</b>
<b>6.4</b>	<b>Recognition and indication of faults (electrical) .....</b>	<b>17</b>
<b>6.5</b>	<b>Power supply from compressed gases .....</b>	<b>18</b>
<b>7</b>	<b>Materials, design and manufacture .....</b>	<b>20</b>
<b>7.1</b>	<b>Mechanical design .....</b>	<b>20</b>
<b>7.2</b>	<b>Electrical design .....</b>	<b>20</b>
<b>8</b>	<b>Classification .....</b>	<b>20</b>
<b>9</b>	<b>Documentation .....</b>	<b>21</b>
<b>9.1</b>	<b>User's documentation .....</b>	<b>21</b>
<b>9.2</b>	<b>Design documentation .....</b>	<b>22</b>
<b>10</b>	<b>Marking .....</b>	<b>22</b>
<b>10.1</b>	<b>General .....</b>	<b>22</b>
<b>10.2</b>	<b>Gas bottles .....</b>	<b>23</b>
<b>11</b>	<b>General test requirements .....</b>	<b>23</b>
<b>11.1</b>	<b>Standard atmospheric conditions for testing .....</b>	<b>23</b>
<b>11.2</b>	<b>Mounting and orientation .....</b>	<b>23</b>
<b>11.3</b>	<b>Electrical connection .....</b>	<b>23</b>
<b>11.4</b>	<b>Selection of tests .....</b>	<b>23</b>
<b>12</b>	<b>Tests .....</b>	<b>26</b>
<b>12.1</b>	<b>Electrical functional test .....</b>	<b>26</b>
<b>12.2</b>	<b>Pneumatic functional test .....</b>	<b>28</b>
<b>12.3</b>	<b>Test of the charger and the secondary power source .....</b>	<b>28</b>

12.4	Cold (operational) .....	29
12.5	Damp heat, steady state (operational) .....	30
12.6	Impact (operational) .....	31
12.7	Vibration, sinusoidal (operational) .....	31
12.8	Damp heat, steady state (endurance) .....	32
12.9	Vibration, sinusoidal (endurance) .....	34
12.10	Dry heat (operational) .....	34
12.11	SO2 corrosion .....	35
12.12	Salt spray testing .....	37
12.13	Protection against water .....	38
12.14	Protection against solid foreign objects .....	38
12.15	EMC immunity tests (operational) .....	39
13	Evaluation of conformity .....	40
13.1	General .....	40
13.2	Initial type testing .....	40
13.3	Factory production control (FPC) .....	41
Annex A (informative) Summary of functions .....		45
Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive .....		46
ZA.1 Scope and relevant characteristics .....		46
ZA.2 Procedure for attestation of conformity of power supply equipment .....		47
ZA.2.1 System of attestation of conformity .....		47
ZA.2.2 EC Certificate and Declaration of conformity .....		48
ZA.3 CE marking and labelling .....		49