

# ISO/IEC TR 30133:2023-05 (E)

## Information technology - Data centres - Practices for resource-efficient data centres

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Normative references .....</b>	<b>1</b>
<b>3</b>	<b>Terms, definitions and abbreviated terms .....</b>	<b>1</b>
<b>3.1</b>	<b>Terms and definitions .....</b>	<b>1</b>
<b>3.2</b>	<b>Abbreviated terms .....</b>	<b>3</b>
<b>4</b>	<b>Principles .....</b>	<b>4</b>
<b>4.1</b>	<b>General .....</b>	<b>4</b>
<b>4.2</b>	<b>Data centre utilization, management and planning .....</b>	<b>5</b>
<b>4.3</b>	<b>Data centre ICT equipment and services .....</b>	<b>5</b>
<b>4.4</b>	<b>Data centre cooling equipment .....</b>	<b>6</b>
<b>4.5</b>	<b>Data centre power equipment .....</b>	<b>7</b>
<b>4.6</b>	<b>Other data centre equipment .....</b>	<b>7</b>
<b>4.7</b>	<b>Data centre building .....</b>	<b>7</b>
<b>4.8</b>	<b>Data centre monitoring .....</b>	<b>8</b>
<b>4.9</b>	<b>Summary .....</b>	<b>8</b>
<b>5</b>	<b>ICT equipment and services .....</b>	<b>9</b>
<b>5.1</b>	<b>IT system .....</b>	<b>9</b>
<b>5.2</b>	<b>Server and storage .....</b>	<b>9</b>
<b>5.2.1</b>	<b>IT system integration and virtualization .....</b>	<b>9</b>
<b>5.2.2</b>	<b>Energy efficiency of the storage system .....</b>	<b>10</b>
<b>5.2.3</b>	<b>IT system power control .....</b>	<b>10</b>
<b>5.2.4</b>	<b>Periodic preventive maintenance .....</b>	<b>11</b>
<b>5.2.5</b>	<b>Management of idle equipment .....</b>	<b>12</b>
<b>5.2.6</b>	<b>IT system arrangement .....</b>	<b>12</b>
<b>5.3</b>	<b>Network equipment .....</b>	<b>14</b>
<b>5.3.1</b>	<b>Network virtualization .....</b>	<b>14</b>
<b>5.3.2</b>	<b>Cable management .....</b>	<b>15</b>
<b>6</b>	<b>Data centre infrastructure management (DCIM) .....</b>	<b>15</b>
<b>6.1</b>	<b>General .....</b>	<b>15</b>
<b>6.2</b>	<b>Monitoring .....</b>	<b>16</b>
<b>6.2.1</b>	<b>Energy use and environmental monitoring .....</b>	<b>16</b>
<b>6.2.2</b>	<b>Temperature/humidity monitoring of computer room .....</b>	<b>16</b>
<b>6.2.3</b>	<b>Data centre facility monitoring .....</b>	<b>16</b>
<b>6.2.4</b>	<b>IT equipment monitoring .....</b>	<b>16</b>
<b>6.3</b>	<b>Events and alarms .....</b>	<b>16</b>
<b>6.4</b>	<b>Improvement of energy efficiency .....</b>	<b>16</b>
<b>6.4.1</b>	<b>Capacity management .....</b>	<b>16</b>
<b>6.4.2</b>	<b>Automatic control .....</b>	<b>17</b>
<b>6.4.3</b>	<b>Control loops .....</b>	<b>17</b>
<b>6.5</b>	<b>Other systems .....</b>	<b>17</b>
<b>6.5.1</b>	<b>Fire protection .....</b>	<b>17</b>
<b>6.5.2</b>	<b>Security .....</b>	<b>17</b>
Bibliography .....		18