

## Commercial Service Cabinets

Date added to ETL 2003 (Revised 2009).

### 1. Definition of Technology

Commercial service cabinets are products that are specifically designed to store, but not to display, chilled and frozen foodstuffs.

### 2. Technology Description

Commercial service cabinets are widely used in the catering industry to store frozen or chilled foodstuffs, but a door, lid or drawer must be opened to view or access the contents of the cabinet.

Commercial service cabinets are available in a range of different designs and efficiencies. The ECA scheme aims to encourage the purchase of higher efficiency products.

The ECA Scheme covers three categories of product:

- Single door commercial service cabinets.
- Double door commercial service cabinets.
- Under counter and counter commercial service cabinets with solid doors or drawers.

Investments in commercial service cabinets can only qualify for Enhanced Capital Allowances if the specific product is named on the Energy Technology Product List. To be eligible for inclusion on the Energy Technology Product List, products must meet the eligibility criteria as set out below. The ECA scheme aims to encourage the purchase of higher efficiency products.

### 3. Eligibility Criteria

To be eligible, products must:

- Be designed to store chilled or frozen foodstuffs, whilst maintaining them within prescribed temperature limits.
  - Be fitted with solid-faced lids, drawers or doors that:
    - a) Are normally kept closed, but can be opened to access the contents.
    - b) Obscure the contents of the cabinet from view when closed.
    - c) Enable users to access the contents of any part of the interior without stepping into the refrigerated space.
  - Be a 'plug in' type cabinet with an integral refrigeration system (i.e. incorporating a compressor and condensing unit).
  - Have a gross internal volume equal to that specified in Table 1; where the gross internal volume is defined as the volume within the inside walls of the cabinet without internal fittings and with all doors (and drawers) closed.
  - Be CE marked.
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### Performance Criteria

Products must have an Energy Efficiency Index (EEI) that is less than, or equal to, the thresholds set out in Table 1 below, which depend on the type of cabinet.

**Table 1 Performance thresholds for commercial service cabinets**

Type	Gross internal volume (litres)	EEI performance threshold (kWh/48hrs/m <sup>3</sup> )	
		Chilled (M1)	Frozen (L1)
Single door commercial service cabinets	400 and 600 (+/-15%)	<= 16.0	<= 38.0
Double door commercial service cabinets	1,300 (+/-15%)	<= 12.0	<= 34.0
Under counter and counter commercial service cabinets with solid doors or drawers	150 to 800 (+/-15%)	<= 21.6	<= 40.0

"<=" means "less than or equal to"

Where the Energy Efficiency Index (EEI) is defined as the Total Electrical Energy Consumption (in kWh) of the product over a 48 hour test period divided by the product's Net Volume (in m<sup>3</sup>), and:

- Net Volume equals: shelf (or drawer base) area x loading height.
- Total Electrical Energy Consumption is as defined in BS EN 441-9:1995.

For the avoidance of doubt test data should be presented to 1 decimal place. As an example, a frozen, single door commercial service cabinet with an EEI of 38.1 would be deemed to be a fail.

### Required test procedures

All cabinets must be tested in a test room conforming to BS EN 441:1995/1996.

All cabinets must conform to the following temperature classifications (as defined in BS EN 441-6:1995) when tested to BS EN 441:1995/1996 in climate class IV (30°C, 55% RH):

- For chilled cabinets: M1 (all measurement packs must be between -1 and 5°C).
- For frozen cabinets: L1 (the highest temperature of the warmest measurement pack must be less than or equal to -15°C and the lowest temperature of the warmest measurement pack must be less than or equal to -18°C).

All cabinets must be tested according to the requirements for closed refrigerated cabinets contained in BS EN 441:1995/1996 with the following test conditions:

- **Loading:** as described in BS EN 441-5:1996. Cabinets with shelves, to be fitted with a minimum of 1 shelf per 300 mm of open height at equal distances apart. For upright units this equates to a minimum of 4 shelves and for under counter units to a minimum of 2 shelves. The lowest height shelf should be located at the lowest available height fitting.
  - **Temperature test:** as described in BS EN 441-5:1996, specifically section 3.6.
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- The **Total Electrical Energy Consumption** of cabinets fitted with integral condensing units must be measured in accordance with sections 4.1 and 5 of BS EN 441-9:1995, and to the accuracy specified in section 4.4.6 of BS EN 441-4:1995.

If the test report has not been prepared by an independent body, then evidence must be provided that a representative sample of product test data has been independently verified or cross-checked.

#### Representative Testing

Where applications are being made for two or more cabinet models that are variants of the same basic design, test data may be submitted for a single 'representative model'. The rules in Table 2 must be used to select the representative model that should be performance tested.

**Table 2 Rules for selecting the representative model for performance testing**

Variation between models	Selection rule
Cosmetic differences to the exterior	Any model may be selected to be the representative model.
Heaters (door, trim etc.), fans, defrosts, lighting and other accessories	The model with the greatest energy consumption must be the representative model.
Cabinets with the same refrigeration system components but different refrigerants	The model with the greatest energy consumption must be the representative model.
Two or more of the above variations	The rules set out above must be combined when selecting the representative model.

It should be noted that:

- If a manufacturer voluntarily removes the representative model from the Energy Technology Product List (ETPL) then other products linked with that representative model may or may not be permitted to remain on the ETPL.
- If any product submitted under these representative model rules is later found not to meet the performance criteria when independently tested, then all products based on the same representative model will be removed from the ETPL.

#### 4. Scope of Claim

Expenditure on the provision of plant and machinery can include not only the actual costs of buying the equipment, but other direct costs such as the transport of the equipment to site, and some of the direct costs of installation. Clarity on the eligibility of direct costs is available from [HMRC](#).