

# EN1154:2003



## Controlled door closing devices

**Example of classification:**

<b>4</b>	<b>8</b>	<b>4</b> <b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>
1°	2°	3°	4°	5°	6°

**Category of use (first digit)**

- grade 3: for closing doors from at least 105° open.
- grade 4: for closing doors from 180° open.

**Durability (second digit)**

- grade 8: 500.000 test cycles

**Door closer power size (third digit)**

(1)	Recommended door leaf width	Door mass	Closing moment			Opening moment between 0° and 60°	Efficiency between 0° and 4°	
			between 0° and 4°	between 88° and 92°	any other angle			
grade 1:	≤ 750 mm	≤ 20 kg	≥ 9 Nm	≤ 13 Nm	≥ 3 Nm	≥ 2 Nm	≤ 26 Nm	≥ 50 %
grade 2:	≤ 850 mm	≤ 40 kg	≥ 13 Nm	≤ 18 Nm	≥ 4 Nm	≥ 3 Nm	≤ 36 Nm	≥ 50 %
grade 3:	≤ 950 mm	≤ 60 kg	≥ 18 Nm	≤ 26 Nm	≥ 6 Nm	≥ 4 Nm	≤ 47 Nm	≥ 55 %
grade 4:	≤ 1100 mm	≤ 80 kg	≥ 26 Nm	≤ 37 Nm	≥ 9 Nm	≥ 6 Nm	≤ 62 Nm	≥ 60 %
grade 5:	≤ 1250 mm	≤ 100 kg	≥ 37 Nm	≤ 54 Nm	≥ 12 Nm	≥ 8 Nm	≤ 83 Nm	≥ 65 %
grade 6:	≤ 1400 mm	≤ 120 kg	≥ 54 Nm	≤ 87 Nm	≥ 18 Nm	≥ 11 Nm	≤ 134 Nm	≥ 65 %
grade 7:	≤ 1600 mm	≤ 160 kg	≥ 87 Nm	≤ 140 Nm	≥ 29 Nm	≥ 18 Nm	≤ 215 Nm	≥ 65 %

**Note 1:** The door widths given are for standard installations. In the case of unusually high or heavy doors, windy or draughty conditions, or special installations, a larger power size of door closer should be used.

**Note 2:** The test door masses shown are only related to door closer power sizes for the purpose of the test procedure. These test door masses are not intended to indicate maximum values for actual use.

**Suitability for use on fire/smoke doors (fourth digit)**

- grade 0: not approved for use on fire/smoke resisting door assemblies
- grade 1: suitable for use on fire/smoke door assemblies

**Safety (fifth digit)**

- grade 1: All door closers are required to satisfy the Essential Requirement of safety in use.

**Corrosion resistance and temperature (sixth digit)**

	Corrosion resistance	Temperature range
grade 0:	no defined corrosion resistance	from -15 °C to +40 °C
grade 1:	low corrosion resistance (24h NSS)	from -15 °C to +40 °C
grade 2:	moderate corrosion resistance (48h NSS)	from -15 °C to +40 °C
grade 3:	high corrosion resistance (96h NSS)	from -15 °C to +40 °C
grade 4:	very high corrosion resistance (240h NSS)	from -15 °C to +40 °C