



# 3320

## Standard Air Capacitors

*Datasheet*



# HAEFELY

Current and voltage – our passion

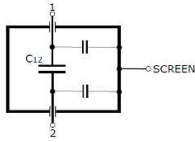
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## General Description

3320 standard air capacitors are especially built for high accuracy dissipation factor ( $\tan \delta$ ) measurements or for calibrating measuring bridges together with the 3721.

Because of their high insulation resistance, small self-inductance and dissipation factor, these standard capacitors may be used within large frequency ranges



$$C = C_{12} + \frac{C_{10} * C_{20}}{C_{10} + C_{20}}$$

For a stable dissipation factor ( $\tan \delta$ ), the outer case is equipped with a moisture indicator. If value is too high, the included silica gel cartridge can be easily dried in an oven and reused.

Features	Advantages
<ul style="list-style-type: none"> <li>Highly stable capacitance with no influence from atmospheric pressure and humidity</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Can be used in HV laboratories even at non reference climate conditions</li> </ul>
<ul style="list-style-type: none"> <li>Very low internal dissipation factor</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Suitable for calibrations or reference laboratories</li> </ul>
<ul style="list-style-type: none"> <li>Coaxial Lemo 3 connectors</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Can be directly connected to Tettex measuring bridges manufactured since 1985.</li> </ul>
<ul style="list-style-type: none"> <li>Enclosed in housing filled with dry air to protect against dust and moisture</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Protected against dust and moisture.</li> </ul>
<ul style="list-style-type: none"> <li>Equipped with a drying agent (Silica gel) and humidity indicator on the top</li> </ul>	<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> It will advise when the draying agent (re-usable) must be dried.</li> </ul>

## Applications

- Calibration laboratories
- Reference laboratories

## Accessories

- 3721  $\tan \delta$  Standards



# Technical Data

Measurement				
	Nominal Value		Tolerance	Measured accuracy
Nominal Voltage	2 kV			
Main Capacitance C <sub>12</sub> (pF)	10	3320/10	± 0.2 % ± 0.5 pF	± 0.02 % ± 0.01 pF
	100	3320/100		
	1000	3320/1000		
	10000	3320/10'000		
Partial Capacitance C <sub>10</sub> & C <sub>20</sub> (pF)	65	3320/10	± 5 pF	± 0.1% RD ± 1 x 10 <sup>-5</sup>
	70	3320/100	± 10 pF	
	80	3320/1000	± 10pF	
	210	3320/10'000	± 40 pF	
Dissipation Factor (tan δ)	< 1 x 10 <sup>-5</sup>			± 1 x 10 <sup>-5</sup>

Environmental	
Operating temperature	0 °C +40 °C
Storage temperature	-20 °C +70 °C
Humidity <sup>(1)</sup>	5 ... 90 % r.h. , non-condensing

<sup>(1)</sup>The capacitor is equipped with a drying agent (Silica gel) to keep the inner housing dry. Above specifications are valid for inner case humidity below 50 % non-condensing.

Mechanical	
Dimensions (W x D x H)	360 x 360 x 450 mm (14.2 x 14.2 x 17.7 in)
Weight	10 kg (22 lb)      3320/10
	10 kg (22 lb)      3320/100
	13 kg (28.7 lb)    3320/1000
	35 kg (77.2 lb)    3320/10'000

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