

# Fully Automatic C and tan δ(PF) Measuring Instrument

## TETTEX 2818

### Specifications

#### Measurement ranges

##### a) Digital measured-value display (18 mm LCD)

###### Capacitance CX

with CN = 100 pF:	10 pF...1.999 μF
Resolution	0.0001 pF

Measuring range extension with type 4761, 4762 or 4764 current comparators.

###### Dissipation factor tan δ

Resolution	1•10E-4
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###### Power factor PF ( $\cos \Phi$ )

Resolution	1•10E-4
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###### Inductance LX

in the range	31 μA < ILX < 15 A
Resolution	0.1 mH

###### Test voltage Utet

with built-in CN	0 - 12.00 kV
with external CN	0 - 9999 kV
Resolution	0.001 kV

###### Test specimen current Ix

Resolution	0.001 mA
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##### b) Digitale measured-value display on LCD dot-matrix

Apparent power S	0 mVA ... 999.9 kVA
Actual power P	0 mW ... 999.9 kW
Reactive power Q	0 mVar ... 999.9 kVar
Test frequency f	45.00 ... 65.00 Hz
Quality factor QF	0.1 - 9999
Magnetizing current IFe	0 ... 999.9 A
Iron loss current IFe	0 - 999.9 A

###### Limits of error

Capacitance	±0.05 % rdg ±1 dig
Dissipation factor	± 1% rdg ± 1•10E-4
Power factor	± 1% rdg ± 1•10E-4
Inductance	±0.5% rdg ±2 dig
Test current	±1.0% rdg ±2 dig
Test voltage	±1.0% rdg ±2 dig
Test frequency	±0.02% rdg

Conditions:  
31 mA < ICN < 15 mA  
31 mA < ICX < 15 A  
0.5•CN < CX < 2000•CN  
f = 50 or 60 Hz

Ambient temperature      +5...40°C

For the accuracy under conditions deviating from these described above (i. e. external magnetic interference fields, content of harmonics of the test voltage, temperature, etc.) see specifications in manual, and IEC 359

specification.

**Standard capacitor CN**

Built-in capacitor	approx. 100 pF/ max. 12 kV
External capacitor	(see order specification)

The exact CN value is keyed-in from the front panel.

**Measuring time**

for first measurement	4 s
for following reading	0.6 s

**Mains supply**

230/115 V ± 10 %, 50/60 Hz

**Current requirement**

0.18 A (230 V)  
0.36 A (115 V)

**Temperature range**

+ 5 - + 40°C

**Dimensions (W x H x D)**

Type 2818a	500 x 310 x 470 mm (19.7 x 12.2 x 18.5 in)
Type 2818	530 x 326 x 615 mm (20.9 x 12.8 x 24.2 in)

**Weight**

Type 2818a	34 kg (74.8 lb)
Type 2818	42 kg (92.4 lb)

Including RS 232C interface type 2818/3 for computer connection

This instrument corresponds to the required safety instructions VIDE 0411 / part 1 and IEC 348 (safety category 1).