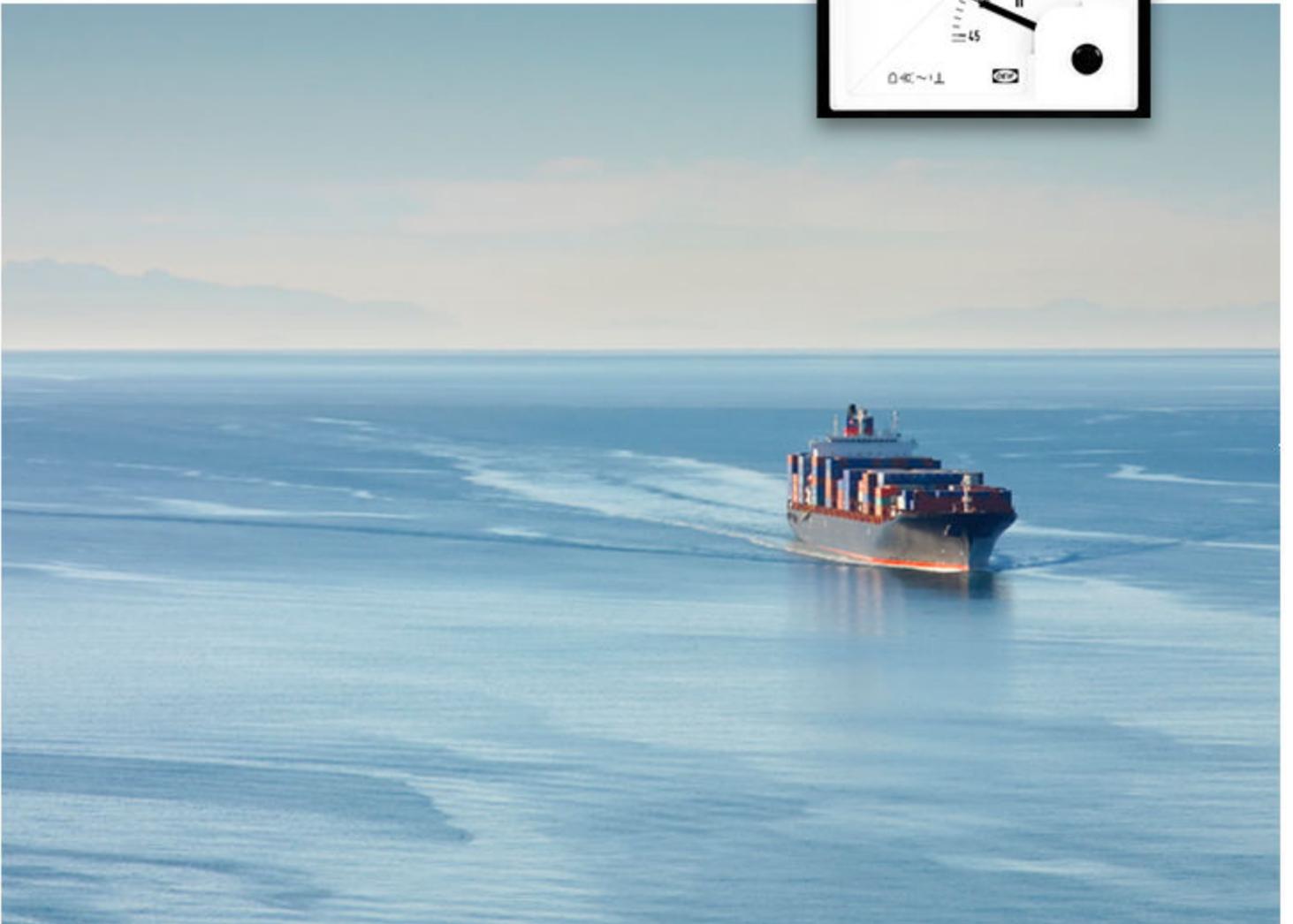


# 2FQ, 2FTQ, 2EVQ

492124005R

Double frequency meters and double voltmeter

Data sheet



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# 1. About the meters

## 1.1 Application

The 2FQ and 2FTQ meters are double frequency meters and the 2EVQ meter is a double voltmeter. All meters have high accuracy and immunity to 3<sup>rd</sup> harmonics. The meters are designed to be front mounted and have a robust and thoroughly tested construction.

The **2FQ** double frequency meter consists of two moving coil instruments mounted diagonally in one housing. A compact instrument with accurate and linear read-out.

The **2FTQ** double reed frequency meter consists of two rows of reeds mounted in one housing. The scale is changeable. 2FTQ meters must precondition at nominal voltage for 10 minutes to get accurate measurements.

The **2EVQ** double voltmeter consists of two moving iron systems mounted diagonally in one housing.

### Available types

All the meters are 96 x 96 mm (DIN size).

Double frequency meters		Double voltmeters
Pointer frequency	Reed frequency	Double scale
2FQ96-x	2FTQ96-x	2EVQ96-x

## 2. Technical specifications

### 2.1 Electrical specifications

Specifications	2FQ	2FTQ	2EVQ*
Accuracy**	Class 0.5	Class 0.5	Class 1.5
Scale/measurement range	45 to 55 Hz 55 to 65 Hz 45 to 65 Hz 360 to 440 Hz Others are available on request	45 to 55 Hz 55 to 65 Hz	0 to 150 V 0 to 300 V 0 to 500 V 0 to 600 V 0 to 700 V
Measuring voltage/ frequency	100 to 230 V AC $\pm 15\%$ 400 to 440 V AC $\pm 15\%$	100, 110, 220, 230, 240, 380, 400, 415, 440 V AC $\pm 15\%$	15 to 100 Hz
Consumption	Up to 4 VA		

**NOTE** \* Cat. III 600 V

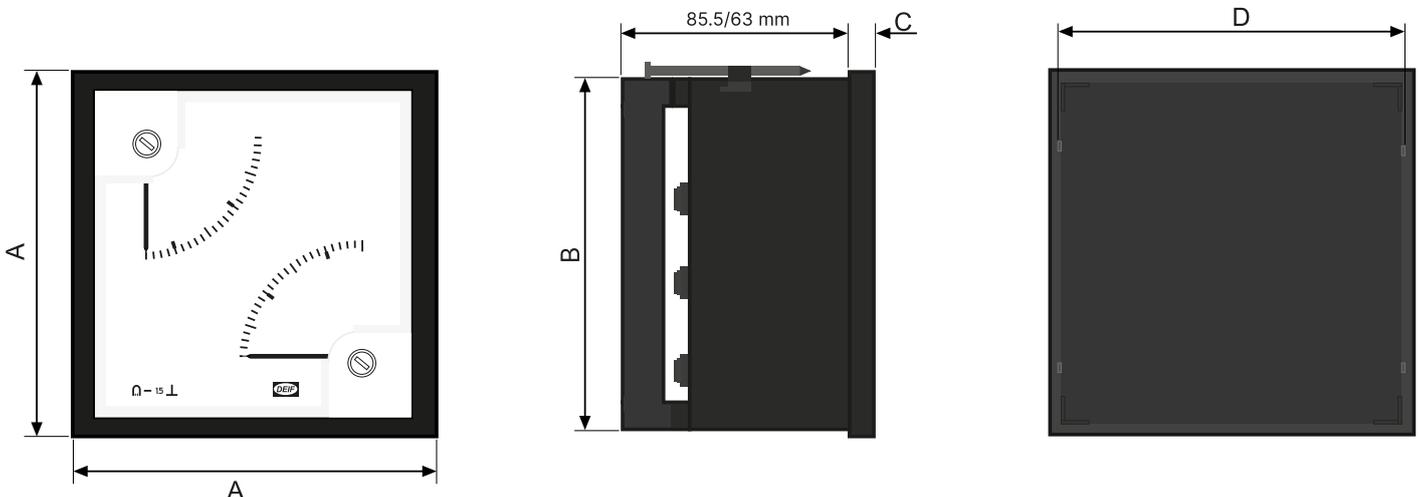
**NOTE** \*\* At nominal temperature to IEC/EN 60051-1

### 2.2 Environmental specifications

Specifications	2FQ	2FTQ	2EVQ
Nominal temperature	-10 to +55 °C		
Operating temperature	-25 to +60 °C		
Storage temperature	-25 to +65 °C		
Shock	15 g, 6 times, 3 directions 50 g/6 ms 22 g/20 ms		
EMC	To IEC/EN 61000-6-2/3 CE-marked for residential, commercial and light industry plus industrial environment.		
Protection	IP52 To IEC/EN 60529	IP52 To IEC/EN 60529*	IP52 To IEC/EN 60529

**NOTE** \* IP54 front protection available on request.

### 2.3 Dimensions



**NOTE** 2FTQ and 2EVQ: Connecting screw is under the cover.

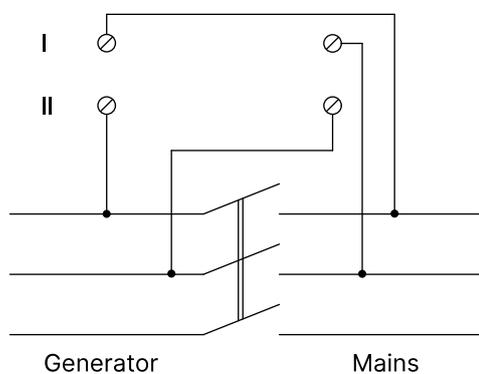
## Dimensions

Type	Dimensions				
	A [mm]	B [mm]	C [mm]	D [mm]	Depth behind panel [mm]
2FQ96-x	96 x 96	90 x 90	5.5	92 x 92 + 0.8	85.5
2FTQ96-x/2EVQ96-x	96 x 96	90 x 90	5.5	92 x 92 + 0.8	63.0

## Weight

Type	Weight
2FQ96-x	310 g
2FTQ96-x	440 g
2EVQ96-x	260 g

## 2.4 Connections



## 3. Ordering

### 3.1 Available variants

Item no.	Variant no.	Description
2918410920	01	2FQ96-x. All frequency ranges and supply voltage incl. standard scale.
2918460920	01	2FTQ96-x. 45 to 55 Hz, 55 to 65 Hz (21 reeds) and all supply voltages incl. standard scale.
2918510920	01	2EVQ96. Standard measuring input and standard scale.
2918510920	02	2EVQ96. For voltage transformer or non-standard measuring input incl. customised scale.

### 3.2 Order specifications

#### Variants

Mandatory information						Additional options	
Item no.	Type	Variant no.	Scale/measuring range	Measuring voltage	VT primary/secondary	Option	Option

#### Example

Mandatory information						Additional options	
Item no.	Type	Variant no.	Scale/measuring range	Measuring voltage	VT primary/secondary	Option	Option
2918410920-01	2FQ96-x	01	2 x 45 to 55 Hz	230 V AC	-	Anti-glare glass	
2918460920-01	2FTQ96	01	2 x 55 to 65 Hz	380 V AC	-	Anti-glare glass	IP54
2918510920-01	2EVQ96	01	2 x 0 to 500 V AC	0 to 500 V AC	-	Red line at 440 V	
2918510920-02	2EVQ96	02	2 x 0 to 15 kV AC	(Determined by DEIF)	12 kV/100 V AC	Certificate of calibration	

**NOTE** When ordering a 2EVQ meter for connection using a voltage transformer (VT), both primary and secondary of the VT must be stated as shown in the example above.

## 4. Legal information

### Disclaimer

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## 5. End-of-life

### Disposal of waste electrical and electronic equipment

WEEE symbol



All products that are marked with the crossed-out wheeled bin (the WEEE symbol) are electrical and electronic equipment (EEE). EEE contains materials, components and substances that can be dangerous and harmful to people's health and to the environment. Waste electrical and electronic equipment (WEEE) must therefore be disposed of properly. In Europe, the disposal of WEEE is governed by the WEEE directive issued by the European Parliament. DEIF complies with this directive.

You must not dispose of WEEE as unsorted municipal waste. Instead, WEEE must be collected separately, to minimise the load on the environment, and to improve the opportunities to recycle, reuse and/or recover the WEEE. In Europe, local governments are responsible for facilities to receive WEEE. If you need more information on how to dispose of DEIF WEEE, please contact DEIF.