

LANDIS & GYR

RSS meters for active energy

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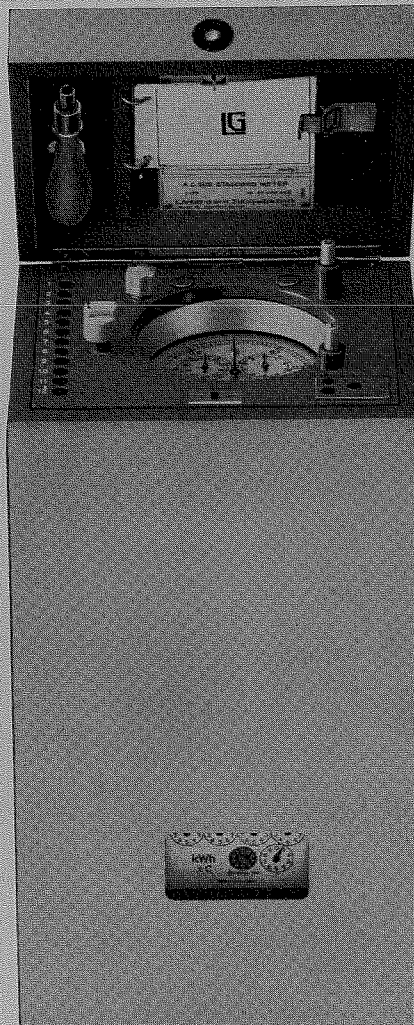
Simple and accurate checking of active energy meters in:

Single-phase two-wire networks
Three-phase three-wire networks, and
Three-phase four-wire networks
Their stable construction renders these rotating substandard (RSS)* meters insensitive to all normal operating stresses.

Of particular advantage are:

- a measuring result unaffected by variations in network voltage
- portable RSS meter; case with covering of synthetic material

- protection of the lower bearing during transport
- measuring system with reliable measuring elements
- individual test certificate for each RSS meter
- universal versions to suit several networks
- lockable case
- additional register for long-duration measurements
- several current ratings
- several voltage ratings
- simple operation



*RSS: Rotating Substandard, except for North America where Reference Standard applies

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TECHNICAL DATA

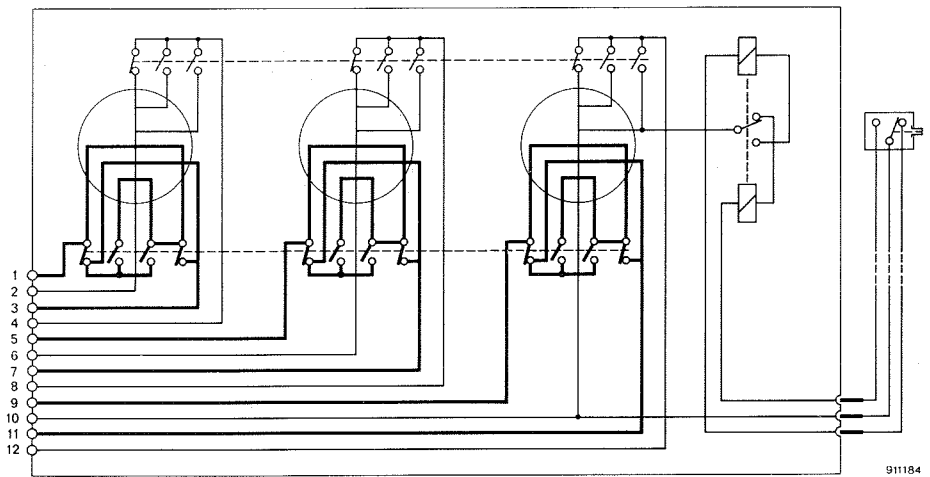
Current Ratings (I_b) for:
 single-range versions 1 - 3 - 5 - 10 - 15
 20 - 25 - 30 A
 multi-range versions * 1 - 5; 1 - 5 - 10;
 3 - 15 - 30 A
 (other ratings upon request)
 Rated voltages (U_n) 56...550 V~
 number of rated voltages ** 1, 2, 3 or 4
 Frequency (f_n) 50 or 60 Hz
 Load capacity for a rated current:
 up to 15 A, continuous 200 %
 20...30 A, continuous 180 %
 20...30 A, 15 min 200 %
 Starting current in %
 of rated current 0.4 approx.
 No rotation under no-load
 conditions for $U_n \pm 20\%$

Consumption at 50 Hz:
 per voltage coil for
 220 V rated voltage 1.1 W, 4.5 VA approx.
 per current coil for
 10 A rated current 0.7 W, 0.75 VA approx.
 Test voltage, 50 Hz, 1 min 2 kV
 Temperature coefficient between +10 °C...
 +45 °C and 10...100% rated load at:
 $\cos \varphi = 1$ +0.05 %/°C approx.
 $\cos \varphi = 0.5$ -0.05 %/°C approx.
 Voltage dependency at I_b and 90...110% U_n
 - $\cos \varphi = 1$ and 0.5 appr. $\pm 0.6\% / 10\% \Delta U$
 Frequency dependency at I_b and 95...105% f_n
 - $\cos \varphi = 1$ and 0.5 approx. $\pm 0.8\% / 5\% \Delta f$
 Dimensions (in mm, without engagement)
 for RSS meters with
 - two elements 215 x 178 x 334
 - three elements 215 x 178 x 428
 Weight, for RSS meters with
 - two elements approx. 8 kg
 - three elements approx. 11 kg
 * With current range selector switch
 ** With voltage selector switch

TYPES

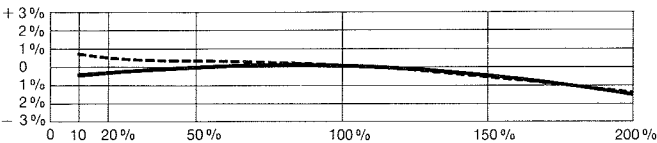
TYPES	No. of Voltage Ratings	No. of Current Ratings	No. of Elements	Type Designation
RSS meters for active energy in:				
Single-phase 2-wire networks	1...4	1...3	2	C2F3E1
Three-phase 3-wire networks	1...4	1...3	2	FF3E1
Three-phase 4-wire networks	1...4	1...3	3	MF3E1
Universal RSS meters for active energy in:				
Single-phase 2-wire and 3-phase 3-wire networks	1...4	1...3	2	CFF3E1
Single-phase 2-wire and 3-phase 4-wire networks	1...4	1...3	3	CMF3E1
Three-phase 3 and 4-wire networks	1...4	1...3	3	FMF3E1
Single-phase 2-wire and also 3-phase 3 and 4-wire networks	1...4	1...3	3	CFMF3E1

WIRING DIAGRAM MF3E1, with 3 voltage ratings and 3 current ratings (without engagement)

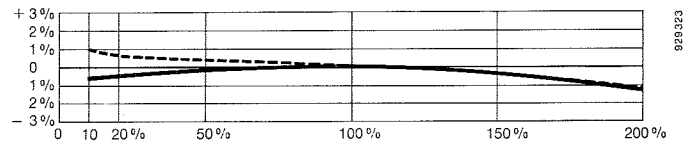


TYPICAL ACCURACY CURVES (in % of I_b)

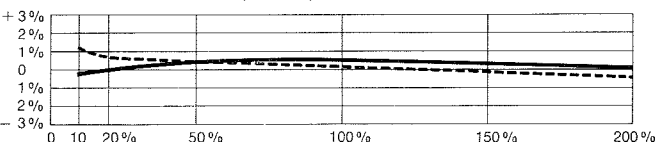
BALANCED LOAD (FF3E1)



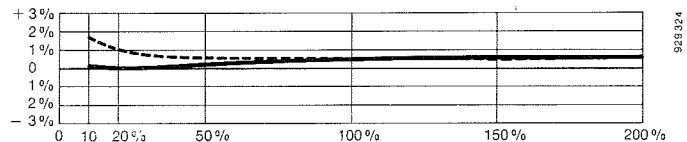
BALANCED LOAD (MF3E1)



SINGLE-PHASE LOAD (FF3E1)



SINGLE-PHASE LOAD (MF3E1)



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