

Varmeters

Analogue indicator to measure reactive power



Description

- Does not need an auxiliary power supply
- DIN box with dimensions 96 and 144.
- Class 1.5
- Built-in electronic converter
- Balanced and unbalanced single and three-phase circuits.

Application

Measurement of the power factor in balanced or unbalanced single and three-phase circuits.

Features

	YMC	YTC
Voltage circuit		
Voltage		400 V (*)
Consumption		1 ... 4 V·A
Frequency	50 Hz (*)	20 ... 100 Hz
Overloads		1.25 U_n permanent 2 U_n during 5 s
Current circuit		
Nominal current		... 5 A (*)
Consumption		0.3 ... 1.5 V·A
Frequency	50 Hz (*)	20 ... 100 Hz
Overloads		1.2 I_n permanent 5 I_n during 30 s 10 I_n during 5 s 40 I_n during 1 s
Accuracy		± 1.5 % FS
Ambient conditions		
Operating temperature		+10 ... +30 °C
Limit temperature		- 25 ... +40 °C
Altitude		2000 m
Build features		
Dimensions		See the following table
Weight		See the following table
Type of box		panel
Degree of protection:		
Front panel		IP 52
Terminals		IP 00
Insulation voltage		2 kV, during 1 min, between the mechanism and the box
Standards	BS 89, EN 60051, IEC 144, UL 94, DIN 43780, IEC 51, UNE 21318	

(*) Other values, on demand

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References

YMC: Varmeters single-phase




Single-phase		
	YMC 96	YMC 144
Class	1,5	
Scale	90 ° P1 (simple profile)	
Dimensions (mm)		
	a	96
	b	96
	c	49,2
Weight (g)	290	490
U_{phase-phase}	400 V	
Current	... / 5 A	
	M13231	M13241

*Scale is NOT included for **YMC 96**. For exchangeable scales, see Tables.
 *Scale included for **YMC 144**. Indicate the transformer ratio, power and voltage scale base.
 *Other voltage values, on demand.

YTC: Three-phase varmeters



	Balanced three-phase		Three-phase 3 wires (ARON)		Three-phase (4 wires)	
	YTC 96E	YTC 144E	YTC 96A	YTC 144A	YTC 96AN	YTC 144AN
Class						
Scale	90 ° P1 (simple profile)					
Dimensions (mm)						
	a	96	144	96	144	96
	b	96	144	96	144	96
	c	49,2	71,8	62,9	71,8	62,9
Weight (g)	290	490	430	640	430	640
U_{phase-phase}	400 V		110 V		400 V	
Current						
	M13232	M13242	M13234	M13244	M13233	M13243

*Scale is NOT included for **YTC 96E** and **YTC 96AN**. For exchangeable scales, see Tables.
 *Scale included for **YTC 144E, YTC 96A, YTC144A** and **YTC 144AN**. Indicate the transformer ratio, power and voltage scale base.
 *Other voltage values, on demand.

Exchangeable scales

Single-phase varmeters

Exchangeable scales		
Single-phase		
Type	SYM 96	
Equipment	YMC 96	
A	Scale Base	Code
50/5	20 kvar	M132J9
75/5	-	-
100/5	40 kvar	M132JC
150/5	60 kvar	M132JE
200/5	80 kvar	M132JF
300/5	120 kvar	M132JH
400/5	160 kvar	M132JJ
500/5	200 kvar	M132JK
600/5	240 kvar	M132JL
1 000/5	400 kvar	M132JP
1 500/5	600 kvar	M132JR
2 000/5	800 kvar	M132JS
3 000/5	1.2 Mvar	M132JU
4 000/5	1.6 Mvar	M132JV
5 000/5	2.0 Mvar	M132JW

Three-phase varmeters

Exchangeable scales			
Three-phase			
Type	SYT 96E		SYT 96AN
Equipment	YTC 96E		YTC 96AN
A	Code	Code	
50/5	30 kvar	M132K9	M132L9
75/5	45 kvar	M132KB	M132LB
100/5	60 kvar	M132KC	M132LC
150/5	90 kvar	M132KE	M132LE
200/5	120 kvar	M132KF	M132LF
300/5	150 kvar	M132KH	M132LH
400/5	240 kvar	M132KJ	M132LJ
500/5	300 kvar	M132KK	M132LK
600/5	360 kvar	M132KL	M132LL
1 000/5	600 kvar	M132KP	M132LP
1 500/5	900 kvar	M132KR	M132LR
2 000/5	1.2 Mvar	M132KS	M132LS
3 000/5	1.8 Mvar	M132KU	M132LU
4 000/5	2.4 Mvar	M132KV	M132LV
5 000/5	3.0 Mvar	M132KW	M132LW

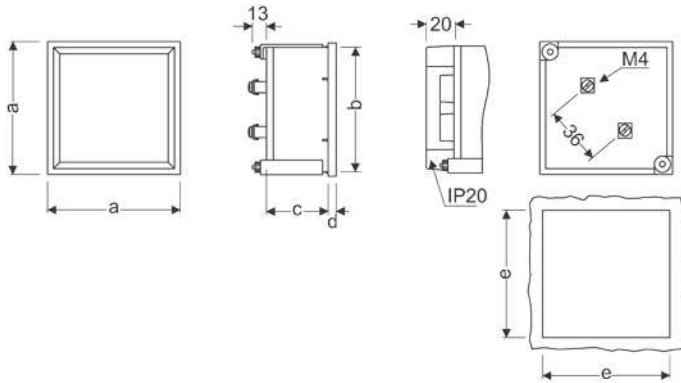
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Dimensions

YMC / YTC

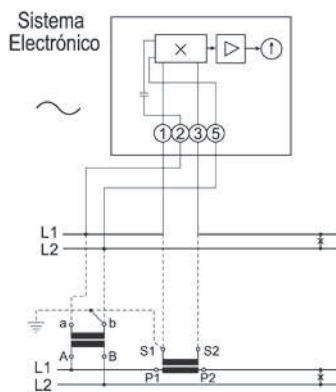


Type	a	b	c	d	e
96 E	96	91	43,5	5,7	92 ^{+0,8}
96 A / AN	96	91	57,2	5,7	92 ^{+0,8}
144	144	137	94,7	7,3	138 ⁺¹

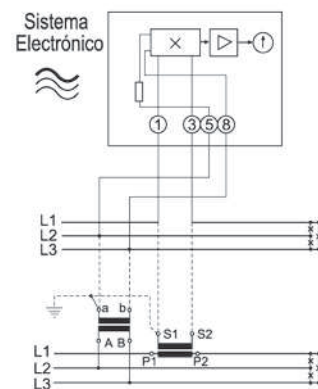
Dimensiones (mm)

Connections

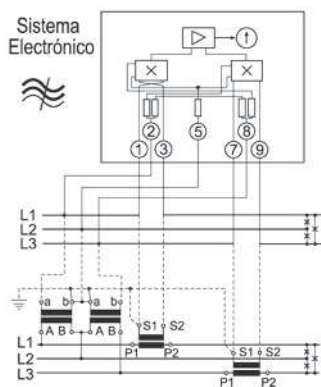
YMC



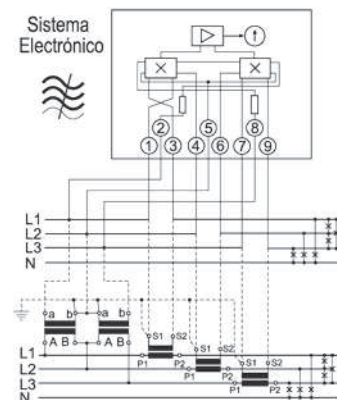
YTCE



YTCA



YTCAN





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Coding table

Varmeters	M	1	X	X	X	X	0	0	X	X	X
	Code							Internal Code	↑	↑	↑
	Current input	Standard ... / 5 A						0	↑	↑	↑
		... / 1 A						1			
	Voltage	Standard (400 V _{P-P})						0	↑	↑	↑
		110 V _{P-P} (a)						1			
		230 V _{P-P}						2			
		440 V _{P-P}						5			
		460 V _{P-P}						6			
	Scale range	50									9
		75									B
		100									C
		150									E
		200									F
		300									H
400									J		
Primary current transformer		500									K
		600									L
		1000									P
	1500									R	
	2000									S	
	3000									U	
4000									V		
5000									W		

(a) For unbalanced ARON (3 wire) three-phase units, 100V is considered the standard voltage

Varmeter scales	M	1	X	X	X	X	0	0	X	X	
	Code							Internal Code	↑	↑	
	Current input	Standard ... / 5 A						0	↑	↑	
		... / 1 A						1			
	Voltage	Standard (400 V)									0
		110 V (a)									1
		230 V									2
440 V									5		
460 V									6		

(a) For unbalanced ARON (3 wire) three-phase units, 100V is considered the standard voltage