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Combined device C4315

This device is designed to measure current and voltage in the constant N circuits alternating currents, resistance to constant current, capacitance N relative levels alternating stress.

The input resistance of the device is 20 kom/V when measuring constant H 2 Com/in alternating stresses.PRNBOR is available in modifications: C4315 – for work at ambient temperatures -10 ...+40 ° C and relative spruce 80 % and C4315T - for working in premises in conditions of both dry and wet tropical climate at ambient temperatures –5 ... +45 ° C is relative moisture up to 95%.

The device uses a magnetoelectric measuring mechanism on stretch marks of pl. 20-0.25 with a tension of $ 0 ±: 5 g with an intra-district magnet- a full deviation of 42.5 MKA, frame resistance of not more than 635 Ohms;It contains 370 ... 460 turns of PEV-1 wire 0.03.

To power the Ts4315 device, battery 3336 was used, for C4315T - 3336T,
When changing the level of transmission of alternating voltage to other limits, except for 1 V,
To the testimony of the device on the scale "DB*, it is necessary to add correction numbers,
indicated in the table.1.

Table 1. Correct numbers to the measurement limits

Measurement limit, in	1	2.5	5	10	25	100	250	500	1000
Correction number, dB	0	+8	+14	+20	+28	+40	+48	+54	+60

The resistance of all resistors, with the exception of R27 H R29, should correspond to the elements indicated in the list of elements to the electrical circuit scheme device (Table 47).
The resistance of the resistor R29 is changed when adjusting the device to constant current, and the total resistance of the measuring mechanism RH n resistor R29 (b Omma) determined by the formula

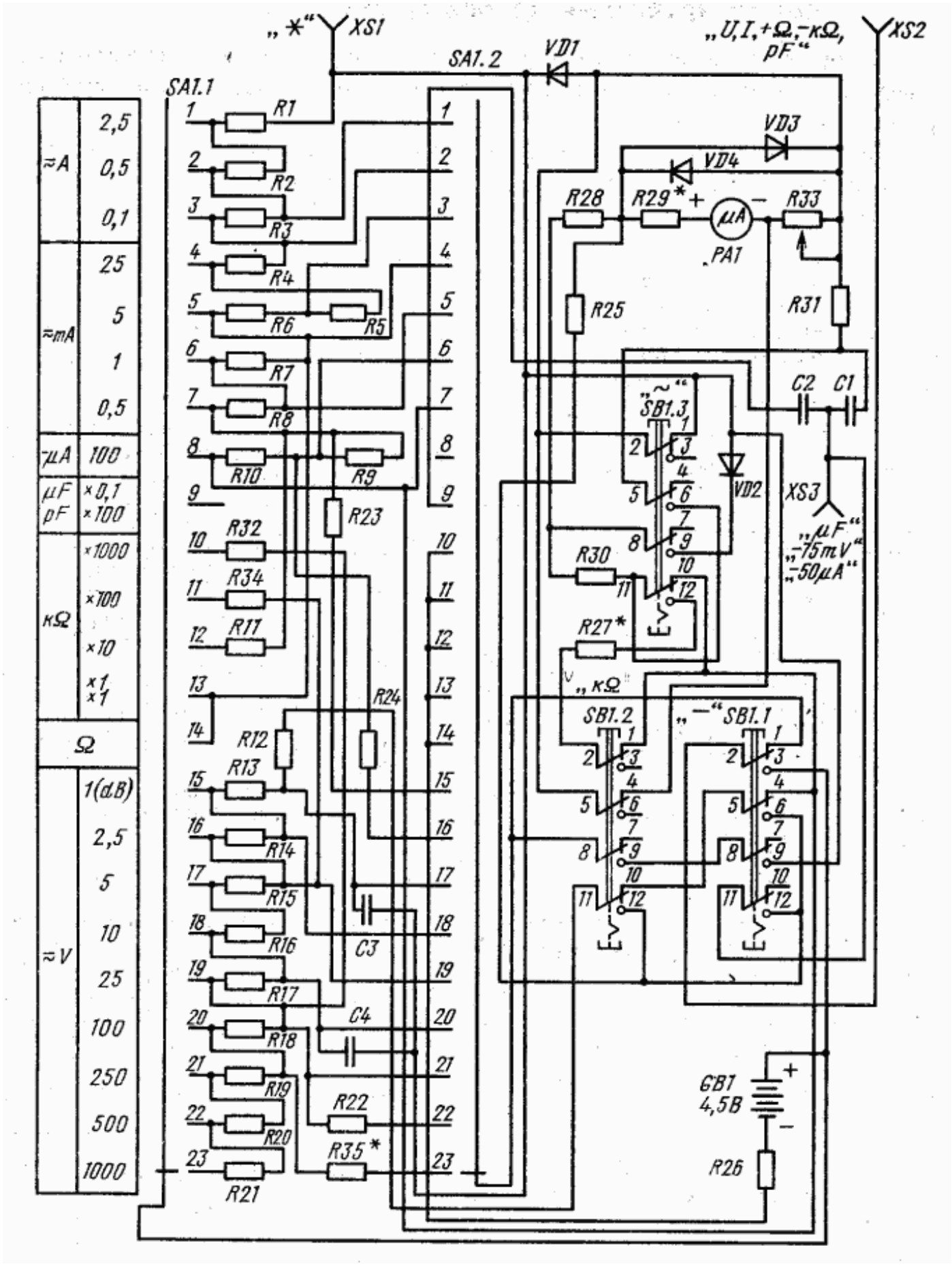

Fig. 1. The circuit of the electrical principal combined device C4315 (option 1)

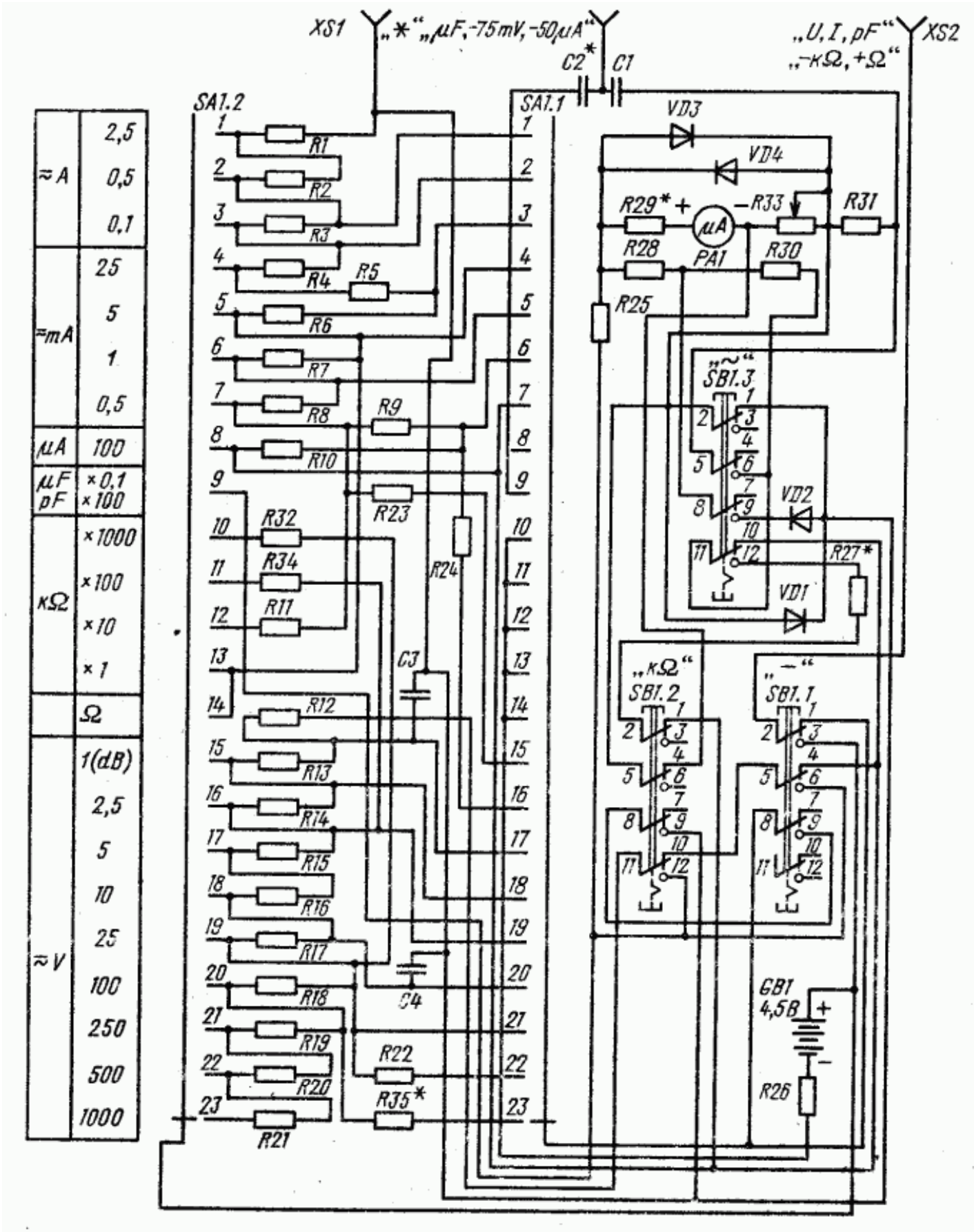

Fig. 2. The circuit of the electrical principal combined device C4315 (Option 2)

Table 2. List of elements to a fundamental electrical circuit combined device C4315

Positional Designation	Name	Number, pieces.	Note
R1	0.08 ± 0.0002 Ohms, wire MNMC-3-12	1	Shunt
R2	0,32 ±0,001 Ohms, wire МнМц-3-12	1	Shunt
R3	1,64-0,005 Ω, провод ПЭМС 0,5		
R4	6±0,018 Ω, провод ПЭМС 0,3		
R5	2±0,01 Ω, провод ПЭМС 0,3		
R6	30±0,05 Ω, провод ПЭМС 0,25		
R7	150±0,5 Ω, провод ПЭМС 0,1		
R8	МЛТ-0,5-100 Ω ±10%	2	Total resistance 200 ± 1 ohm
R9	МЛТ-0,5-300 Ω ±5%	2	Total resistance 600±3 ohm
R10	МЛТ-0,-5-430 Ω ±5%	1	Total resistance
	МЛТ-0,5-560 Ω ±5%	1	1000 ±5 кΩ
R11	МЛТ-0,5-2.4 кΩ±5%	1	Total resistance
	МЛТ-0,5-4,3 кΩ±5%	1	4440 ±22, Ω
R12	МЛТ-0,5-4,3 кΩ±5%	2	Total resistance 8570 ±42 Ω
R13	МЛТ-0,5-4,3 кΩ±5%	1	Total resistance
	МЛТ-0,5-5,6 кΩ±5%	1	9970 ±50 Ω
R14	МЛТ-0,5-15 кΩ±Ю%	2	Total resistance 30±0,15 кΩ
R15	МЛТ-0,5-20 кΩ±5%	1	Total resistance
	МЛТ-0,5-30 кΩ±5%	1	50 ±0,25 кΩ
R16	МЛТ-0,5-43 кΩ±5%	1	Total resistance
	МЛТ-0,5-56 кΩ±5%	1	100±0,5 кΩ
R17	МЛТ-0,5-150 кΩ+10%	2	Total resistance 300±1,5 кΩ
R18	МЛТ-0,5-750 кΩ±5%	2	Total resistance 1500±7,5 кΩ
R19	МЛТ-0,5-1,5 МΩ±10%	2	Total resistance 3000±15 кΩ
R20	МЛТ-0,5-2 М0м±5%	1	Total resistance
	МЛТ-0,5-3 М0м±5%	1	5±0,025 МΩ
R21	МЛТ-0,5-2 МΩ±5%	2	Total resistance
	МЛТ-0,5-3 М0м±5	2	10±0,05 МΩ
R22	МЛТ-0,5-200 кΩ±5%	1	Total resistance
	МЛТ-0,5-300 кΩ±5%	1	500±2,5 кΩ
R23	24±0,1 Ω, ПЭМС 0,2	1	Replacement is allowed
R24	МЛТ-0,5-820 Ω ±10%	2	Total resistance 1650±8 Ω
R25	МЛТ-0,5-430 Ω ±5%	1	Total resistance
	МЛТ-0,5-470 Ω ±5%	1	900±5 Ω
R26	МЛТ-0,5-270 Ω ±5%		
	МЛТ-0,5-220 Ω ±10%	1	Total resistance 490±2 Ω

R27*	МЛТ-0,5-(1...3) кΩ±5%	1	
R28	МЛТ-0,5-1,5 кΩ±10%	2	Total resistance 760±3,5 Ω
R29	before 260 Ω ПЭМС-0,1	1	
R30	МЛТ-0,5-620 Ω ±5%	2	Total resistance 1240±4 Ω
R31	МЛТ-0.5-1,2 кΩ±5%	1	
R32	МЛТ-0.5-30 кΩ±Ю%	1	
R33	СП3-9а-6,8 кΩ±20%	1	
R34	МЛТ-0,5-1.2 кΩ±10%	1	
R35	МЛТ-0,5-(22...33) кΩ±5%	1	

Diodes

VD1, VD2	D9Д2	2	Replacement is allowed on D9A. D9D
VD3, VD4	D103M2	2	Replacement is allowed on D104, D108

Capacitors

C1	КБГ-И-200-0,05±5%
C2	КСО-6-500-Б-3900±5%
C3	КСО-1-250-330±5%
C4	КСО-1-250-100 ±5%

Resistance

before	Before
МнМц	MnMC
ПЭМС	PEMS
МЛТ	MLT
СП3	SDRS

Diodes

on Д9А. Д9Д	on D9A. D9D
Д103М2	D103M2

Capacitance

КБГ-И	KBG-I
КСО	CSR