

### Automatic Circuit Breaker Testers UPA-1P & UPA-3P & UPA-6P

## Application

Automatic circuit breaker testers UPA are intended for automatic AC current circuit breakers testing. The devices allow registering the values of the supplied current and timing the automatic circuit breaker switching interval.

UPA operate on the principle of varying the power in the primary circuit of the matching power transformer and, respectively, varying the output current, flowing through the



automatic circuit breaker under the test. Power regulation could be done either through an external voltage regulator (RNO or VR) or through a built-in thyristor controller.

All metrological characteristics (current and time measurement) are valid if RNO is used, i.e. if the exit signal waveform is stable (just as in other analogs).

AC voltage regulators from 4 A to 160 A are available upon request								
•	TDGC2-1	4A						
•	TDGC2-2	8A						
•	TDGC2-3	12A						
•	TDGC2-5	20A						
•	TDGC2-10	40A						
•	TDGC2-20	80A						
•	TDGC2-30	120A						
•	TDGC2-40	160A						
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TDGC2-20

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#### UPA-6P

	Primary winding connection	Secondary winding connection						
Vin, V					=			
		Vout max, V	I <sub>in max</sub> , A	Iout max, A	Vout max, V	Iin max, A	Iout max, A	
220	=	8	140	5000	4	90	6400	
230		4	41	3100	2	24	3500	

#### UPA-10F

	Vin, V	Primary	Secondary winding connection						
Switcher		winding				=			
position		connection	Vout max, V	Iin max, A	Iout max, A	Vout max, V	Iin max, A	Iout max, A	
	400	• =	14	200	9000	7	140	11000	
	400	•	7	800	4900	3.5	40	5900	
MODULL	230	• =	8	140	5000	4	90	6400	
🗢 VR		•	4	41	3100	2	24	3500	

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# Technical specifications

Parameter		Value							
		UPA-1P	UPA-3P	UPA-6P	UPA-10P	UPA-16P	UPA-20P		
	one turn	0.1 – 1	1 – 3	1 – 6	1 – 9.99	3 – 16	3 – 20		
	two turns	0.05 – 0.5	0.5 – 1.5	-	—	1.5 – 8	1.5 – 10		
Output current measuring	three turns	0.03 – 0.33	0.33 – 1	-	—	1 – 5.33	1 – 6.67		
lange in mode i A (himb), KA	four turns	0.025 – 0.25	0.25 – 0.75	—	—	0.75 – 4	0.75 – 5		
	five turns	0.02 - 0.2	0.2 – 0.6	-	—	0.6 – 3.2	0.6 – 4		
	one turn	10 - 100	100 - 1000	100 – 999		200 –	200 - 4000		
	two turns	5 – 50	50 – 500	-	—	100 – 2000			
Output current measuring	three turns	3.3 – 33	33 - 330	-	_	66.7 – 1333			
Tange In mode A (RMS), A	four turns	2.5 – 25	25 – 250	_	_	50 - 1000			
	five turns	2 – 20	20 – 200	—	_	40 - 800			
Measurement uncertainty (for A	and kA), %	3 of FS							
Circuit breaker switch off time	50 ms – 990 ms, ms	± 20							
measuring uncertainty*:	1 s – 7200 s** , %	3 of reading							
Max. time of uninterrupted work	30								
Input voltage, V	230 ± 10 % 230 / 400 ± 10 %								
Frequency, Hz	50 ± 1								
Power consumption, kVA, max	5.5		33	76	60	80			
Control unit dimensions (W $\times$ H	347 × 140 × 210		$542 \times 360 \times 200$		680 × 985 × 480				
Current source dimensions (W ×	115 × 220 × 153				185 × 305 × 360				
Control unit net weight, kg	3		47		110				
Current source net weight, kg	13				57				

\* The given measurement uncertainty are true when operating a UPA with VR. \*\* The measurement of current feed duration over 10 s should be done at the current of not more than 1000 A. UPA-6P, UPA-10P have 1 s - 990 s range.





