

VARIABLE AUTOTRANSFORMER (VARIAC)

It is composed of a single-layer winding wound on a toroidal iron core. Variac is often used when we wish to obtain a variable AC voltage from a fixed-voltage AC source. A movable carbon brush, which can be set in any position between 0 and 330°, sliding on the winding and serves as a variable tap. Manual or motorized control can be possible.

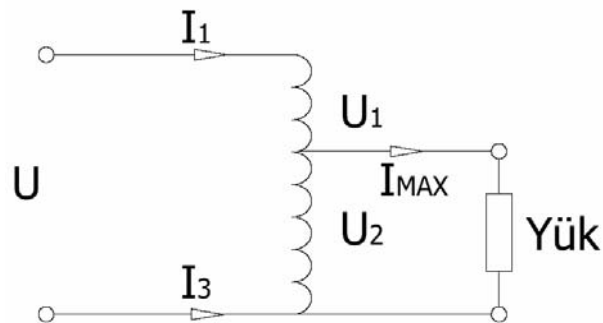
ADVANTAGES

The secondary winding is actually part of the primary winding. In effect, a variac eliminates the need for a separate secondary winding. As a result, autotransformers are always ***smaller, lighter, and cheaper*** than standard transformers of equal power output.

Their iron and copper losses are smaller and result of this their efficiency is better than standard transformers.

Their leakage flux is smaller so their ***regulation ratio*** is better than standard transformers.

TECHNICAL FEATURES



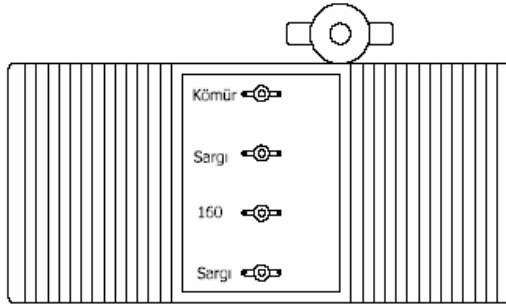
$$\text{Conduction Power} = I_1 U_2$$

$$\text{Type Power} = I_3 U_2$$

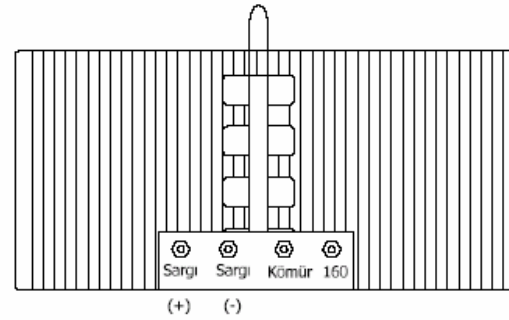
$$\text{Declaration Power} = I_{MAX} U$$

APPEARANCE and CONNECTION TERMINALS

2 - 4,5 KVA VARYAKLAR

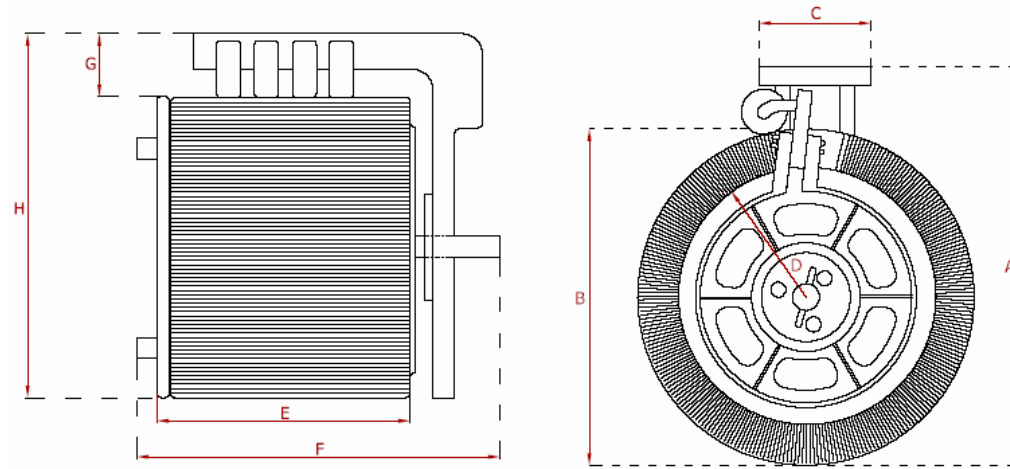


6,5 - 15 KVA VARYAKLAR



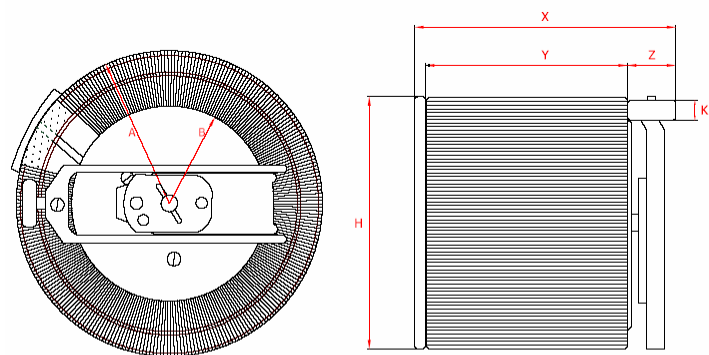
CAUTION: Only if you can connect the winding terminals 220 V you can get 160 V from the 160 terminal.

6,5-15 KVA VARIACS DIMENSIONS,WEIGHTS and CURRENT VALUES



Güç KVA	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Ağırlık KG	I _{max} (A)
6,5	400	300	150	110	100	210	50	400	39	30
7,5	440	300	150	110	110	220	50	440	40	34
10	440	300	150	110	130	250	50	440	45	45
12,5	480	340	150	110	130	250	50	480	58	59
15	480	340	150	110	150	270	50	480	64	68

2,5-4,5 KVA VARIACS DIMENSIONS, WEIGHTS and CURRENT VALUES



	2 KVA	2,5 KVA	3,5 KVA	4,5 KVA
A (mm)	93,7	94	104	118
B (mm)	58	58	80	90
H (mm)	188	188	208	208
X (mm)	137,2	147	159,4	158,3
Y (mm)	94,3	104,15	106,4	105,8
Z (mm)	30	30	35	35
K (mm)	13	13	12,9	12,9
Weight KG	11	13	18	22
I _{MAX} (A)	9	12	16	21

USING INSTRUCTION

1 – Maximum value of U is 250 volts.

2 – You can find the maximum rated current values in Table 1.1. Do not exceed this values.

POWER (KVA)	2	2,5	3,5	4,5	6,5	7,5	10	12,5	15
CURRENT (A)	7,5	10	15	19	29,5	32,5	43	53	58

Table:1.1 Max. Rated Current Values

3 – Max winding temperature does not exceed 100 °C . (See: TABLE 1.2)

4 – Max carbon brush temperature does not exceed 150 °C. (See: TABLE 1.2)

5 – If you want to obtain variable voltages use the Table 1.5

6 – If you have to change the wire resulting of any fault look at the table 1.4 for wire cross-section.

7 – Do not work your device in humid environment.

8- Protection class of the device is IP00. Do not touch before plug out and the cut the input voltage.

MEGISAN ELECTRIC VARIAC HEATING VALUES						
Power KVA	Input Vol. (V)	Output Vol (V)	Current I _{MAX} (A)	Brush Tem(°C)	Winding Tem (°C)	Time (Minutes)
2	230	71	9	150	78	120
2,5	230	70	12	150	65	30
3,5	250	200	16	135	100	150
4,5	220	160	21	150	80	30
6,5	230	150	29,5	150	98	35
7,5	230	150	34	150	100	15-25
10			45			
12,5			59			
15			68			

Table 1.2 (Without any cooling system)

MEGISAN ELECTRIC VARIAC TURN NUMBER									
Power (KVA)	2	2,5	3,5	4,5	6,5	7,5	10	12,5	15
Turn	350	350	312	325	358	358	282	280	280

Table 1.3

MEGISAN ELECTRIC WIRE CROSS-SECTION FOR VARIACS									
Power (KVA)	2	2,5	3,5	4,5	6,5	7,5	10	12,5	15
C-Sec (mm ²)	1,20	1,20	1,60	1,80	2,30	2,30	2,95	3,40	3,40

Table 1.4

WHAT TO DO IF...

PROBLEM	CAUSE	SOLUTION
Too much Noise	Fault on the mechanic parts.	Call the service.
Smog from winding	Over heating	Turn off the device and call the service.
Burning winding	Over load	Turn off the device and call the service.
Does not regulate the voltage	1- Corrosion on the brush 2 – Fault on motor or switches	Turn off the device and call the service.

MAINTENANCE

1. Clear the brush route.
2. Control of the pressure arch. (It must be at least 1,5 kg)
3. Control of the motor and switches.

GUARANTEE

1. *Period of guarantee is two years and starts on the date of purchase.*
2. *All parts of the device is under guarantee except copper wire.*
3. *The device is going to be replaced or fixed, free of charge, if the defects -which should be determined by our staff- occurs from faults in materials or workmanship..*
4. *This guarantee does not cover, damage due to improper use.*

FIRM NAME

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