

INDUCTION VOLTAGE REGULATORS OF SERIES NT (BOOSTERS)



General

Induction voltage regulators are electric machines destined for continuous voltage regulation. They are a source of the continuously changeable voltage. They are used as sources of changeable voltage at test rooms, for maintaining voltage at the line voltage fluctuation, for temperature control on resistor furnaces, etc.

Applications: at test rooms, TV transmitters, radiocommunication, research and project institutes, high schools and universities, resistor furnaces etc.

The main features of these machines are:

- output source of regulable voltage,
- they do not produce interference signals
- sinusoidal voltage
- reliability, long life, easy maintenance, resistant against electromagnetic attacks.

LifeProtect - Remote monitoring of operation

For all our products we offer the remote monitoring of electric rotating machines - engines and generators, electric devices, and other equipment. The result of the LifeProtect application is the enhanced safety of device operation, preventive service, and reduction of repair costs.

The basic functions of the LifeProtect monitoring device are as follows:

1. Measurement of defined operation parameters of the device
2. Option of online remote monitoring of the device
3. Archiving of measured values
4. Sending of alarm messages when preset limit values of selected parameters are exceeded.

1. Technical Parameters

1.1. Single Three-Phase Induction Voltage Regulators Type NTA

TYPE	Apparent input N_1 [kVA]	Apparent output N_2 [kVA]	Type output N_3 [kVA]	INPUT		OUTPUT		Weight [kg]
				Voltage U_{15} [V]	Current I_1 [A]	No-load voltage U_{25} [V]	Current I_2 [A]	
NTA 64-2	44	40	21	380	67	30-780	30	305
NTA 74-2	91	83	44	380	119	50-800	50	400
NTA 82-2	107	104	53	380	163	30-780	77	550
NTA 92-2	234	222	116	380	355	50-800	160	890
NTA 104-2	520	494	250	380	790	15-770	370	1660

NTA 64-2	104	100	21	380	158	280-480	120	300
NTA 74-2	201	191	40	380	305	280-480	230	400
NTA 82-2	256	250	46	380	388	300-465	310	550
NTA 92-2	515	504	109	380	783	270-485	600	890

$$N_1 = \sqrt{3} \cdot U_{15} \cdot I_{15} \cdot 10^{-3} \text{ [kVA]} \quad N_2 = \sqrt{3} \cdot U_{25} \cdot I_2 \cdot 10^{-3} \text{ [kVA]} \quad N_3 = \sqrt{3} \cdot U_{20} \cdot I_2 \cdot 10^{-3} \text{ [kVA]} \quad [U_{20} = \vec{U}_{25} + \vec{U}_{15}]$$

1.2. Double Three-Phase Induction Voltage Regulators Type NTB

TYPE	Apparent input N_1 [kVA]	Apparent output N_2 [kVA]	Type output N_3 [kVA]	INPUT		OUTPUT		Weight [kg]
				Voltage U_{15} [V]	Current I_1 [A]	No-load voltage U_{25} [V]	Current I_2 [A]	

Autotransformer connection $N_1 = \sqrt{3} \cdot U_{15} \cdot I_{15} \cdot 10^{-3} \text{ [kVA]}, N_2 = \sqrt{3} \cdot U_{25} \cdot I_2 \cdot 10^{-3} \text{ [kVA]}, N_3 = \sqrt{3} \cdot U_{20} \cdot I_2 \cdot 10^{-3} \text{ [kVA]}, [U_{20} = \vec{U}_{25} + \vec{U}_{15}]$

NTB 94-2	652	610	247	380	990	120-640	550	1900
NTB 94-2	466	424	243	380	708	0-890	275	1860
NTB 104-2	1104	1057	398	380	1678	150-610	1000	3520
NTB 104-2	769	723	394	380	1169	0-835	500	3520
NTB 132-2	3282	3225	1382	380	4986	95-665	2800	8650

Delta connection $N_1 = \sqrt{3} \cdot U_{15} \cdot I_{15} \cdot 10^{-3} \text{ [kVA]}, N_2 = N_3 = \sqrt{3} \cdot U_{25} \cdot I_2 \cdot 10^{-3} \text{ [kVA]}$

NTB94-2	293	253	253	380	445	0-154	950	1900
NTB94-2	285	246	246	380	433	0-298	476	1860
NTB104-2	448	404	404	380	680	0-135	1730	3520
NTB104-2	440	396	396	380	669	0-264	866	3520
NTB 132-2	1439	1394	1394	380	2186	0-166	4850	8650

Star connection $N_1 = \sqrt{3} \cdot U_{15} \cdot I_{15} \cdot 10^{-3} \text{ [kVA]}, N_2 = N_3 = \sqrt{3} \cdot U_{25} \cdot I_2 \cdot 10^{-3} \text{ [kVA]}$

NTB94-2	293	248	248	380	445	0-260	550	1900
NTB94-2	285	245	245	380	433	0-515	275	1860
NTB104-2	448	405	405	380	680	0-234	1000	3520
NTB104-2	440	394	394	380	669	0-455	500	3520
NTB 132-2	1439	1382	1382	380	2186	0-285	2800	8650

1.3. Induction Voltage Regulators Type NTP - Pensabene's Connection

TYPE	Apparent output [kVA]	INPUT		OUTPUT		Weight [kg]
		Voltage U_{15} [V]	Current I_1 [A]	No-load voltage U_{25} [V]	Current I_2 [A]	

Rated values for three-phase demand $N = \sqrt{3} \cdot U_{25} \cdot I_2 \cdot 10^{-3} \text{ [kVA]}$

NTP64-2	31	380	58	0 - 500	36	310
NTP74-2	63	380	126	0 - 500	73	435
NTP84-2	100	380	195	0 - 500	115	690
NTP94-2	200	380	366	0 - 500	230	1010
NTP104-2	312	380	545	0 - 500	360	1660
NTP132-2	1000	380	1607	0 - 500	1155	4010

Rated values for single-phase demand $N = U_{25} \cdot I_2 \cdot 10^{-3} \text{ [kVA]}$

NTP64 - 2	18	380	58	0 - 500	36	310
NTP74 - 2	36,5	380	126	0 - 500	73	435
NTP84 - 2	57,5	380	195	0 - 500	115	690
NTP94 - 2	115	380	366	0 - 500	230	1010
NTP104 - 2	180	380	545	0 - 500	360	1660
NTP132 - 2	578	380	1607	0 - 500	1155	4010