

KTII UNITIZED TRANSFORMER SUBSTATIONS OF TERMINAL TYPE (KTIIIT) AND OF DOUBLE-ENDED TYPE (KTIIII) rating 400 and 630 kV·A, with a voltage 6(10)kV

Unitized transformer substations are one-transformer substations for outdoor installation and are intended to receive electric energy – three-phase, 50 Hz a. c. of 6 or 10 kV, to transmit it through (KTII of double-ended type), to convert it into 0.4 kV for energy supply in moderate climatic conditions (from -45°C to +40°C). When air (overhead) lead-in is used, KTII is connected to transmission line through disconnecting switch which is mounted on the transmission line nearest tower.

Specific features of KTII are as follows:

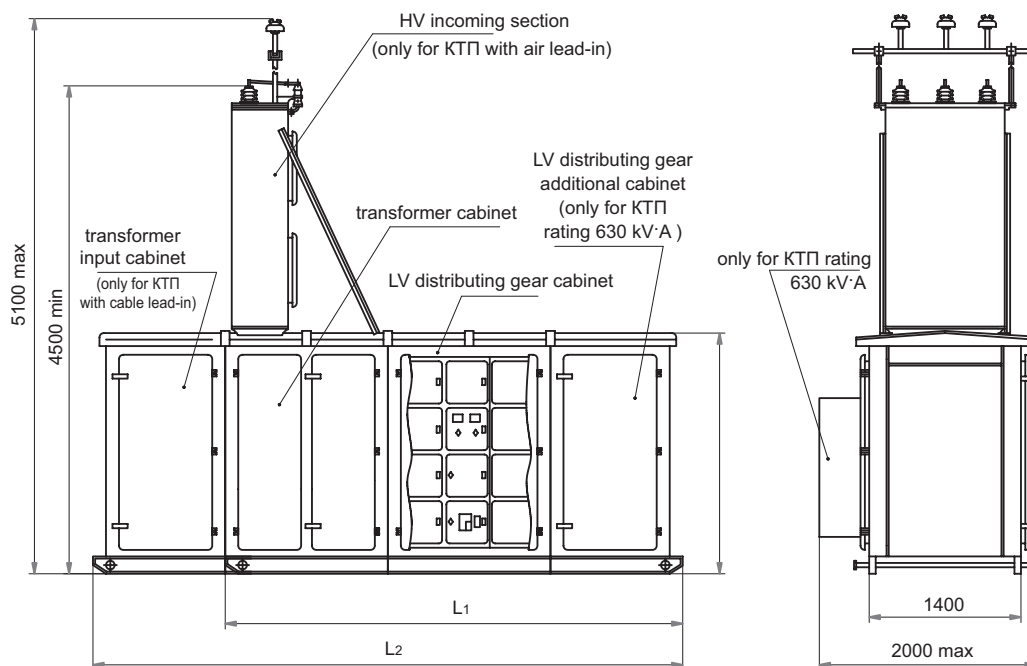
- natural ventilation in transformer cabinet providing cooling of a power transformer;
- LV distributing gear cabinet is of two-sided attendance access;
- a facility allowing to roll in/roll out a power transformer in/out of a transformer cabinet;
- outgoing lines are fitted with withdrawable automatic circuit-breakers.

KTII has function of active power consumption metering. To maintain normal operation conditions for metering device, circuit design provides heating function. KTII has exterior lighting feeder with automatic ON/OFF function. HV lead-in is of air or cable type, LV outgoing lines are of cable type.

KTII is equipped with electrical and mechanical interlockings ensuring safety of attending personnel. KTII to be installed on footings or on tamped land platforms. Basic design of terminal-type and double-ended-type KTII allows to build up two-transformer substations.

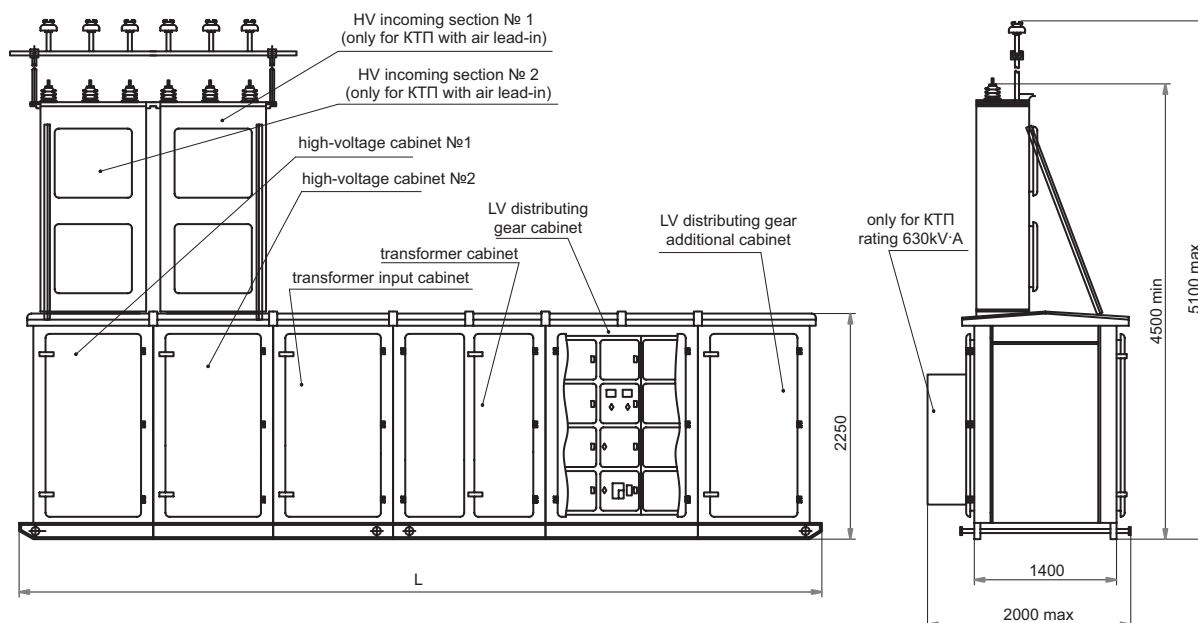
Parameter denomination		Parameter value			
		KTII-400		KTII-630	
Transformer type		TMГ-400		TMГ-630	
Transformer connection / vector group		Yyn-0 or Dyn-11			
Transformer rated power, kV·A		400		630	
HV rating, kV		6	10	6	10
Transformer rated current on HV side, A		38.5	23.1	60.69	36.4
HV fuse rated current, A		80	50	100	80
LV rating, kV		0.4			
Transformer rated current on LV side, A		577.4		910.4	
Rated current of outgoing lines, A	No 1	400			
	No 2	200			
	No 3	160			
	No 4	100			
	No 5	100			
	No 6	-	-	400	
	No 7	-	-	250	
	No 8	-	-	160	
lighting line		16			

Terminal type (T) unitized transformer substations with air (cable) lead-in



Make type	with air lead-in		with cable lead-in	
	L ₁ , mm	Mass, transformer included, kg	L ₂ , mm	Mass, transformer included, kg
КТПТ-400/10/0.4	3150	2975	4250	3700
КТПТ-630/10/0.4	4300	4550	5480	5300

Double-ended (П) unitized transformer substations with air (cable) lead-in



Make type	L, mm	Mass, transformer included, kg
КТПП-400/10/0.4	6500	5035
КТПП-630/10/0.4	7720	6600