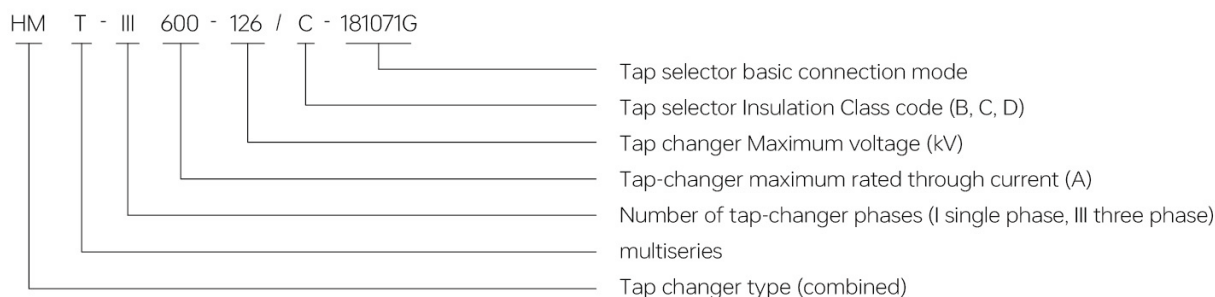


HMT combined on-load tap-changer

HMT combined on-load tap-changer

1. HMT model description

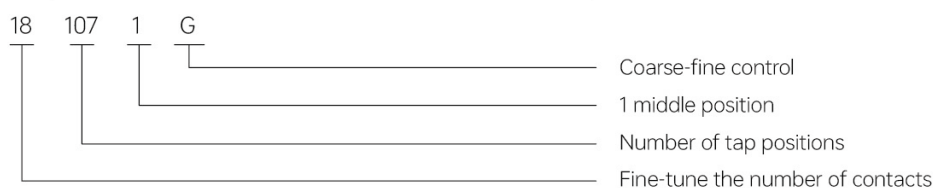


Number of tap positions

Coarse tuning series	Fine-tune the number of contacts	Fine-tuned series				
		9	11	13	15	17
2	3	29	35	41	47	53
3	4	39	47	55	63	71
4	5	49	59	69	79	89
5	6	59	71	83	95	107

Note: Number of tapping positions = number of fine tuning heads × number of coarse tuning heads -1; The number of fine-tuned contacts and the number of coarse tuned contacts are both single-phase contacts. For example, if a group of parallel contacts are used, the number is calculated as one contact.

Tap selector basic connection mode representation

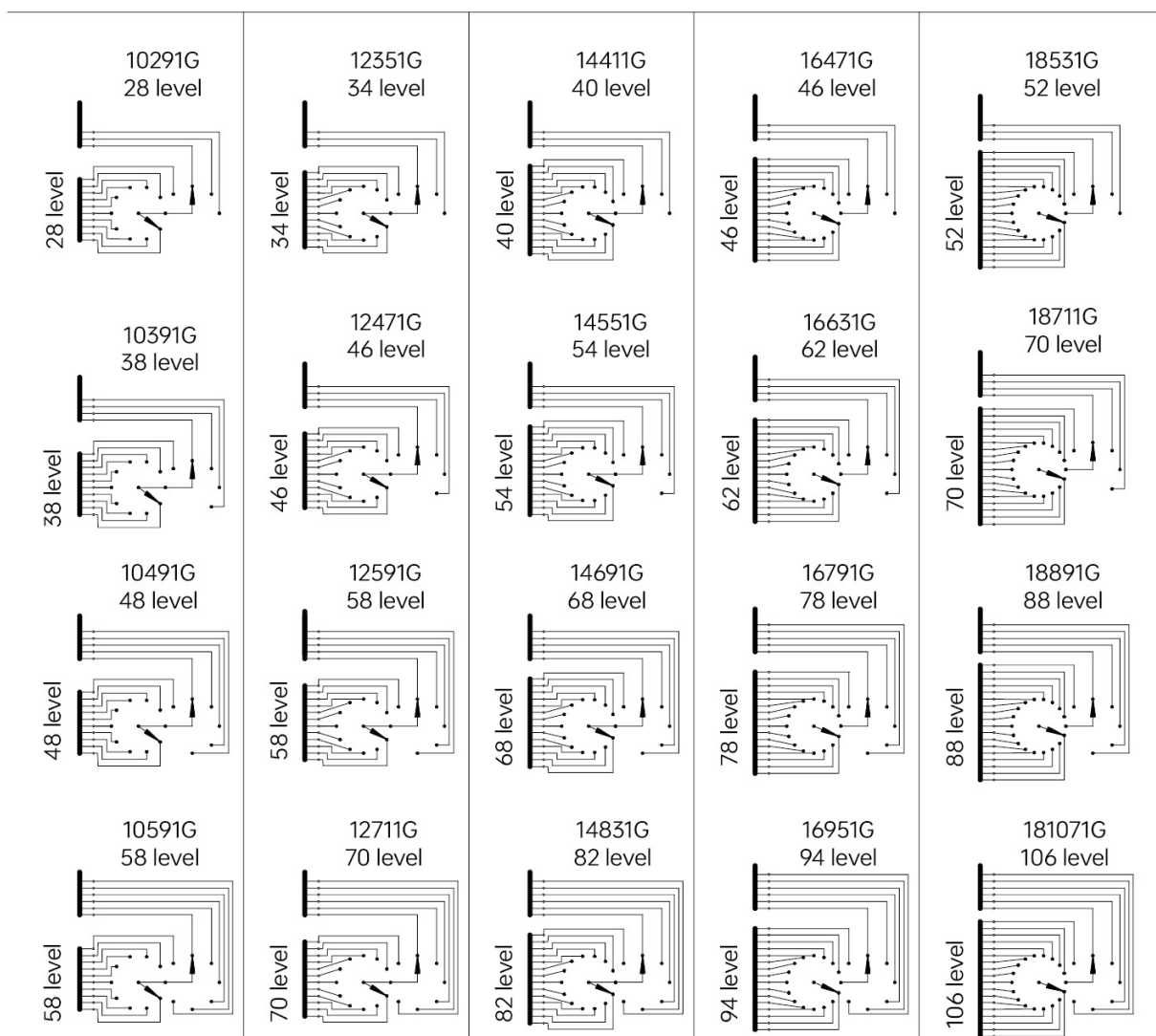


2. HMT internal insulation level

insulation distance symbol	Tap selector Type B		Tap selector type C		Tap selector type D	
	kV 1.2/50μs	kV 50Hz1min	kV 1.2/50μs	kV 50Hz1min	kV 1.2/50μs	kV 50Hz1min
a	265	50	350	82	450	105
a0	90	20	90	20	90	20
b	265	50	350	82	450	146
C1	455	127	525	165	590	210
C2	455	127	525	165	590	215
d1	265	50	350	82	460	105
d2	350	82	450	105	460	105
d3	350	82	450	105	490	120

Insulation distance of each part of the voltage regulator coil	
III 600	I 600、I 800、I 1200、I 1500
	The interstage insulation level Δ_0 with spark cogap SF is: 5Hz 1min 20kV和1.2/50μs 90kV

3. Basic wiring diagram of HMT



4. HMT technical parameters

item	Classification feature		III 600	I 600	I 800	I 1200	I 500
1	Maximum rated passing current (A)		600	600	800	1200	500
2	Rated frequency (Hz)		50 or 60				
3	Number of phases and connection mode		Three-phase Y connects to the center point	Single-phase arbitrary connection mode			
4	Maximum grading voltage (V)		3300				
5	Rated capacity (kVA)		1500	1980	2640	3100	3500
6	Withstand short circuit Ability (kA)	Thermal stability (3 s RMS)	8	8	16	24	24
		Dynamic stability	20	20	40	60	60
7	Number of working positions		Maximum 107 tap positions				
8	Tap off Off insulation level (kV)	Rated voltage	35	66	110	150	220
		Maximum operating voltage	40.5	72.5	126	170	252
		Power frequency test voltage (1min)	85	140	230	325	460
		Impulse test voltage (1.2/50)	200	350	550	750	1050
9	Tap selector		According to the insulation level is divided into 4 sizes: number B, C, D				
10	Mechanical life		No less than 800,000 times				
11	Electrical life		No less than 200,000 times				
12	Toggle Switch Oil chamber	Working pressure	3×10 ⁴ Pa				
		Sealing performance	6×10 ⁴ Pa 24h no leakage				
		Overpressure protection	Rupture cap (4~5)×10 ⁴ Pa				
		Protective relay	QJ4-25 Set oil speed 1.0m/s±10%				
13	Oil discharge (L)		about 190~270				
14	Oil charge (L)		about 125~190				
15	Weight (Kg)		about 240~350				
16	Equipped with electric mechanism		HED-200				

- Note: 1. The stage capacity is equal to the product of the stage voltage and the load current, and the rated stage capacity is the maximum continuously allowed stage capacity.
2. The selection of single-phase tap-changer with three-phase tap-changer contacts in parallel should consider transformer line state shunt, HMT I 800 two-way shunt, HMT I 1200, I 1500 three-way shunt.
3. The voltage regulation series can be designed according to the user's needs within the range of working positions in the table above.

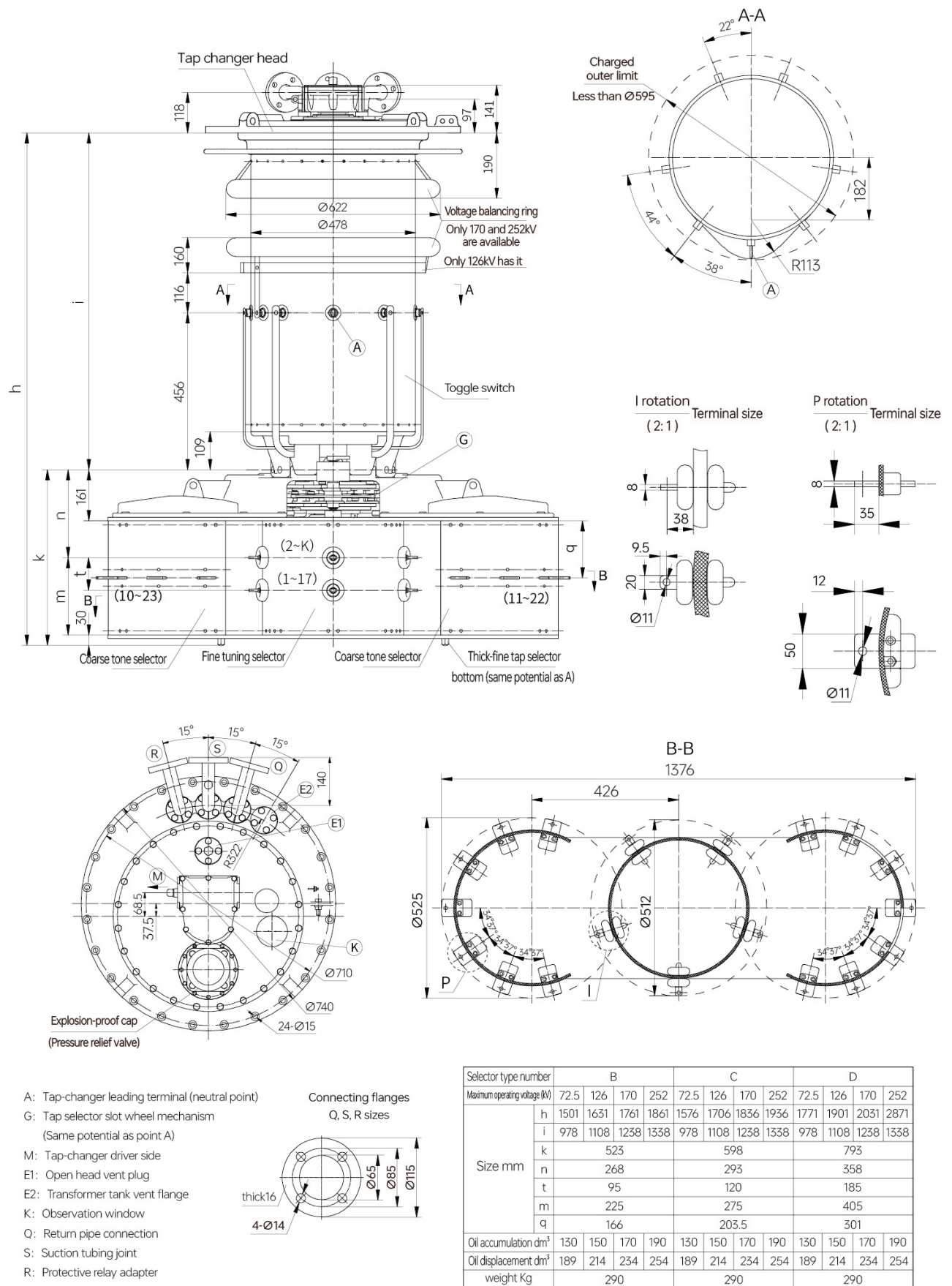


Figure 2 HMT I 600

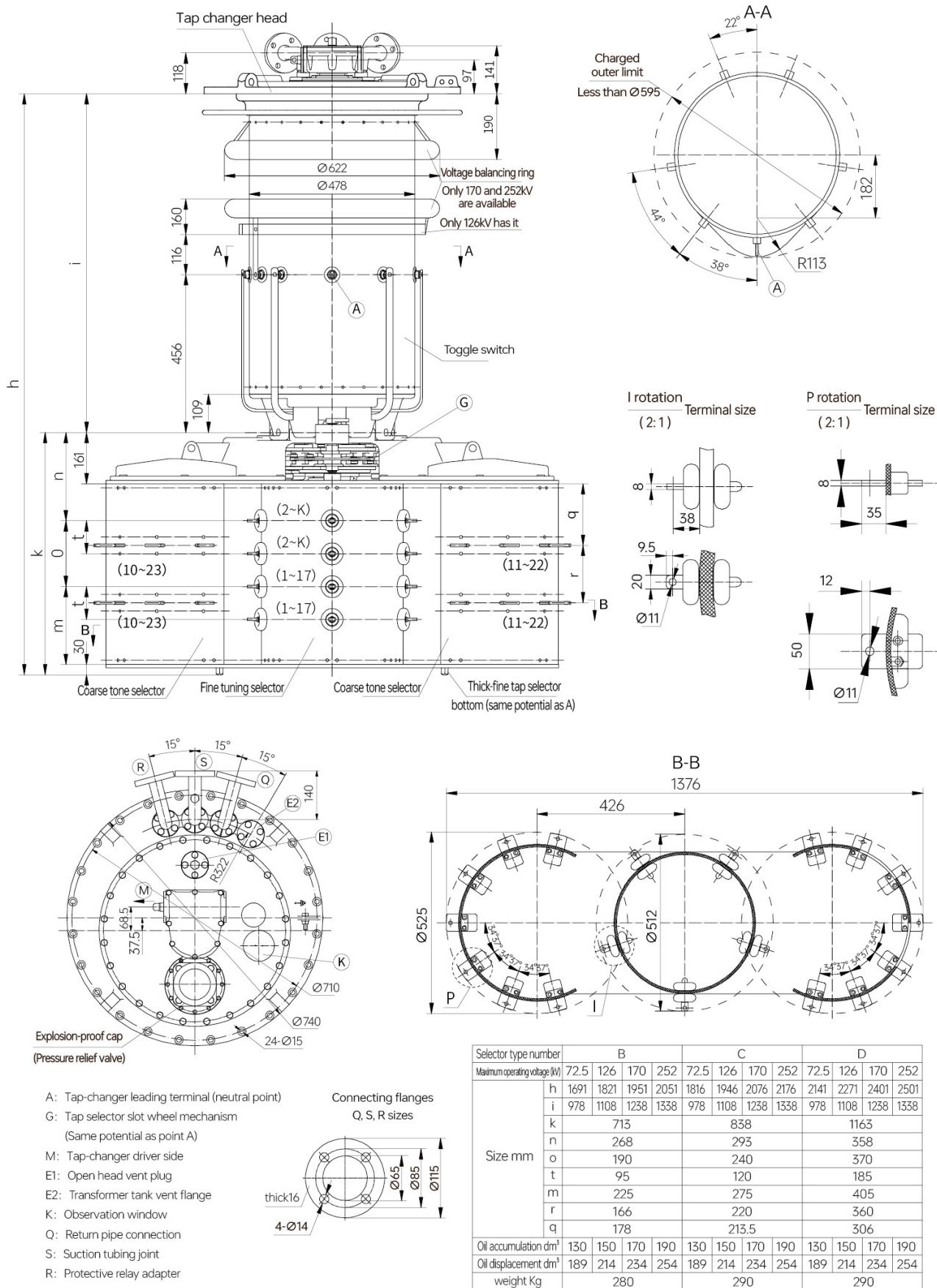
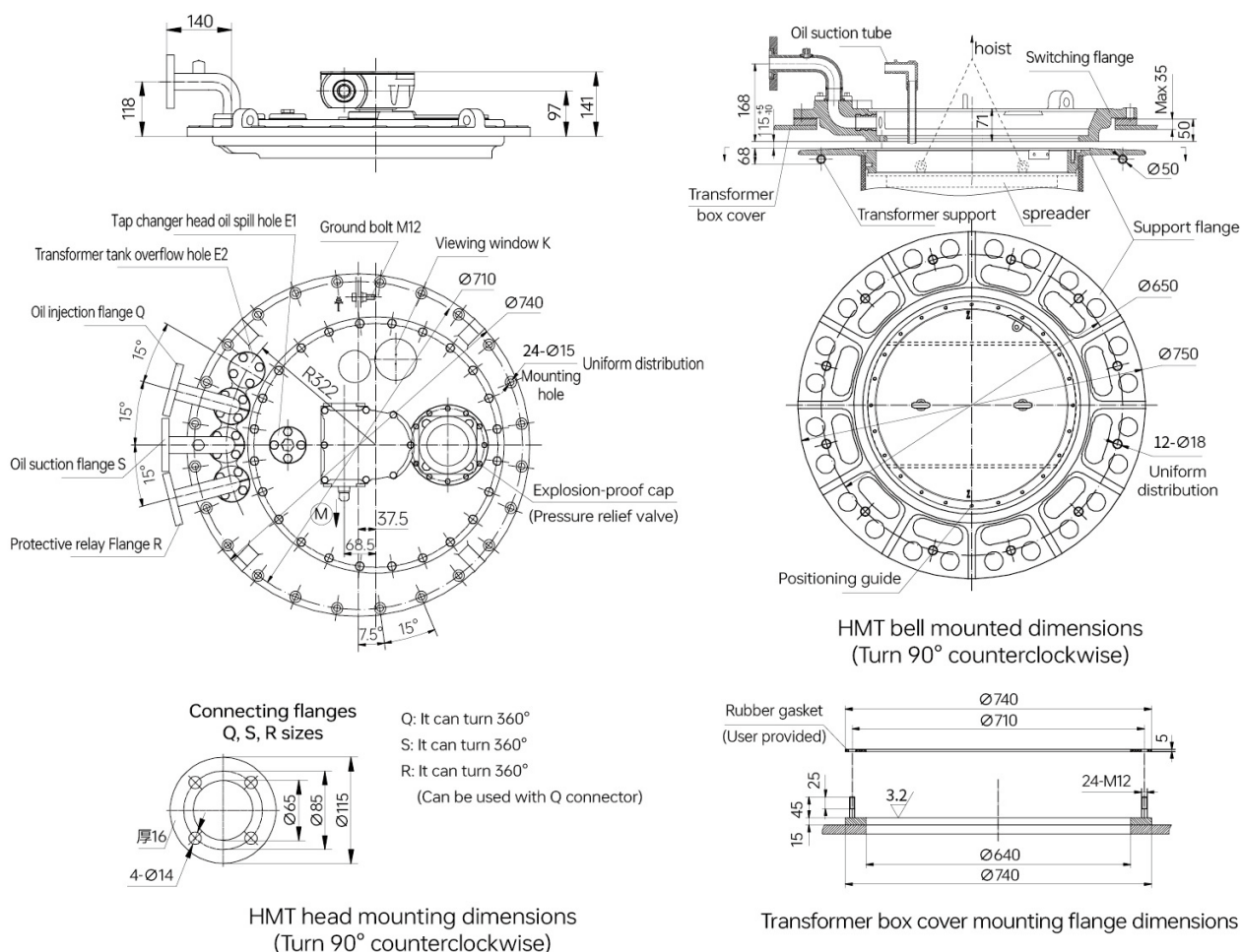


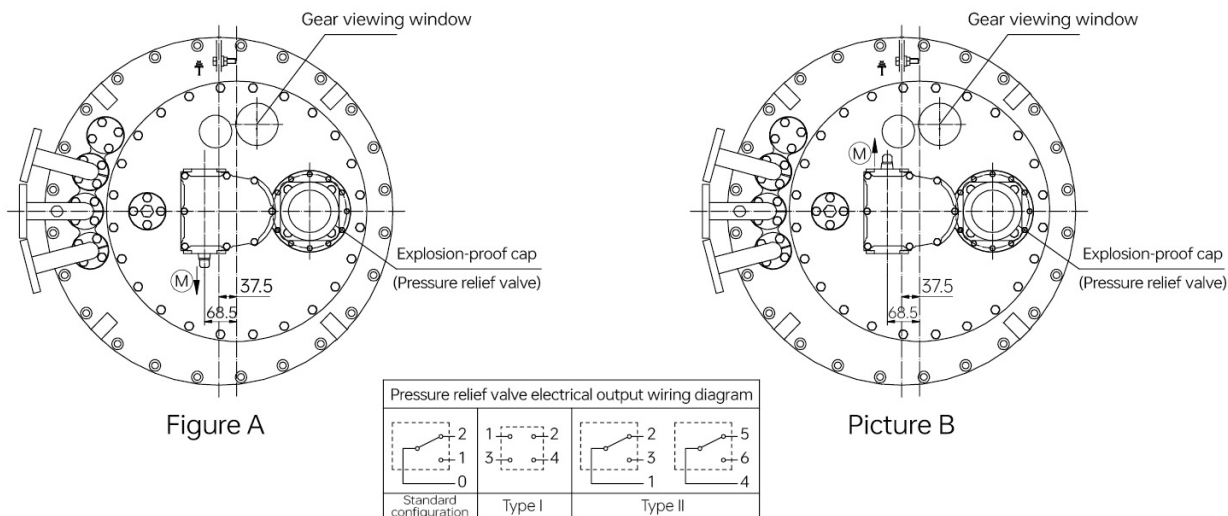
Figure 3 HMT 1800

6. HMT installation dimension diagram



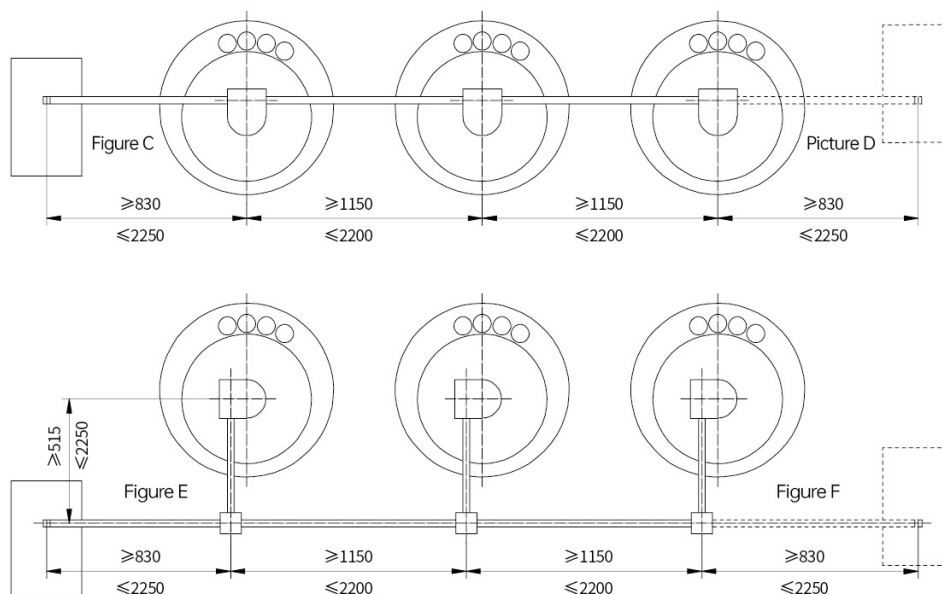
7. HMT head cover layout

In order to meet user requirements, when ordering the HMT switch head cover, please select the appropriate head cover layout, if the user does not choose to determine, then according to Figure A production. In case of special Angle, please give the solution supplier's confirmation when ordering.



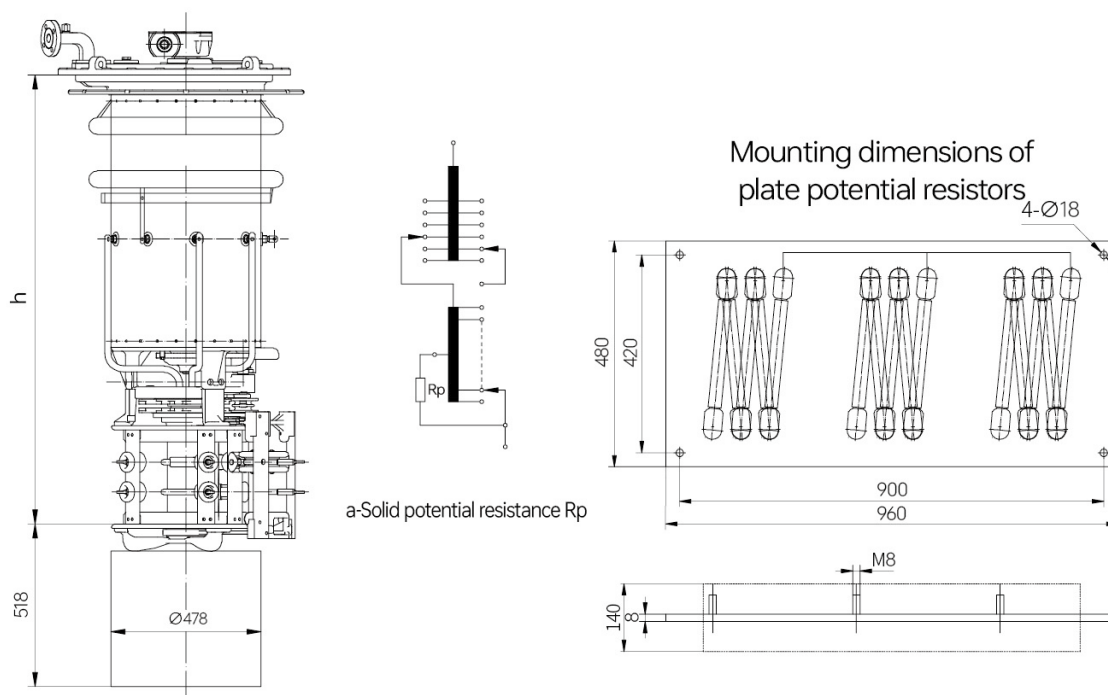
8. HMT triplex mechanical linkage layout

In order to facilitate the user's three mechanical linkage arrangement, HMT three mechanical linkage gives four schemes, such as Figure C, Figure D, Figure E and Figure F, for user reference. If there are other layout parties, as agreed by both parties.



8. HMT potential resistors and potential switches

The tap-changer winding is "suspended" when the tap-changer selector is in action. Because there is a coupling capacitor C between the main winding and the tap-winding, and a coupling capacitor C between the tap-winding and the box shell, the conversion selector generates spark discharge. In order to reduce the spark discharge gas, the potentiometric resistor is fixed or connected by a potentiometric resistor switch.



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