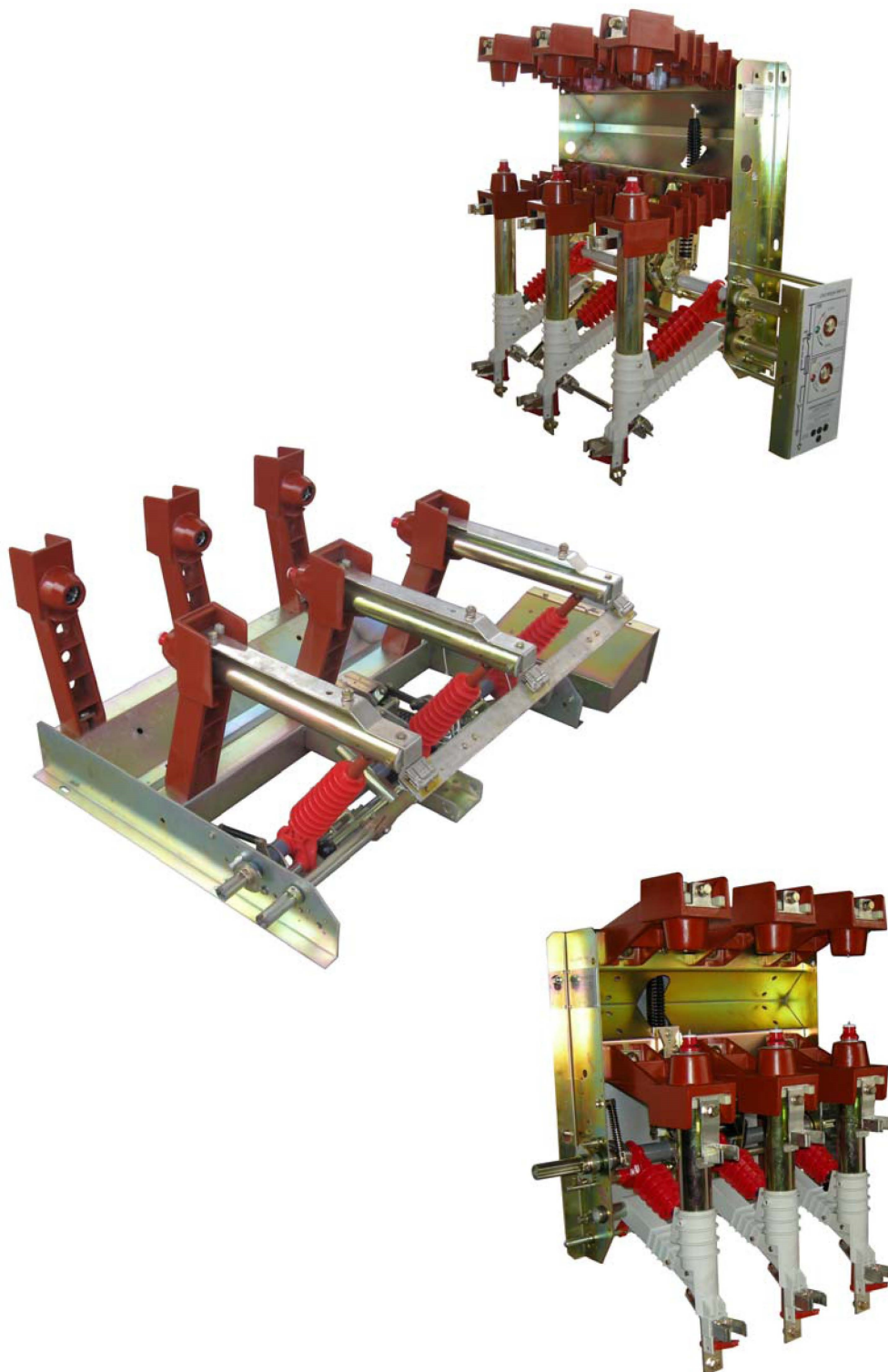


FKN12 SERIES LOAD BREAK SWITCHES

Rated Voltage: 12kV, 24kV and 35kV

Rated Current: 630A



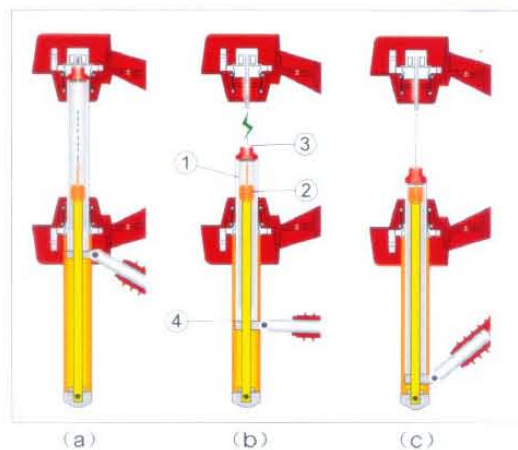
FUNCTIONAL CHARACTERISTICS

The interruption is carried out in the load-break switch FKN12, by a blow which strikes, deionizes and extinguishes the arc in a very short time. The compressed air required for extinction is produced, during opening operation by the motion of the cylinder(1) which acts also as moving contact, with respect to piston(2) housed inside and secured to the base of fixed cylinder(4).

Through the special shape of tuyere(3) currents of some hundreds of amperes are interrupted by a limited yet sufficient air volume.

As pressure increased gradually, this facilitates the interruption of inductive currents without causing dangerous overvoltage while a quick dielectrical regeneration between contacts ensuing the blow and the high separation speed of moving contact, makes easier also the interrupting of capacitive currents.

In comparison with gas self-generating apparatus they have also the advantage of not undergoing, perceptible alteration after each interruption.



Opening stages sequence of a load-break switch pole FKN12

- 1) Moving contact cylinder
- 2) Piston
- 3) Tuyere
- 4) Fixed cylinder

ELECTRICAL CHARACTERISTICS

The load-break switches FKN12, comply with CEI(Italian) and IEC(International) cat.B specifications. They are manufactured for 12-17.5-24 and 36kV, 400-630-800A; type FKN12-□D(R) on load.

The type FKN12-□D(R) is prearranged for receiving high breaking capacity fused and its produced:

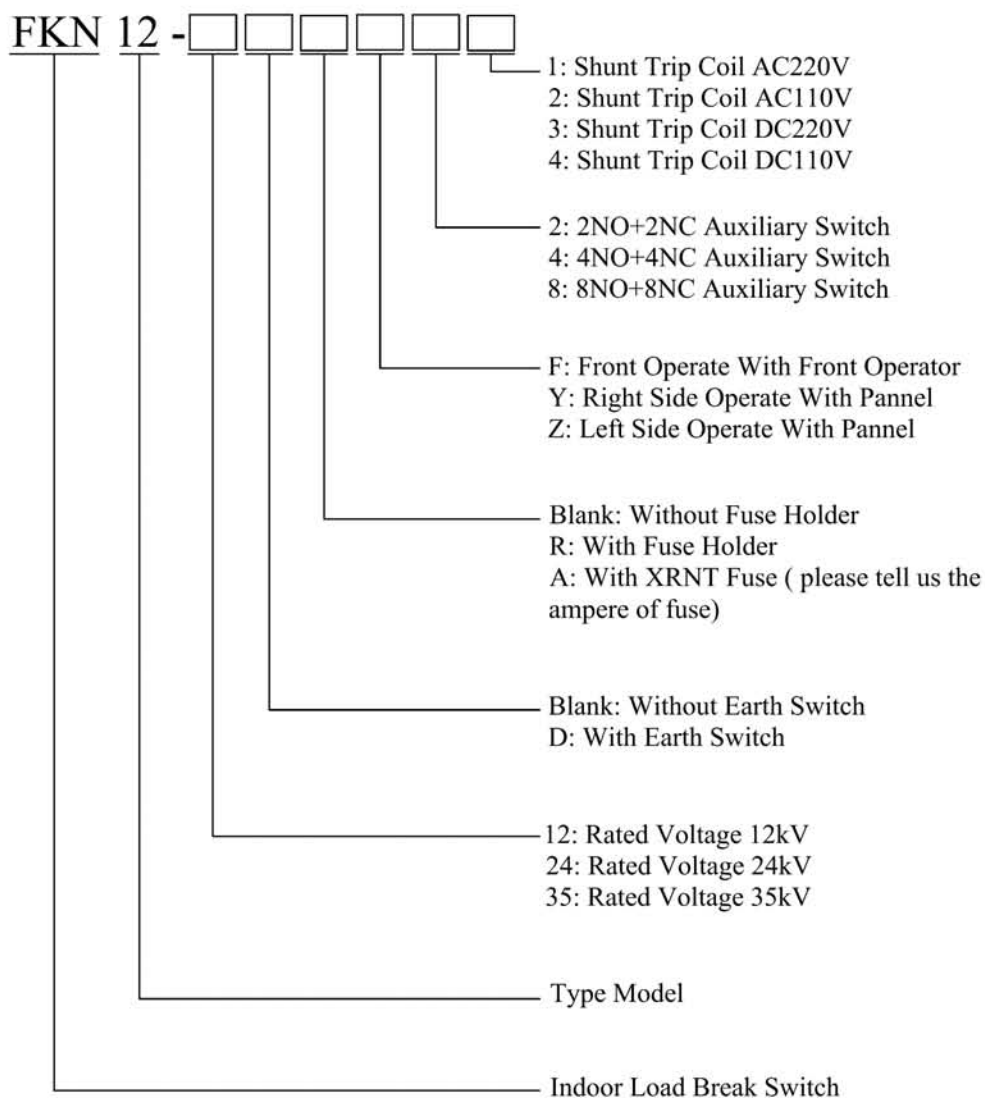
- with automatic trip when even one fuse blows out
- without automatic trip on fuse flow out, with visible indication.

The type FKN12-□D is not provided for the application of fuses.

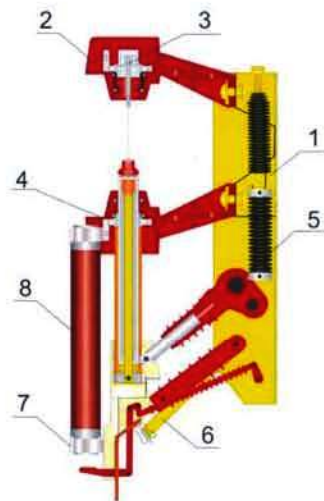
ELECTRICAL INFORMATION

Rated voltage	kV	12	24	35
Maximum service voltage	kV	15	25.8	40.5
Withstand voltage to earth and between poles	kV	42	50	70
Withstand voltage across the isolating distance	kV	48	60	80
Impulse withstand voltage to earth and between poles	kV	85	125	170
Impulse withstand voltage across the isolating distance	kV	95	145	195
Rated current	A	630	630	630
Breaking capacity for active circuits(cosΦ0.7)	A	630	630	630
Breaking capacity for no-load transformers	A	16	16	16
Breaking capacity for no-load line and cables	A	25	25	16
Short-time current	kA	20	20	12.5
	sec.	2s	1s	1s
Making capacity	kA	50	40	25

Order Information

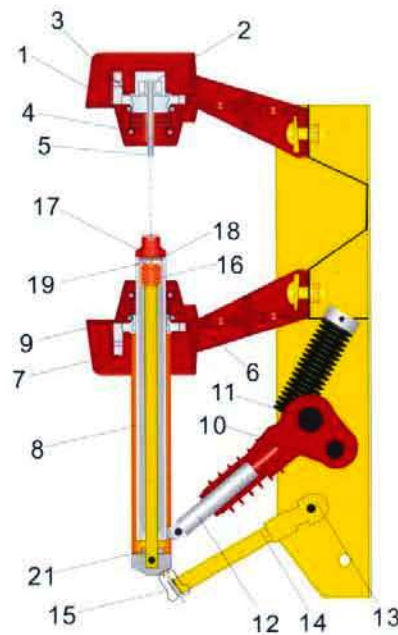


SECTIONAL VIEW OF A LOAD-BREAK SWITCH POLE FKN12-□DR



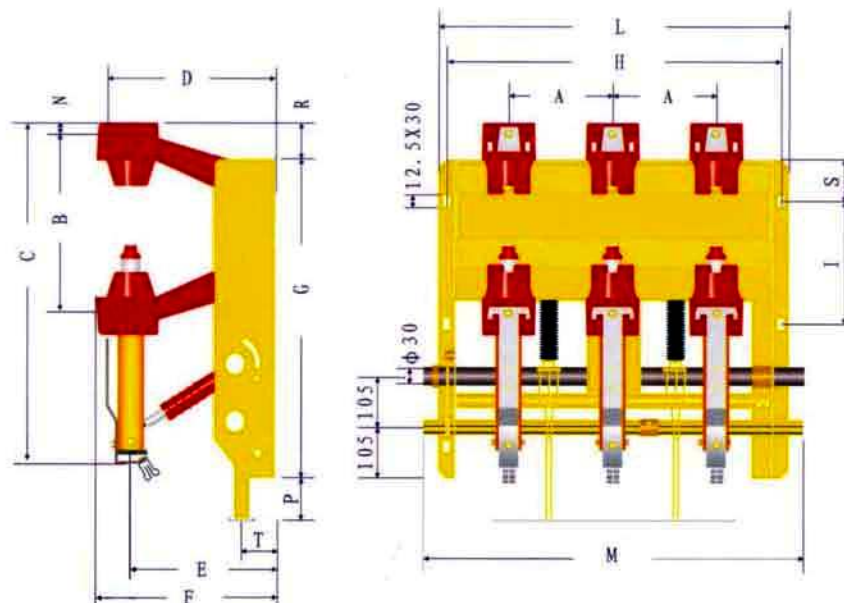
1. Frame 2. Upper insulator 3. Upper fixed arcing contact 4. Lower insulator 5. Main shaft
6. Earthing blades 7. Fuse holder 8. Fuse

SECTIONAL VIEW OF A LOAD-BREAK SWITCH POLE FKN12-□D

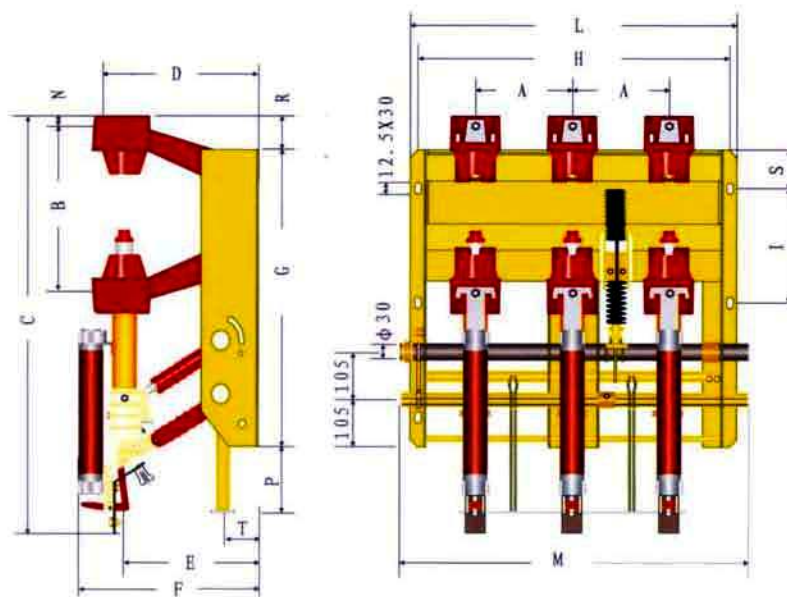


- | | | |
|---------------------------|----------------------------|--------------------------------|
| 1. upper insulator | 2. Upper Terminal | 3. Upper stationary contact |
| 4. Contact fingers | 5. Arcing contact rod | 6. Lower insulator |
| 7. Lower terminal | 8. Moving contact cylinder | 9. Tulip guiding contact |
| 10. Insulating rod | 11. Main shaft | 12. Insulating parallel member |
| 13. Earthing blades shaft | 14. Earthing blades | 15. Fixed contact |
| 16. Fixed piston | 17. Tuyere | 18. Moving arcing contact |
| 19. Rod | 20. Articulated shutter | 21. Shock absorber |

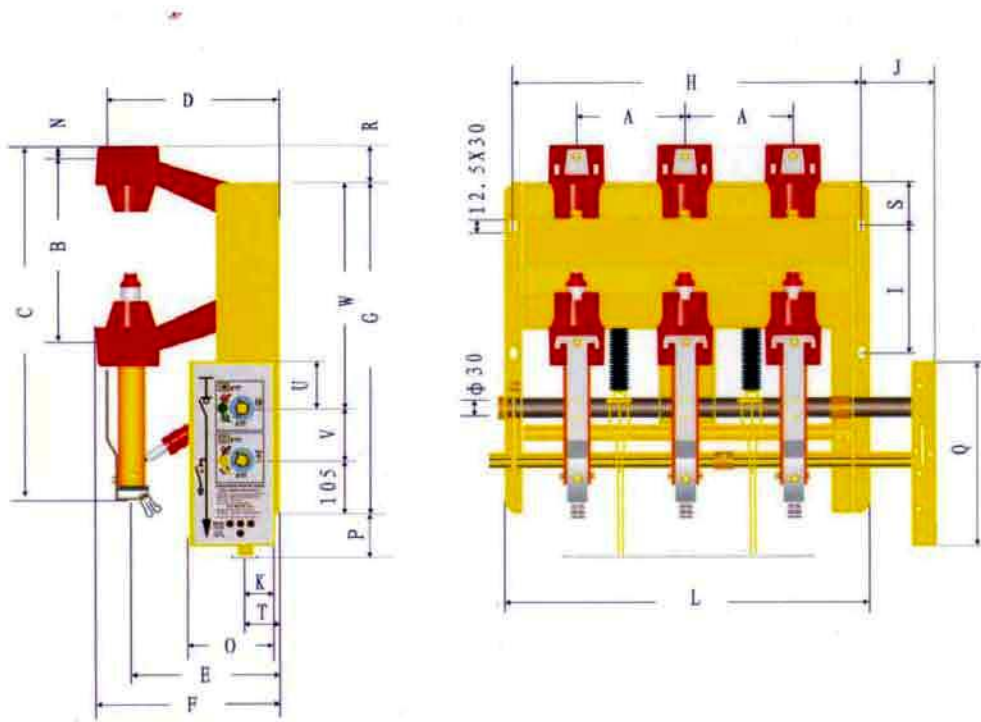
Overall and dimension



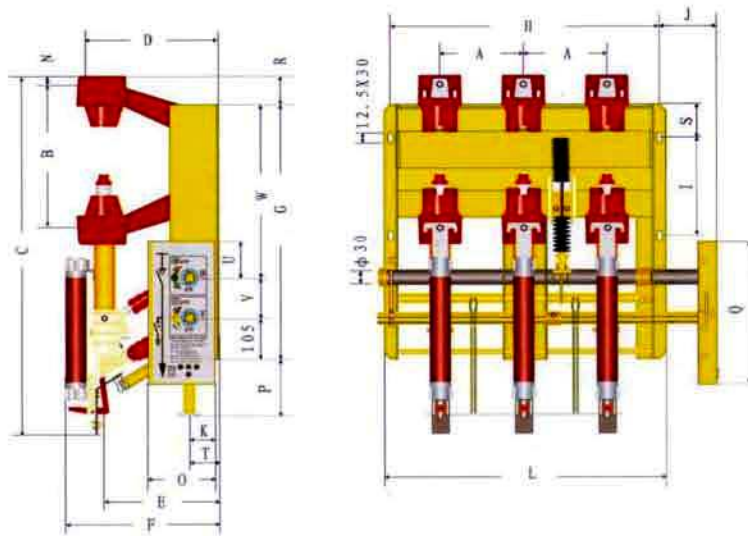
Type	kV	A	B	C	D	E	F	G	H	I	L	M	N	P	R	S	T	kg
FKN12-[]DF	12	210	380	695	335	290	345	655	620	300	660	815	35	85	80	100	78	47
	24	300	455	900	430	375	470	770	800	400	840	1080	50	170	90	35	96	65
	35	400	515	1025	495	449	555	890	1040	500	1080	1280	50	256	90	100	105	88



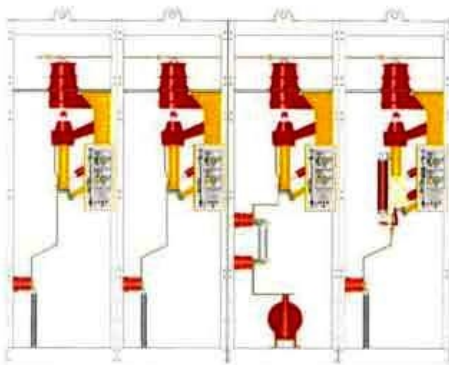
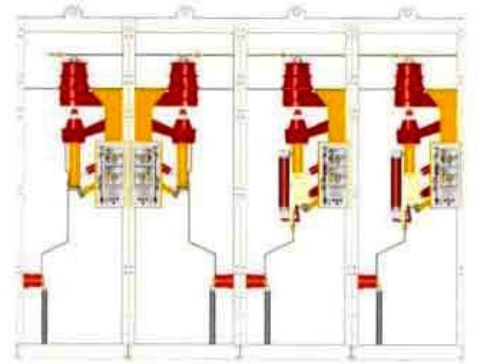
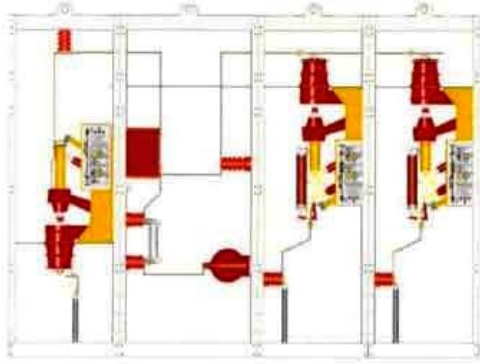
Type	kV	A	B	C	D	E	F	G	H	I	L	M	N	P	R	S	T	kg
FKN12-[]DRF	12	210	380	910	335	290	395	655	620	300	660	815	35	130	80	100	78	50
	24	300	455	1070	430	375	480	770	800	400	840	1080	50	200	90	35	96	67
	35	400	515	1230	495	449	590	890	1040	500	1080	1280	50	286	90	100	105	90



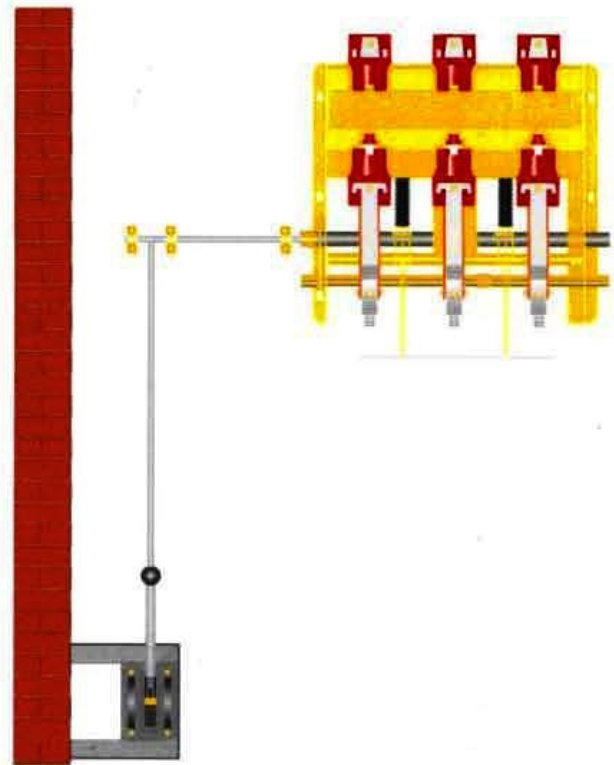
Type	kV	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S	T	U	V	W	kg
FKN12-□ DY	12	210	380	695	335	290	345	655	620	300	150	67	660	35	172	85	368	80	100	78	94	105	445	51
	24	300	455	900	430	375	470	770	800	400	150	67	840	50	172	170	368	90	35	96	94	105	560	77
	35	400	515	1025	495	449	555	890	1040	500	254	67	1080	50	172	256	368	90	100	105	94	105	682	101



Type	kV	A	B	C	D	E	F	G	H	I	J	K	L	N	O	P	Q	R	S	T	U	V	W	kg
FKN12-□ DRY	12	210	380	910	335	290	395	655	620	300	150	67	660	35	172	130	368	80	100	78	94	105	445	62
	24	300	455	1070	430	375	480	770	800	400	150	67	840	50	172	200	368	90	35	96	94	105	560	79
	35	400	515	1230	495	449	590	890	1040	500	254	67	1080	50	172	286	368	90	100	105	94	105	682	103



Example of distribution



PT. BINA CONTROL POWER

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