High Voltage Protection Systems

Current-Limiting Fuse | Drop-Out Fuse
Load Break Switch | Surge Arrester | Insulator

Product Catalogue

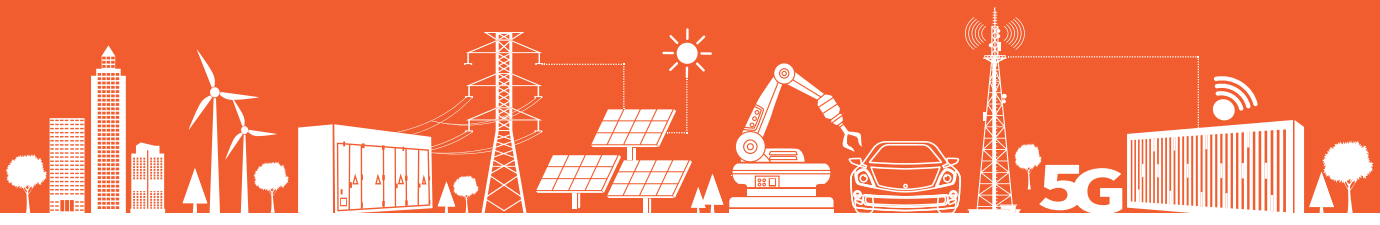


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About GRL

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- Surge Arrester
- Insulator



ISO9001 Quality Management System
ISO14001 Environmental Management System
ISO45001 Occupational Health and Safety Management System
IATF 16949
TÜV
UL
CCC
CE
CB
RoHS
CCS CHINA CLASSIFICATION SOCIETY

High Voltage Current Limiting Backup Fuse For Voltage Transformer Protection



Model	Rated Voltage (kV)	Rated Current (A)	Rated Short-circuit Opening Current (kA)	Tube Diameter (mm)	Tube Lenght (mm)
XRNP1-12/0.5-50	12	0.5	50	25.4	195
XRNP1-12/1-50	12	1	50	25.4	195
XRNP1-12/2-50	12	2	50	25.4	195
XRNP1-12/3.15-50	12	3.15	50	25.4	195
XRNP1-12/4-50	12	4	50	25.4	195

High Voltage Current Limiting Fuse For Transformer Protection



Model	Rated Voltage (kV)	Rated Current (A)	Rated Short-Circuit Opening Current (kA)	Tube Diameter (mm)	Tube Lenght (mm)
XRNT1-12/6.3-50	6/12	6.3	50	51	292
XRNT1-12/10-50	6/12	10	50	51	292
XRNT1-12/16-50	6/12	16	50	51	292
XRNT1-12/20-50	6/12	20	50	51	292
XRNT1-12/25-50	6/12	25	50	51	292
XRNT1-12/31.5-50	6/12	31.5	50	51	292
XRNT1-12/40-50	6/12	40	50	51	292
XRNT1-12/50-50	6/12	50	50	51	292
XRNT1-12/63-50	6/12	63	50	76	292
XRNT1-12/80-50	6/12	80	50	76	292
XRNT1-12/100-50	6/12	100	50	76	292
XRNT1-12/125-50	6/12	125	50	76	292
XRNT1-12/150-50	6/12	150	50	88	292
XRNT1-12/160-50	6/12	160	50	88	292
XRNT1-12/200-50	6/12	200	50	88	292
XRNT1-24/6.3-40	10/24	6.3	40	51	442
XRNT1-24/10-40	10/24	10	40	51	442

Model	Rated Voltag (kV)	Rated Current (A)	Rated Short-Circuit Opening Current (kA)	Tube Diameter (mm)	Tube Lenght (mm)
XRNT1-24/16-40	10/24	16	40	51	442
XRNT1-24/20-40	10/24	20	40	51	442
XRNT1-24/25-40	10/24	25	40	51	442
XRNT1-24/31.5-40	10/24	31.5	40	51	442
XRNT1-24/40-40	10/24	40	40	51	442
XRNT1-24/50-40	10/24	50	40	76	442
XRNT1-24/63-40	10/24	63	40	76	442
XRNT1-24/80-40	10/24	80	40	76	442
XRNT1-24/100-40	10/24	100	40	88	442
XRNT1-24/125-40	10/24	125	40	88	442
XRNT1-24/160-40	10/24	160	40	88	442
XRNT1-24/200-40	10/24	200	40	88	442
XRNT1-36/6.3-40	20/36	6.3	40	51	537
XRNT1-36/10-40	20/36	10	40	51	537
XRNT1-36/16-40	20/36	16	40	51	537
XRNT1-36/20-40	20/36	20	40	51	537
XRNT1-36/25-40	20/36	25	40	51	537
XRNT1-36/31.5-40	20/36	31.5	40	76	537
XRNT1-36/40-40	20/36	40	40	76	537
XRNT1-36/50-40	20/36	50	40	76	537
XRNT1-36/63-40	20/36	63	40	88	537
XRNT1-36/80-40	20/36	80	40	88	537
XRNT1-40.5/6.3-40	20/40.5	6.3	40	51	537
XRNT1-40.5/10-40	20/40.5	10	40	51	537
XRNT1-40.5/16-40	20/40.5	16	40	51	537
XRNT1-40.5/20-40	20/40.5	20	40	76	537
XRNT1-40.5/25-40	20/40.5	25	40	76	537
XRNT1-40.5/31.5-40	20/40.5	31.5	40	76	537
XRNT1-40.5/40-40	20/40.5	40	40	76	537
XRNT1-40.5/50-40	20/40.5	50	40	88	537
XRNT1-40.5/63-40	20/40.5	63	40	88	537

Drop-Out Fuse



DNRW12-□/□



DNRW12-□F/□



DNHRW12-□/□



DNHRW12-□F/□

Model	Rated Voltage (kV)	Rated Current (A)	Material	Arc chute
DNRW12-12/100	10-15	100	Ceramics	Without
DNRW12-12/200	10-15	200	Ceramics	Without
DNRW12-15/100	15-24	100	Ceramics	Without
DNRW12-15/200	15-24	200	Ceramics	Without
DNRW12-24/100	24-27	100	Ceramics	Without
DNRW12-24/200	24-27	200	Ceramics	Without
DNRW12-33/100	33-36	100	Ceramics	Without
DNRW12-33/200	33-36	200	Ceramics	Without
DNRW12-12F/100	10-15	100	Ceramics	With
DNRW12-12F/200	10-15	200	Ceramics	With
DNRW12-15F/100	15-24	100	Ceramics	With
DNRW12-15F/200	15-24	200	Ceramics	With
DNRW12-24F/100	24-27	100	Ceramics	With
DNRW12-24F/200	24-27	200	Ceramics	With
DNRW12-33F/100	33-36	100	Ceramics	With
DNRW12-33F/200	33-36	200	Ceramics	With
DNHRW12-12/100	10-15	100	Silicon Rubber	Without
DNHRW12-12/200	10-15	200	Silicon Rubber	Without
DNHRW12-24/100	24-27	100	Silicon Rubber	Without
DNHRW12-24/200	24-27	200	Silicon Rubber	Without
DNHRW12-33/100	30-36	100	Silicon Rubber	Without
DNHRW12-33/200	30-36	200	Silicon Rubber	Without
DNHRW12-12F/100	10-15	100	Silicon Rubber	With
DNHRW12-12F/200	10-15	200	Silicon Rubber	With
DNHRW12-24F/100	24-27	100	Silicon Rubber	With
DNHRW12-24F/200	24-27	200	Silicon Rubber	With
DNHRW12-33F/100	30-36	100	Silicon Rubber	With
DNHRW12-33F/200	30-36	200	Silicon Rubber	With

High Fuse



T-Type: Fixed Buckle; Silver Copper Alloy Melting Element; 12–36 kV

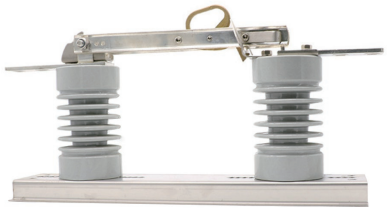
Model	Rated Voltage (kV)	Rated Current (A)	Length (mm)
DNRW-T-12/1	12-27	1	600
DNRW-T-12/2	12-27	2	600
DNRW-T-12/3	12-27	3	600
DNRW-T-12/4	12-27	4	600
DNRW-T-12/5	12-27	5	600
DNRW-T-12/6	12-27	6	600
DNRW-T-12/7.5	12-27	7.5	600
DNRW-T-12/8	12-27	8	600
DNRW-T-12/10	12-27	10	600
DNRW-T-12/12	12-27	12	600
DNRW-T-12/15	12-27	15	600
DNRW-T-12/20	12-27	20	600
DNRW-T-12/25	12-27	25	600
DNRW-T-12/30	12-27	30	600
DNRW-T-12/35	12-27	35	600
DNRW-T-12/40	12-27	40	600
DNRW-T-12/50	12-27	50	600
DNRW-T-12/60	12-27	60	600
DNRW-T-12/65	12-27	65	600
DNRW-T-12/75	12-27	75	600
DNRW-T-12/80	12-27	80	600
DNRW-T-12/100	12-27	100	600
DNRW-T-12/120	12-27	120	600
DNRW-T-12/125	12-27	125	600
DNRW-T-12/140	12-27	140	600
DNRW-T-12/150	12-27	150	600
DNRW-T-12/175	12-27	175	600
DNRW-T-12/200	12-27	200	600
DNRW-T-30/1	30-36	1	787
DNRW-T-30/2	30-36	2	787
DNRW-T-30/3	30-36	3	787
DNRW-T-30/4	30-36	4	787
DNRW-T-30/5	30-36	5	787
DNRW-T-30/6	30-36	6	787
DNRW-T-30/7.5	30-36	7.5	787
DNRW-T-30/8	30-36	8	787
DNRW-T-30/10	30-36	10	787
DNRW-T-30/12	30-36	12	787
DNRW-T-30/15	30-36	15	787
DNRW-T-30/20	30-36	20	787
DNRW-T-30/25	30-36	25	787
DNRW-T-30/30	30-36	30	787
DNRW-T-30/35	30-36	35	787
DNRW-T-30/40	30-36	40	787
DNRW-T-30/50	30-36	50	787
DNRW-T-30/60	30-36	60	787
DNRW-T-30/65	30-36	65	787
DNRW-T-30/75	30-36	75	787
DNRW-T-30/80	30-36	80	787
DNRW-T-30/100	30-36	100	787
DNRW-T-30/120	30-36	120	787
DNRW-T-30/125	30-36	125	787
DNRW-T-30/140	30-36	140	787
DNRW-T-30/150	30-36	150	787
DNRW-T-30/175	30-36	175	787
DNRW-T-30/200	30-36	200	787



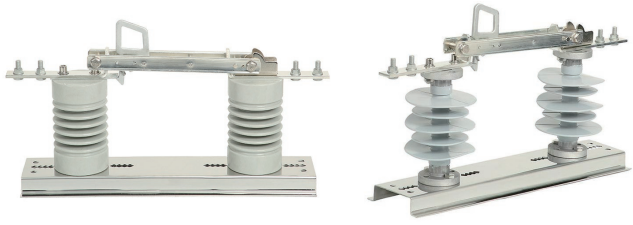
K-Type: Movable Buckle; Silver Copper Alloy Melting Element; 12–36 kV

Model	Rated Voltage (kV)	Rated Current (A)	Length (mm)
DNRW-K-12/1	12-27	1	600
DNRW-K-12/2	12-27	2	600
DNRW-K-12/3	12-27	3	600
DNRW-K-12/4	12-27	4	600
DNRW-K-12/5	12-27	5	600
DNRW-K-12/6	12-27	6	600
DNRW-K-12/7.5	12-27	7.5	600
DNRW-K-12/8	12-27	8	600
DNRW-K-12/10	12-27	10	600
DNRW-K-12/12	12-27	12	600
DNRW-K-12/15	12-27	15	600
DNRW-K-12/20	12-27	20	600
DNRW-K-12/25	12-27	25	600
DNRW-K-12/30	12-27	30	600
DNRW-K-12/35	12-27	35	600
DNRW-K-12/40	12-27	40	600
DNRW-K-12/50	12-27	50	600
DNRW-K-12/60	12-27	60	600
DNRW-K-12/65	12-27	65	600
DNRW-K-12/75	12-27	75	600
DNRW-K-12/80	12-27	80	600
DNRW-K-12/100	12-27	100	600
DNRW-K-12/120	12-27	120	600
DNRW-K-12/125	12-27	125	600
DNRW-K-12/140	12-27	140	600
DNRW-K-12/150	12-27	150	600
DNRW-K-12/175	12-27	175	600
DNRW-K-12/200	12-27	200	600
DNRW-K-30/1	30-36	1	787
DNRW-K-30/2	30-36	2	787
DNRW-K-30/3	30-36	3	787
DNRW-K-30/4	30-36	4	787
DNRW-K-30/5	30-36	5	787
DNRW-K-30/6	30-36	6	787
DNRW-K-30/7.5	30-36	7.5	787
DNRW-K-30/8	30-36	8	787
DNRW-K-30/10	30-36	10	787
DNRW-K-30/12	30-36	12	787
DNRW-K-30/15	30-36	15	787
DNRW-K-30/20	30-36	20	787
DNRW-K-30/25	30-36	25	787
DNRW-K-30/30	30-36	30	787
DNRW-K-30/35	30-36	35	787
DNRW-K-30/40	30-36	40	787
DNRW-K-30/50	30-36	50	787
DNRW-K-30/60	30-36	60	787
DNRW-K-30/65	30-36	65	787
DNRW-K-30/75	30-36	75	787
DNRW-K-30/80	30-36	80	787
DNRW-K-30/100	30-36	100	787
DNRW-K-30/120	30-36	120	787
DNRW-K-30/125	30-36	125	787
DNRW-K-30/140	30-36	140	787
DNRW-K-30/150	30-36	150	787
DNRW-K-30/175	30-36	175	787
DNRW-K-30/200	30-36	200	787

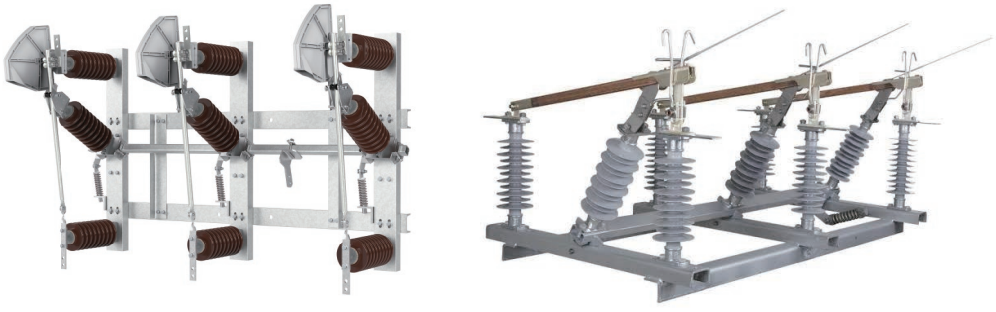
Load Break Switch



Model	Rated Voltage(kV)	Rated Current (A)	Breaking Current (kA)	Creepage Distancem (mm)	Material	Operating
DNGW10-10/400	10-15	400	16	320	Ceramics	Ring
DNGW10-10/630	10-15	630	20	320	Ceramics	Ring

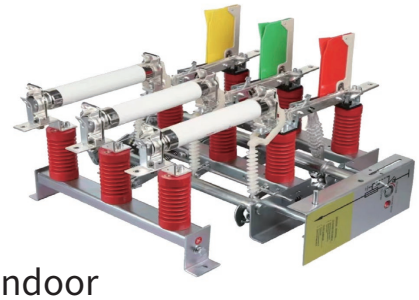


Model	Rated Voltage(kV)	Rated Current (A)	Breaking Current (kA)	Creepage Distancem (mm)	Material	Operating
DNGW11-10/400	10-15	400	16	320	Ceramics	Square
DNGW11-10/630	10-15	630	20	320	Ceramics	Square
DNHGW11-10/400	10-15	400	16	420	Silicon Rubber	Square
DNHGW11-10/630	10-15	630	20	420	Silicon Rubber	Square



Model	Rated Voltage(kV)	Rated Current (A)	Breaking Current (kA)	Creepage Distancem (mm)	Material	Operating
DNGW1-36/400	36	400	16	720	Ceramics	Ring
DNGW1-36/630	36	630	20	720	Ceramics	Ring
DNHGW1-36/400	36	400	16	900	Silicon Rubber	Ring
DNHGW1-36/630	36	630	20	900	Silicon Rubber	Ring
DNGW1-36/400	36	400	16	720	Ceramics	Square
DNGW1-36/630	36	630	20	720	Ceramics	Square
DNHGW1-36/400	36	400	16	900	Silicon Rubber	Square
DNHGW1-36/630	36	630	20	900	Silicon Rubber	Square

Air Load Break Switch Indoor



Air Load Break Switch Indoor

Model	Category	DS	DX	L	R	RA	F
		Grounding Switch (Incoming)	Grounding Switch (Output)	Interlocking Device	Fuse	Impact	Electric Circuit
FN7-12	No Release Device	No	No	No	No	No	No
FN7-12DSL	No Release Device	Yes	No	Yes	No	No	No
FN7-12DXL	No Release Device	No	Yes	Yes	No	No	No
FN7-12R	No Release Device	No	No	No	Yes	No	No
FN7-12DSLR	No Release Device	Yes	No	Yes	Yes	No	No
FN7-12DXLR	No Release Device	No	Yes	Yes	Yes	No	No
FN7-12RA	Impact Release Device	No	No	No	No	Yes	No
FN7-12RAF	Impact Release Device	No	No	No	No	Yes	Yes
FN7-12DXLRA	Impact Release Device	No	Yes	Yes	No	Yes	No
FN7-12DXLRAF	Impact Release Device	No	Yes	Yes	No	Yes	Yes

Rated Voltage (kV)	Max. Voltage (kV)	Rated Current (A)	1 Minute Power Frequency Tolerance (kV)	4S Thermal Stability Current (Effective Value) (kA)	Dynamic Stability Current (Peak Value) (kA)	Short Circuit Closing Current (kA)	Rated Breaking Current (kA)	Rated Transfer Current (A)
12	12	400	42/48	12.5	31.5	31.5	400	1000
12	12	630	42/48	20	50	50	630	1000

Polymer-Housed Surge Arrester



Model	Rated Voltage (kV)	MCOV (kV)	Nominal Discharge Current (kA)	1/4 μs Lightning Current Impulse	8/20 μs Lightning Current Impulse	30/60 μs Lightning Current Impulse	2000 μs Rectangular Current Impulse Withstand	4/10 μs High Current Impulse Withstand
DNYH10W-3	3	2.55	10	11.3	9	8.9	250	100
DNYH10W-6	6	5.10	10	22.3	18	16.8	250	100
DNYH10W-9	9	7.05	10	33.7	27	23.8	250	100
DNYH10W-10	10	8.40	10	36	30	26.4	250	100
DNYH10W-11	11	9.40	10	40	33	30	250	100
DNYH10W-12	12	10.20	10	42.2	36	27	250	100
DNYH10W-15	15	12.70	10	51	45	38.5	250	100
DNYH10W-18	18	15.30	10	61.5	54	46.2	250	100
DNYH10W-21	21	17.00	10	71.8	63	54.2	250	100
DNYH10W-24	24	19.50	10	82	72	62	250	100
DNYH10W-27	27	22.00	10	92	81	69.8	250	100
DNYH10W-30	30	24.40	10	102	90	79	250	100
DNYH10W-33	33	27.50	10	112	99	86.7	250	100
DNYH10W-36	36	29.00	10	123	108	92.4	250	100

Insulator



Composite Tension Insulator

Model	Structure	Rated Voltage (kA)	Rated Mechanical Load (kN)	Creepage (mm)	Lightning Impulse Withstand Voltage (kV)	Power Frequency Withstand Voltage	Material
DNFXB-10/70	Equal	10	70	350	75	42	Hardware
DNFXB-15/70	Equal	15	70	500	85	48	Hardware
DNFXB-24/70	Equal	24	70	740	125	65	Hardware
DNFXB-36/70	Equal	36	70	1015	170	80	Hardware



Composite Suspension Insulator

Model	Structure	Rated Voltage (kA)	Rated Mechanical Load(kN)	Creepage (mm)	Lightning Impulse Withstand Voltage (kV)	Power Frequency Withstand Voltage	Material
DNFXBW-10/70	Unequal	10	70	350	75	42	Hardware
DNFXBW-15/70	Unequal	15	70	500	85	48	Hardware
DNFXBW-24/70	Unequal	24	70	740	125	65	Hardware
DNFXBW-36/70	Unequal	36	70	1015	170	80	Hardware



Composite Pin Insulator

Model	Structure	Rated Voltage (kA)	Rated Mechanical Load (kN)	Creepage (mm)	Lightning Impulse Withstand Voltage (kV)	Power Frequency Withstand Voltage	Material
DNFPQ-11/10	Unequal	11	4	380	85	42	Silicon Rubber
DNFPQ-24/10	Unequal	24	4	740	125	65	Silicon Rubber
DNFPQ-36/10	Unequal	36	5	1020	170	80	Silicon Rubber

Composite Post Insulator

Model	Structure	Rated Voltage (kA)	Rated Mechanical Load(kN)	Creepage (mm)	Lightning Impulse Withstand Voltage (kV)	Power Frequency Withstand Voltage	Material
DNFZSW-11/10	Unequal	11	4	300	75	42	Silicon Rubber
DNFZSW-36/10	Unequal	36	6	720	170	80	Silicon Rubber
DNFZSW-66/12.5	Unequal	66	8	2100	410	185	Silicon Rubber

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