

Polymer-housed Metal-oxide Surge Arrester without Gaps

TGE-MOA-B Series

TGE surge arresters are the primary protection against atmospheric and switching over-voltages. They are generally connected in parallel with the equipment to be protected to divert the surge current. The active elements (Metal-oxide Varistors) of TGE surge arresters are manufactured using a highly non-linear ceramic varistor material, composed primarily of zinc oxide mixed with other metal oxides and sintered together. It has passed the full series of type tests conducted by KEMA laboratory and fully meets the technical requirements of the latest version of IEEE Std62.11:2020, IEC6009-4:2014. It has good protection level, strong charge transfer ability, excellent pollution resistance, and safe short-circuit performance.

Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Brief performance data



Arrester classification as per IEEE Std62.11:2020	HD Distribution
Duty cycle rating U_r	3~45kVrms
MCOV U_{MCOV}	2.55~36.5kVrms
Lightning impulse classifying current(I_{class})	10kAp
Single impulse charge transfer rating, Q_s	0.4C
Thermal charge transfer rating, Q_{th}	1.1C
High current impulse 4/ 10 μ s	100 kA _{peak}
Short-circuit/ Pressure relief capability	20 kArms(sym)
TOV capability (No prior duty)	1.65MCOV/0.1s
	1.56MCOV/1.1s
	1.47MCOV/10.1s
	1.31MCOV/1000s
	1.24MCOV/3600s
MDCL	230N·m
Blocks size	ϕ 36mm
Service conditions:	
Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48~62 Hz

Note: It also meets the requirements of IEEE Std62.11:2020.

Technical data for surge arresters

Type	Rated voltage	Max.continuous operating voltage	Max. residual voltage with current wave								Fig.
			45/90		1/5		8/20				
	Ur	MCOV	500A	10kA	1.5kA	3kA	5kA	10kA	20kA	40kA	
	kV _{rms}	kV _{rms}	kV _{peak}								
TGE-MOA-3B	3	2.55	7.2	11.1	7.5	8	8.4	9	10.2	11.5	
TGE-MOA-6B	6	5.1	14.4	20.8	14.9	15.9	16.7	18	20.3	23	
TGE-MOA-9B	9	7.65	21.6	30.6	22.4	23.9	25.1	27	30.5	34.5	
TGE-MOA-10B	10	8.4	24	34	24.9	26.5	27.9	30	33.9	38.3	
TGE-MOA-12B	12	10.2	28.8	40.8	29.9	31.8	33.5	36	40.7	46	
TGE-MOA-15B	15	12.7	36	51	37.4	39.8	41.9	45	50.9	57.5	
TGE-MOA-18B	18	15.3	43.2	61.2	44.8	47.7	50.2	54	61	69	
TGE-MOA-21B	21	17	50.4	71.4	52.3	55.7	58.6	63	71.2	80.4	
TGE-MOA-24B	24	19.5	57.6	81.6	59.8	63.6	67	72	81.4	91.9	
TGE-MOA-27B	27	22	64.8	91.8	67.3	71.6	75.3	81	91.5	103.4	
TGE-MOA-30B	30	24.4	72	102	74.7	79.5	83.7	90	101.7	114.9	
TGE-MOA-36B	36	29	86.4	122.4	89.7	95.4	100.4	108	122	137.9	
TGE-MOA-39B	39	31.5	93.6	132.6	97.2	103.4	108.8	117	132.2	149.4	
TGE-MOA-42B	42	34	100.8	142.8	104.6	111.3	117.2	126	142.4	160.9	
TGE-MOA-45B	45	36.5	108	153	112.1	119.3	125.6	135	152.6	172.4	

Technical data for housings

Fig	Type	Creepage distance	Insulation of housings			Dimensions					
			1.2/50 μs	50Hz	A	B	C	D	E		
			mm	kV _{peak}	kV _{rms}	mm					
	TGE-MOA-3B	314	74	31	206	118					
	TGE-MOA-6B	314	74	31	206	118					
	TGE-MOA-9B	393	87	38	228	140					
	TGE-MOA-10B	393	87	38	228	140					
	TGE-MOA-12B	531	108	48	268	180					
	TGE-MOA-15B	531	108	48	268	180					
	TGE-MOA-18B	669	129	59	308	220					
	TGE-MOA-21B	669	129	59	308	220	Φ49±1	Φ113±2	Φ95±2		
	TGE-MOA-24B	800	150	70	348	260					
	TGE-MOA-27B	800	150	70	348	260					
	TGE-MOA-30B	1083	192	92	428	340					
	TGE-MOA-36B	1083	192	92	428	340					
	TGE-MOA-39B	1359	234	114	508	420					
	TGE-MOA-42B	1359	234	114	508	420					
	TGE-MOA-45A	1359	234	114	508	420					

TGE-MOA-3B (YH10W-3)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	206mm/ in
Stud Type	M12/ 3/8-16
Weight	0.95kg/ lb

Brief performance data

- Duty cycle voltage
3kVr.m.s
- MCOV (U_{MCOV})
2.55kVr.m.s
- Lightning impulse classifying current (I_{class})
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 9kVpeak
- Single impulse charge transfer rating Q_{rs}
0.4C
- Thermal charge transfer rating Q_{th}
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
 $\phi 36$ mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

No. 1616 Tianzhang, Xi'an, Shaanxi Province, China,
029-84362608
<https://www.xatge.com>

TGE-MOA-6B (YH10W-6)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	206mm/ in
Stud Type	M12/ 3/8-16
Weight	0.95kg/ lb

Brief performance data

- Duty cycle voltage
6kVr.m.s
- MCOV (U_{MCOV})
5.1kVr.m.s
- Lightning impulse classifying current (I_{class})
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 18kVpeak
- Single impulse charge transfer rating Q_{rs}
0.4C
- Thermal charge transfer rating Q_{th}
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
 $\phi 36$ mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

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TGE-MOA-9B (YH10W-9)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

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Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	228mm/ in
Stud Type	M12/ 3/8-16
Weight	1.14kg/ lb

Brief performance data

- Duty cycle voltage
9kVr.m.s
- MCOV (U_{MCOV})
7.65kVr.m.s
- Lightning impulse classifying current (Iclass)
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 27kVpeak
- Single impulse charge transfer rating Qrs
0.4C
- Thermal charge transfer rating Qth
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
φ36mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

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TGE-MOA-10B (YH10W-10)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	228mm/ in
Stud Type	M12/ 3/8-16
Weight	1.14kg/ lb

Brief performance data

- Duty cycle voltage
10kVr.m.s
- MCOV (U_{MCOV})
8.4kVr.m.s
- Lightning impulse classifying current (Iclass)
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 30kVpeak
- Single impulse charge transfer rating Qrs
0.4C
- Thermal charge transfer rating Qth
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
φ36mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

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TGE-MOA-12B (YH10W-12)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	268mm/ in
Stud Type	M12/ 3/8-16
Weight	1.46kg/ lb

Brief performance data

- Duty cycle voltage
12kVr.m.s
- MCOV (U_{MCOV})
10.2kVr.m.s
- Lightning impulse classifying current (I_{class})
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 36kVpeak
- Single impulse charge transfer rating Q_{rs}
0.4C
- Thermal charge transfer rating Q_{th}
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
 $\phi 36mm$

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

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TGE-MOA-15B (YH10W-15)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	268mm/ in
Stud Type	M12/ 3/8-16
Weight	1.46kg/ lb

Brief performance data

- Duty cycle voltage
15kVr.m.s
- MCOV (U_{MCOV})
12.7kVr.m.s
- Lightning impulse classifying current (Iclass)
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 45kVpeak
- Single impulse charge transfer rating Qrs
0.4C
- Thermal charge transfer rating Qth
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
φ36mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

No. 1616 Tianzhang, Xi'an, Shaanxi Province, China,
029-84362608
<https://www.xatge.com>

TGE-MOA-18B (YH10W-18)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	308mm/ in
Stud Type	M12/ 3/8-16
Weight	1.85kg/ lb

Brief performance data

- Duty cycle voltage
18kVr.m.s
- MCOV (U_{MCOV})
15.3kVr.m.s
- Lightning impulse classifying current (Iclass)
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 54kVpeak
- Single impulse charge transfer rating Qrs
0.4C
- Thermal charge transfer rating Qth
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
φ36mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

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<https://www.xatge.com>

TGE-MOA-21B (YH10W-21)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	308mm/ in
Stud Type	M12/ 3/8-16
Weight	1.85kg/ lb

Brief performance data

- Duty cycle voltage
21kVr.m.s
- MCOV (U_{MCOV})
17kVr.m.s
- Lightning impulse classifying current (Iclass)
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 63kVpeak
- Single impulse charge transfer rating Qrs
0.4C
- Thermal charge transfer rating Qth
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
φ36mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

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TGE-MOA-24B (YH10W-24)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	348mm/ in
Stud Type	M12/ 3/8-16
Weight	2.23kg/ lb

Brief performance data

- Duty cycle voltage
24kVr.m.s
- MCOV (U_{MCOV})
19.5kVr.m.s
- Lightning impulse classifying current (I_{class})
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 72kVpeak
- Single impulse charge transfer rating Q_{rs}
0.4C
- Thermal charge transfer rating Q_{th}
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
 $\phi 36$ mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

No. 1616 Tianzhang, Xi'an, Shaanxi Province, China,
029-84362608
<https://www.xatge.com>

TGE-MOA-27B (YH10W-27)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	348mm/ in
Stud Type	M12/ 3/8-16
Weight	2.23kg/ lb

Brief performance data

- Duty cycle voltage
27kVr.m.s
- MCOV (U_{MCOV})
22kVr.m.s
- Lightning impulse classifying current (Iclass)
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 81kVpeak
- Single impulse charge transfer rating Qrs
0.4C
- Thermal charge transfer rating Qth
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
φ36mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

No. 1616 Tianzhang, Xi'an, Shaanxi Province, China,
029-84362608
<https://www.xatge.com>

TGE-MOA-30B (YH10W-30)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	428mm/ in
Stud Type	M12/ 3/8-16
Weight	2.78kg/ lb

Brief performance data

- Duty cycle voltage
30kVr.m.s
- MCOV (U_{MCOV})
24.4kVr.m.s
- Lightning impulse classifying current (Iclass)
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 90kVpeak
- Single impulse charge transfer rating Qrs
0.4C
- Thermal charge transfer rating Qth
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
φ36mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

No. 1616 Tianzhang, Xi'an, Shaanxi Province, China,
029-84362608
<https://www.xatge.com>

TGE-MOA-36B (YH10W-36)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	428mm/ in
Stud Type	M12/ 3/8-16
Weight	2.78kg/ lb

Brief performance data

- Duty cycle voltage
36kVr.m.s
- MCOV (U_{MCOV})
29kVr.m.s
- Lightning impulse classifying current (Iclass)
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 108kVpeak
- Single impulse charge transfer rating Qrs
0.4C
- Thermal charge transfer rating Qth
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
φ36mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

No. 1616 Tianzhang, Xi'an, Shaanxi Province, China,
029-84362608
<https://www.xatge.com>

TGE-MOA-39B (YH10W-39)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	508mm/ in
Stud Type	M12/ 3/8-16
Weight	3.35kg/ lb

Brief performance data

- Duty cycle voltage
39kVr.m.s
- MCOV (U_{MCOV})
31.5kVr.m.s
- Lightning impulse classifying current (I_{class})
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 117kVpeak
- Single impulse charge transfer rating Q_{rs}
0.4C
- Thermal charge transfer rating Q_{th}
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
 $\phi 36mm$

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

No. 1616 Tianzhang, Xi'an, Shaanxi Province, China,
029-84362608
<https://www.xatge.com>

TGE-MOA-42B (YH10W-42)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	508mm/ in
Stud Type	M12/ 3/8-16
Weight	3.35kg/ lb

Brief performance data

- Duty cycle voltage
42kVr.m.s
- MCOV (U_{MCOV})
34kVr.m.s
- Lightning impulse classifying current (Iclass)
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 126kVpeak
- Single impulse charge transfer rating Qrs
0.4C
- Thermal charge transfer rating Qth
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
φ36mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

No. 1616 Tianzhang, Xi'an, Shaanxi Province, China,
029-84362608
<https://www.xatge.com>

TGE-MOA-45B (YH10W-45)

Polymer-housed surge arresters



Features

- Independently developed and manufactured nonlinear metal oxide varistors with excellent technical performance
- Patent technology: Layered winding surge arrester core for distribution
- Durable HTV material with excellent hydrophobicity, long-term aging resistance, and electrical insulation properties
- Excellent short-circuit characteristics

Product Assets

Catalogs: Arresters IEC & IEEE & GB DH (TGE-MOA-1)

ISO 9001:2015 – Xi'an Tiangong Electric Co., Ltd 2024

ISO 14001:2015 - Xi'an Tiangong Electric Co., Ltd 2024

Application Guide: Metal-oxide Surge Arresters for use on AC systems

Certifications and Compliance

IEEE Std C62.11™-2020

Classification

HD Distribution

Dimensions

Height	508mm/ in
Stud Type	M12/ 3/8-16
Weight	3.35kg/ lb

Brief performance data

- Duty cycle voltage
45kVr.m.s
- MCOV (U_{MCOV})
36.5kVr.m.s
- Lightning impulse classifying current (I_{class})
10kAp
- Normalized lightning impulse discharge voltages 8/20
10kA 135kVpeak
- Single impulse charge transfer rating Q_{rs}
0.4C
- Thermal charge transfer rating Q_{th}
1.1C
- TOV capability (No prior duty)
1.65MCOV/0.1s 1.56MCOV/1.1s 1.47MCOV/310.1s
1.31MCOV/1000s 1.24MCOV/3600s
- Short-circuit/ Pressure relief capability
20kAr.m.s
- MDCL
230N·m
- Blocks size
 $\phi 36$ mm

Service conditions

Ambient temperature	-40°C to +40°C
Design altitude max.	1000m
Frequency	48 ~ 62 Hz

Address / Tel / Web

No. 1616 Tianzhang, Xi'an, Shaanxi Province, China,
029-84362608
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