

HG-SERIES

LV & MV Circuit Breakers, Contactors & Overload Relays

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HG-SERIES

Globalization of Technology

HG-Series, has been an upgraded to better performance and great customer experience.

A new premium line of modern low & medium voltage circuit breakers and contactors.

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GOD DESIGN



DESIGN
AWARD
2016



Molded Case Circuit Breakers

- Wide range of products, 32 - 800 AF
- Service breaking capacity $I_{cs} = 100\% I_{cu}$

Earth Leakage Circuit Breakers

- Wide range of products, 32 - 800 AF
- Adjustable rated current sensitivity and operating time

Magnetic Contactors

- Wide range of products, 9 - 800 AF
- Low-noise design

Vacuum Circuit Breakers

- Wide range of products, 7.2/12/17.5/24 kV
- Higher certifications: E2 (LIST3), M2, C2

HG-SERIES

Molded Case Circuit Breakers & Earth Leakage Circuit Breakers

A better product development for a better performance
safer new solutions in low-voltage system protection!

HGM (MCCB) / HGE (ELCB) Type

- Wide Range of Products: 32 – 800 AF
- Upgraded Breaking Capacity: 16 – 85 kA (at 460 V)
- Rated Insulation Voltage (Ui): 1,000 V
- Rated Service Short-circuit Breaking Capacity:
 $I_{cs} = 100 \% I_{cu}$
- Wide Range of Rating Adjustment:
32 – 250 AF (0.8 – 1), 400 – 800 AF (0.63 – 1)
- Compatible Size with ELCB and Accessories Sharable
- Possible to Choose the N Pole Position in 4 Pole
(R-S-T-N or N-R-S-T)
- Various Certification Acquired: CB Certification (DEKRA),
Safety Certifications, Marine Approvals (8's classifications)
- Dial Sealing Device Applied (Option)



HGM Type
(Molded Case
Circuit Breakers)



HGE Type
(Earth Leakage
Circuit Breakers)

HGP (MCCB) Type

- Wide Range of Products: 50 – 800 AF
- High Breaking Capacity 150 kA (at 460 V)
- Rated Service Short-circuit Breaking
Capacity: $I_{cs} = 100 \% I_{cu}$
- Rated Insulation Voltage (Ui): 1,000 V
- Ratings and Instantaneous Adjustments
- Possible to Select the Block Protection



HGP Type
(Molded Case
Circuit Breakers)



Model Selection Table

MCCB (HGM Type): 32 - 800 AF

Things in Common

Rated Insulation Voltage, U_i	1,000 V	Suitability for Isolation	Yes
Rated Operational Voltage, U_e	690 V	Utilization Category	A
Impulse withstand Voltage, U_{imp}	8 kV	Pollution Degree	3
Protective Function	Overload, short-circuit and instantaneous protection	Reference Standard	IEC 60947-2

Model			HGM30		HGM50				HGM60				HGM100			
Frame (AF)			32		50				63				100			
Pole (P)			2, 3, 4 ¹⁾		2, 3, 4 ¹⁾				2, 3, 4 ¹⁾				2, 3, 4 ¹⁾			
Rated current, at 40 °C (A)			16, 20, 25, 32		16, 20, 25, 32, 40, 50				16, 20, 25, 32, 40, 50, 63				16, 20, 25, 32, 40, 50, 63, 75, 80, 100			
Rated short-circuit breaking capacity [Icu] (kA rms)	Recognition code for order		E	S	E	S	H	L	E	S	H	L	E	S	H	L
	AC660/690 V		2.5	5	2.5	5	8	10	2.5	5	7.5	8	2.5	5	7.5	8
	AC480/500 V		7.5	10	7.5	10	26	35	7.5	10	14	26	7.5	10	14	26
	AC440/460 V		16	20	16	20	38	55	16	20	26	30	16	20	26	30
	AC380/415 V		16	20	16	20	38	55	16	20	26	30	16	20	26	30
	AC220/240 V		35	50	35	50	85	100	35	50	50	50	35	50	50	50
DC250 V (2P)			5	10	5	10	20	30	5	10	15	15	5	10	15	15
Service breaking capacity [Ics = % Icu]			100	100	100	100	100	100	100	100	75	50	100	100	75	50
Endurance (Durability)	Mechanical		30,000		30,000				30,000				30,000			
	Electrical		10,000		10,000				10,000				10,000			
Trip Device																
Thermal magnetic	Long time [LT]	Fixed	(1.0) x In		(1.0) x In				(1.0) x In				(1.0) x In			
		Adjustable	(0.8 - 0.9 - 1.0) x In		(0.8 - 0.9 - 1.0) x In				(0.8 - 0.9 - 1.0) x In				(0.8 - 0.9 - 1.0) x In			
	Instantaneous [INST]		400 A		16 - 32 A: 400 A, 40 - 50 A: 10 x In				16 - 32 A: 400 A, 40 - 63 A: 10 x In				16 - 32 A: 400 A, 40 - 100 A: 10 x In			
Accessory																
Internal	Auxiliary switch AUX		●		●				●				●			
	Alarm switch ALT		●		●				●				●			
	Shunt trip SHT		●		●				●				●			
	Undervoltage trip UVT		●		●				●				●			
External	Rotary handle	Front contact TFG	●		●				●				●			
		Extended TFH	●		●				●				●			
	Motor operator MOT		●		●				●				●			
	Mechanical interlock MIF		●		●				●				●			
	Locking device PLD		●		●				●				●			
	Plug-in	TDM (LINE/LOAD)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)				● (3P Only)			
		TDM (LINE only)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)				● (3P Only)			
		TDF (LINE only)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)				● (3P Only)			
		TDA (1 row)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)				● (3P Only)			
		TDA (2 row)	● (2, 3P Only)		● (2, 3P Only)		● (3P Only)		● (2, 3P Only)				● (2, 3P Only)			
	Cage terminal block CTB		●		●				●				●			
Insulation terminal cover TCF		●		●				●				●				
Insulation barrier TQQ		●		●				●				●				
Terminal extentions TBB		-		-				-				-				

Installation and Dimensions

Connection/Installation	Front connection	Screw terminals				
	Rear connection	Horizontal/Vertical wiring				
	Plug-in	Switchboard type (Line & Load, Line only), distribution board type				
	DIN rail installation	Possible for using the DIN rail adapter	-	Possible for using the DIN rail adapter	Possible for using the DIN rail adapter	
Dimensions (mm)	a (2/3/4P)	50/75/100	50/75/100	60/90/120	50/75/100	50/75/100
	b	130	130	155	130	130
	c	68	68	68	68	68
Weight (kg)	2/3/4P	0.6/0.8/1.0	0.6/0.8/1.0	0.8/1.0/1.3	0.6/0.8/1.0	0.6/0.8/1.0

※ ¹⁾ 4 pole arrangement: Basic specification is R-S-T-N (N-R-S-T is optional).

²⁾ 2P product is just removed versus central pole of 3P product. So, 2P product's dimension is equal to 3P product's dimension.



HGM125				HGM160				HGM250				HGM400				HGM630				HGM800		
125				160				250				400				630				800		
2, 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾		
16, 20, 25, 32, 40, 50, 63, 75, 80, 100, 125				100, 125, 150, 160				100, 125, 150, 160, 175, 200, 225, 250				250, 300, 350, 400				500, 630				700, 800		
E	S	H	L	E	S	H	L	E	S	H	L	E	S	H	L	E	S	H	L	S	H	L
5	7.5	8	10	7.5	8	8	10	7.5	8	8	10	5	8	10	14	5	8	10	14	8	10	14
10	14	26	35	14	20	26	35	14	20	26	35	18	35	50	65	25	45	50	65	45	50	65
20	26	38	55	20	26	38	55	20	26	38	55	38	50	70	85	38	50	70	85	50	70	85
20	26	38	55	20	26	38	55	20	26	38	55	45	65	85	100	45	65	85	100	65	85	100
50	65	85	100	50	65	85	100	50	65	85	100	50	75	100	125	50	75	100	125	75	100	125
10	15	20	30	10	15	20	30	10	15	20	30	20	25	40	40	20	25	40	40	25	40	40
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
30,000				25,000				25,000				4,000				2,500				2,500		
10,000				10,000				10,000				1,000				500				500		
(1.0) x In				(1.0) x In				(1.0) x In				(1.0) x In				(1.0) x In				(1.0) x In		
(0.8 - 0.9 - 1.0) x In				(0.8 - 0.9 - 1.0) x In				(0.8 - 0.9 - 1.0) x In				(0.63 - 0.8 - 1.0) x In				(0.63 - 0.8 - 1.0) x In				(0.63 - 0.8 - 1.0) x In		
16 - 32 A: 400 A, 40 - 125 A: 10 x In				10 x In				10 x In				10 x In				10 x In				10 x In		
●				●				●				●				●				●		
●				●				●				●				●				●		
●				●				●				●				●				●		
●				●				●				●				●				●		
●				●				●				●				●				●		
●				●				●				●				●				●		
●				●				●				●				●				●		
●				●				●				●				●				●		
● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)		
● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)		
● (3P Only)				-				-				-				-				-		
● (3P Only)				-				-				-				-				-		
● (3P Only)				-				-				-				-				-		
●				●				●				●				●				●		
●				●				●				●				●				●		
●				●				●				●				●				●		
-				●				●				●				●				●		
Screw Terminals				Screw terminals, busbar terminals				Screw terminals				Screw terminals, busbar terminals				Screw terminals, busbar terminals				Screw terminals, busbar terminals		
Horizontal/Vertical wiring				Horizontal/Vertical wiring				Horizontal/vertical wiring				Horizontal/vertical wiring				Horizontal/vertical wiring				Horizontal/vertical wiring		
Switchboard type (Line & Load, Line only), distribution board type				Switchboard type (Line & Load, Line only)				Switchboard type (Line & Load, Line only)				Switchboard type (Line & Load, Line only)				Switchboard type (Line & Load, Line only)				Switchboard type (Line & Load, Line only)		
-				-				-				-				-				-		
60/90/120				105/105/140				105/105/140				140/140/184				210/210/280				210/210/280		
155				165				165				257				280				280		
68				68				68				110				110				110		
0.8/1.0/1.3				1.1/1.3/1.7				1.1/1.3/1.7				4/4.5/5.4				8.7/9.5/12.5				8.7/9.5/12.5		

Model Selection Table

ZCT MCCB (HGM Type): 32 - 800 AF

Mounted with a ZCT (Zero phase Current Transformer) at MCCB, the reliability of the MCCB's ground fault protection is improved by linking with an external ELR.

Things in Common

Rated Insulation Voltage, U_i	1,000 V	Suitability for Isolation	Yes
Rated Operational Voltage, U_e	690 V	Utilization Category	A
Impulse withstand Voltage, U_{imp}	8 kV	Pollution Degree	3
Protective Function	Overload, short-circuit and instantaneous protection	Reference Standard	IEC 60947-2

Model			HGM30		HGM50				HGM60				HGM100				
Frame (AF)			32		50				63				100				
Pole (P)			2 ³⁾ , 3, 4 ¹⁾		2 ³⁾ , 3, 4 ¹⁾				2 ³⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾				
Rated current, at 40 °C (A)			16, 20, 25, 32		16, 20, 25, 32, 40, 50				16, 20, 25, 32, 40, 50, 63				16, 20, 25, 32, 40, 50, 63, 75, 80, 100				
Rated short-circuit breaking capacity [Icu] (kA rms)	Recognition code for order		E	S	E	S	H	L	E	S	H	L	E	S	H	L	
	AC660/690 V		2.5	5	2.5	5	8	10	2.5	5	7.5	8	2.5	5	7.5	8	
	AC480/500 V		7.5	10	7.5	10	26	35	7.5	10	14	26	7.5	10	14	26	
	AC440/460 V		16	20	16	20	38	55	16	20	26	30	16	20	26	30	
	AC380/415 V		16	20	16	20	38	55	16	20	26	30	16	20	26	30	
AC220/240 V		35	50	35	50	85	100	35	50	50	50	35	50	50	50		
Service breaking capacity [Ics = % Icu]			100	100	100	100	100	100	100	100	75	50	100	100	75	50	
Endurance (Durability)	Mechanical		30,000		30,000				30,000				30,000				
	Electrical		10,000		10,000				10,000				10,000				
ZCT Output characteristic			200 mA/100 mV		200 mA/100 mV				200 mA/100 mV				200 mA/100 mV				
Trip Device																	
Thermal magnetic		Long time [LT]	(1.0) x In		(1.0) x In				(1.0) x In				(1.0) x In				
		Instantaneous [INST]	400 A		16 - 32 A: 400 A, 40 - 50 A: 10 x In				16 - 32 A: 400 A, 40 - 63 A: 10 x In				16 - 32 A: 400 A, 40 - 100 A: 10 x In				
Accessory																	
Internal	Auxiliary switch	AUX	●		●				●				●				
	Alarm switch	ALT	●		●				●				●				
	Shunt trip	SHT	●		●				●				●				
	Undervoltage trip	UVT	●		●				●				●				
External	Rotary handle	Front contact TFG	●		●				●				●				
		Extended TFH	●		●				●				●				
	Motor operator		MOT	●		●				●				●			
	Mechanical interlock		MIF	●		●				●				●			
	Locking device		PLD	●		●				●				●			
	Plug-in	TDM (LINE/LOAD)	● (3P Only)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)			
		TDM (LINE only)	● (3P Only)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)			
		TDF (LINE only)	● (3P Only)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)			
		TDA (1 row)	● (3P Only)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)			
		TDA (2 row)	● (2, 3P Only)	● (2, 3P Only)		● (3P Only)		● (3P Only)		● (2, 3P Only)		● (3P Only)		● (2, 3P Only)			
	Cage terminal block		CTB	●		●				●				●			
	Insulation terminal cover		TCF	●		●				●				●			
	Insulation barrier		TQQ	●		●				●				●			
Terminal extensions		TBB	-		-				-				-				

※ ¹⁾ 4 pole arrangement: Basic specification is R-S-T-N (N-R-S-T is optional).

²⁾ Plug-in: Applicable only 3P.

³⁾ 2P product is just removed versus central pole of 3P product. So, 2P product's dimension is equal to 3P product's dimension.

HGM125				HGM160				HGM250				HGM400				HGM630				HGM800			
125				160				250				400				630				800			
2 ²⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾				2 ³⁾ , 3, 4 ¹⁾				2 ³⁾ , 3				2 ³⁾ , 3			
16, 20, 25, 32, 40, 50, 63, 75, 80, 100, 125				100, 125, 150, 160				100, 125, 150, 160, 175, 200, 225, 250				250, 300, 350, 400				500, 630				700, 800			
E	S	H	L	E	S	H	L	E	S	H	L	E	S	H	L	E	S	H	L	S	H	L	
5	7.5	8	10	7.5	8	8	10	7.5	8	8	10	5	8	10	14	5	8	10	14	8	10	14	
10	14	26	35	14	20	26	35	14	20	26	35	18	35	50	65	25	45	50	65	45	50	65	
20	26	38	55	20	26	38	55	20	26	38	55	38	50	70	85	38	50	70	85	50	70	85	
20	26	38	55	20	26	38	55	20	26	38	55	45	65	85	100	45	65	85	100	65	85	100	
50	65	85	100	50	65	85	100	50	65	85	100	50	75	100	125	50	75	100	125	75	100	125	
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
30,000				25,000				25,000				4,000				2,500				2,500			
10,000				10,000				10,000				1,000				500				500			
200 mA/100 mV				200 mA/100 mV				200 mA/100 mV				200 mA/100 mV				200 mA/100 mV				200 mA/100 mV			
(1.0) x In				(1.0) x In				(1.0) x In				(1.0) x In				(1.0) x In				(1.0) x In			
16 - 32 A: 400 A, 40 - 125 A: 10 x In				10 x In				10 x In				10 x In				10 x In				10 x In			
●				●				●				●				●				●			
●				●				●				●				●				●			
●				●				●				●				●				●			
●				●				●				●				●				●			
●				●				●				●				●				●			
●				●				●				●				●				●			
●				●				●				●				●				●			
●				●				●				●				●				●			
●				●				●				●				●				●			
● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)			
● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)			
● (3P Only)				-				-				-				-				-			
● (3P Only)				-				-				-				-				-			
●				●				●				●				●				●			
●				●				●				●				●				●			
●				●				●				●				●				●			
-				●				●				●				●				●			
Terminal screw				Terminal screw, Terminal busbar								Terminal screw				Terminal screw, Terminal busbar							
Horizontal/Vertical				Horizontal/Vertical								Horizontal/Vertical wiring				Horizontal/Vertical wiring							
Switchboard type (Line & Load, Line only), Distribution board type ²⁾				Switchboard type (Line & Load, Line only) ²⁾								Switchboard type (Line & Load, Line only) ²⁾				Switchboard type (Line & Load, Line only) ²⁾							
-				-				-				-				-				-			
90/90/120				105/105/140				105/105/140				140/140/184				210/210				210/210			
155				165				165				257				280				280			
68				68				68				110				110				110			
0.9/1.0/1.3				1.1/1.3/1.7				1.1/1.3/1.7				4/4.5/5.4				8.7/9.5				8.7/9.5			

Model Selection Table

ELCB (HGE Type): 30 - 250 AF

Things in Common

Rated Operational Voltage, Ue	220/460 V	Suitability for Isolation	Yes
Impulse withstand Voltage, Uimp	6 kV	Utilization Category	A
Protective Function	Overload, short-circuit and instantaneous protection	Pollution Degree	3
		Reference Standard	IEC 60947-2

Model			HGE30		HGE50				HGE60			
Frame (AF)			32		50				63			
Pole (P)			2 ³⁾ , 3, 4 ¹⁾		2 ³⁾ , 3, 4 ¹⁾				2 ³⁾ , 3, 4 ¹⁾			
Rated current, at 40 °C (A)			16, 20, 25, 32		16, 20, 25, 32, 40, 50				16, 20, 25, 32, 40, 50, 63			
High speed type	Rated residual current (mA)		30		30				30			
	Maximum residual current off-time (s)		0.1		0.1				0.1			
Time delay type	Rated residual current (mA)		100 - 300 - 500 - 1,000 Adjustable		100 - 300 - 500 - 1,000 Adjustable				100 - 300 - 500 - 1,000 Adjustable			
	Maximum residual current off-time (s)		0.1 - 0.4 - 1.0 - 2.0		0.1 - 0.4 - 1.0 - 2.0				0.1 - 0.4 - 1.0 - 2.0			
	Inertial non-operating time (ms)		0 - 200 - 500 - 1,000 Adjustable		0 - 200 - 500 - 1,000 Adjustable				0 - 200 - 500 - 1,000 Adjustable			
Rated short-circuit breaking capacity [Icu] (kA rms)	Recognition code for order		E	S	E	S	H	L	E	S	H	L
	AC440/460V		16	20	16	20	38	55	16	20	26	30
	AC380/415V		16	20	16	20	38	55	16	20	26	30
	AC220/240V		35	50	35	50	85	100	35	50	50	50
Service breaking capacity [Ics = % Icu]			100	100	100	100	100	100	100	100	75	50
Endurance (Durability)	Inverse time delay [LT]		30,000		30,000				30,000			
	Short time pick-up [LT]		10,000		10,000				10,000			
Trip Device												
Thermal magnetic		Long time [LT]	(1.0) x In		(1.0) x In				(1.0) x In			
		Instantaneous [INST]	400 A		16 - 32 A: 400 A, 40-50 A: 10 x In				16 - 32 A: 400 A, 40 - 63 A: 10 x In			
Accessory												
Internal	Auxiliary switch AUX		●		●				●			
	Alarm switch ALT		●		●				●			
	Shunt trip SHT		-		-				-			
	Undervoltage trip UVT		-		-				-			
External	Rotary handle	Front contact TFG	●		●				●			
		Extended TFH	●		●				●			
	Motor operator MOT		●		●				●			
	Mechanical interlock MIF		●		●				●			
	Locking device PLD		●		●				●			
	Plug-in	TDM (LINE/LOAD)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)			
		TDM (LINE only)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)			
		TDF (LINE only)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)			
		TDA (1 row)	● (3P Only)		● (3P Only)		● (3P Only)		● (3P Only)			
		TDA (2 row)	● (2, 3P Only)		● (2, 3P Only)		● (3P Only)		● (2, 3P Only)			
	Cage terminal block CTB		●		●				●			
	Insulation terminal cover TCF		●		●				●			
	Insulation barrier TQQ		●		●				●			
Terminal extenctions TBB		-		-				-				

※ ¹⁾ 4 pole arrangement: Basic specification is R-S-T-N (N-R-S-T is optional).

²⁾ Plug-in: Applicable only 3P.

³⁾ 2P product is just removed versus central pole of 3P product. So, 2P product's dimension is equal to 3P product's dimension.



HGE100				HGE125				HGE160				HGE250			
100				125				160				250			
2 ²⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾				2 ²⁾ , 3, 4 ¹⁾			
16, 20, 25, 32, 40, 50, 63, 75, 80, 100				16, 20, 25, 32, 40, 50, 63, 75, 80, 100, 125				100, 125, 150, 160				100, 125, 150, 160, 175, 200, 225, 250			
30				30				30				30			
0.1				0.1				0.1				0.1			
100 - 300 - 500 - 1,000 Adjustable				100 - 300 - 500 - 1,000 Adjustable				100 - 300 - 500 - 1,000 Adjustable				100 - 300 - 500 - 1,000 Adjustable			
0.1 - 0.4 - 1.0 - 2.0				0.1 - 0.4 - 1.0 - 2.0				0.1 - 0.4 - 1.0 - 2.0				0.1 - 0.4 - 1.0 - 2.0			
0 - 200 - 500 - 1,000 Adjustable				0 - 200 - 500 - 1,000 Adjustable				0 - 200 - 500 - 1,000 Adjustable				0 - 200 - 500 - 1,000 Adjustable			
E	S	H	L	E	S	H	L	E	S	H	L	E	S	H	L
16	20	26	30	20	26	38	55	20	26	38	55	20	26	38	55
16	20	26	30	20	26	38	55	20	26	38	55	20	26	38	55
30	50	50	50	50	65	85	100	50	65	85	100	50	65	85	100
100	100	75	50	100	100	100	100	100	100	100	100	100	100	100	100
30,000				30,000				25,000				25,000			
10,000				10,000				10,000				10,000			
(1.0) x In				(1.0) x In				(1.0) x In				(1.0) x In			
16 - 32 A: 400 A, 40 - 100 A: 10 x In				16 - 32 A: 400 A, 40 - 125 A: 10 x In				10 x In				10 x In			
●				●				●				●			
●				●				●				●			
-				-				-				-			
-				-				-				-			
●				●				●				●			
●				●				●				●			
●				●				●				●			
●				●				●				●			
●				●				●				●			
● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)			
● (3P Only)				● (3P Only)				● (3P Only)				● (3P Only)			
● (3P Only)				● (3P Only)				-				-			
● (3P Only)				● (3P Only)				-				-			
● (2, 3P Only)				● (3P Only)				-				-			
●				●				●				●			
●				●				●				●			
●				●				●				●			
-				-				●				●			
Terminal screw								Terminal screw							
Horizontal/Vertical								Horizontal/Vertical							
Switchboard type (Line & Load, Line only), Distribution board type ²⁾								Switchboard type (Line & Load, Line only) ²⁾							
Possible for using DIN rail adapter								-							
75/75/100								90/90/120							
130								155							
68								68							
0.8/0.9/1.3								1.0/1.1/1.4							
								1.3/1.5/1.9							

Model Selection Table

ELCB (HGE Type): 400 - 800 AF

Things in Common

Rated Operational Voltage, Ue	220/460 V	Suitability for Isolation	Yes
Impulse withstand Voltage, Uimp	6 kV	Utilization Category	A
Protective Function	Overload, short-circuit and instantaneous protection	Pollution Degree	3
		Reference Standard	IEC 60947-2

Model			HGE400				HGE630				HGE800			
Frame (AF)			400				630				800			
Pole (P)			2 ³⁾ , 3, 4 ¹⁾				2 ³⁾ , 3				2 ³⁾ , 3			
Rated current, at 40 °C (A)			250, 300, 350, 400				500, 630				700, 800			
High speed type	Rated residual current (mA)		30				30				30			
	Maximum residual current off-time (s)		0.1				0.1				0.1			
Time delay type	Rated residual current (mA)		100 - 300 - 500 - 1,000 Adjustable				100 - 300 - 500 - 1,000 Adjustable				100 - 300 - 500 - 1,000 Adjustable			
	Maximum residual current off-time (s)		0.1 - 0.4 - 1.0 - 2.0				0.1 - 0.4 - 1.0 - 2.0				0.1 - 0.4 - 1.0 - 2.0			
	Inertial non-operating time (ms)		0 - 200 - 500 - 1,000 Adjustable				0 - 200 - 500 - 1,000 Adjustable				0 - 200 - 500 - 1,000 Adjustable			
Rated short-circuit breaking capacity [Icu] (kA rms)	Recognition code for order		E	S	H	L	E	S	H	L	S	H	L	
	AC440/460V		38	50	70	85	38	50	70	85	50	70	85	
	AC380/415V		45	65	85	100	45	65	85	100	65	85	100	
	AC220/240V		50	75	100	125	50	75	100	125	75	100	125	
Service breaking capacity [Ics = % Icu]			100	100	100	100	100	100	100	100	100	100	100	
Endurance (Durability)	Inverse time delay [LT]		4,000				2,500				2,500			
	Short time pick-up [LT]		1,000				500				500			
Trip Device														
Thermal magnetic		Long time [LT]	(1.0) x In				(1.0) x In				(1.0) x In			
		Instantaneous [INST]	10 x In				10 x In				10 x In			
Accessory														
Internal	Auxiliary switch AUX		●				●				●			
	Alarm switch ALT		●				●				●			
	Shunt trip SHT		●				●				●			
	Undervoltage trip UVT		●				●				●			
External	Rotary handle	Front contact TFG	●				●				●			
		Extended TFH	●				●				●			
	Motor operator MOT		●				●				●			
	Mechanical interlock MIF		●				●				●			
	Locking device PLD		●				●				●			
	Plug-in	TDM (LINE/LOAD)		● (3P Only)				● (3P Only)				● (3P Only)		
		TDM (LINE only)		● (3P Only)				● (3P Only)				● (3P Only)		
		TDF (LINE only)		-				-						
		TDA (1 row)		-				-						
		TDA (2 row)		-				-						
	Cage terminal block CTB		●				●				●			
	Insulation terminal cover TCF		●				●				●			
	Insulation barrier TQQ		●				●				●			
Terminal extentions TBB		●				●				●				

※ ¹⁾ 4 pole arrangement: Basic specification is R-S-T-N (N-R-S-T is optional).

²⁾ Plug-in: Applicable only 3P.

³⁾ 2P product is just removed versus central pole of 3P product. So, 2P product's dimension is equal to 3P product's dimension.

Order Information

HG Type MCCB / ELCB



	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
	HGM	50	E	3P	T4	S	00	00	C	00016	F
① Type											
② Frame											
③ Short-Circuit Breaking Capacity											
④ Number of Poles											
⑤ Product Description											
⑥ Mounting											
⑦ Auxiliary Contact & Alarm Switch (AUX/ALT/AXT)											
⑧ Shunt Trip & Under Voltage Trip Devices (SHT/UVT)											
⑨ Frequency											
⑩ Rated Current											
⑪ Trip Device											

① Type	
HGM	Molded Case Circuit Breaker
HGE	Earth Leak Circuit Breaker
② Frame	
30	32 AF
50	50 AF
60	63 AF
100	100 AF
125	125 AF
160	160 AF
250	250 AF
400	400 AF
630	630 AF
800	800 AF
③ Short-circuit Breaking Capacity	
E	E Type
S	S Type
H	H Type
L	L Type

④ Number of Poles	
Normal type MCCB/ELCB	
2P	2 Pole
3P	3 Pole
4P	4 Pole (RSTN)
4PN	4 Pole (NRST)
ZCT MCCB	
2Z	2 Pole
3Z	3 Pole
4Z	4 Pole
⑤ Product Description	
MCCB: Ambient temperature	
T4	40/45 °C
T5	50 °C
ELCB: Rated residual current	
G4	30 mA
G5 ¹⁾	100 mA

⑥ Mounting	
S	Front connection
BS ²⁾	Terminal busbar (Straight type)
BE ³⁾	Terminal busbar (Extended type)
P	Plug-in
F	Line: Plug-in Load: Front connection
X	PC/CBM Non-attachment
⑦ Auxiliary Contact & Alarm Switch (AUX/ALT/AXT)	
00	Non-attachment
10	AUX 1C
20	AUX 2C
01	ALT 1C
11	AUX 1C + ALT 1C
21	AUX 2C + ALT 1C

⑧ Shunt Trip & Under Voltage Trip Devices (SHT/UVT)	
00	Non-attachment
S1	SHT AC100 - 120 V
S2	SHT AC200 - 230 V
S3 ⁴⁾	SHT AC380 - 415 V
S4 ⁴⁾	SHT AC440 - 480 V
S5	SHT DC24 V
S6	SHT DC100 - 125 V
S7 ⁵⁾	SHT DC48 V
S8 ⁵⁾	SHT DC60 V
U1	UVT AC100 - 120 V
U2	UVT AC200 - 230 V
U3	UVT AC380 - 415 V
U4	UVT AC440 - 480 V
U5	UVT DC24 V
U6	UVT DC100 - 125 V
U7 ⁵⁾	UVT DC48 V
⑨ Frequency	
C	50/60 Hz in common
⑩ Rated Current	
00016	16 A
00020	20 A
	:
00800	800 A
⑪ Trip Device	
-	Fixed thermal/ Fixed instantaneous
F	Adjustable thermal/ Fixed instantaneous

※ ① 100/300/500/1,000 mA adjustable In case of time delay type, please order at 100 mA.

② Exclusive for 400 - 800 AF.

③ Exclusive for 400 AF.

④ HGM32 - 250 AF has AC380 - 480 V.

⑤ Exclusive for HGM32 - 250 AF.

Model Selection Table

MCCB (HGP Type): 50 - 400 AF

Things in Common

Rated Operational Voltage, Ue	220/460 V	Suitability for Isolation	Yes
Impulse withstand Voltage, Uimp	6 kV	Utilization Category	A
Protective Function	Overload, short-circuit and instantaneous protection	Pollution Degree	3
		Reference Standard	IEC 60947-2

Model			HGP50D						HGP125D					
Frame (AF)			50						125					
Pole (P)			3, 4 ¹⁾						3, 4 ¹⁾					
Rated current, at 40 °C (A)			16, 20, 25, 32, 40, 50						16, 20, 25, 32, 40, 50, 63, 75, 80, 100, 125					
Rated short-circuit breaking capacity [Icu] (kA rms)	Recognition code for order		F	N	S	H	L	X	F	N	S	H	L	X
	AC600/660 V		6	6	8	8	10	10	6	6	8	8	10	10
	AC480/500 V		25	35	50	65	85	100	25	35	50	65	85	100
	AC440/460 V		36	50	65	85	130	150	36	50	65	85	130	150
	AC380/415 V		50	65	85	100	130	150	50	65	85	100	130	150
	AC220/240 V		65	85	100	130	150	200	65	85	100	130	150	200
DC250 V			36	50	65	85	100	100	36	50	65	85	100	100
Service breaking capacity [Ics = % Icu]			100	100	100	100	100	100	100	100	100	100	100	100
Endurance (Durability)	Mechanical		25,000						25,000					
	Electrical		10,000						10,000					
Trip Device														
Thermal magnetic			●						●					
	Long time [LT]		(0.8 - 0.9 - 1.0) x In						(0.8 - 0.9 - 1.0) x In					
	Instantaneous [INST]		10 x In						10 x In					
Accessory														
Internal	Auxiliary switch AUX		●						●					
	Alarm switch ALT		●						●					
	Shunt trip SHT		●						●					
	Undervoltage trip UVT		●						●					
External	Rotary handle	Front contact TFG	●						●					
		Extended TFH	●						●					
	Motor operator MOT		●						●					
	Mechanical interlock MIF		●						●					
	Locking device PLD		●						●					
	Plug-in Mounting Base ²⁾ TDM		●						●					
	Cage terminal block CTB		●						●					
	Insulation terminal cover TCF		●						●					
	Insulation barrier TQQ		●						●					
Installation and Dimensions														
Connection/ Installation		Front connection	Screw terminals						Screw terminals, busbar terminals					
		Rear connection	Horizontal/Vertical wiring						Horizontal/Vertical wiring					
		Plug-in	Switchboard type (Line & Load, Line only) ²⁾						Switchboard type (Line & Load, Line only) ²⁾					
Dimensions (mm)	a (2/3/4P)		90/120						90/120					
	b		140						140					
	c		86						86					
Weight (kg)		3/4P	1.5/1.8						1.5/1.8					

※ ¹⁾ 4 pole arrangement: Basic specification is R-S-T-N (N-R-S-T is optional).

²⁾ Plug-in: Applicable only 3P.



HGP160D						HGP250						HGP400					
160						250						400					
3, 4 ¹⁾						3, 4 ¹⁾						3, 4 ¹⁾					
100, 125, 150, 160						100, 125, 150, 160, 175, 200, 225, 250						300, 350, 400					
F	N	S	H	L	X	F	N	S	H	L	X	F	N	S	H	L	X
6	6	8	8	10	10	6	6	8	8	10	10	10	10	10	20	25	35
25	35	50	65	85	100	25	35	50	65	85	100	25	35	50	70	85	100
36	50	65	85	130	150	36	50	65	85	130	150	36	50	70	85	130	150
50	65	85	100	130	150	50	65	85	100	130	150	50	65	85	100	130	150
65	85	100	130	150	200	65	85	100	130	150	200	65	85	100	130	150	200
36	50	65	85	100	100	36	50	65	85	100	100	36	50	65	85	100	100
100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
25,000						25,000						20,000					
10,000						10,000						6,000					
●						●						●					
(0.8 - 0.9 - 1.0) x In						(0.8 - 0.9 - 1.0) x In						(0.8 - 0.9 - 1.0) x In					
10 x In						(5 - 6 - 7 - 8 - 9 - 10) x In						(5 - 6 - 7 - 8 - 9 - 10) x In					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
●						●						●					
Screw terminals						Screw terminals, busbar terminals						Screw terminals, busbar terminals					
Horizontal/Vertical wiring						Horizontal/Vertical wiring						Horizontal/Vertical wiring					
Switchboard type (Line & Load, Line only) ²⁾						Switchboard type (Line & Load, Line only) ²⁾						Switchboard type (Line & Load, Line only) ²⁾					
90/120						105/140						140/186.5					
140						165						260					
86						86.5						110					
1.5/1.8						2/2.6						5.4/7.2					

Model Selection Table

MCCB (HGP Type): 630 - 800 AF

Things in Common

Rated Operational Voltage, Ue	220/460 V	Suitability for Isolation	Yes
Impulse withstand Voltage, Uimp	6 kV	Utilization Category	A
Protective Function	Overload, short-circuit and instantaneous protection	Pollution Degree	3
		Reference Standard	IEC 60947-2

Model			HGP630						HGP800							
Frame (AF)			160						250							
Pole (P)			3, 4 ¹⁾						3, 4 ¹⁾							
Rated current, at 40 °C (A)			500, 630						700, 800							
Rated short-circuit breaking capacity [Icu] (kA rms)	Recognition code for order		F	N	S	H	L	X	F	N	S	H	L	X		
	AC600/660 V		10	10	10	20	25	35	10	10	10	20	25	35		
	AC480/500 V		25	35	50	70	85	100	25	35	50	70	85	100		
	AC440/460 V		36	50	70	85	130	150	36	50	70	85	130	150		
	AC380/415 V		50	65	85	100	130	150	50	65	85	100	130	150		
	AC220/240 V		65	85	100	130	150	200	65	85	100	130	150	200		
DC250 V			36	50	65	85	100	100	36	50	65	85	100	100		
Service breaking capacity [Ics = % Icu]			100	100	100	100	100	100	100	100	100	100	100	100		
Endurance (Durability)	Mechanical		20,000						10,000							
	Electrical		6,000						3,000							
Trip Device																
Thermal magnetic			●						●							
	Long time [LT]		(0.8 - 0.9 - 1.0) x In						(0.8 - 0.9 - 1.0) x In							
	Instantaneous [INST]		(5 - 6 - 7 - 8 - 9 - 10) x In						(5 - 6 - 7 - 8 - 9 - 10) x In							
Accessory																
Internal	Auxiliary switch		AUX	●						●						
	Alarm switch		ALT	●						●						
	Shunt trip		SHT	●						●						
	Undervoltage trip		UVT	●						●						
External	Rotary handle	Front contact	TFG	●						●						
		Extended	TFH	●						●						
	Motor operator		MOT	●						●						
	Mechanical interlock		MIF	●						●						
	Locking device		PLD	●						●						
	Plug-in Mounting Base ²⁾		TDM	●						●						
	Cage terminal block		CTB	●						●						
	Insulation terminal cover		TCF	●						●						
	Insulation barrier		TQQ	●						●						
Installation and Dimensions																
Connection/ Installation		Front connection	Screw terminals, busbar terminals						Screw terminals, busbar terminals							
		Rear connection	Horizontal/Vertical wiring						Horizontal/Vertical wiring							
		Plug-in	Switchboard type (Line & Load, Line only) ²⁾						Switchboard type (Line & Load, Line only) ²⁾							
Dimensions (mm)	a (2/3/4P)		140/186.5						210/280							
	b		260						320							
	c		110						135							
Weight (kg)			3/4P		5.4/7.2						15.1/19.6					

※ 1) 4 pole arrangement: Basic specification is R-S-T-N (N-R-S-T is optional).

2) Plug-in: Applicable only 3P.

Order Information

HGP Type MCCB / Switch-Disconnectors



	1	2	3	4	5	6	7	8	9	10	11
	HGP	50D	S	3P	T4	S	00	00	C	00016	F
1 Type											
2 Frame											
3 Short-Circuit Breaking Capacity											
4 Number of Poles											
5 Product Description											
6 Mounting											
7 Auxiliary Contact & Alarm Switch (AUX/ALT)											
8 Shunt Trip & Under Voltage Trip Devices (SHT/UVT)											
9 Frequency											
10 Rated Current											
11 Trip Device											

1 Type	
HGP	MCCB / Switch-disconnectors
2 Frame	
50D	50 AF
125D	125 AF
160D	160 AF
250	250 AF
400	400 AF
630	630 AF
800	800 AF
3 Short-circuit Breaking Capacity 1)	
F	36 kA
N	50 kA
S	65 kA
H	85 kA
L	130 kA
X	150 kA
NA	Switch-disconnectors

4 Number of Poles	
3P	3 Pole
4P	4 Pole
5 Product Description	
MCCB	
T4	Ambient temperature 40°C
T5	Ambient temperature 50°C
Motor Protection MCCB	
MP	Motor Protection
Switch-disconnector	
DS	Switch-disconnector
6 Mounting	
S	Front connection
BS 2)	Straight busbar
BE 2)	Extended busbar (Spreader)
P	Plug-in PC/CBM attachment
F	Line : Plug-in Load : Front connection
X	Plug-in PC/CBM non-attachment

7 Auxiliary Contact & Alarm Switch (AUX/ALT)	
00	Without
10	AUX 1C
20	AUX 2C
01	ALT 1C
11	AUX 1C + ALT 1C
21	AUX 2C + ALT 1C
31 3)	AUX 3C + ALT 1C
32 4)	AUX 3C + ALT 2C
8 Shunt Trip & Under Voltage Trip Devices (SHT/UVT)	
00	Without
S1	SHT AC110 V
S2	SHT AC220 V
S3	SHT AC380 V
S4	SHT AC440 V
S5	SHT DC24 V
S6	SHT DC110 V
U1	UVT AC110 V
U2	UVT AC220 V
U3	UVT AC380 V
U4	UVT AC440 V
U5	UVT DC24 V
U6	UVT DC110 V

9 Frequency	
C	50/60 Hz in Common
10 Rated Current	
00016	16 A
00020	20 A
	⋮
00800	800 A
11 Trip Device	
Overload & Short-circuit protection	
-	Fixed thermal & Fixed magnetic (MTM-FF)
F	Adjustable thermal & Fixed magnetic (MTM-JF)
H	Adjustable thermal & Adjustable magnetic (MTM-JJ)
N	Fixed thermal & Fixed magnetic (MTM-FF) + 4P Neutral protection
FN	Adjustable thermal & Fixed magnetic (MTM-JF) + 4P Neutral protection
HN	Adjustable thermal & Adjustable magnetic (MTM-JJ) + 4P Neutral protection
Motor Protection MCCB	
-	Adjustable magnetic (MCP - OJ)
Switch-disconnector	
-	No protection (DSU)

※ 1) In case that the rated voltage is AC440/460 V

2) B/E: It can be applied to all the Line & Load terminals.

3) Applicable to HGP400 - 800

4) Only applicable to HGP800

※ - This order information is in order to explain the order code. When ordering, please refer to relevant page to know detailed specifications of each type circuit breaker.

HG-SERIES

Magnetic Contactors & Overload Relays

The solution to protect and control motor system with durable inner structure and improved level of insulation!

- Wide Product Range: 9 – 800 AF, in 8 Frame sizes
- Rated Insulation Voltage (Ui): 1,000 V
- Simple Circuit Arrangement with Upper Auxiliary Contact Design
- Direct Connection is Possible with Overload Relay (~ 100 A)
- Low Power Consumption Type Auxiliary Relay
- Structure to Prevent Dust
- TOR Safety Protection Cover and Test/Reset Button
- Various Certification Acquired:
KERE CB, Safety Certification (7's classification)





Model Selection Table

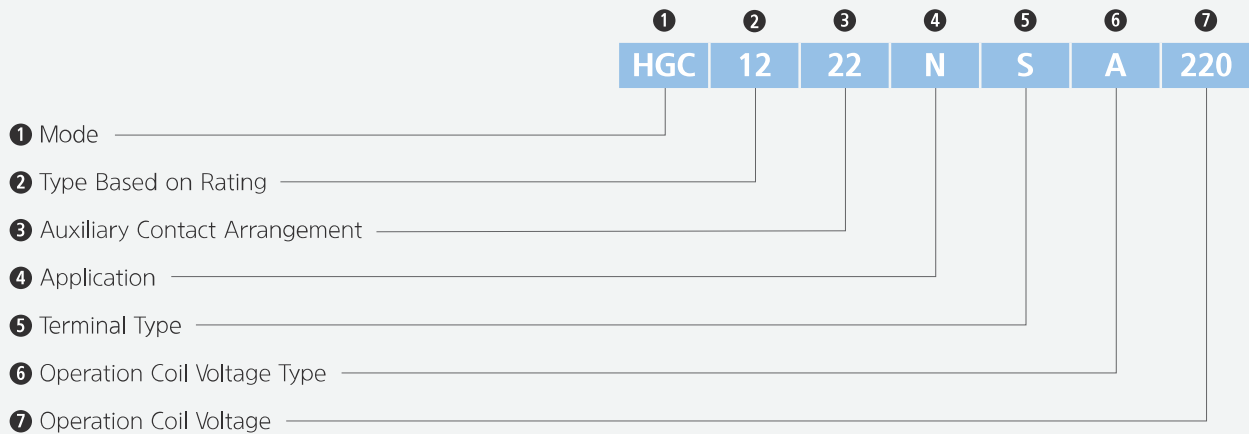
MC (HGC Type): 9 – 800 A

Model				HGC9	HGC12	HGC18	HGC25	HGC32	HGC40	HGC50	HGC65
IEC 60947											
Rated insulation voltage [Ui]			V	750	750	750	750	750	750	1,000	1,000
Rated operational voltage [Ue]			V	690	690	690	690	690	690	690	690
Rated impulse withstand voltage [Uimp]			kV	6	6	6	6	6	6	8	8
Rated thermal current [Ith] (AC1)			A	25	25	40	45	55	60	70	85
AC3	200 - 240 V		kW/A	2.5/9	3.5/12	4.5/18	5.5/25	7.5/32	11/40	15/50	18.5/65
	380 - 440 V			4/9	5.5/12	7.5/18	11/25	15/32	18.5/40	22/50	30/65
	500 - 550 V			4/7	7.5/12	8.5/13	15/22	18.5/28	22/32	30/43	33/60
	660 - 690 V			4/6	7.5/9	7.5/9	15/17	18.5/20	22/23	30/28	33/35
	1,000 V			-	-	-	-	-	-	-	-
	Lifetime	Electrical	x 10,000	250	250	250	250	200	200	200	200
Mechanical		(440 V)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	
AC4	200 - 240 V		kW/A	1.5/8	2.2/11	3.7/16	3.7/18	4.5/22	5.5/25	7.5/35	11/50
	380 - 440 V			2.2/6	4/9	4/11	5.5/13	7.5/17	11/24	15/32	22/47
	Electrical lifetime		x 10,000	3	3	3	3	3	3	3	3
AC1, 2, 3 Operating frequency /per hour	100 % Load		Times	1,000	1,000	1,000	1,000	1,000	1,000	750	750
	50 % Load (DC)			2,000	2,000	2,000	2,000	2,000	2,000	1,500 (900)	1,500 (900)
	20 % Load (DC)			3,600	3,600	3,600	3,600	3,600	3,600	3,000 (1,200)	3,000 (1,200)
AC4 Operating frequency/per hour	100 % Load		Times	300	300	300	300	300	250	250	250
	50 % Load			600	600	600	600	600	500	500	500
Making capacity	220 V		A	110	130	180	250	320	400	500	650
	440 V			90	120	180	250	320	400	500	650
Breaking capacity	220 V		A	88	104	144	200	256	320	400	520
	440 V			72	96	144	200	256	320	400	520
UL 508 & CSA											
Continuous current (Ambient temperature at 40 °C)			A	21	21	30	40	50	60	70	80
Single-phase	1P/100 - 120 V		Hp/A	0.5/9.8	1/16	1.5/16	2/20	2/24	3/34	5/56	5/56
	1P/220 - 240 V			1/8	2/12	3/17	3/17	5/28	7.5/40	10/50	10/50
Three-phase	3P/220 - 240 V		Hp/A	2/6.8	3/9.6	5/15.2	10/28	10/28	15/42	20/54	20/54
	3P/440 - 480 V			5/7.6	7.5/11	10/14	20/27	25/34	30/40	40/52	40/52
	3P/550 - 600 V			5/6.1	10/11	15/21	15/21	20/22	30/32	30/42	40/52
NEMA Size				00	00	0	0	1	1	2	2
Mounting method				Screw & DIN-rail			Screw & DIN-rail			Screw & DIN-rail	
Application for Hoist				●	●	●	●	●	●	●	●
Contact	Main	AC		1NO1NC or 2NO2NC			1NO1NC or 2NO2NC			1NO1NC or 2NO2NC	
		DC		1NO1NC or 2NO2NC			1NO1NC or 2NO2NC			2NO1NC	
		AC/DC		-			-			-	
	Auxiliary	AC		2NO2NC			2NO2NC			2NO2NC	
		DC		2NO2NC			2NO2NC			1NO1NC	
		AC/DC		-			-			-	
Dimension	AC	W x H x D	mm	45 x 94.2 x 91.1			45 x 99.6 x 96.6			55 x 127.6 x 129.1	
	DC			45 x 94.2 x 124			45 x 99.6 x 129.5			55 x 127.6 x 129.1	
	AC/DC			-			-			-	
Weight	AC		kg	0.4			0.5			0.8	
	DC			0.6			0.65			0.8	
	AC/DC			-			-			-	

HGC75	HGC85	HGC100	HGC115	HGC130	HGC150	HGC185	HGC225	HGC265	HGC300	HGC400	HGC500	HGC630	HGC800
1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
690	690	690	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
8	8	8	8	8	8	8	8	8	8	8	8	8	8
115	125	145	160	180	210	275	315	350	400	500	550	750	900
22/75	25/85	30/100	37/115	40/130	45/150	55/185	75/225	80/265	90/300	125/400	140/500	190/630	220/800
37/75	45/85	55/100	60/115	65/130	75/150	90/185	132/225	147/265	160/300	220/400	250/500	330/630	440/800
37/64	50/75	55/85	59/100	70/120	90/140	110/180	132/200	150/225	200/273	250/300	300/426	330/500	500/720
37/42	45/45	50/65	55/65	75/82	90/120	110/120	132/150	160/173	200/220	250/300	335/360	400/412	500/630
-	-	-	65/50	75/54	90/66	110/78	132/96	160/113	200/141	250/178	275/192	300/213	400/284
200	200	200	100	100	100	100	100	100	100	100	50	50	50
1,000	1,000	1,000	500	500	500	500	500	500	500	500	500	500	500
13/55	15/65	17/72	19/80	22/93	30/125	37/150	45/185	50/200	55/220	75/300	90/350	110/400	160/630
25/52	30/62	33/68	37/75	45/90	55/110	75/150	90/185	102/200	110/220	150/300	175/350	200/400	300/630
3	3	3	3	3	3	3	3	3	3	3	3	3	3
450	450	450	450	450	450	300	300	300	300	300	300	300	300
900	900	900	900	900	900	600	600	600	600	600	600	600	600
1,800	1,800	1,800	1,800	1,800	1,800	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
200	200	200	200	200	200	200	200	200	150	150	150	150	150
400	400	400	400	400	400	400	400	400	300	300	300	300	300
750	850	1,000	1,150	1,300	1,500	1,850	2,250	2,650	3,000	4,000	5,000	6,300	8,000
750	850	1,000	1,150	1,300	1,500	1,850	2,250	2,650	3,000	4,000	5,000	6,300	8,000
600	680	800	920	1,040	1,200	1,480	1,800	2,120	2,400	3,200	4,000	5,040	6,400
600	680	800	920	1,040	1,200	1,480	1,800	2,120	2,400	3,200	4,000	5,040	6,400
90	105	125	160	180	210	230	260	330	350	450	550	750	900
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/68	30/80	30/80	40/104	40/104	50/130	60/154	75/192	100/248	100/248	150/360	150/360	250/480	300/720
60/77	60/77	60/77	75/96	75/96	100/124	125/156	150/180	200/240	250/302	300/361	300/361	500/477	600/708
50/52	50/52	75/77	100/99	100/99	125/125	150/144	200/192	250/242	250/242	300/289	350/336	500/382	600/578
2	3	3	3	3	4	4	4	4	5	5	5	6	7
Screw & DIN-rail			Screw			Screw			Screw			Screw	
●	●	●	-	-	-	-	-	-	-	-	-	-	-
1NO1NC or 2NO2NC			-			-			-			-	
2NO1NC			-			-			-			-	
-			2NO2NC			2NO2NC			2NO2NC			2NO2NC	
2NO2NC			-			-			-			-	
1NO1NC			-			-			-			-	
-			2NO2NC			2NO2NC			2NO2NC			2NO2NC	
70 x 146 x 153			-			-			-			-	
70 x 146 x 153			-			-			-			-	
-			103 x 155 x 145.1			138 x 204 x 174.2			163 x 243 x 203			276 x 314 x 255.3	
1.3			-			-			-			-	
1.3			-			-			-			-	
-			2.7			4.8			9.2			25	

Order Information

HGC Type MC



② Type Based on Rating		
Standard magnetic contactor		
Cord	Rated current	Rated capacity
	AC3/AC400 V	
9	9 A	4 kW
12	12 A	5.5 kW
18	18 A	7.5 kW
25	25 A	11 kW
32	32 A	15 kW
40	40 A	18.5 kW
50	50 A	22 kW
65	65 A	30 kW
75	75 A	37 kW
85	85 A	45 kW
100	100 A	55 kW
115	115 A	60 kW
130	130 A	65 kW
150	150 A	75 kW
185	185 A	90 kW
225	225 A	132 kW
265	265 A	147 kW
300	300 A	160 kW
400	400 A	220 kW
500	500 A	250 kW
630	630 A	330 kW
800	800 A	440 kW

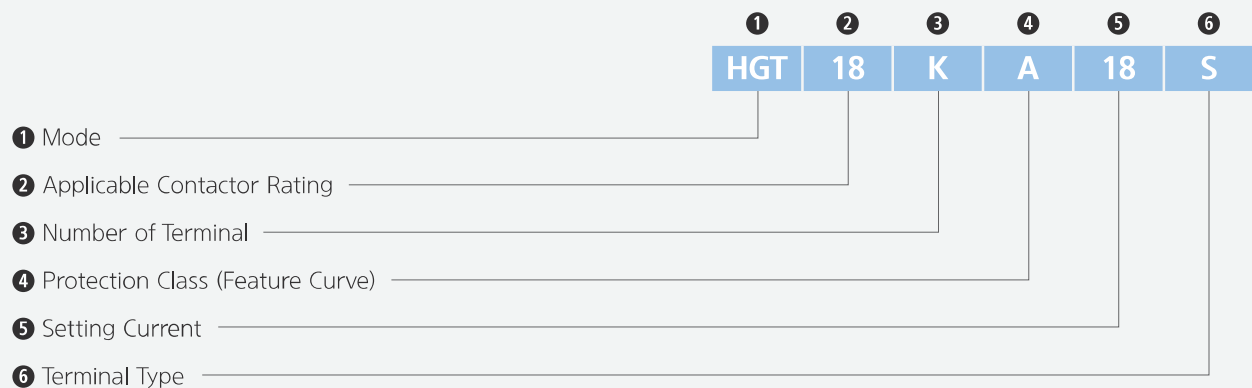
② Type Based on Rating		
Capacity applicable contactor		
Cord	Rated current	Power in kVAR
		(AC440 V)
9C	9 A	9.7 kVAR
12C	12 A	12.5 kVAR
18C	18 A	16.7 kVAR
25C	25 A	18 kVAR
32C	32 A	30 kVAR
40C	40 A	33.3 kVAR
50C	50 A	45 kVAR
65C	65 A	46 kVAR
75C	75 A	54 kVAR
85C	85 A	60 kVAR
100C	100 A	80 kVAR

③ Auxiliary Contact Arrangement	
Standard magnetic contactor	
11	1NO + 1NC
21	2NO + 1NC
22	2NO + 2NC
Capacity applicable contactor	
23	2NO + 3NC
32	3NO + 2NC
④ Application	
N	Standard
⑤ Terminal Type	
Standard magnetic contactor	
R	No terminal cover
S	Terminal cover (9 - 100 A)
C	Lug terminal (50 - 100 A)
Capacity applicable contactor	
S	Terminal cover

⑥ Operation Coil Voltage Type	
Standard magnetic contactor	
X	AC 50 Hz (9 - 100 A)
A	AC 60 Hz (9 - 100 A)
D	DC용 (9 - 100 A)
F	AC/DC
Capacity applicable contactor	
X	AC 50 Hz
A	AC 60 Hz
⑦ Operation Coil Voltage	
24 - 440 V	

※ This order information is in order to explain to order code. When ordering, please refer to relevant page to know detailed specifications of each type.

HGT Type Thermal Overload Relay



2 Applicable Contactor Rating

Cord	Applicable contactor
18	HGC9 - 18
40	HGC25 - 40
65	HGC50, 65
100	HGC75 - 100
150	HGC115 - 150
265	HGC185 - 265
500	HGC300 - 500
800	HGC630 - 800

3 Number of Terminal

K	3 Elements
H	2 Elements

4 Protection class (Feature curve)

A	10 A
B	10
C	20

※ This order information is in order to explain to order code. When ordering, please refer to relevant page to know detailed specifications of each type.

5 Setting Current

Cord	Setting current
OP18	0.12 - 0.18 A
OP26	0.18 - 0.26 A
OP35	0.25 - 0.35 A
OP50	0.34 - 0.5 A
OP70	0.5 - 0.7 A
OP90	0.6 - 0.9 A
1P20	0.8 - 1.2 A
1P60	1.1 - 1.6 A
2P10	1.5 - 2.1 A
3	2 - 3 A
4P20	2.8 - 4.2 A
5	3 - 5 A
6	4 - 6 A
8	5.6 - 8 A
9	6 - 9 A
10	7 - 10 A
12	8 - 12 A
18	12 - 18 A
22	15 - 22 A
25	17 - 25 A

5 Setting Current

Cord	Setting current
32	22 - 32 A
40	28 - 40 A
50	34 - 50 A
65	45 - 65 A
75	52 - 75 A
80	48 - 80 A
85	59 - 85 A
100	70 - 100 A
115	69 - 115 A
130	78 - 130 A
150	90 - 150 A
185	111 - 185 A
225	135 - 225 A
265	159 - 265 A
300	180 - 300 A
400	240 - 400 A
500	300 - 500 A
630	378 - 630 A
800	480 - 800 A

6 Terminal Type

R	No terminal cover
S	Terminal cover
C	Lug terminal (50 - 100 A)

HG-SERIES

Vacuum Circuit Breakers

The new solution to protect medium voltage system
with fortified user-friendly structure

- **Product Range:** 7.2/12/17.5/24 kV
- **According to IEC 62271-100 (2012), certification acquired:** E2 (List3), M2, C2
- **Various Cradle Type:** Fixed type, E type, F type, G type, M type
- **Visual checking is possible for VI condition (Easy maintenance)**
- **High Performance of insulation voltage rating (12 kV base):**
Power frequency withstand voltage 42 kV/min, lightning impulse withstand voltage 82 kV
- **Rated Short Time:** 4 seconds
- **Control Power:** DC24 V, A/DC48 – 60 V, A/DC100 – 130 V, A/DC200 – 250 V
- **Various Certification Acquired:** KERI CB, V-Check

A Variety of Installation



Fixed Type



Draw-out Type &
ES/FS/E3/F3 Type



Draw-out Type



Draw-out Type

Certification Acquired

IEC 62271-100



Model Selection Table

7.2 kV

Model			HGV114□ ¹⁾			HGV115□ ¹⁾					HGV116□ ¹⁾				
Standard			IEC 62271-100 (2012)												
Rated voltage (kV)			7.2												
Rated short time withstand current (kA/4s)			25			31.5					40				
Rated short-circuit breaking current (kA)			25			31.5					40				
Rated short-circuit making current (kA)			65			82					104				
Rated current (A)			630	1,250	2,000	1,250	2,000	2,500	3,150	4,000 ³⁾	1,250	2,000	2,500	3,150	4,000 ³⁾
Rated frequency (Hz)			50/60 Hz												
Breaking capacity (MVA)			312			393					499				
Operating duty			O-0.3s-CO-15s-CO												
Insulation level	Power frequency withstand voltage (1 min)	(kV)	20												
	Lightning impulse withstand voltage (1.2 x 50 μs)	(kV)	60												
Type test class	Mechanical		M2 (10,000 times)												
	Electrical		E2 (List3)												
	Capacitive current breaking capacity		C2												
Rated opening time (ms)			≤ 40												
Rated breaking time (Cycle)			3												
Rated closing time (ms)			≤ 65												
Operating mechanism			Motor spring type												
Auxiliary contacts			4NO + 4NC (Max. 10NO + 10NC)												
Control voltage	Closing coil		DC 24 V, A/DC 48 - 60 V, A/DC 100 - 130 V, A/DC 200 - 250 V												
	Opening coil		DC 24 V, A/DC 48 - 60 V, A/DC 100 - 130 V, A/DC 200 - 250 V												
Operating life (times)	Electrical operation		Refer to table												
	Mechanical operation		30,000 ²⁾												
Phase distance x Terminal distance (mm) ⁴⁾	150 x 205		●	●											
	150 x 210		■	■											
	210 x 310		△	△	△	△	△				△	△			
	275 x 310							◆	◆	◆			◆	◆	◆
Installation	Fixed type	XA	●	●	△	△	△	◆	◆	◆	△	△	◆	◆	◆
	Draw-out type	ES	■	■											
		FS	■	■											
		GS, GE	● △	● △	△	△	△	◆	◆	◆	△	△	◆	◆	◆
		MS, ME	●	●	△	△	△	◆	◆	◆	△	△	◆	◆	◆
Weight (kg)	VCB	Fixed type	70	70	110	90	130	170	170	170	90	130	170	170	170
		Draw-out type	100	105	130	125	160	200	200	200	125	160	200	200	200
	Cradle	ES	55	55											
		FS	60	60											
		GS	70	70	90	85	90	120	120	120	85	90	120	120	120
		GE	135	135	160	155	160	190	190	190	155	160	190	190	190
		MS	140	140	160	155	160	190	190	190	155	160	190	190	190
		ME	210	210	235	230	235	265	265	265	230	235	265	265	265

※ 1) □ : Rated current (1: 630 A / 2: 1,250 A / 4: 2,000 A / 6: 2,500 A / 7: 3,150 A / 8: 4,000 A)

2) It can be used without replacement up to 10,000 cycles. In order to extend durability, it needs appropriate maintenance as per instruction manual.

3) In case of 4,000 A, it needs to be adopted forced circulation using fan operated by thermostat. Fan is not provided separately.

4) ● : 150×205, ■ : 250×210, △ : 210×310, ◆ : 275×310

12 kV

Model			HGV214□ ¹⁾			HGV215□ ¹⁾					HGV216□ ¹⁾				
Standard			IEC 62271-100 (2012)												
Rated voltage (kV)			12												
Rated short time withstand current (kA/4s)			25			31.5					40				
Rated short-circuit breaking current (kA)			25			31.5					40				
Rated short-circuit making current (kA)			65			82					104				
Rated current (A)			630	1,250	2,000	1,250	2,000	2,500	3,150	4,000 ³⁾	1,250	2,000	2,500	3,150	4,000 ³⁾
Rated frequency (Hz)			50/60 Hz												
Breaking capacity (MVA)			520			655					831				
Operating duty			O-0.3s-CO-15s-CO												
Insulation level	Power frequency withstand voltage (1 min) (kV)		28 (42) ⁴⁾												
	Lightning impulse withstand voltage (1.2 x 50 μs) (kV)		75 (82) ⁴⁾												
Type test class	Mechanical		M2 (10,000 times)												
	Electrical		E2 (List3)												
	Capacitive current breaking capacity		C2												
Rated opening time (ms)			≤ 40												
Rated breaking time (Cycle)			3												
Rated closing time (ms)			≤ 65												
Operating mechanism			Motor spring type												
Auxiliary contacts			4NO + 4NC (Max. 10NO + 10NC)												
Control voltage	Closing coil		DC 24 V, A/DC 48 - 60 V, A/DC 100 - 130 V, A/DC 200 - 250 V												
	Opening coil		DC 24 V, A/DC 48 - 60 V, A/DC 100 - 130 V, A/DC 200 - 250 V												
Operating life (times)	Electrical operation		Refer to table												
	Mechanical operation		30,000 ²⁾												
Phase distance x Terminal distance (mm)	150 x 205		●	●											
	150 x 210		■	■											
	210 x 310		△	△	△	△	△				△	△			
	275 x 310							◆	◆	◆			◆	◆	◆
Installation	Fixed type	XA	●	●	△	△	△	◆	◆	◆	△	△	◆	◆	◆
	Draw-out type	ES	■	■											
		FS	■	■											
		GS, GE	● △	● △	△	△	△	◆	◆	◆	△	△	◆	◆	◆
		MS, ME	●	●	△	△	△	◆	◆	◆	△	△	◆	◆	◆
Weight (kg)	VCB	Fixed type	70	70	110	90	130	170	170	170	90	130	170	170	170
		Draw-out type	100	105	130	125	160	200	200	200	125	160	200	200	200
	Cradle	ES	60	60											
		FS	65	65											
		GS	70	70	90	85	90	120	120	120	85	90	120	120	120
		GE	135	135	160	155	160	190	190	190	155	160	190	190	190
		MS	140	140	160	155	160	190	190	190	155	160	190	190	190
		ME	210	210	235	230	235	265	265	265	230	235	265	265	265

※ 1) □ : Rated current (1: 630 A / 2: 1,250 A / 4: 2,000 A / 6: 2,500 A / 7: 3,150 A / 8: 4,000 A)

2) It can be used without replacement up to 10,000 cycles. In order to extend durability, it needs appropriate maintenance as per instruction manual.

3) In case of 4,000 A, it needs to be adopted forced circulation using fan operated by thermostat. Fan is not provided separately.

4) When making a purchase order, B□'s option must be selected.

1 (Phase distance: 150 mm), 2 (Phase distance: 210 mm), 3 (Phase distance: 275 mm)

Model Selection Table

17.5 kV

Model			HGV314□ ¹⁾			HGV315□ ¹⁾					HGV316□ ¹⁾				
Standard			IEC 62271-100 (2012)												
Rated voltage (kV)			17.5												
Rated short time withstand current (kA/4s)			25			31.5					40				
Rated short-circuit breaking current (kA)			25			31.5					40				
Rated short-circuit making current (kA)			65			82					104				
Rated current (A)			630	1,250	2,000	1,250	2,000	2,500	3,150	4,000 ³⁾	1,250	2,000	2,500	3,150	4,000 ³⁾
Rated frequency (Hz)			50/60 Hz												
Breaking capacity (MVA)			758			955					1,212				
Operating duty			O-0.3s-CO-15s-CO												
Insulation level	Power frequency withstand voltage (1 min)	(kV)	38												
	Lightning impulse withstand voltage (1.2 x 50 μs)	(kV)	95												
Type test class	Mechanical		M2 (10,000 times)												
	Electrical		E2 (List3)												
	Capacitive current breaking capacity		C2												
Rated opening time (ms)			≤ 40												
Rated breaking time (Cycle)			3												
Rated closing time (ms)			≤ 65												
Operating mechanism			Motor spring type												
Auxiliary contacts			4NO + 4NC (Max. 10NO + 10NC)												
Control voltage	Closing coil		DC 24 V, A/DC 48 - 60 V, A/DC 100 - 130 V, A/DC 200 - 250 V												
	Opening coil		DC 24 V, A/DC 48 - 60 V, A/DC 100 - 130 V, A/DC 200 - 250 V												
Operating life (times)	Electrical operation		Refer to table												
	Mechanical operation		30,000 ²⁾												
Phase distance x Terminal distance (mm) ⁴⁾	150 x 205		●	●											
	150 x 210		■	■											
	210 x 310		△	△	△	△	△				△	△			
	275 x 310							◆	◆	◆			◆	◆	◆
Installation	Fixed type	XA	●	●	△	△	△	◆	◆	◆	△	△	◆	◆	◆
	Draw-out type	ES	■	■											
		FS	■	■											
		GS, GE	● △	● △	△	△	△	◆	◆	◆	△	△	◆	◆	◆
		MS, ME	●	●	△	△	△	◆	◆	◆	△	△	◆	◆	◆
Weight (kg)	VCB	Fixed type	70	70	110	90	130	170	170	170	90	130	170	170	170
		Draw-out type	100	105	140	125	160	200	200	200	125	160	200	200	200
	Cradle	ES	70	70											
		FS	75	75											
		GS	70	70	90	85	90	120	120	120	85	90	120	120	120
		GE	135	135	160	155	160	190	190	190	155	160	190	190	190
		MS	140	140	160	155	160	190	190	190	155	160	190	190	190
		ME	210	210	235	230	235	265	265	265	230	235	265	265	265

※ 1) □ : Rated current (1: 630 A / 2: 1,250 A / 4: 2,000 A / 6: 2,500 A / 7: 3,150 A / 8: 4,000 A)

2) It can be used without replacement up to 10,000 cycles. In order to extend durability, it needs appropriate maintenance as per instruction manual.

3) In case of 4,000 A, it needs to be adopted forced circulation using fan operated by thermostat. Fan is not provided separately.

4) ● : 150×205 , ■ : 250×210 , △ : 210×310 , ◆ : 275×310

24 / 25.8 kV

Model			HGV611 □ ¹⁾			HGV614 □ ¹⁾		
Standard			IEC 62271-100 (2012)					
Rated voltage (kV)			24 (25.8)					
Rated short time withstand current (kA/4s)			12.5			25		
Rated short-circuit breaking current (kA)			12.5			25		
Rated short-circuit making current (kA)			32.5			65		
Rated current (A)			630	1,250	2,000	630	1,250	2,000
Rated frequency (Hz)			50/60 Hz					
Breaking capacity (MVA)			520			1,039		
Operating duty			O-0.3s-CO-15s-CO					
Insulation level	Power frequency withstand voltage (1 min)	(kV)	60					
	Lightning impulse withstand voltage (1.2 x 50 μs)	(kV)	125					
Type test class	Mechanical		M2 (10,000 times)					
	Electrical		E2 (List3)					
	Capacitive current breaking capacity		C2					
Rated opening time (ms)			≤ 40					
Rated breaking time (Cycle)			3					
Rated closing time (ms)			≤ 65					
Operating mechanism			Motor spring type					
Auxiliary contacts			4NO + 4NC (Max. 10NO + 10NC)					
Control voltage	Closing coil		DC 24 V, A/DC 48 - 60 V, A/DC 100 - 130 V, A/DC 200 - 250 V					
	Opening coil		DC 24 V, A/DC 48 - 60 V, A/DC 100 - 130 V, A/DC 200 - 250 V					
Operating life (times)	Electrical operation		Refer to table					
	Mechanical operation		30,000 ²⁾					
Phase distance x Terminal distance (mm)	150 x 205							
	150 x 210							
	210 x 310		△	△	△	△	△	△
	275 x 310							
Installation	Fixed type	XA	△	△		△	△	△
	Draw-out type	ES	△	△		△	△	△
		FS	△	△		△	△	△
		GS, GE	△	△	△	△	△	△
		MS, ME	△	△	△	△	△	△
Weight (kg)	VCB	Fixed type	115	115		115	115	130
		Draw-out type	145	145	160	145	145	160
	Cradle	ES	95	95		95	95	125
		FS	105	105		105	105	130
		GS	95	95	100	95	95	100
		GE	175	175	180	175	175	180
		MS	180	180	190	180	180	190
		ME	265	265	275	265	265	275

※ 1) □ : Rated current (1: 630 A / 2: 1,250 A / 4: 2,000 A / 6: 2,500 A / 7: 3,150 A / 8: 4,000 A)

2) It can be used without replacement up to 10,000 cycles. In order to extend durability, it needs appropriate maintenance as per instruction manual.

Order Information

HGV Type VCB (Body)



	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪
Model	HGV	61	4	4	F	GS	4	4	4	C	P2
① VCB											
Ratings											
② Rated Voltage / ③ Short Circuit Current / ④ Rated Current											
Pole Center Distance											
⑤ Phase Distance											
Installation Type											
⑥ Cradle Type											
Control Voltage											
⑦ Motor / ⑧ Closing Coil / ⑨ Trip Coil											
Auxiliary Contact											
⑩ Auxiliary Contact and Circuit Connector											
Accessories											
⑪ Accessories											

② Rated Voltage	
11	7.2 kV
21	12 kV
31	17.5 kV
61	24/25.8 kV
③ Short Circuit Current	
1	12.5 kA
4	25 kA
5	31.5 kA
6	40 kA
④ Rated Current	
1	630 A
2	1,250 A
4	2,000 A
6	2,500 A
7	3,150 A
8	4,000 A
⑤ Phase Distance	
C	150 mm
F	210 mm
I	275 mm

⑥ Installation Type	
XA	Body
EA	ES type body
ES	ES cradle (without shutter)
E3	ES cradle (Phase distance 300 mm for 24 kV 630/1,250 A)
FA	FS type body
FS	FS cradle (with non-metal shutter)
F3	FS cradle (Phase distance 300 mm for 24 kV 630/1,250 A)
GA	GS type body
GS	GS cradle (with bushing and metal shutter)
GE ¹⁾	GS cradle (with earthing switch)
MS	Cell type cradle
ME ¹⁾	MS cradle (with earthing switch)

⑦ - ⑨ Control Voltage	
1	DC 24 V
2	A/DC 48 - 60 V
4	A/DC 100 - 130 V
6	A/DC 200 - 250 V
⑩ Auxiliary Contact and Circuit Connector	
A ¹⁰⁾	Connector and pin (4NO + 4NC)
B ¹⁰⁾	Connector and pin (10NO + 10NC)
C	Lead cable (4NO + 4NC)
D	Lead cable (10NO + 10NC)
⑪ Accessories	
EE ¹⁾	Earthing switch monitoring contact (1NO + 1NC)
U□ ²⁾	Under voltage release (□: Operating voltage)
R□ ²⁾	Secondary shunt release (□: Operating voltage)
D□ ³⁾	UVR time delay device (□: Operating voltage)
KG	Electrical/Mechanical key lock
BC ⁴⁾	Button cover (Padlocking available without key)
C2 ²⁾	CT operated release 1.0 A
PA	Position padlock (without key)
DI ⁵⁾	Door interlock
JI ⁶⁾	Jack interlock
N□ ⁷⁾	Flame retardant cable
P□ ⁸⁾	Position switch
TS	Trip circuit supervision
KP	Key lock for position padlock
KE ⁹⁾	Key lock for earthing switch
OB ⁵⁾	Manual operating bar
EI ⁶⁾¹¹⁾	Blocking earthing switch at service position
B□ ¹²⁾	For special use
ZZ	Specially required

- ※ 1) It is necessary to put "-EE" end of order code for ordering earthing switch type cradle (GE, ME).
- 2) It cannot be available U□, R□, and C□ at the same time.
- 3) Only available to VCB included UVR (U□).
- 4) Available to both close button and trip button.
- 5) Only available to MS, ME cradle.
- 6) Only available to GA, GS, GE, MS, ME.
- 7) □: A (4NO + 4NC), B (10NO + 10NC)
- 8) □: 2 (1NO + 1NC per each position), 4 (2NO + 2NC per each position)
- 9) Only available to MS, ME cradle.
- 10) Only supply pins without lead cable.
- 11) In case of VCB body only, "EI" option must be applied together.
- 12) Only available to 12 kV VCB: Phase distance.
□: 1 (150 mm), 2 (210 mm), 3 (275 mm)

Cradle



	1	2	3	4	5	6	7	8	9	10	11
	GVL	61	4	4	F	ME	0	0	0	0	KL
Model											
1 Draw-Out Frame (Cradle)											
Ratings											
2 Rated Voltage / 3 Short Circuit Current / 4 Rated Current											
Pole Center Distance											
5 Phase Distance											
Installation Type											
6 Cradle Type											
Control Voltage											
7 Motor / 8 Closing Coil / 9 Trip Coil											
Auxiliary Contact											
10 Auxiliary Contact and Circuit Connector											
Accessories											
11 Accessories											

2 Rated Voltage	
11	7.2 kV
21	12 kV
31	17.5 kV
61	24/25.8 kV
3 Short Circuit Current	
1	12.5 kA
4	25 kA
5	31.5 kA
6	40 kA

4 Rated Current	
1	630 A
2	1,250 A
4	2,000 A
6	2,500 A
7	3,150 A
8	4,000 A
5 Phase Distance	
C	150 mm
F	210 mm
I	275 mm

6 Installation Type	
ES	Draw-in and out type
FS	Draw-in and out type
GS	Draw-in and out type
GE ¹⁾	Draw-in and out type
MS	Draw-in and out type
ME ¹⁾	Draw-in and out type
7 - 9 Control Voltage	
0	-
10 Auxiliary Contact and Circuit Connector	
0	-

11 Accessories	
KE	Key lock for earthing switch
EE ¹⁾	Earthing switch monitoring contact (1NO + 1NC)
DM ²⁾	Door interlock
TB ²⁾	Emergency trip bar
ZZ	Specially required

※ 1) It is necessary to put "-EE" end of order code for ordering earthing switch type cradle (GE, ME).

2) Only for MS, ME cradle.

Vacuum Interrupter

	HCV	6B
Model Name		
VI		
Ratings		
Ratings		
3B	7.2/12/17.5 kV	25 kA 630/1,250/2,000 A
3D	7.2/12/17.5 kV	31.5/40 kA 1,250/2,000 A
3E	7.2/12/17.5 kV	31.5/40 kA 2,500/3,150/4,000 A
6B	24/25.8 kV	12.5/25 kA 630/1,250/2,000 A

