

Model Selection Table

MCCB (HGM Type): 32 - 250 AF

Things in Common

Rated Insulation Voltage, U_i	1,000 V
Rated Operational Voltage, U_e	690 V
Impulse Withstand Voltage, U_{imp}	8 kV
Protective Function	Overload, short-circuit and instantaneous protection

Suitability for Isolation	Yes
Utilization Category	A
Pollution Degree	3
Reference Standard	IEC 60947-2

Model		HGM30	HGM50	HGM60
Frame (AF)		32	50	63
Pole (P)		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
Rated short-circuit breaking capacity [Icu] (kA rms)	Recognition code for order	E S	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
	AC480/500 V	7.5 10	7.5 10 26 35	7.5 10 14 26
	AC440/460 V	16 20	16 20 38 55	16 20 26 30
	AC380/415 V	16 20	16 20 38 55	16 20 26 30
	AC220/240 V	35 50	35 50 85 100	35 50 50 50
	DC250 V (2P)	5 10	5 10 20 30	5 10 15 15
Service breaking capacity [Ics = % Icu]		100 100	100 100 100 100	100 100 75 50
Endurance (Durability)	Mechanical	30,000	30,000	30,000
	Electrical	10,000	10,000	10,000

Trip Device

Thermal	Long time	Fixed	(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
Magnetic	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)
		TDM (LINE only)	● (3P Only)	● (3P Only)	● (3P Only)
		TDF (LINE only)	● (3P Only)	● (3P Only)	● (3P Only)
		TDA (1 row)	● (3P Only)	● (3P Only)	● (3P Only)
		TDA (2 row)	● (2, 3P Only)	● (2, 3P Only)	● (2, 3P Only)
	Cage terminal block	CTB	●	●	●
	Insulation terminal cover	TCF	●	●	●
	Insulation barrier	TQQ	●	●	●
	Terminal extensions	TBB	-	-	-

Installation and Dimensions

Connection/Installation	Front connection	Terminal screw			
	Rear connection	Horizontal/Vertical			
	Plug-in	Switchboard type (Line & Load, Line only), Distribution board type ²⁾			
	DIN rail installation	Possible for using DIN rail adapter	-	Possible for using DIN rail adapter	
Dimensions (mm)	a (2/3/4P)	50/75/100	50/75/100	60/90/120	50/75/100
	b	130	130	155	130
	c	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
Detailed rating and select		122 Page	122 Page	122 Page	122 Page
Characteristics curve and outside view		70 - 80 Page	70 - 80 Page	70 - 80 Page	70 - 80 Page

※ 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.



HGM100				HGM125				HGM160				HGM250			
100				125				160				250			
2, 3, 4 ¹⁾				2, 3, 4 ¹⁾				2 ³⁾ , 3, 4 ¹⁾				2 ³⁾ , 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			
E	S	H	L	E	S	H	L	E	S	H	L	E	S	H	L
2.5	5	7.5	8	5	7.5	8	10	7.5	8	8	10	7.5	8	8	10
7.5	10	14	26	10	14	26	35	14	20	26	35	14	20	26	35
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
35	50	50	50	50	65	85	100	50	65	85	100	50	65	85	100
5	10	15	15	10	15	20	30	10	15	20	30	10	15	20	30
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			
(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			
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, Terminal busbar							
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				-				-				-			
50/75/100				60/90/120				105/105/140				105/105/140			
130				155				165				165			
68				68				68				68			
0.6/0.8/1.0				0.8/1.0/1.3				1.1/1.3/1.7				1.1/1.3/1.7			
122 Page				122 Page				122 Page				122 Page			
70 - 80 Page				70 - 80 Page				70 - 80 Page				70 - 80 Page			

Model Selection Table

MCCB (HGM Type): 400 - 800 AF

Things in Common

Rated Insulation Voltage, U_i	1,000 V
Rated Operational Voltage, U_e	690 V
Impulse Withstand Voltage, U_{imp}	8 kV
Protective Function	Overload, short-circuit and instantaneous protection

Suitability for Isolation	Yes
Utilization Category	A
Pollution Degree	3
Reference Standard	IEC 60947-2

Model			HGM400				HGM630				HGM800			
Frame (AF)			400				630				800			
Pole (P)			2, 3, 4 ¹⁾				2, 3, 4 ¹⁾				2, 3, 4 ¹⁾			
Rated current, at 40 °C (A)			250, 300, 350, 400				500, 630				700, 800			
Rated short-circuit breaking capacity [Icu] (kA rms)	Recognition code for order		E	S	H	L	E	S	H	L	S	H	L	
	AC660/690 V		5	8	10	14	5	8	10	14	8	10	14	
	AC480/500 V		18	35	50	65	25	45	50	65	45	50	65	
	AC440/460 V		38	50	70	85	38	50	70	85	50	70	85	
	AC380/415 V		45	65	85	100	45	65	85	100	65	85	100	
	AC220/240 V		50	75	100	125	50	75	100	125	75	100	125	
DC250 V (2P)			20	25	40	40	20	25	40	40	25	40	40	
Service breaking capacity [Ics = % Icu]			100	100	100	100	100	100	100	100	100	100	100	
Endurance (Durability)	Mechanical		4,000				2,500				2,500			
	Electrical		1,000				500				500			
Trip Device														
Thermal magnetic	Long time [LT]	Fixed	(1.0) x In				(1.0) x In				(1.0) x In			
		Adjustable	(0.63 - 0.8 - 1.0) x In				(0.63 - 0.8 - 1.0) x In				(0.63 - 0.8 - 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 extensions TBB		●				●				●				

Installation and Dimensions					
Connection/Installation	Front connection	Terminal screw	Terminal screw, Terminal busbar		
	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)	140/140/184	210/210/280	210/210/280
		b	257	280	280
		c	110	110	110
Weight (kg)	2/3/4P	4/4.5/5.4	8.7/9.5/12.5	8.7/9.5/12.5	
Detailed rating and select		122 Page	122 Page	122 Page	
Characteristics curve and outside view		70 - 80 Page	70 - 80 Page	70 - 80 Page	

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

²⁾ Plug-in: Applicable only 3P.