

# 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 <sup>1)</sup>				2, 3, 4 <sup>1)</sup>				2, 3, 4 <sup>1)</sup>			
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	
Service breaking capacity [Ics = % Icu]	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	
Endurance (Durability)	Mechanical	4,000				2,500				2,500			
	Electrical	1,000				500				500			

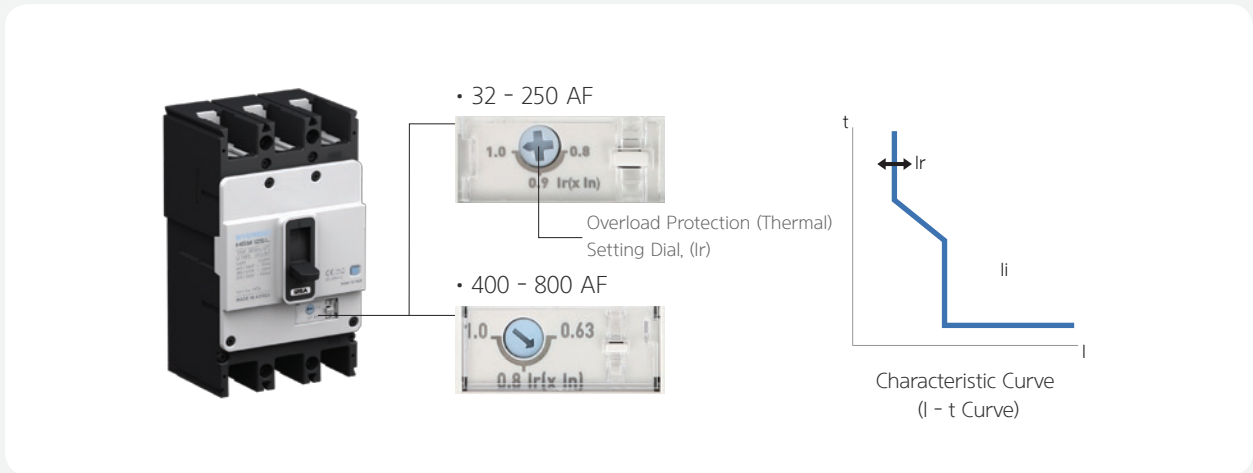
Trip Device			HGM400				HGM630				HGM800			
Thermal magnetic	Long time [LT]	Fixed	(1.0) x In				(1.0) x In				(1.0) x In			
		Adjustable	(0.63 - 0.8 - 1.0) x In				(0.63 - 0.8 - 1.0) x In				(0.63 - 0.8 - 1.0) x In			
		Instantaneous [INST]	10 x In				10 x In				10 x In			

Accessory			HGM400				HGM630				HGM800				
Internal	Auxiliary switch	AUX	●				●				●				
	Alarm switch	ALT	●				●				●				
	Shunt trip	SHT	●				●				●				
	Undervoltage trip	UVT	●				●				●				
External	Rotary handle	Front contact	●				●				●				
		Extended	●				●				●				
	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			HGM400		HGM630		HGM800	
Connection/Installation	Front connection	Terminal screw	Terminal screw		Terminal screw, Terminal busbar			
	Rear connection	Horizontal/Vertical wiring	Horizontal/Vertical wiring		Horizontal/Vertical wiring			
	Plug-in	Switchboard type (Line & Load, Line only) <sup>2)</sup>	Switchboard type (Line & Load, Line only) <sup>2)</sup>		Switchboard type (Line & Load, Line only) <sup>2)</sup>			
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		

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

<sup>2)</sup> Plug-in: Applicable only 3P.



## Trip Unit Characteristics - Thermal Magnetic

Rated Current (A) [In]		16	20	25	32	40	50	63	75	80	100	125
MCCB	HGM30	●	●	●	●							
	HGM50	●	●	●	●	●	●					
	HGM60	●	●	●	●	●	●	●				
	HGM100	●	●	●	●	●	●	●	●	●	●	
	HGM125	●	●	●	●	●	●	●	●	●	●	●
Time Pick-Up Characteristics [Ir]												
Settings (A)	Fixed	16	20	25	32	40	50	63	75	80	100	125
	0.8 x In	12.8	16	20	25.6	32	40	50.4	60	64	80	100
	0.9 x In	14.4	18	22.5	28.8	36	45	56.7	67.5	72	90	112.5
	1.0 x In	16	20	25	32	40	50	63	75	80	100	125
Instantaneous Pick-Up Characteristics [Ii]												
Settings (A)	10 x In		400			400	500	630	750	800	1,000	1,250
	Instantaneous pick-up characteristics (A)		320			320	400	504	600	640	800	1,000
	The minimum operating current (A)		480			480	600	756	900	960	1,200	1,500
Neutral Pole Protection												
4P3D		Unprotected										
4P4D		-										

Rated Current (A) [In]		100	125	150	160	175	200	225	250
MCCB	HGM160	●	●	●	●				
	HGM250	●	●	●	●	●	●	●	●
Time Pick-Up Characteristics [Ir]									
Settings (A)	Fixed	100	125	150	160	175	200	225	250
	0.8 x In	80	100	120	128	140	160	180	200
	0.9 x In	90	112.5	135	144	157.5	180	202.5	225
	1.0 x In	100	125	150	160	175	200	225	250
Instantaneous Pick-Up Characteristics [Ii]									
Settings (A)	10 x In	1,000	1,250	1,500	1,600	1,750	2,000	2,250	2,500
	Instantaneous pick-up characteristics (A)	800	1,000	1,200	1,280	1,400	1,600	1,800	2,000
	The minimum operating current (A)	1,200	1,500	1,800	1,920	2,100	2,400	2,700	3,000
Neutral Pole Protection									
4P3D		Unprotected							
4P4D		-							

Rated Current (A) [In]		250	300	350	400	500	630	700	800
MCCB	HGM400	●	●	●	●				
	HGM630					●	●		
	HGM800							●	●
Time Pick-Up Characteristics [Ir]									
Settings (A)	Fixed	250	300	350	400	500	630	700	800
	0.63 x In	158	189	221	252	315	397	441	504
	0.8 x In	200	240	280	320	400	504	560	640
	1.0 x In	250	300	350	400	500	630	700	800
Instantaneous Pick-Up Characteristics [Ii]									
Settings (A)	10 x In	2,500	3,000	3,500	4,000	5,000	6,300	7,000	8,000
	Instantaneous pick-up characteristics (A)	2,000	2,400	2,800	3,200	4,000	5,040	5,600	6,400
	The minimum operating current (A)	3,000	3,600	4,200	4,800	6,000	7,560	8,400	9,600
Neutral Pole Protection									
4P3D		Unprotected							
4P4D		-							