

Product Selection Guide

EKM8 T - 160 H Z / 3 300 2 A Q1 Q 2

EKM8	T	160	H	
↓	↓	↓	↓	
Product code	Adjustable type	Code of frame size current	Breaking capacity ICU/ICS(kA)	
Moulded-case circuit breaker (MCCB)	T: thermomagnetic adjustable T/A: single adjustable (i.e. thermal adjustable \magnetic fixed)	160,250,400,630,800,1250 Note: 160 is upgraded type of 100 frame 225 is upgraded type of 250 frame 630 is upgraded type of 400 frame	160	36/36 70/70
			250	36/36 70/70
			400	70/70
			630	70/70
			800	70/70
			1250	70/70

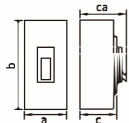
Z	3	300	160
↓	↓	↓	↓
Code of operating mode	Pole number	Code of release type and internal accessory	Rated current (A)
P: electric operation Z: rotary handle W: direct operation ①Electric operation DC1,DC2, DC3	3: 3-pole 4: 4-pole	The first digit represents release type 2: Has instantaneous release only 3: Complex release Note: Later two digits are the code of accessories (see accessory table 1)	160 25,32,40,50,63,80,100,125,160(0.8-1)In 250 125,160,200,250(0.8-1)In 400 250,320,400(0.8-1)In 630 500,630(0.8-1)In

2	A
↓	↓
Application	Code of four-pole product
1: power distribution 2: motor protection	A: N-pole without protection, cannot close or open B: N-pole without protection, can close and open C: N-pole with protection, can close and open D: N-pole with protection, cannot close or open

Q1			D1		Q	2
↓			↓		↓	↓
Accessory voltage			Electric operation voltage		Installation methods	Install wiring board or not
Undervoltage release	Shunt release	Auxiliary alarm	DC1 Electric Operation	DC3 Electric Operation	Q: Front-board H: Back-board C: Plug-in type	1: No 2: Yes
Q1: AC220V	F1: AC220V	J1: AC125V	D1: AC220V	D5: AC230V		
Q2: AC240V	F2: AC380V	J2: AC250V	D2: AC230V	D6: AC110V		
Q3: AC380V	F3: DC110V	J3: DC125V	D3: AC380V	D7: DC220		
Q4: AC415V	F4: DC24V	J4: DC24V	D4: AC400V	D8: DC110		
				D9: AC110-240V		
				D10: DC100-220V		
			Note: Adaptable voltages for two electric operations. Please refer to the introduction of external accessory.			

Main Performance Indexes

Frame current (A)		160	250
Model		EKM8T-160H	EKM8T-250H
Pole number		3, 4	3, 4
Rated current (A)		25, 32, 40, 50, 63, 80, 100, 125A, 160(0.8-1)In	125, 160, 200, 250(0.8-1)In
Rated voltage (V)		AC 690V	AC 690V
Rated insulation voltage (V)		AC1000V	AC1000V
Short-circuit breaking capacity(KA)Icu/Ics	AC400V	36/36 70/70	36/36 70/70
Operating cycle number	Electrical life	1500	1000
	Mechanical life	8500	7000
Outline dim(mm) a-b-c-ca			
	3P	90-155-68-90	105-165-68-92
	4P	120-155-68-90	140-165-68-92
Weight (kg)	3P	1.1	1.35
	4P	1.4	1.75
Electric operating device (MD)			●
External driving operating handle			●
Automatic release		Thermal electromagnetic type	

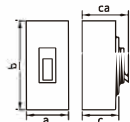


Main Performance Indexes

Frame current (A)		160	250
Model		EKM8T-160H	EKM8T-250H
ISO certificate		ISO 9001	
Environment conditions:			
- Temperature	°C	-10°C to +55°C	
- Humidity		50% at 50°C	
Method of installation		Indoor- fixed	
Method of connection		Front	
Front IP		40	
Pollution degree		III	
Materials of poles		Copper plated with silver	
Poles section	Mm2	70	120
Extensions of poles :			
-Length	Cm	≥ 10	≥ 10
-Material		silver plated	silver plated
-section	Mm2	70	120
Nos of phases		Three phases	
Frequency	Hz	50	
Nominal operation voltage	V	690	
Impulse withstand voltage	KV	8	
Power frequency withstand voltage	KV	3	
Nominal operation current :			
-at 40°C		160	250
-at 50°C		160	250
-at 60°C		0.93In	0.93In
-at 70°C		0.90In	0.86In
ICM	KA	105	
ICU	KA	70	
ICS	KA	100 % ICU	
ICW for one sec	KA	20 for 1sec	
Power losses for one pole In	W	10	18
Operation method		Hand method	
Over all dimensions	Cm	15.5*9*93	16.5*10.5*9.7
Long time delay :			
-Range		(0.8 to 1) In	
-Numbers of steps		2	
Long time delay :			
-Range		8-12In	
-Numbers of steps		2	
Nominal voltage for Shunt trip coil	V	220	
Nominal frequency for Shunt trip coil	Hz	50	
Breaking time	Ms	45	
Closing time	Ms	55	

Main Performance Indexes



Frame current (A)		400	630
Model		EKM8T-400H	EKM8T-630H
Pole number		3, 4	3, 4
Rated current (A)		250, 320, 400(0.8-1)In	500, 630(0.8-1)In
Rated voltage (V)		AC 690V	AC 690V
Rated insulation voltage (V)		AC1000V	AC1000V
Short-circuit breaking capacity(KA)Icu/Ics	AC400V	70/70	70/70
Operating cycle number	Electrical life	1000	1000
	Mechanical life	4000	4000
Outline dim(mm) a-b-c-ca			
	3P	140-257-103-155	140-257-103-155
	4P	185-257-103-155	185-257-103-155
Weight (kg)	3P	4.3	4.65
	4P	5.5	6.3
Electric operating device (MD)			●
External driving operating handle			●
Automatic release		Thermal electromagnetic type	

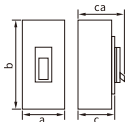


Main Performance Indexes

Frame current (A)		400	630
Model		EKM8T-400H	EKM8T-630H
ISO certificate		ISO 9001	
Environment conditions:			
- Temperature	°C	-10°C to +55°C	
- Humidity		50% at 50°C	
Method of installation		Indoor- fixed	
Method of connection		Front	
Front IP		40	
Pollution degree		III	
Materials of poles		Copper plated with silver	
Poles section	Mm2	240	2*185
Extensions of poles :			
-Length	Cm	≥ 10	≥ 10
-Material		silver plated	silver plated
-section	Mm2	240	2*185
Nos of phases		Three phases	
Frequency	Hz	50	
Nominal operation voltage	V	690	
Impulse withstand voltage	KV	8	
Power frequency withstand voltage	KV	3	
Nominal operation current :			
-at 40°C		400	630
-at 50°C		400	630
-at 60°C		0.95In	0.95In
-at 70°C		0.90In	0.90In
ICM	KA	105	
ICU	KA	70	
ICS	KA	100 % ICU	
ICW for one sec	KA	20 for 1sec	
Power losses for one pole In	W	23	32
Operation method		Hand method	
Over all dimensions	Cm	25.7*14*15.4	25.7*14*15.4
Long time delay :			
-Range		(0.8 to 1) In	
-Numbers of steps		2	
Long time delay :			
-Range		8-12In	
-Numbers of steps		2	
Nominal voltage for Shunt trip coil	V	220	
Nominal frequency for Shunt trip coil	Hz	50	
Breaking time	Ms	45	
Closing time	Ms	55	

Main Performance Indexes

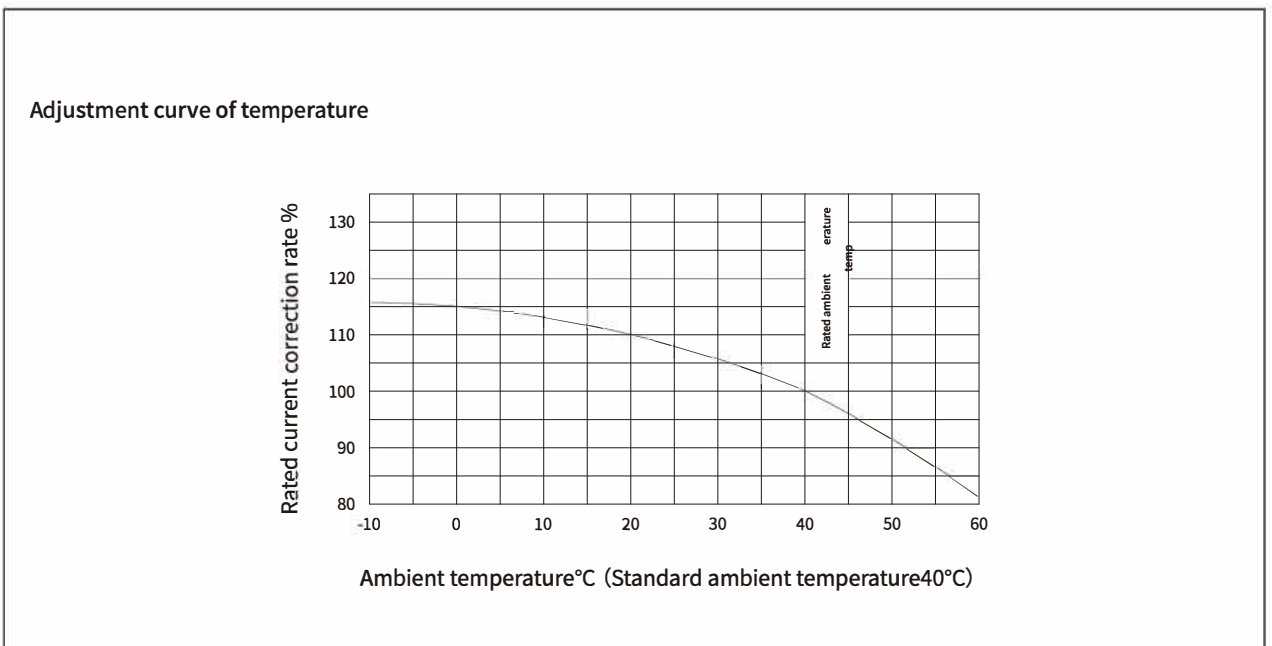
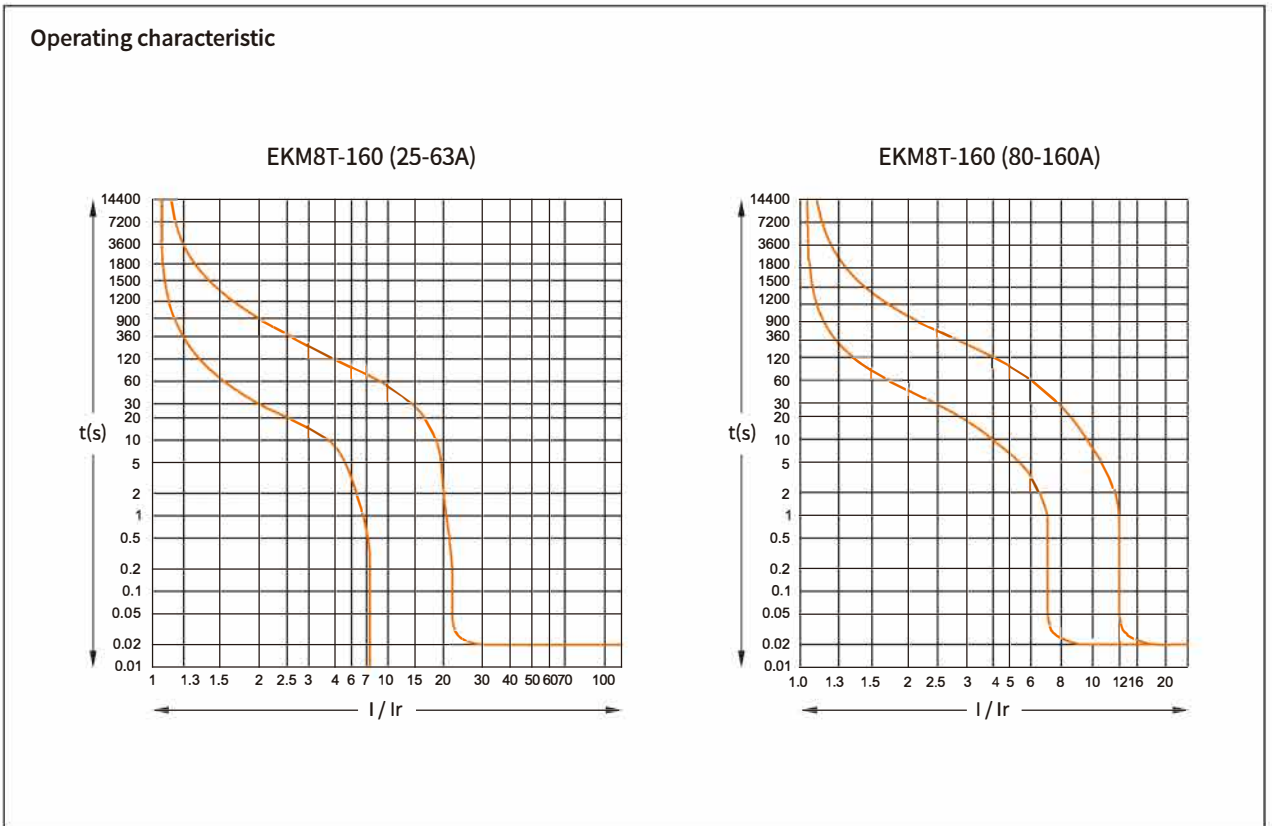
Frame current (A)		800	1250
Model		EKM8T-800H	EKM8T-1250H
Pole number		3, 4	3, 4
			
Rated current (A)		630,700,800A(0.8-1)In	630,700,800,1000,1250A(0.8-1)In
Rated voltage (V)		AC 690V	AC 690V
Rated insulation voltage (V)		AC1000V	AC1000V
Short-circuit breaking capacity(KA)Icu/Ics	AC400V	70/70	70/70
Operating cycle number	Electrical life	500	500
	Mechanical life	2500	2500
Outline dim(mm) a-b-c-ca			
	3P	210-275.5-103-155	210-275.5-103-155
	4P	280-275.5-103-155	280-275.5-103-155
Weight (kg)	3P	9.5	9.5
	4P	12.5	12.5
Electric operating device (MD)		●	
External driving operating handle		●	
Automatic release		Thermal electromagnetic type	



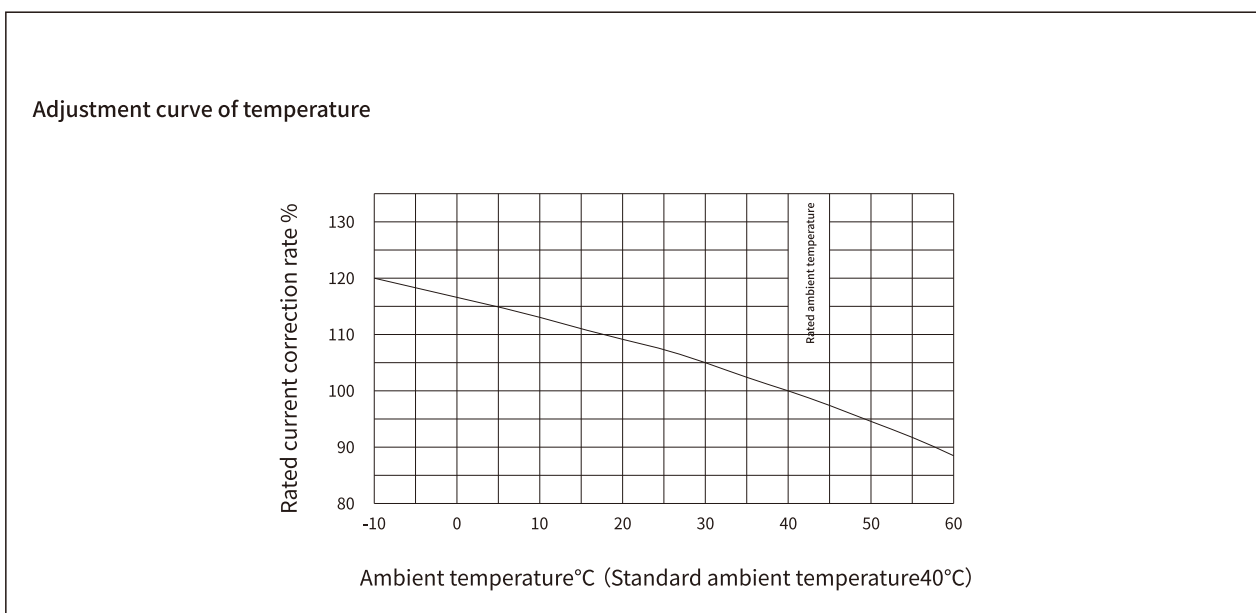
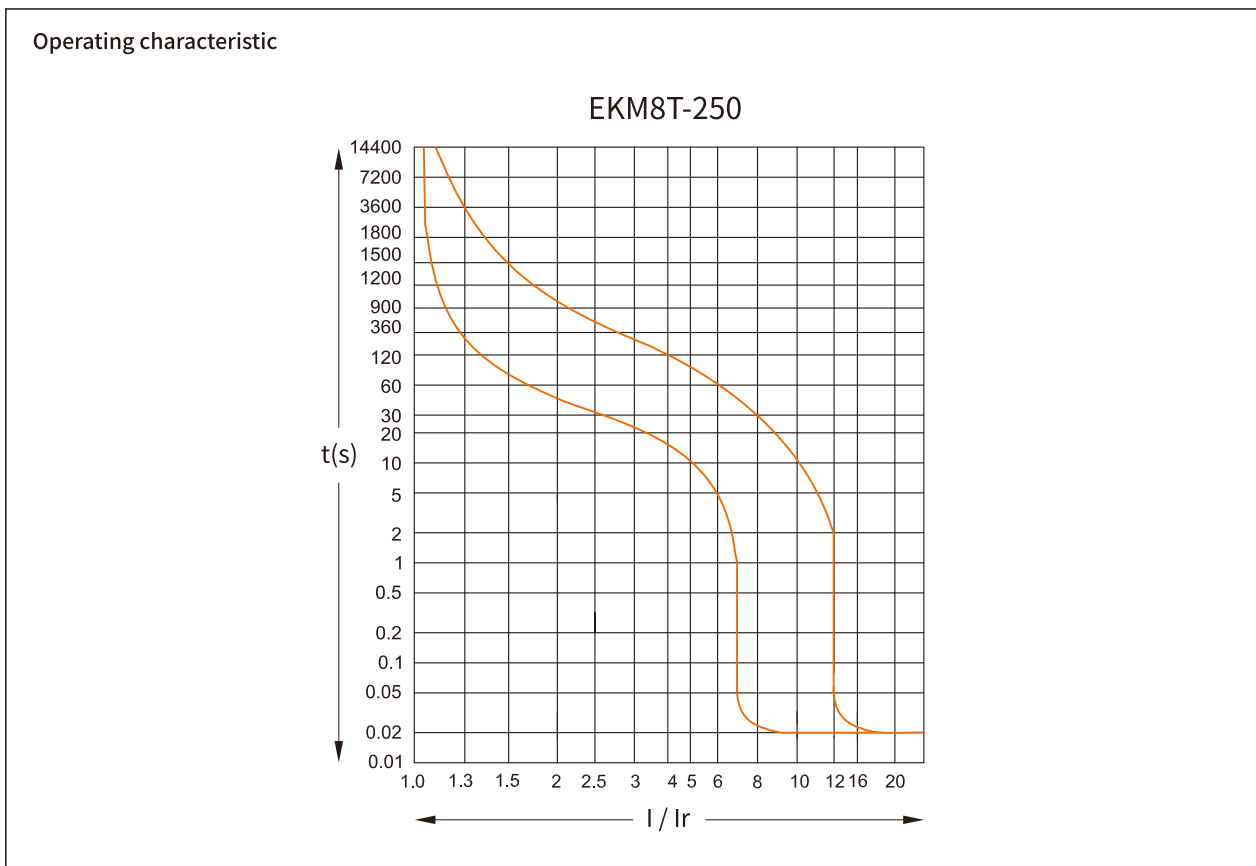
Main Performance Indexes

Frame current (A)		800	1250
Model		EKM8T-800H	EKM8T-1250H
ISO certificate		ISO 9001	
Environment conditions:			
- Temperature	°C	-10°C to +55°C	
- Humidity		50% at 50°C	
Method of installation		Indoor- fixed	
Method of connection		Front	
Front IP		40	
Pollution degree		III	
Materials of poles		Copper plated with silver	
Poles section	Mm2	240	2*185
Extensions of poles :			
-Length	Cm	≥ 10	≥ 10
-Material		silver plated	silver plated
-section	Mm2	240	2*185
Nos of phases		Three phases	
Frequency	Hz	50	
Nominal operation voltage	V	690	
Impulse withstand voltage	KV	8	
Power frequency withstand voltage	KV	3	
Nominal operation current :			
-at 40°C		800	1250
-at 50°C		800	1250
-at 60°C		0.95In	0.95In
-at 70°C		0.90In	0.90In
ICM	KA	105	
ICU	KA	70	
ICS	KA	100 % ICU	
ICW for one sec	KA	20 for 1sec	
Power losses for one pole In	W	23	32
Operation method		Hand method	
Over all dimensions	Cm	25.7*14*15.4	25.7*14*15.4
Long time delay :			
-Range		(0.8 to 1) In	
-Numbers of steps		2	
Long time delay :			
-Range		8-12In	
-Numbers of steps		2	
Nominal voltage for Shunt trip coil	V	220	
Nominal frequency for Shunt trip coil	Hz	50	
Breaking time	Ms	45	
Closing time	Ms	55	

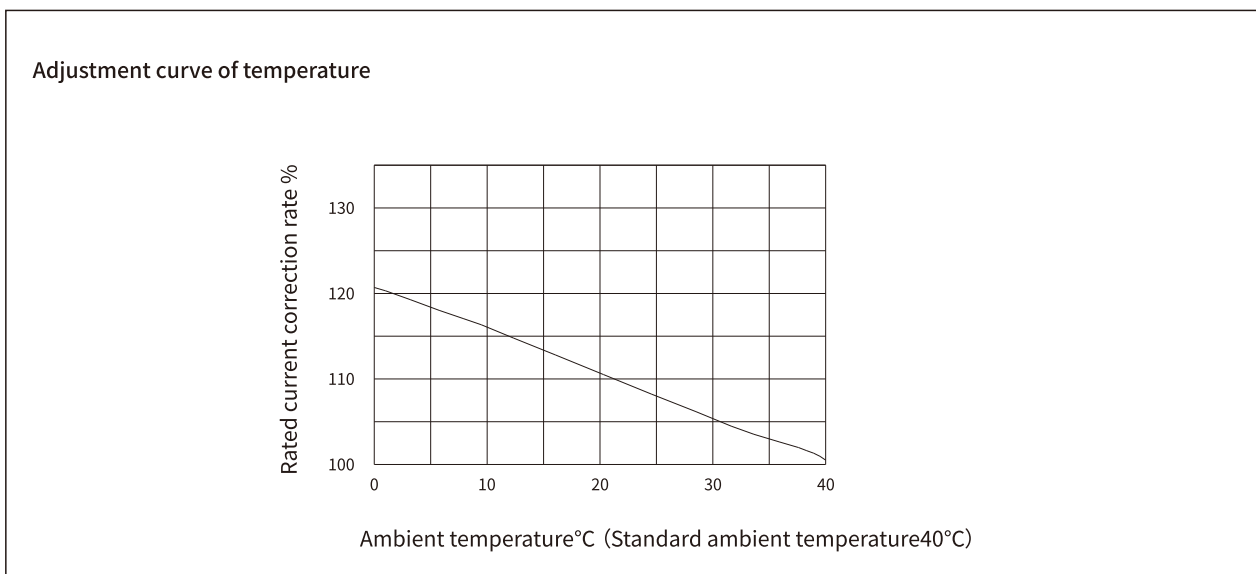
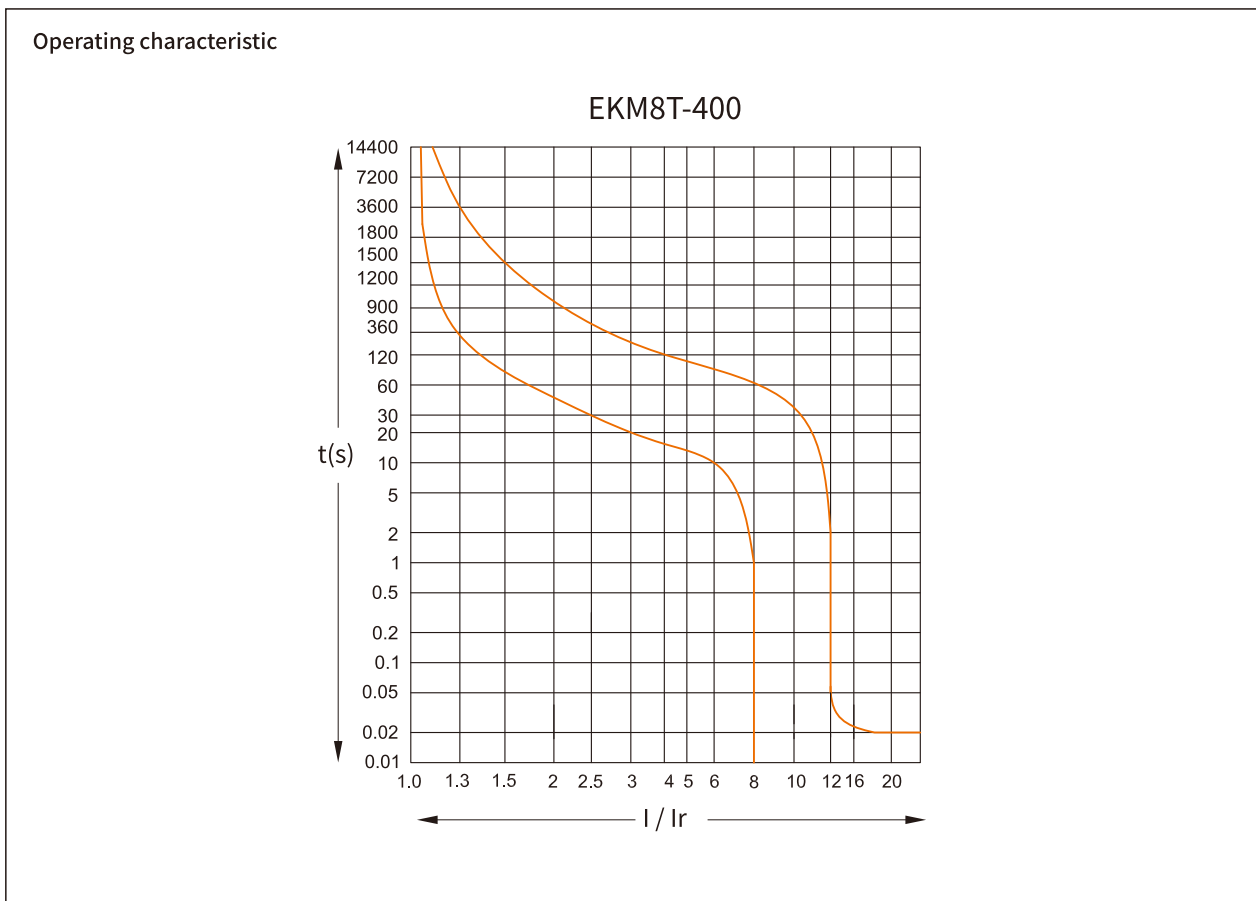
EKM8T-160H Operating characteristic curve



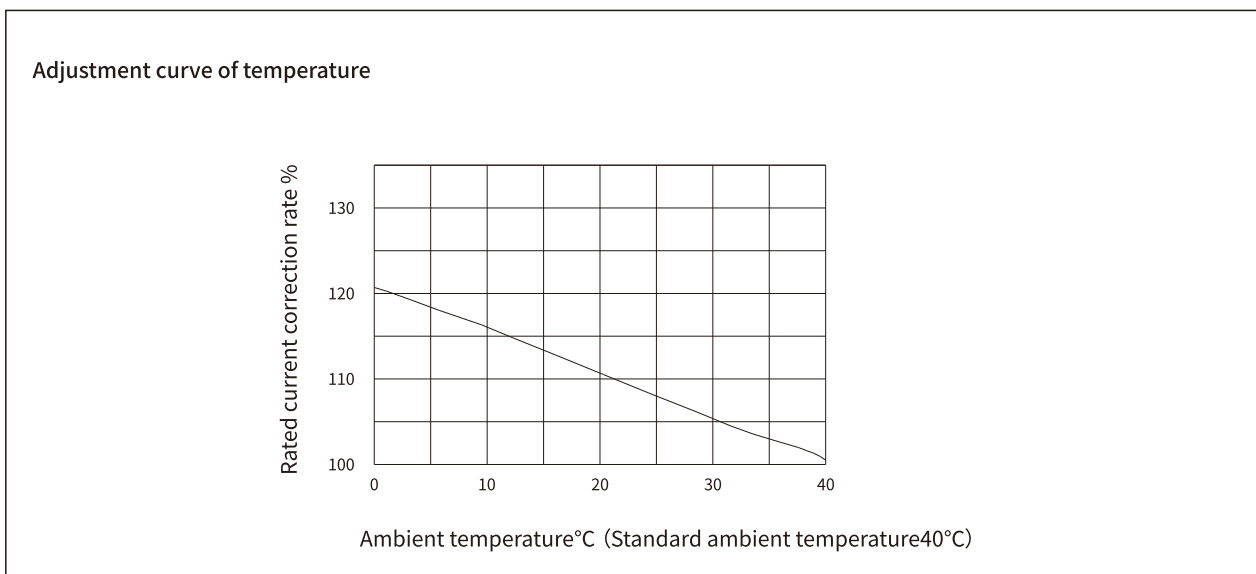
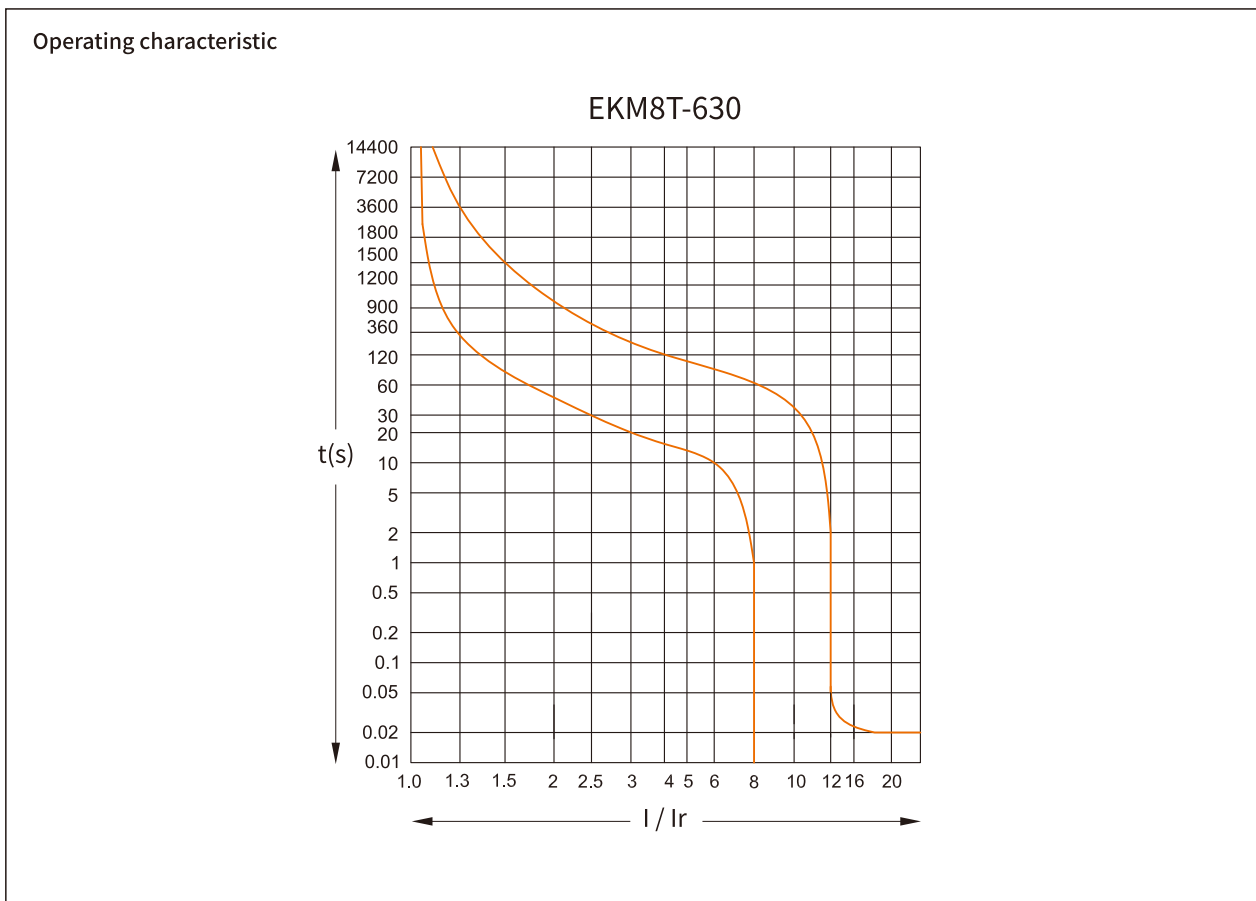
EKM8T-250H Operating characteristic curve



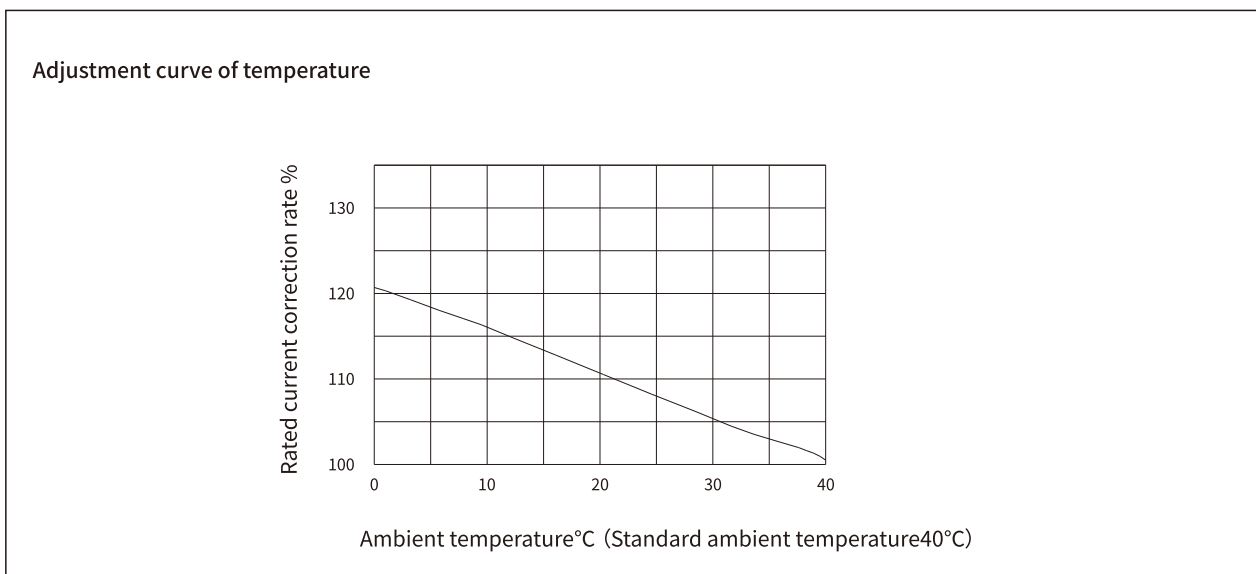
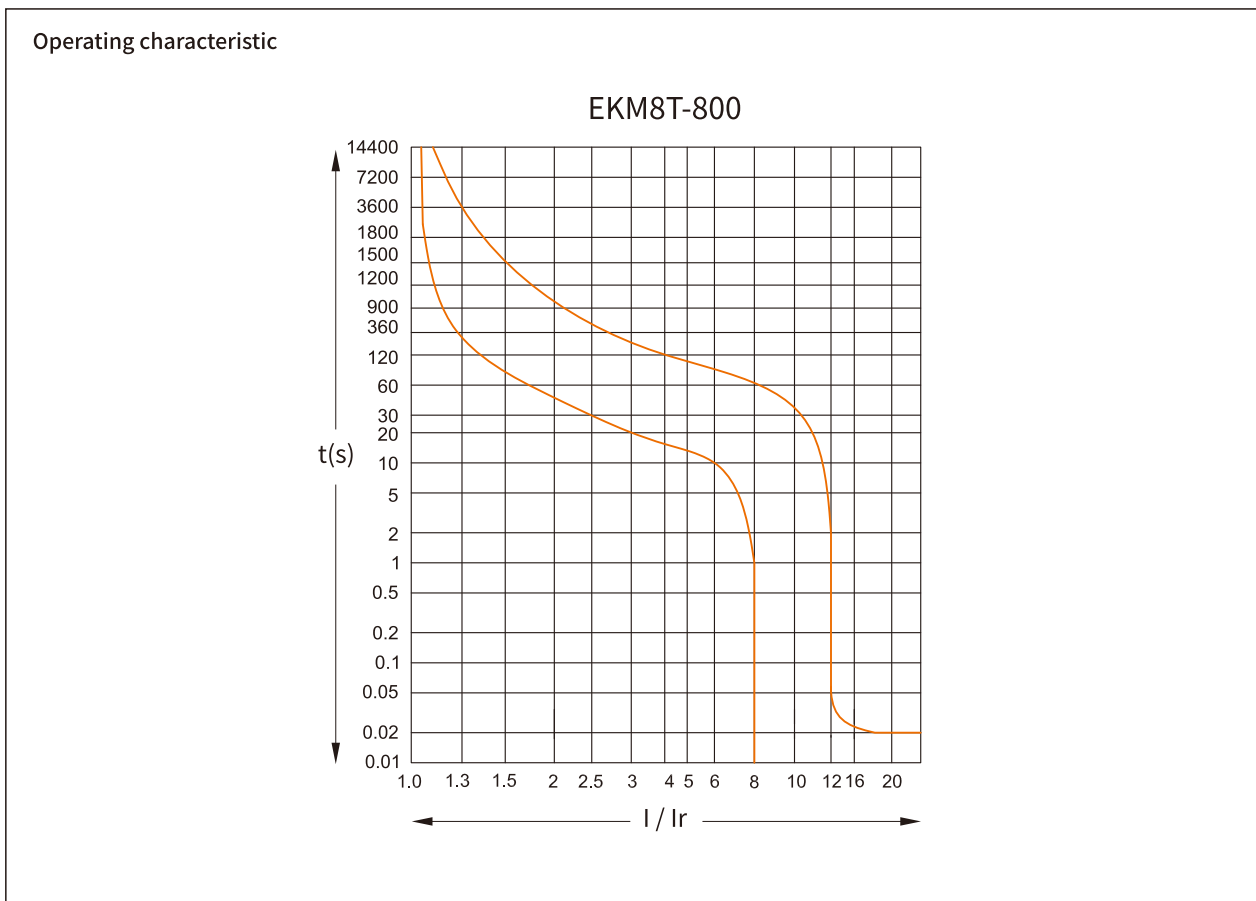
EKM8T-400H Operating characteristic curve



EKM8T-630H Operating characteristic curve



EKM8T-800H Operating characteristic curve



EKM8T-1250H Operating characteristic curve

