

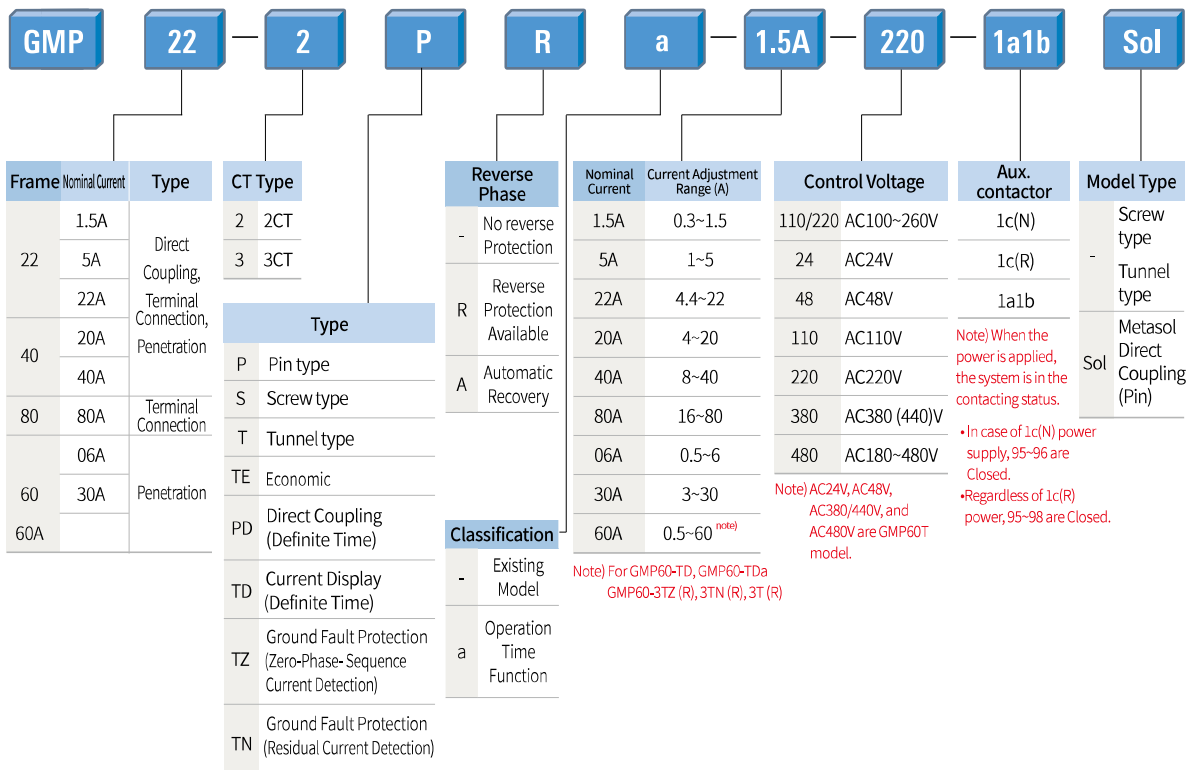
Motor selection & model numbering system

Motor selection

Current	Current setting range (A)	220~240VAC		380~440VAC			
		3-phase motor rating kW (Hp)	Full Load Current for the Motor(A)	3-phase motor rating kW (Hp)	Full Load Current for the Motor(A)	3-phase motor rating kW (Hp)	Full Load Current for the Motor(A)
1.5	0.3-1.5	~0.18	(~0.25)	1.5	0.12~0.55	(~0.75)	1.6
5	1-5	0.18~0.75	(0.25~1)	4.8	0.25~1.5	(0.33~2)	4
22	4.4-22	1.1~4	(1.5~5.5)	18.8	3~7.5	(4~10)	17
20	4-20	0.75~3.7	(1~5)	17.4	2.2~7.5	(3~10)	17
40	8-40	2.2~7.5	(3~10)	34	4~15	(5.5~20)	32.5
80	16-80	4~18.5	(5.5~25)	79	7.5~37	(10~50)	74
06	0.5-6	0.09~0.75	(0.13~1)	4.8	0.12~2.2	(0.13~3)	5.5
30	3-30	0.37~5.5	(0.5~7.5)	26	1.1~11	(1.5~15)	24
60	0.5-60	1.1~11	(1~15)	48	3~22	(4~30)	46.5

Note) The above data can be different depending on a motor degree and a manufacturer. They are the reference values of AC Degree 3 Standard Squirrel Cage Motor.

Model numbering system



GMP22-2P, 2PD 1c



GMP22-2P(1c)
GMP22-2PD(1c)

Specification (Direct type EMPR)

Connection: Accessible electronic contactors	Minimum direct connection with width 44mm : MC-9b, 12b, 18b, 22b
Auxiliary contact	1SPDT 1c (N type) ^{note1)}
Current setting range	0.3~1.5/1~5/4.4~22A
Operating time characteristics	Inverse time, Definite time (PD)
Number of built-in CT (deflector)	2 (R, T phase)
Operating power	AC 110/220V (±10%)
Return (reset) method/time	Manual/Electrical return
Using Inverter Secondary	Available

Type		GMP22-2P (1c) Sol	GMP22-2PD (1c) Sol
Protection	Overcurrent	✓	✓
	Lock/Stall	✓	✓
	Phase failure	✓ ^{note 2)}	✓ ^{note 2)}
Certification	UL, CE	✓	

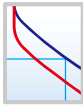

Contactor
MC-9b, 12b, 18b, 22b



Contactor
Direct
connection



Order type

Type	Model/CT	Operating characteristics	Current setting range	Order type
Pin type	GMP22-2P(1c) - 2CT type	Inverse time (0~30sec) 	0.3 - 1.5A	GMP22-2P(1c) 1.5A Sol
			1 - 5A	GMP22-2P(1c) 5A Sol
			4.4 - 22A	GMP22-2P(1c) 22A Sol
			0.3 - 1.5A	GMP22-2P(1c) 1.5A [N]
			1 - 5A	GMP22-2P(1c) 5A [N]
			4.4 - 22A	GMP22-2P(1c) 22A [N]
	GMP22-2PD(1c) - 2CT type	Definite time D-Time : 0~60sec O-Time : 5sec(Fixed) 	0.3 - 1.5A	GMP22-2PD(1c) 1.5A Sol
			1 - 5A	GMP22-2PD(1c) 5A Sol
			4.4 - 22A	GMP22-2PD(1c) 22A Sol
			0.3 - 1.5A	GMP22-2PD(1c) 1.5A [N]
			1 - 5A	GMP22-2PD(1c) 5A [N]
			4.4 - 22A	GMP22-2PD(1c) 22A [N]
			0.3 - 1.5A	GMP22-2PD(1c) 1.5A [R]
			1 - 5A	GMP22-2PD(1c) 5A [R]
			4.4 - 22A	GMP22-2PD(1c) 22A [R]
			0.3 - 1.5A	GMP22-2PD(1c) 1.5A [R]
			1 - 5A	GMP22-2PD(1c) 5A [R]
			4.4 - 22A	GMP22-2PD(1c) 22A [R]

Note) 1. 1c contacts have two types of products: N-type (Fail Safe/Normal Energied) and R-type(Non Fail Safe / Normal De-Energied). In terms of product reliability, N-type (Fail Safe) product is recommended to be used.

2. The product detects phase failure of the phase (R, T) connected with two CTs in order for protection.

Technical information

Installation	Direct connection to contactors (not alone)
Tolerance	Current : ±5% Time : ±5% (or ±0.5sec)
Frequency	50/60Hz
Aux. contact Ratings	5A/250VAC Resistive load
Insulation resistance	Min 100MΩ at 500Vdc
Lightning impulse voltage	1.2×50μs 5kV With standard waveform (IEC1000-4-5)
Fast Transient Burst	2kV/5min (IEC1000-4-4)
Environment	Operation : -25~70°C Storage : -30~80°C Relative humidity : within 80% RH, no condensation
Trip indicator	Red LED
Application specification	UL508, IEC60947-1



Rated specifications & order type

GMP22-□



Pin type
GMP22-□P, PR



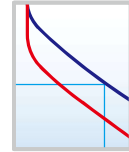
Screw type
GMP22-□S, SR



Tunnel type
GMP22-□T, TR

Specification

Various connection methods : Electronic contactors applied	Pin, Screw, Tunnel type : MC-9b, 12b, 18b, 22b
Auxiliary contact	2SPST (1a1b at energization)
Current setting range	0.3~1.5/1~5/4.4~22A
Operating time characteristics	Inverse time
Number of built-in CT (deflector)	2 (R, Tphase) or 3
Operating power	AC 100~260V
Return (reset) method/time	Manual/Electrical return (Standard) Manual/Auto/Electrical return (2PA)
Using Inverter Secondary	Available (Exclude GMP22-3PR, 3TR, 3SR)






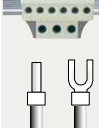

Inverse time

*GMP22-2PA automatically returns within 60 seconds in case of overcurrent.

Type (GMP22-□)	2P, 2PA, 2T, 2S	3P, 3T, 3S	3PR, 3TR, 3SR
Overcurrent	✓	✓	✓
Lock/Stall	✓ <i>note</i>	✓	✓
Protection			
Phase failure	✓	✓	✓
Phase unbalance	-	✓	✓
Reverse phase	-	-	✓
Certification	UL, CE	✓ (Exclude 2PD)	✓

Note The product detects phase failure of the phase (R, T) connected with two CTs in order for protection.

Order type

Mounting type	Model/CT	Current setting range	Order type	
Direct mount onto a Metasol MC 	GMP22-2P (1a1b) -2CT type	0.3 - 1.5A	GMP22-2P(1a1b) 1.5A Sol	
		1 - 5A	GMP22-2P(1a1b) 5A Sol	
		4.4 - 22A	GMP22-2P(1a1b) 22A Sol	
	Electronic contactor MC-9b, 12b, 18b, 22b 	GMP22-2PA (1a1b) -2CT type -Automatic return	0.3 - 1.5A	GMP22-2PA(1a1b) 1.5A Sol
			1-5A	GMP22-2PA(1a1b) 5A Sol
			4.4-22A	GMP22-2PA(1a1b) 22A Sol
	GMP22-3P -3CT type 	GMP22-3P -3CT type	0.3 - 1.5A	GMP22-3P 1.5A Sol
			1 - 5A	GMP22-3P 5A Sol
			4.4 - 22A	GMP22-3P 22A Sol
	GMP22-3PR -3CT type - Reverse phase protection	GMP22-3PR -3CT type - Reverse phase protection	0.3 - 1.5A	GMP22-3PR 1.5A Sol
			1 - 5A	GMP22-3PR 5A Sol
			4.4 - 22A	GMP22-3PR 22A Sol
Screw type 	GMP22-2S -2CT type	0.3 - 1.5A	GMP22-2S 1.5A	
		1 - 5A	GMP22-2S 5A	
		4.4 - 22A	GMP22-2S 22A	
	GMP22-3S -3CT type	GMP22-3S -3CT type	0.3 - 1.5A	GMP22-3S 1.5A
			1-5A	GMP22-3S 5A
			4.4-22A	GMP22-3S 22A
	GMP22-3SR -3CT type - Reverse phase protection	GMP22-3SR -3CT type - Reverse phase protection	0.3 - 1.5A	GMP22-3SR 1.5A
			1 - 5A	GMP22-3SR 5A
			4.4 - 22A	GMP22-3SR 22A
	Tunnel type 	GMP22-2T -2CT type	0.3 - 1.5A	GMP22-2T 1.5A
			1 - 5A	GMP22-2T 5A
			4.4 - 22A	GMP22-2T 22A
GMP22-3T -3CT type		GMP22-3T -3CT type	0.3 - 1.5A	GMP22-3T 1.5A
			1-5A	GMP22-3T 5A
			4.4-22A	GMP22-3T 22A
GMP22-3TR -3CT type - Reverse phase protection		GMP22-3TR -3CT type - Reverse phase protection	0.3 - 1.5A	GMP22-3TR 1.5A
			1 - 5A	GMP22-3TR 5A
			4.4 - 22A	GMP22-3TR 22A

GMP40-□



Pin type
GMP40-□P, PR



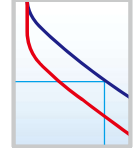
Screw type
GMP40-□S, SR



Tunnel type
GMP40-□T, TR

Specification

Various connection methods : Electronic contactors applied	Pin, Screw, Tunnel type : MC-32a, 40a
Auxiliary contact	2SPST (1a1b at energization)
Current setting range	4~20/8~40A
Operating time characteristics	Inverse time, Definite time (2PD)
Number of built-in CT (deflector)	2 (R, T phase) or 3
Operating power	AC 100~260V
Return (reset) method/time	Manual/Electrical return (Standard) Manual/Auto/Electrical return (2PA)
Using Inverter Secondary	Available (Exclude GMP40-3PR, 3TR, 3SR)



Inverse time

*GMP40-2PA automatically returns within 60 seconds in case of overcurrent.

Type (GMP22-□)	2P, 2PD, 2PA, 2T, 2S	3P, 3T, 3S	3PR, 3TR, 3SR	
Protection	Overcurrent	✓	✓	✓
	Lock/Stall	✓	✓	✓
	Phase failure	✓ <i>note</i>	✓	✓
	Phase unbalance	-	✓	✓
	Reverse phase	-	-	✓
Certification	UL, CE	✓ (Exclude PD, PA)	✓	

Note) The product detects phase failure of the phase (R, T) connected with two CTs in order for protection.

Order type

Mounting type	Model/CT	Current setting range	Order type
Direct mount onto a Metasol MC	GMP40-2P - 2CT type	4 - 20A	GMP40-2P 20A Sol
		8 - 40A	GMP40-2P 40A Sol
	GMP40-2PA - 2CT type - Automatic return	4-20A	GMP40-2PA 20A Sol
		8-40A	GMP40-2PA 40A Sol
	GMP40-2PD - 2CT type - Defined Time characteristics	4-20A	GMP40-2PD 20A Sol
		8-40A	GMP40-2PD 40A Sol
	GMP40-3P - 3CT type	4 - 20A	GMP40-3P 20A Sol
		8 - 40A	GMP40-3P 40A Sol
	GMP40-3PR - 3CT type - Reverse phase protection	4 - 20A	GMP40-3PR 20A Sol
		8 - 40A	GMP40-3PR 40A Sol
Screw type Install Screw/Rail	GMP40-2S - 2CT type	4 - 20A	GMP40-2S 20A
		8 - 40A	GMP40-2S 40A
	GMP40-3S - 3CT type	4 - 20A	GMP40-3S 20A
		8 - 40A	GMP40-3S 40A
	GMP40-3SR - 3CT type - Reverse phase protection	4 - 20A	GMP40-3SR 20A
		8 - 40A	GMP40-3SR 40A
Tunnel type Install Screw/Rail	GMP40-2T - 2CT type	4 - 20A	GMP40-2T 20A
		8 - 40A	GMP40-2T 40A
	GMP40-3T - 3CT type	4 - 20A	GMP40-3T 20A
		8 - 40A	GMP40-3T 40A
	GMP40-3TR - 3CT type - Reverse phase protection	4 - 20A	GMP40-3TR 20A
		8 - 40A	GMP40-3TR 40A

Rated specifications & order type

GMP22/40-□



GMP22



GMP40

Front face configuration

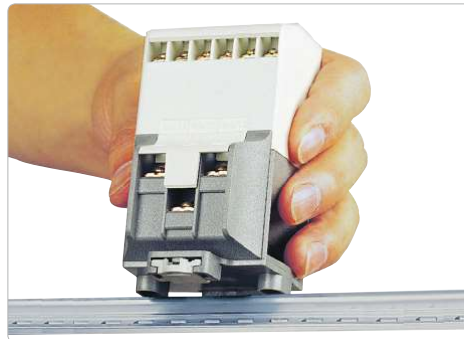
Current setting	
GMP22	GMP40
0.3 - 1.5A	4 - 20A
1 - 5A	8 - 40A
4.4 - 22A	-

LED	
2CT type: Red LED	
3CT type: 2 colors LED (Red/Green)	
Operation status indication	Trip cause indication
normal	Overcurrent
Overcurrent	Phase failure
Phase unbalance (3CT)	Reverse phase (3CT)

Operation time adjustment dial
0~30sec (Class 5-10-20-30)
Set the operating time of inverse time characteristic
Set time is the trip time at 6x set current

*GMP22/40-2PD has the characteristic of definite time.

Sharing of installation and contact



Screw installation ↔ Rail installation sharing
Terminal connection type and penetration type have the common use structure of DIN rail and screw installation.



Terminal connection type ↔ penetration type sharing
If the terminal block of terminal connection type is removed, it is possible to make a penetration type

Technical information

Tolerance	Current : ±5% Time : ±5% (or ±0.5sec)
Frequency	50/60Hz
Aux. contact Ratings	5A/250VAC Resistive load
Insulation resistance	Minimum 100MΩ/500VDC
Lightning impulse voltage	1.2×50μs 5kV With standard waveform (IEC60255-22-5)
Fast Transient Burst	2kV/1min (IEC61000-4-4)
Environment	Operation : -25~70°C Storage : -30~80°C Relative humidity : within 80% RH, no condensation
Trip indicator	2CT : Red LED, 3CT : Red/Green 2 colors LED
Application specification	IEC60947-1

GMP60T



GMP60T

Specification (Tunnel type /Economic type EMPR)

Connection methods	Tunnel type
Auxiliary contact	1SPDT 1c (N type) <i>note 1</i>
Current setting range	0.5-6/3-30/5-60A
Operating time characteristics	Definite time
Number of built-in CT (deflector)	2 (R, T type)
Operating power	AC24V/48V/110V/220V/380V(440) AC180-480V AC110V/220V (GMP60TA)
Return (reset) method/time	Manual/Electrical return (Standard) Manual/Auto/Electrical return (60TA)
Using Inverter Secondary	Available



Definite time

Type (GMP22-□)		GMP60T	GMP60TE	GMP60TA
Protection	Overcurrent	✓	✓	✓
	Lock/Stall	✓	✓	✓
	Phase failure	✓ <i>note 2</i>	✓ <i>note 2</i>	✓ <i>note 2</i>
Operation time setting		0~30sec	5sec (Fixed)	5sec (Fixed)
Auto-return setting		-	-	0~120sec
Certification	UL, CE	✓	✓	-

Note 1. 1c contacts have two types of products: N-type (Fail Safe/Normal Energied) and R-type(Non Fail Safe / Normal De-Energied). In terms of product reliability, N-type (Fail Safe) product is recommended to be used

2. The product detects phase failure of the phase (R, T) connected with two CTs in order for protection.

Order type



If external CT (current transformer) is used, the product is applicable to a large current of 60A or more.

Mounting type	Model/CT	Operating characteristics	Current setting range	Order type
Pin type	GMP60T -2CT type	Defined Time characteristics D-Time : 0~30sec O-Time : 0~15sec	0.5 - 6A	GMP60T 6A
			3 - 30A	GMP60T 30A
			5 - 60A	GMP60T 60A
	GMP60TE -2CT type -Economic type	Defined Time characteristics D-Time : 0~30sec O-Time : 5sec (Fixed)	0.5 - 6A	GMP60TE 6A
			3 - 30A	GMP60TE 30A
			5 - 60A	GMP60TE 60A
	GMP60TA -2CT type -Auto-return	Defined Time characteristics D-Time : 0~30sec O-Time : 5sec (Fixed) A-Time : 0~120sec	0.5 - 6A	GMP60TA 6A
			3 - 30A	GMP60TA 30A
			5 - 60A	GMP60TA 60A

*Auto Reset: applicable only at Overcurrent Trip

Technical information

Install	Screw / rail mounting
Tolerance	Current : $\pm 5\%$ Time : $\pm 5\%$ (or $\pm 0.5\text{sec}$)
Frequency	50/60Hz
Aux. contact Ratings	5A/250VAC Resistive load
Insulation resistance	Minimum 100M Ω /500VDC
Lightning impulse voltage	1.2 \times 50 μs 5kV With standard waveform (IEC60255-22-5)
Fast Transient Burst	2kV/1min (IEC61000-4-4)
Environment	Operation : -25~70°C Storage : -30~80°C Relative humidity : within 80% RH, no condensation
Trip indicator	Red LED
Application specification	IEC60947-1

Rated specifications & order type

GMP6-TD, TDa



GMP6-TD
GMP6-TDa

Specification (Tunnel type/3-phase current indication type EMPR)

Connection methods	Tunnel type
Auxiliary contact	2SPST (1a1b at energization)
Current setting range	0.5-60A
Current Ratio	0.25, 0.5, 1~120 (0.125~600A)
Operating time characteristics	Definite time
Number of built-in CT (deflector)	2 (R, T type)
Operating power	AC 110V/220V (Separate)
Return (reset) method/time	Manual (GMP60-TD) Manual/Auto (GMP60-TDa)
Using Inverter Secondary	Available



Definite time

Type	GMP60-TD	GMP60-TDa
Protection	Overcurrent	✓
	Lock/Stall	✓
	Phase failure	✓ <i>note)</i>
	Low current	✓
Auto-return setting	-	✓
Operation time setting	-	✓
Save the last fault cause	-	✓

Note) The product detects phase failure of the phase (R, T) connected with two CTs in order for protection.



Current control range by
Rated Current Setting DIP S/W:
0.5A~60A

Order type

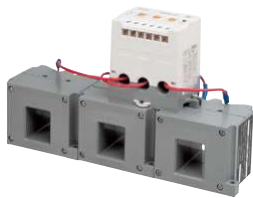
Mounting type	Model/CT	Operating characteristics	Current setting range	Order type
Tunnel type Screw / rail mounting	GMP60-TD - 2CT type	Defined Time characteristics D-Time : 1~60sec O-Time : 0.5~30sec	0.5 - 60A	GMP60-TD 6/60A
	GMP60-TDa - 2CT type - Low Current Protection - Auto-return	Defined Time characteristics D-Time : 1~60sec O-Time : 0.5~30sec A-Time : 1~20min	0.5 - 60A	GMP60-TDa 6/60A

Technical information

Install	Screw / rail mounting
Tolerance	Current : ±5% Time : ±5% (or ±0.5sec)
Frequency	50/60Hz
Aux. contact Ratings	5A/250VAC Resistive load
Insulation resistance	Minimum 100MΩ/500VDC
Lightning impulse voltage	1.2×50μs 5kV With standard waveform
Fast Transient Burst	2kV/1min
Environment	Operation : -25~70°C Storage : -30~80°C Relative humidity : within 80% RH, no condensation
Trip indicator	7-Segment, 3-phase current value, trip cause
Application specification	IEC60947-1

GMP60-3T
GMP60-3TR

Terminal Block



If external CT (current transformer) is used, the product is applicable to a large current of 60A or more.

Specification (Tunnel type / Screw type EMPR)

Connection methods	Tunnel type / Screw type
Auxiliary contact	2SPST (1a1b at energization)
Current setting range	0.5-60A
Operating time characteristics	Definite time
Number of built-in CT (deflector)	3
Operating power	AC 100-260V
Return (reset) method/time	Manual/Electrical return
Using Inverter Secondary	Available (Exclude GMP60-3TR)



Definite time

Type	GMP60-3T, 3S	GMP60-3TR, 3SR
Protection	Overcurrent	✓
	Lock/Stall	✓
	Phase failure	✓
	Phase unbalance	✓
	Reverse phase	✓
Save the last fault cause	✓	✓

* To use a terminal connection type (Screw Type), please purchase a terminal block separately.

Order type

Mounting type	Model/CT	Operating characteristics	Current setting range	Order type
Tunnel type Screw / rail mounting	GMP60-3T - 3CT type	Defined Time characteristics D-Time : 0.2-60sec O-Time : 0.2-15sec	0.5-60A	GMP60-3T 6/60A
	GMP60-TR - 3CT type - Reverse phase protection	Defined Time characteristics D-Time : 0.2-60sec O-Time : 0.2-15sec	0.5-60A	GMP60-3TR 6/60A
Screw type Screw / rail mounting	GMP60-3S - 3CT type	Defined Time characteristics D-Time : 0.2-60sec O-Time : 0.2-15sec	0.5-60A	Please order a penetration type and a terminal block separately and assemble them before use.
	GMP60-3SR - 3CT type - Reverse phase protection	Defined Time characteristics D-Time : 0.2-60sec O-Time : 0.2-15sec	0.5-60A	

Technical information

Install	Screw / rail mounting
Tolerance	Current : $\pm 5\%$ Time : $\pm 5\%$ (or $\pm 0.5\text{sec}$)
Frequency	50/60Hz
Aux. contact Ratings	5A/250VAC Resistive load
Insulation resistance	Minimum 100M Ω /500VDC
Lightning impulse voltage	1.2 \times 50 μs 5kV With standard waveform (IEC60255-22-5)
Fast Transient Burst	2kV/1min (IEC61000-4-4)
Environment	Operation : -25-70°C Storage : -30-80°C Relative humidity : within 80% RH, no condensation
Trip indicator	Red / Green 2 colors LED, Red LED
Application specification	IEC60947-1

Rated specifications & order type

GMP60-3TZ/3TZR, 3TN/3TNR, 3SZ/3SZR, 3SN/3SNR



GMP60-3TZ, 3TZR
GMP60-3TN, 3TNR

Specification (Ground fault protection EMPR)

Connection methods	Tunnel type / Screw type
Auxiliary contact	2SPST (1a1b at energization)
Current setting range	0.5-60A
Operating time characteristics	Definite time
Number of built-in CT (deflector)	3
Operating power	AC 100~260V
Return (reset) method/time	Manual/Electrical return
Definite time characteristics	D-Time : 0.2~60sec O-Time : 3sec
Using Inverter Secondary	Available (Exclude GMP60-3TZR, 3TNR) <i>note</i>



Definite time

Note) If inverter load has an error, turn OFF ground fault function.

Type	GMP60-3TZ, 3TN	GMP60-3TZR, 3TNR
Overcurrent	✓	✓
Lock/Stall	✓	✓
Phase failure	✓	✓
Phase unbalance	✓	✓
Ground Fault	✓	✓
Reverse phase	-	✓
Save the last fault cause	✓	✓

Order type

Mounting type	Model/CT	Operating characteristics	Current setting range	Order type
Tunnel type Screw / rail mounting	Zero phase current detection (0.1~2.5A) (Separate ZCT required)	GMP60-3TZ	0.5 - 60A	GMP60-3TZ 6/60A
		GMP60-3TZR - Reverse phase protection	0.5 - 60A	GMP60-3TZR 6/60A
	Residual current detection (0.5-6A)	GMP60-3TN	0.5 - 60A	GMP60-3TN 6/60A
		GMP60-3TNR - Reverse phase protection	0.5 - 60A	GMP60-3TNR 6/60A
Tunnel type Screw / rail mounting	Zero phase current detection(0.1~2.5A) (Separate ZCT required)	GMP60-3SZ	0.5 - 60A	GMP60-3SZ 6/60A
		GMP60-3SZR - Reverse phase protection	0.5 - 60A	GMP60-3SZR 6/60A
	Residual current detection(0.5-6A)	GMP60-3SN	0.5 - 60A	GMP60-3SN 6/60A
		GMP60-3SNR - Reverse phase protection	0.5 - 60A	GMP60-3SNR 6/60A

Note) 1. In case of terminal connection type, please order a penetration type and a terminal block separately and assemble them before use.

2. In case of ZCT, use ZCT (100mA/40-55mV) for EMPR only.

Technical information

Install	Screw / rail mounting
Tolerance	Current : ±5% Time : ±5% (or ±0.5sec)
Frequency	50/60Hz
Aux. contact Ratings	5A/250VAC Resistive load
Insulation resistance	Minimum 100MΩ/500VDC
Lightning impulse voltage	1.2×50μs 5kV With standard waveform (IEC60255-22-5)
Fast Transient Burst	2kV/1min (IEC61000-4-4)
Environment	Operation : -25~70°C Storage : -30~80°C Relative humidity : within 80% RH, no condensation
Trip indicator	Red / Green 2 colors LED, Red LED
Application specification	IEC 61000, IEC60947-1

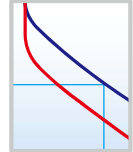
GMP80



GMP80

Specification

Connection methods	Screw type (No direct connection with Metasol MC)
Auxiliary contact	2SPST (1a1b at energization)
Current setting range	16-80A
Operating time characteristics	Inverse-time
Number of built-in CT (deflector)	2 (R, T type) or 3
Operating power	AC 100-260V
Return (reset) method/time	Manual/Electrical return (Standard) Manual/Auto/Electrical return (GMP80-2SA)
Using Inverter Secondary	Available (Exclude GMP80-3SR)



Inverse-time

Model numbering	GMP80-2S	GMP80-2SA	GMP80-3S	GMP80-3SR
Overcurrent	✓	✓	✓	✓
Locked rotor	✓	✓	✓	✓
Phase loss	✓ <i>note</i>	✓ <i>note</i>	✓	✓
Phase unbalance	-	-	✓	✓
Reverse phase	-	-	-	✓
Certification	UL, CE	-	✓	✓

Note) The product detects phase failure of the phase (R, T) connected with two CTs in order for protection.

Order type



Mount/Connection	Model numbering system / CT	Setting range	Catalog No.
Screw type Screw / rail mounting	GMP80-2S - 2CT	16 - 80A	GMP80-2S 80A
	GMP80-2SA - 2CT - Automatic return	16 - 80A	GMP80-2SA 80A
	GMP80-3S - 3CT	16 - 80A	GMP80-3S 80A
	GMP80-3SR - 3CT - Reverse phase protection	16 - 80A	GMP80-3SR 80A

Rated specifications

Tolerance	Current : $\pm 5\%$ Time : $\pm 5\%$ (or $\pm 0.5\text{sec}$)
Frequency	50/60Hz
Aux. contact Ratings	5A/250VAC Resistive load
Insulation resistance	Min 100M Ω at 500V DC
Lightning impulse voltage	1.2 \times 50 μs 5kV With standard waveform (IEC60255-22-5)
Fast Transient Burst	2kV/1min (IEC61000-4-4)
Environment	Operation : -25~70°C Storage : -30~80°C Relative humidity : within 80% RH, no condensation
Trip indicator	Red LED (2CT : 1, 3CT : 2)
Application specification	UL508, IEC60947-1