

Introduction of New Product

GIPAM-10

Features

- Easy installation and simple parameter setting.
 - Reliable, high-quality response for your network protection applications.
 - Carefully designed and robustly manufactured to work in a severe environment providing the essential protection functions
 - In addition to its protection function, GIPAM-10 Series provide accurate measurement and monitoring information necessary for efficient maintenance and post-fault analysis.
- Digital protective relay with the function of protection, monitoring, analyzing, communication and user interface.
 - Fault recording
 - Setting relay elements and analyzing fault records are convenient.
 - Event records : saving max. 32events
 - Fault records : recording the quantity of electricity and the relay elements activated at the moment of fault
 - Wave records : recording 30Cycle, 32Sample/Cycle with DIO operation status
 - PC Manager is easy to analyze various faults.
 - CU Type : 50/51, 50N/51N, 46 - VO Type : 27, 59, 47P, 64
 - CR Type : 50/51, 50N/51N, 46, 79 - NZ Type : 67N, 67G, 64



■ Ratings

Type		Specification
Input	Voltage	PT: 110V(Max. 0.5VA) GPT: 190, 190/√3V
	Current	CT: 1A, 5A(Max. 10VA), ZCT: 1.5mA
Output	Control voltage	AC/DC 110/220V(Max. 30W)
	Digital input	Digital Input, AC/DC 110V
	For power	AC250V 16A/ DC30V 16A, Resistive Load
	For alarm	AC250V 5A/ DC30V 5A, Resistive Load
Insulation Resistance		Over DC 500V 100MΩ
Insulation Voltage		AC 2kV (1kV)/for 1 min
Impulse Voltage		AC 5kV (3kV) Over 1.2μs
Overload withstand		2 In for 3 hours, 20 In for 2 seconds
Fast Transient Disturbance		Power Input 4kV, Other Input 2kV
Electrostatic Discharge		Air 8kV, Contact 6kV
Operation / Storage temperature		-10℃~55℃ (14°F~131°F)/-25℃~70℃ (-13°F~158°F)
Humidity		30% ~ 80%
Others		1000m and below, Non-impact place Non-air pollution place
Standard		IEC 60255, KEMC 1120
Weight		3 kg

■ Protection Functions Overview

Type	Function	Device No.	GIPAM-10CU	GIPAM-10CR	GIPAM-10VO	GIPAM-10NZ
Protection	OCR	50/51	●	●	-	-
	OCGR	50/51N	●	●	-	-
	NSOCR	46	●	●	-	-
	Reclosing	79	-	●	-	-
	OVR	59	-	-	●	-
	UVR	27	-	-	●	-
	POR	47P	-	-	●	-
	OVGR	64	-	-	●	●
	SGR	67G	-	-	-	●
Control & Supervision	DGR	67N	-	-	-	●
	Latching	86	●	●	●	●
	Trip Indication		●	●	●	●
	Event Recording				32 EA	
	Fault Recording				32 EA	
Communication	Wave Recording				4 EA (32 Samples/Cycle × 30 Cycle)	
	Modbus		●	●	●	●
Inputs/Outputs	Binary Input				5 EA	
	Binary Output				4 EA (2: Power, 2: Alarm)	
PC Interface	USB mini B		●	●	●	●

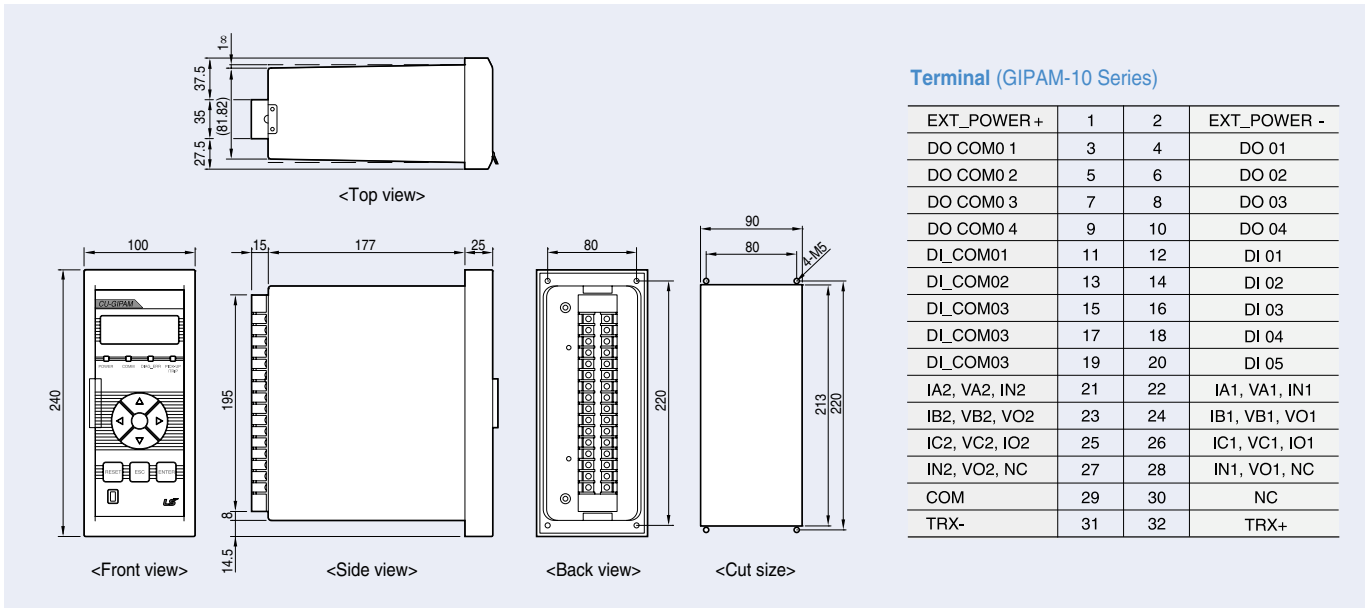
■ Measurement

Measurement	Display range	Accuracy	Applicable models
Phase voltage (V)	0.000V ~ 999.999kV	±0.5(%) at Vn ±0.5(%) or ±1(V) at Other Voltage range	GIPAM-10VO
Line voltage (V)	0.000V ~ 999.999kV	The entire range of measurement ±0.5(%) or ±1(V)	GIPAM-10VO
Zero Phase voltage (Vo)	0.000V ~ 999.999kV	The entire range of measurement ±0.5(%) or ±1(V)	GIPAM-10VO/10NZ
Phase current (A)	0.000A ~ 999.999kA	±0.5(%) at In. ±0.5(%) or ±0.05(V) (5A rating), ±0.001A(1A rating) at Other Current range	GIPAM-10CU/10CR
Zero Phase current (In/Io)	0.000A ~ 999.999kA	±0.5(%) at In. ±0.5(%) or ±0.05(V) (5A rating), ±0.001A(1A rating)	GIPAM-10NZ
Reverse Phase voltage (V2)	0.000V ~ 999.999kV	±0.5(%) at In. ±0.5(%) or ±0.05(V) (5A rating), ±0.001A(1A rating)	GIPAM-10VO

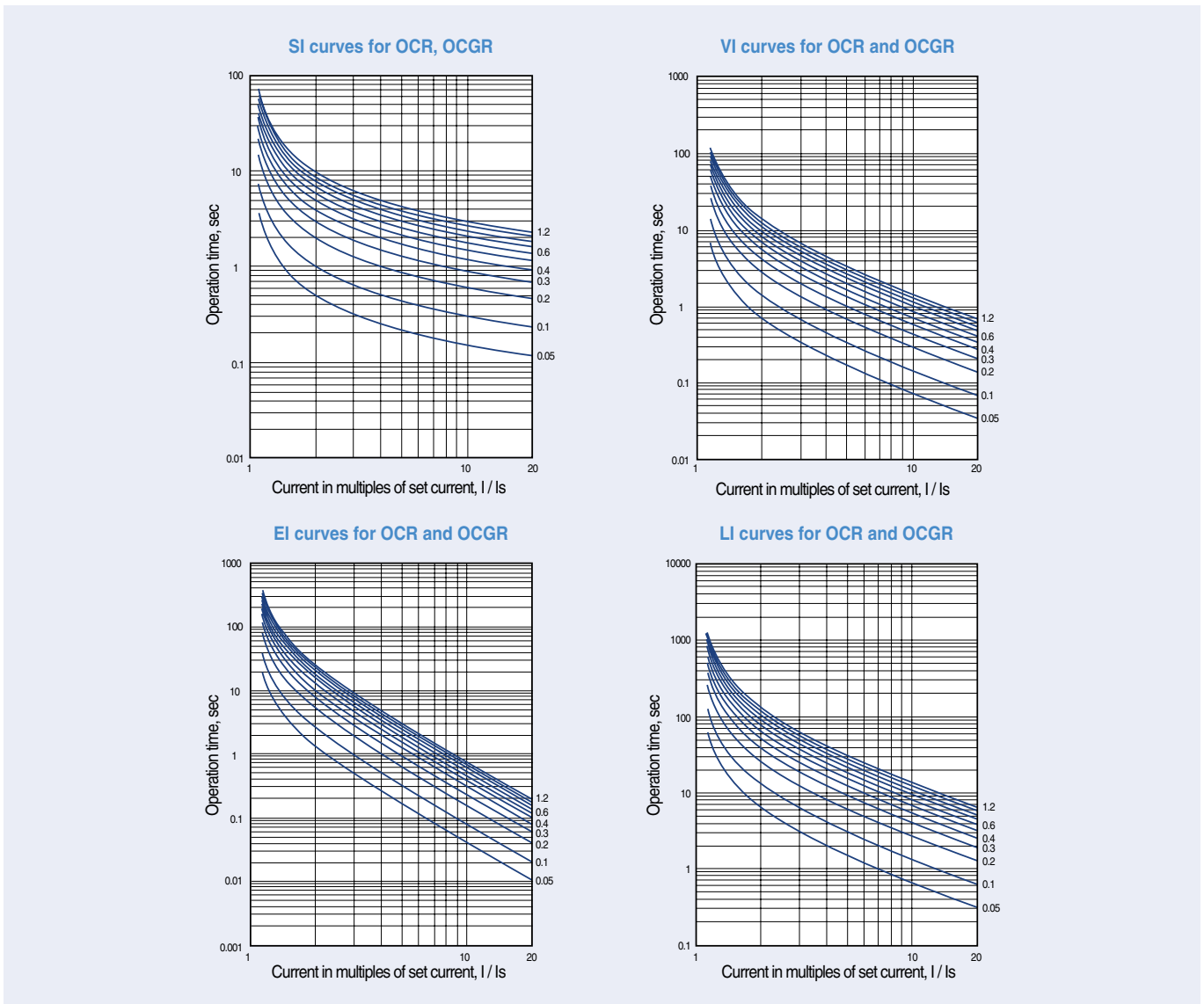
■ Operating

Protective Function	Setting Range	Operating Time (sec)	Curves
Inst. OCR (50)	CT 5A : OFF, 5~100/1A CT 1A : OFF, 1~20/1A	0.04~60.0/0.01s	
Time OCR (51)	CT 5A : OFF, 1~12/0.1A CT 1A : OFF, 0.2~2.4/0.1A	0.05~1.2/0.1s (SI, VI, EI, LI), 0.10~60.0/0.01s (DT)	DT, SI, VI, EI, LI
Inst. OCGR (50N)	CT 5A : OFF, 2.5~40/0.1A CT 1A : OFF, 0.5~8/0.1A	0.04~60.0/0.01s (Block Time : 0.1~60.0sec/0.1)	
Time OCGR (51N)	CT 5A : OFF, 0.5~5/0.1A CT 1A : OFF, 0.1~1.0/0.1A	0.10~60.0/0.01s	DT, SI, VI, EI, LI
NSOCR (46)	CT 5A : OFF, 0.5~5/0.1A CT 1A : OFF, 0.1~1.0/0.1A	0.10~60.0/0.02s	
Auto-reclosure (79)	Number of auto-reclosures : Up to 4 1st~4th Shot Delay : OFF, 0.1~200/0.01s Reclaim Time, Prepare Time : 0.1~200/0.01		
UVR (27)	Operating Mode : 3Phases OR 3Phases AND Pickup : 10~110/1V	0.10~60.0/0.01s	
OVR (59)	Pickup : 60~160/1V	0.10~60.0/0.01s	
OVGR (64)	Pickup : 10~110/1V	0.10~60.0/0.01s	
Overvoltage (47P)	Pickup : 5%~100%/1%	0.10~60.0/0.01s	
SGR (67G)	Pickup (Io) : 0.9~6.0/0.1mA	0.10~60.0/0.01s	
	Pickup (Vo) : 10~80/1V		
	Angle : 0~90/1°		
DGR (67N)	Pickup (In)	0.10~60.0/0.01s	
	CT 5A : 0.5~5.0/0.1A CT 1A : 0.1~1.0/0.1A		
	Pickup (Vo) : 10~80/1V		
	Angle : 0~9°/1°		

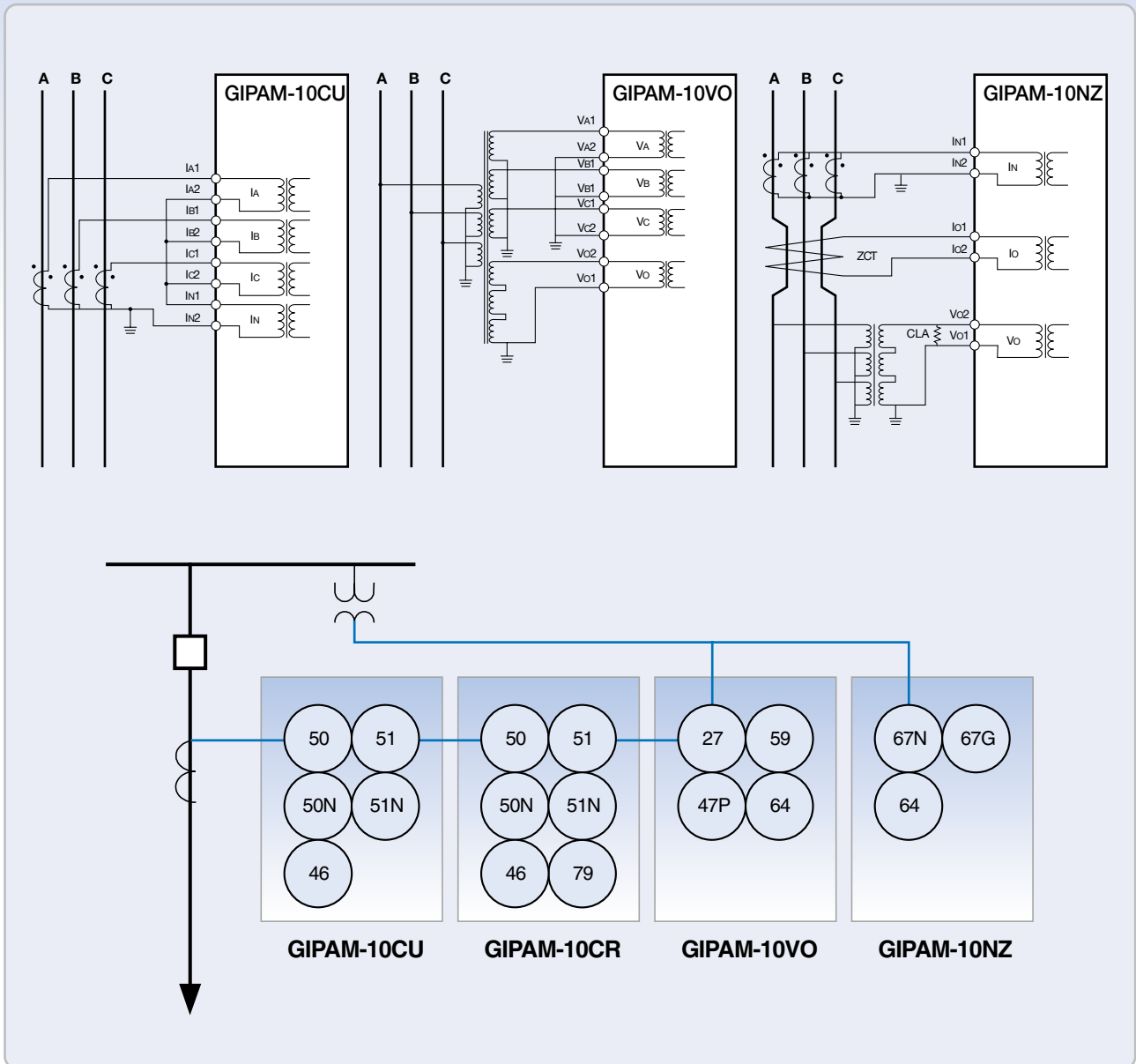
Dimension (mm)



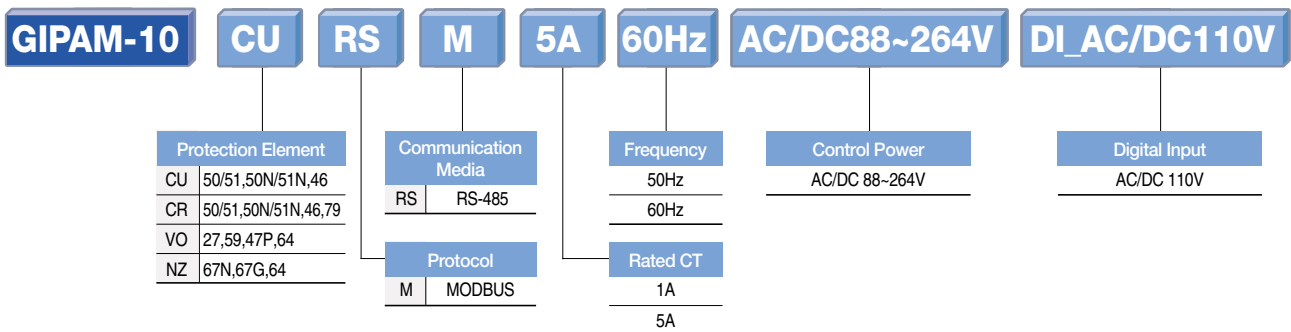
Characteristic Curves



Wiring



Odering



LS constantly endeavor to improve our products so that information in this catalog is subject to change without notice.

HEAD OFFICE

LS Tower 1026-6, Hoge-dong, Dongan-gu, Anyang-si, Gyeonggi-do
431-848, Korea
Tel. (82-2)2034-4901, 4376, 4645 Fax. (82-2)2034-4648