



VERITEK

LCD Current Relay



VIPS-AT LD



TEST CERTIFICATE

Type : **LCD Current Relay (VIPS-AT LD)**

Nominal Current In : 0.2A to 6Amps

Accuracy : Class 1

Aux. Supply
90 - 270V AC/DC, 50/60Hz

Range : 0.2A to 6Amps

Accuracy Test :

Tripping Observed Between $\pm 1\%$ of set value

Found OK

Note :

A) For Digital Readouts the error is Computed in Counts.

- Class 1.0 $\pm 1\%$ of Full Scale ± 1 Count

- Class 0.5 $\pm 0.5\%$ of Full Scale ± 1 Count

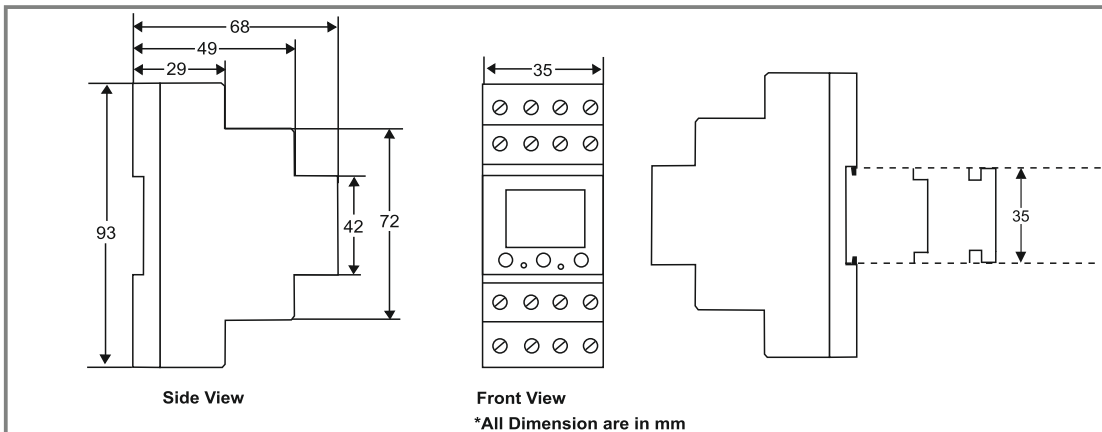
Tested By : Mr. Devendra Chaurasiya

VERITEK ENGINEERING PVT. LTD.

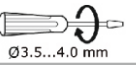
Plot No. 222, EL-Electronic Zone, MIDC, TTC Industrial Area,
Mahape, Navi Mumbai - 400701, India
Tel.: +91-86557 47987

Email : sales@veritekindia.com | Web : www.veritekindia.com

MECHANICAL DIMENSION



TERMINAL DETAILS

 Ø3.5...4.0 mm	0.6 N.m (6 Lb.in) Terminal Screw - M3
	1 x 0.8..4 mm ² Solid / Stranded Wire
AWG	1 x 18 to 10

APPLICATION

Generator Control Panel

Distribution Control Panel

Protection Control Panel

FEATURES

- (1) Current Display (Auto Ranging)
- (2) User Settable Trip Level and Time Delay
- (3) Password Protection
- (4) Bar graph display in percentage of Full scale
- (5) Two Relays
- (6) Auto / Manual Reset User Programmable
- (7) Power ON Delay User Programmable
- (8) User Programmable Auto Reset Time in case of Auto Reset Mode

SPECIFICATION

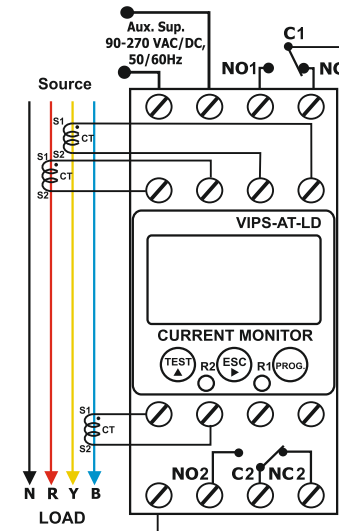
Sensing	: 0.2A to 6 Amps
Aux. Supply	: 90 - 270 VAC / DC, 50/60Hz
Burden on Supply	: < 4 VA
Display	: LCD display (actual value of current)
Setting	: OC, UC, OF, UF, AS, PL, LR
Set Point	: OC (over current) 10-120% of CT primary UC (under current) 5-100% of CT primary OF (over frequency) 47-65 Hz UF (under frequency) 45-63Hz AS (Asymmetry) 5-99.9% PL (Phase Loss) 150% of overload set point LR (Locked Rotor) 2-10 Times of overload set point

Accuracy	: $\pm 1\%$ of set point, ± 2 counts
Relay Contacts	: 2 Potential Free Contact (NO, C & NC), (energise or de-energise on trip programmable)
Contact Rating	: 5 Amps / 230 VAC / 28 VDC
Temperature	: Operating : - 10°C to 55°C Storage : - 20°C to + 75°C
Humidity	: < 95% RH (non condensing)
Dimension	: 96 x 96 x 46mm (L x B x D)
Mounting	: Flush Mounting with side clamps
Weight	: 250 gm

CONNECTION DETAILS

Electrical Wiring / Connection Diagram

VIPS AT - LD



KEYPAD SETUP

Keys Description

	UP Key A) To edit values B) To move in between Menus or Sub-Menus
	ESC / SIDE / RESET Key A) Escape from Sub-Menu to Menu / Menu to Operational Mode B) Move from one digit to another C) Manual Reset button in case of Trip
	PROGRAMMING Key A) To enter into programming mode B) To enter into particular Menu / Sub-Menu C) To save particular Value

CONFIGURATION MENU

Press (PROG)  for programming mode
password is 200 to enter or
exit con?figuration menu

MAIN MENU

Network selection	3 PH / 1 PH
--------------------------	-------------

CT

Primary

Secondary

CT

PRI

SEC

Relay 1 settings

Over current

Set Over current

Under current

Set Under current

Over frequency

RL1

OC^{RT}

SDC^{RT}

UC^{RT}

SUC^{RT}

OF^{RT}

Set Over frequency

Under frequency

Set under frequency

Phase Asymmetry

Phase Asymmetry setting

SOF^{RT}

UF^{RT}

SUF^{RT}

AS^{RT}

SAS^{RT}

Phase loss

Relay Mode

Fault Reset

Locked Rotor

Set Locked Rotor

PL^{RT}

MOD^{RT}

RST^{RT}

LR^{RT}

SLR^{RT}

Time Settings for Relay 1

Trip Time Delay

Recovery time

Power on Dealy

TM1

DEL^T

REC^T

POW

Relay 2 Setting

Function

Over current

Set Over current

Under current

Set Under current

RL2

FUN^{RT}

OC^{RT}

SDC^{RT}

UC^{RT}

SUC^{RT}

Over frequency

Set Over frequency

Under frequency

Set under frequency

Phase Asymmetry

OF^{RT}

SOF^{RT}

UF^{RT}

SUF^{RT}

AS^{RT}

Phase Asymmetry setting

Phase loss

Relay Mode

Fault Reset

Locked Rotor

SAS^{RT}

PL^{RT}

MOD^{RT}

RST^{RT}

LR^{RT}

Set Locked Rotor

SLR^{RT}

Time Sett. for Relay 2

Trip Time Delay

Recovery time

TM2

DEL^T

REC^T

Hysteresis

Current

Frequency

Asymmetry

HYS

CUR^{Hz}

FRQ^{Hz}

AS^{Hz}

Password

Password Enable / Disble

Set Password

PWD

Ed

SET

Factory set

Factory set Yes/ No

RST

SUR

Scrolling

OFF/ON

SCR

OFF

SUB MENU

Network selection(NWK)

Press  to scroll through sub menu

DISPLAY (for 1 sec)	DEFAULT VALUE	RANGE
NWK	3PH	3PH / 1PH

Network selection

CT Selection

Primary

Secondary

PRI

SEC

005^A

5^A

1kA - 5 -999Amps

5kA - 0.01 -5.00kAmps

1/5

Relay 1 (RL1) Settings

Press  to scroll through sub menu

Press  to scroll through sub menu

Over current	ON ^{RT}	ON/ OFF
Set Over current	SDC ^{RT}	This option will be prompted only when OC option is made ON 10A = 2.50 to 6.00 Amps 100 = 03.0 to 12.0A 1kA = 003 to 006A (Default:5.00A)
Under current	UC ^{RT}	ON/ OFF
Set Under current	SUC ^{RT}	This option will be prompted only when UC option is made ON 10A = 0.01 to 5.00A 100 = 00.1 to 05.0A 1kA = 001 to 005 (Default:0.50A)
Over frequency	OF ^{RT}	ON/ OFF
Under frequency	UF ^{RT}	ON/ OFF
Set Over frequency	SOF ^{RT}	This option will be prompted only when OF option is made ON 47-65.0Hz
Under frequency	UF ^{RT}	ON/ OFF
Set Under frequency	SUF ^{RT}	This option will be prompted only when UF option is made ON 45.0- 63Hz
Phase Asymmetry	AS ^{RT}	ON/ OFF
Phase Asymmetry setting	SAS ^{RT}	This option will be prompted only when AS option is made ON 5.0-99.9%
Phase loss	PL ^{RT}	ON/ OFF
Relay Mode	MOD ^{RT}	ON: Relay Energised at Power ON OFF: Relay De-energised at Power ON
Fault Reset	RST ^{RT}	Fault reset Manual / Auto
Locked Rotor	LR ^{RT}	ON/ OFF
Set Locked Rotor	SLR ^{RT}	This option will be prompted only when LR option is mode ON 02.0-10 Times of Overload

Set under frequency

This option will be prompted only when UF option is made ON

45.0-63Hz

Asymmetry

ON^{RT}

ON/ OFF

Phase Asymmetry setting

This option will be prompted only when AS option is made ON

5.0-99.9%

Phase Failure

ON^{RT}

ON/ OFF

Relay Mode

ON/ OFF

ON: Relay Energised at Power ON
OFF: Relay De-energised at Power ON

Reset

MAN^{RT}

Fault reset Manual / Auto

Locked Rotor

ON^{RT}

ON/ OFF

Set Locked Rotor

This option will be prompted only when LR option is mode ON

02.0-10 Times of Overload

Time Setting for Relay 1 (TM1)

Press  to scroll through sub menu

Press  to scroll through sub menu

Trip time Delay	DEL ^T	0.0-99.9s
Recovery Time	REC ^T	0.0-99.9s
Power ON delay	POW	0.0-99.9s

Relay 2 (RL2)

Press  to scroll through sub menu

Press  to scroll through sub menu

DISPLAY (for 1 sec)	DEFAULT VALUE	RANGE
Relay Function	PRE/RL1	If RL 1 is selected, all the settings same as RL 1 & TM1-will be automatically set for RL2 and no other parameter of RL 2 & TM 2 will be prompted
Over Current	ON ^{RT}	ON/ OFF

Set Over Current

This option will be prompted only when OC option is made ON

10A = 2.50 to 6.00 Amps
100 = 03.0 to 12.0A
1 kA = 003 to 006A (Default:5.00A)

Under Current

ON^{RT}

ON/ OFF

Set Under current

This option will be prompted only when UC option is made ON

10A = 0.01 to 5.00A
100 = 00.1 to 05.0A
1kA = 001 to 005 (Default:5.00A)

Over frequency

ON^{RT}

ON/ OFF

Set Over frequency

This option will be prompted only when OF option is made ON

47- 65.0Hz

Under frequency

ON^{RT}

ON/ OFF

Set under frequency

This option will be prompted only when UF option is made ON

45.0- 63Hz

Relay mode

ON/ OFF

ON: Relay Energised at Power ON
OFF: Relay De-energised at Power ON

Reset

AUT^{RT}

Manual / Auto

Locked Rotor

ON^{RT}

ON/ OFF

Set Locked Rotor

This option will be prompted only when LR option is mode ON

02.0-10 Times of Overload

Time Setting for Relay 2 (TM2)

Press  to scroll through sub menu

Press  to scroll through sub menu

Trip time Delay	DEL ^T	0.0-99.9s
Recovery Time	REC ^T	0.0-99.9s

Hysteresis (HYS) Press  to enter sub menu from menu Press  to scroll through sub menu		
Hysteresis for current 		00.1Amps-3.50Amps
Hysteresis for Frequency 		0.2-2Hz
Hysteresis for Assymetry 		0.2-20%
Password (PW) Press  to enter sub menu from menu Press  to scroll through sub menu		
Password 	 Enable/ Disable password protection option	ENB/DIS
Set Password 	 Will be prompted only when Password option is enabled	000-999
NOTE: PWD option will be asked when the user enter the con?g. Menu if PWD option is enabled in the con?g. Menu and the user has to enter the password which he has set the S.PW (Set password) option.		
Factory set (RST) Press  to enter sub menu from menu Press  to scroll through sub menu		
Factory Reset 		Factory Reset
Scrolling (SCR) Press  to enter sub menu from menu Press  to scroll through sub menu		
		ON/ OFF
PARAMETER	SYMBOL	
Average Current	L1 L2 L3	
Current (L1- phase)	L1	
Current (L2- phase)	L2	
Current (L3- phase)	L3	
Frequency	Hz	
Current Asymmetry (L1-L2 Phase)	L1 L2 As%	
Current Asymmetry (L2-L3 Phase)	L2 L3 As%	
Current Asymmetry (L3-L1 Phase)	L1 L3 As%	

NOTE:-
1) Minimum difference between OC & UC setting is 1.0Amps + hysteresis Value.
2) When 3 Phase Current are Less than 0.2A, unit assumes that Load is OFF & UC protection will be defeated.

 **SAFETY PRECAUTIONS :**
All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by the equipment.
If there is physical damage to the unit then do not use it.

Read complete instruction prior to installation and operation of the unit.

WIRING GUIDELINES :

 Warning

- 1) To Prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.
- 2) Wiring shall be done strictly according to the terminal layout with shortest connection. Confirm that all connection are correct.

 CAUTION :



- 1) To ensure the safe operation of unit, check the wiring and connections.