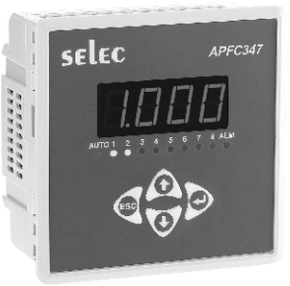


Display	: 4 Digit, 7 Segment LED display, height : 0.56"
	:
Rated input voltage	: 40-300V(L-N), 50-530V(L-L) 45
Rated input current	: Nominal 5A AC (MIN 50mA, MAX 6A), Single CT Sensing
Burden	: 20 mOhms
CT Primary	: 1-9999A(For CT.S=1) ; 5-9999A(For CT.S=5)
CT Secondary	: 5A
No of Relay Stages	: For APFC347-108 : 8 Relay
	For APFC347-106 : 6 Relay
	For APFC347-104 : 4 Relay
Trip indication	: Alarm relay turns & LED blinks
	(Refer LED indication chart)
Controlling Range	: Target PF : 0.8 lag to 0.8 lead
	Control sensitivity : 55 to 100%
	Step time : 1 to 999 Sec.
	Discharge time : 1 to 999 Sec.
	Switching program : Automatic/Linear/Rotational
	Control Mode : Automatic/Manual
	Auto initialization : Yes / No
Output	: Relay output
	Alarm mode : Under voltage, Over voltage,
	Under compensate, Over compensate
Power Consumption	: 7 VA max.
Environmental Condition	: Operating : 0 C to 60 C
	Storage : -20 C to 60 C
Humidity	: 0% to 95% without m

SERIAL NUMBER DESCRIPTION

Press ESC ( ) key for 10sec. to display 8 digit serial number.

Example : Sr. No. 12345678		
Press ESC ( ) key for10sec.	Displays 1234 for 3 sec.	After 3 sec. displays 5678 for 3 sec.

USER GUIDE

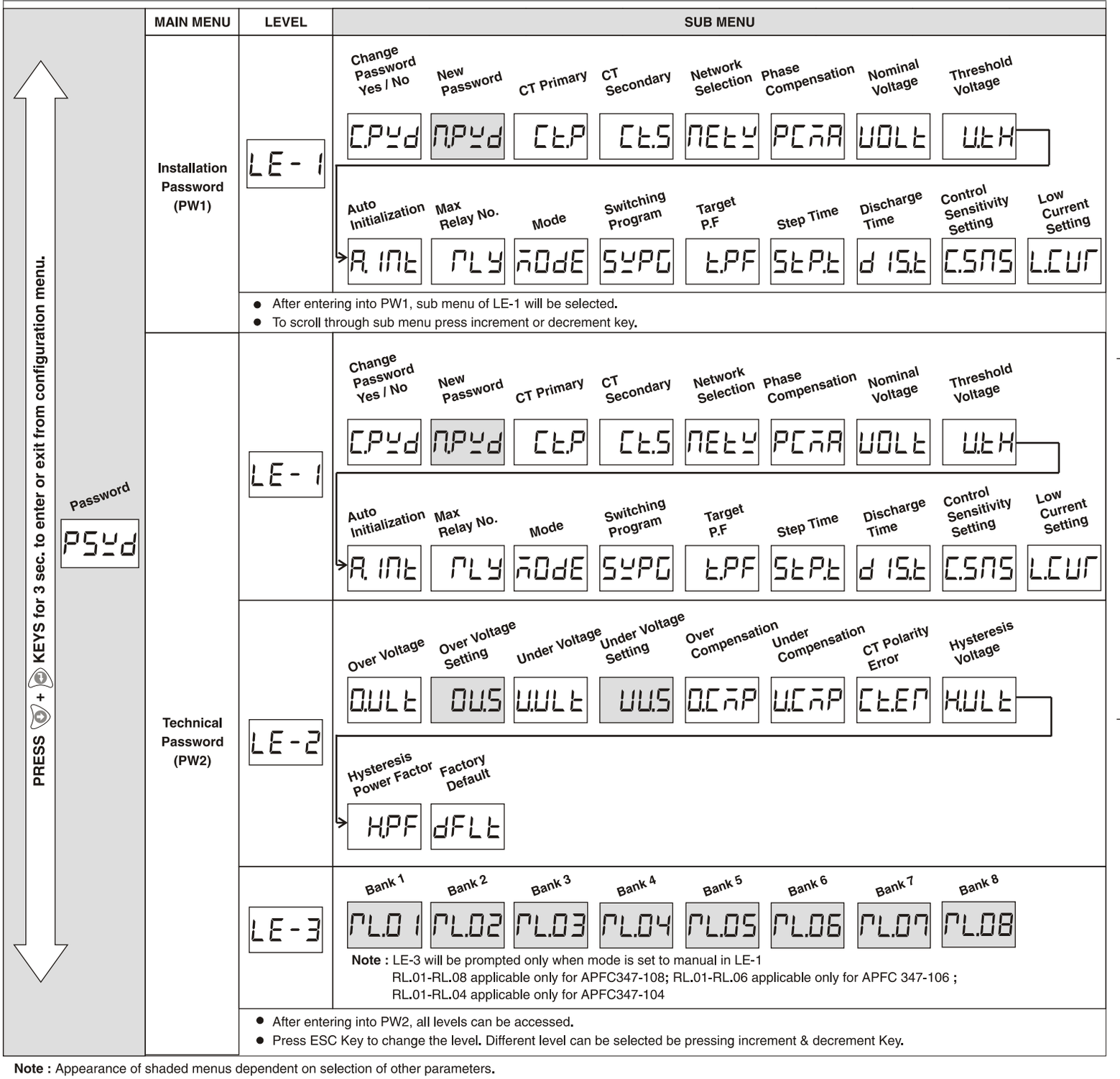
a) Manual switching (MANL)
When this switching program is selected, the capacitor steps are controlled manually by the user.

b) Rotational switching (ROTN)
This switching program is based on rotational first-in-first-out sequence. This option will automatically switch in and out the capacitors according to the targeted power factor, sensitivity setting and the re-connection time setting.

c) Automatic switching (AUTO)
This automatic switching program uses intelligent switching sequence. The step switching sequence is not fixed and the program automatically selects the most appropriate steps to switch in or out in order to achieve shortest reaction time with minimum number of steps.

d) Linear switching (LINR)
In this switching sequence it works in last in first out mode. This option will automatically switch in and out the capacitors according to the targeted power factor, sensitivity setting and the re-connection time setting.

CONFIGURATION MENU



Note : Appearance of shaded menus dependent on selection of other parameters.

LEVEL 1

Display	Description	Default Value	Range	Condition
PSWD	Password	10(PW1); 11(PW2)	0000 - 9999	
C.PWD	Change Password	NO	NO / YES	
N.PWD	New Password	0	0000 to 9999	This option will be prompted only when C.PWD set to YES.
CT.P	CT Primary	5	5 to 9999	1 to 9999 (CT.S=1) 5 to 9999 (CT.S=5)
CT.S	CT Secondary	5A	1A / 5A	
NETW	Network Selection	L-L	LN / LL	
PCMA	Phase compensation	90	0^o, 90^o, 120^o, 210^o, 240^o, 330^o	
VOLT	Nominal Voltage	240V (L-N) 415V (L-L)	50V-550V	
V.TH	Voltage Threshold	0	0% to 100%	
A.INT	Auto Initialization	YES	NO / YES	
*RLY	Max Relay Numbers	8/6/4	3 to 8/6/4	
MODE	Mode	AUTO	AUTO / MANL	
SWPG	Switching Program	AUTO	Automatic (AUTO)	
			Linear (LINR)	
			Rotational (ROTN)	
T. PF	Targeted P. F	1.000	-0.800 to 0.800	
STP.T	STEP TIME	5	1-999s	
DIS.T	Discharge time (Reconnection time)	180	1-999s	
C.SNS	C/K Setting	60	55% to 100%	
L.CUR	Low current setting	0	0-50%	

* 8 Relay : Applicable only for APFC347-108
6 Relay : Applicable only for APFC347-106
4 Relay : Applicable only for APFC347-104

NOTE :

- Auto - Initialization (A.INT) is working at best, under stable load conditions.
- Auto~ Initialization (A.INT) works only with capacitor banks and not with reactors.
- If V.TH value is set to zero, A.IN will be done only at power ON.
- Recommended that number of relays not to be changed during normal operation. If done so, restart the unit.
- Recommended to restart the unit if Switching program(SWPG) is changed during normal operation for proper functionality in accordance with the chosen control mode.
- A.INT will be update 'NO' automatically in configue after Auto initialization
- Reauto - Initialization will be done by only changing A.INT - YES in configue manually
- When condition of low current occurs, the display of controller will show the 'CURR'.

LEVEL 2

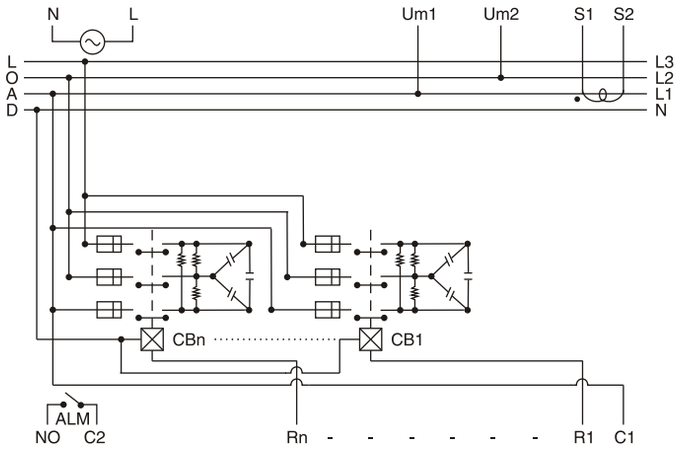
Display	Description	Default Value	Range	Condition
O.VLT	Over voltage	ON	ON / OFF	
OV.S	Over voltage setting	256(L-N) 540(L-L)	256V to 264V (L-N) 540V to 570V (L-L)	This option will be prompted only when O.VLT option made ON.
U.VLT	Under voltage	OFF	ON / OFF	
UV.S	Under voltage setting	195(L-N) 380(L-L)	195V to 204V (L-N) 380V to 480V (L-L)	This option will be prompted only when U.VLT option made ON.
O.CMP	Over compensation	ON	ON / OFF	
U.CMP	Under compensation	ON	ON / OFF	
CT.ER	CT Polarity error	ON	ON / OFF	
H.VLT	Hysteresis voltage	2	1% to 10%	
H.PF	Hysteresis power factor	1	1% to 5%	
DFLT	Factory default	NO	NO / YES	

LEVEL 3

Display	Description	Default Value	Range	Condition
RL.01	Bank 1	OFF	ON / OFF	Prompted only if MODE is set to MANUAL
RL.02	Bank 2	OFF	ON / OFF	
RL.03	Bank 3	OFF	ON / OFF	
RL.04	Bank 4	OFF	ON / OFF	
RL.05	Bank 5	OFF	ON / OFF	
RL.06	Bank 6	OFF	ON / OFF	
RL.07	Bank 7	OFF	ON / OFF	
RL.08	Bank 8	OFF	ON / OFF	

Note : RL.01-RL.08 applicable only for APFC347-108
RL.01-RL.06 applicable only for APFC 347-106
RL.01-RL.04 applicable only for APFC347-104

WIRING DIAGRAM



Where,
Um1 & Um2 - Input Voltage of Phase or phase to Phase
S1 & S2 - CT Input
R1... Rn - Relay to switch capacitor
CB1... CBn - Capacitor banks
n - 4 for APFC347-104
n - 6 for APFC347-106
n - 8 for APFC347-108
C1, C2 - Relay COM
NO - Normally Open

PHASE-ANGLE SETTING

Voltage	L1-N	L2-N	L3-N	L1-N	L2-N	L3-N	L1-N	L2-N	L3-N
CT	L1	L2	L3	L2	L3	L1	L3	L1	L2
Phase-Angle	0^o	0^o	0^o	240^o	240^o	240^o	120^o	120^o	120^o
Voltage	L2-L3	L3-L1	L1-L2	L2-L3	L3-L1	L1-L2	L2-L3	L3-L1	L1-L2
CT	L1	L2	L3	L2	L3	L1	L3	L1	L2
Phase-Angle	90^o	90^o	90^o	330^o	330^o	330^o	210^o	210^o	210^o

(Specifications are subject to change, since development is a continuous process.)

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