

DIGITAL AMMETERS

1. INTRODUCTION

PM-SA/ PM-SAR (With relay output) are designed to measure RMS value of AC current operating within programmable (adjustable) Ct ratios ranging up to 10000A. Programming is carried via the use of 3 buttons built on front panel. Micro processor based programming enable the user to obtain any desired CT ratio and to determine the critical current level required for over current protection being alerted via relay output.

PM-DA: PM-DA is designed to measure current level from 1 to 50A without need of an external CT.

2. USAGE

PM-SA/SAR:

Programming Menu

- ESC - Exit from programme via the use of "set" button.
- Ctr - CT ratio adjustment.
- SoCL- Set point for switching alarm relay on. **(For PM-SAR)**
- SoCt -On delay time setting for alarm relay. **(For PM-SAR)**

Programming

CT: Device is energized after the installation. By the use of "set" button the programme mode is entered. Via the use of "up-down" button, Ctr menu is selected to set the desired values by pressing "set" button. In the same way, by the use of "up-down" button, the ct ratio is adjusted respectively and then "set" button pressed.

Set point: (For PM-SAR) Device is energized after the installation. By the use of "set" button the programme mode is entered. Via the use of "up-down" button, "SoCL" menu is selected to set the desired values by pressing "set" button. In the same way, by the use of "up-down" button, the ct ratio is adjusted respectively and then "set" button pressed. Hold pressing "up-down" buttons less than 2 sec. will enable the user set the value of each gradually whereas hold pressing longer shall be of prompt setting. Set point is inactive if "0" (zero) value is set. The programmable value should be a max. value of "Ctr" in case of "SoCL" value is differed from zero and/or of any change on "Ctr" value. This will be resulted with zero value of "SoCL" hence, there should be no protection. In such a case, a new programming (entering a new value) is required.

Time: The relay output of the device is activated at the end of "SoCT" period (1-60 sec.) if the measured phase of the current (RMS) is greater than the set value of "SoCL".

Exit: After programming, "up-down" button is selected to reach at "ESC" of which will be displayed on screen, and then "set" button is entered to save the values in memory and to exit the menu at the same time.

Note: H000 is displayed if "Ctr" value is selected as 10.000Amp. **xxbx** is to be displayed above the value of 9999Amp.

PM-DA: Connection is performed as per the diagram shown (see figure-c) and the Line Current readout is displayed.

NOTE: Custom-made devices with different standards are specified on their label.

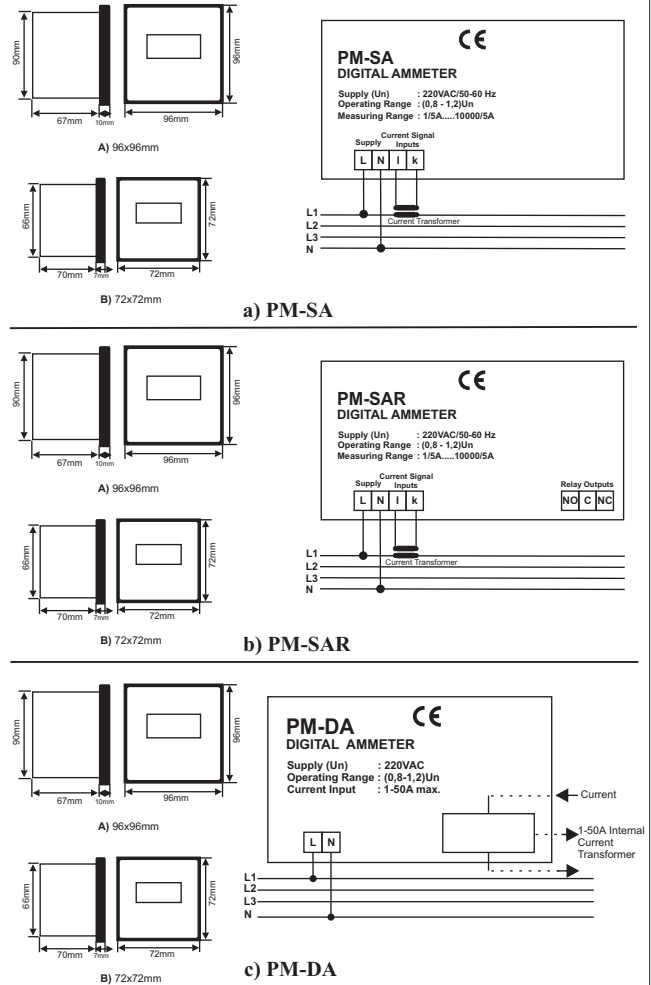
5. TECHNICAL SPECIFICATIONS

Model	Un	Operating Range	Measuring Range	Accuracy	Current Transformer Ratio	Current Input	Contact Output	Dimensions and Connection Diagrams	Mount Type	Protection Class	Plastic Material	Operating Temperature	Weight
PM-SA72	220VAC 1Phase + 1Neutral 50-60 Hz	(0,8-1,2)xUn	0,075-5A	± % 1	1/5A.....10000/5A	0-5A AC max.	250VAC 5A	a	Panel Mounted	IP 20	V0 Nonflammable	-25°C ... +65°C	250 gr.
PM-SA96								a					305 gr.
PM-SAR72								b					265 gr.
PM-SAR96			b	320 gr.									
PM-DA72			c	255 gr.									
PM-DA96			c	335 gr.									

3. USAGE AND SAFETY

- Turn off power during connection/wiring.
- Check correct mains voltage/wiring terminal.
- Installation shall only be performed by qualified personnel.
- Do not use any solvent or alike for cleaning.

4. MECHANICAL DIMENSIONS AND CONNECTION DIAGRAMS



HANEL ELECTRONIC IND. CO.

Merkez Mah. Hakimiyet Cad. 122. Sk. No:14/A-B Yakuplu Beylikdüzü - İSTANBUL

Phone: 0 212 879 07 74 Fax: 0 212 879 07 78

Web: www.hanel.com.tr E-Mail : hanel@hanel.com.tr

Stock Code: 50 MK00 000008 - V01