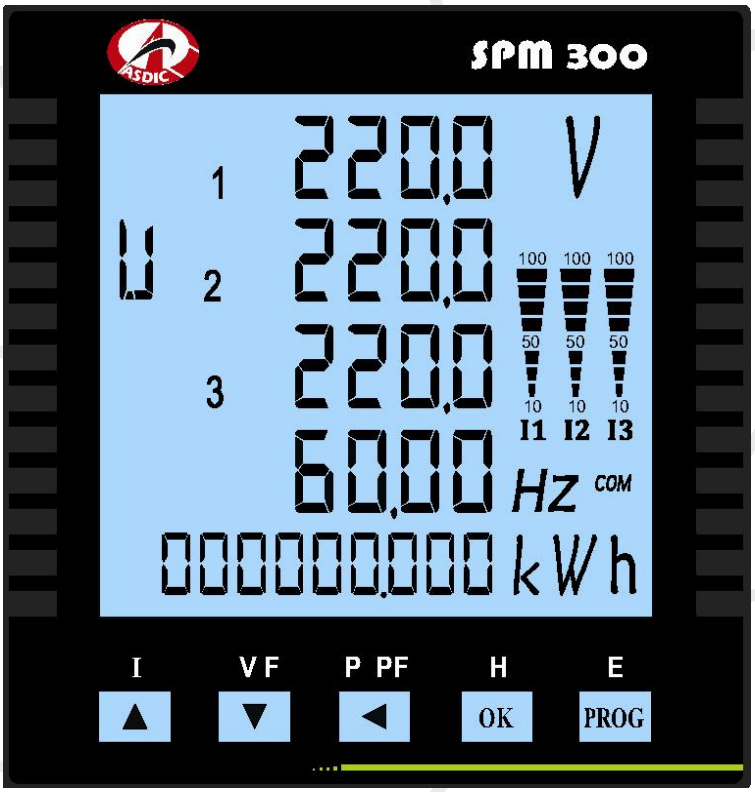


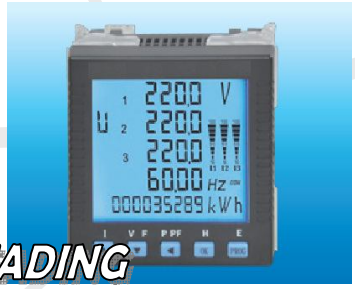
POWER METER

SPM 300

- MEASUREMENT
- MONITORING
- ANALYSIS
- COMMUNICATION

FEATURES

ARTISTIC SCREEN



DIRECT READING

- Energy-saved protection mode
- Large legend texts shown on backlit LCD
- Plug-in output modules
- Fully programmable VT&CT ratios
- True rms measurement
- THD measurement up to 31st harmonic
- Individual current/voltage harmonics
- Relay contact, analog and pulse outputs
- Modbus RTU 485 communication
- DIN 96x96 mm enclosure
- Digital inputs for input detecting status
- Actual demand / Max demand current / active power
- Vertical bargraph indication on the measured current

ASDIC , INC.

SPECIFICATION

Display Item	1 ϕ	Σ	Max	Accurancy
Current (A)	●	●*	●	0.2 %
Voltage (V)	●	●*	●	0.2 %
Active Power (KW) **	●	●	●	0.5 %
Reactive power (KVAR)	●	●		0.5 %
Apparent power (KVA)	●	●		0.5 %
Power factor (PF)	●	●*		0.5 %
Frequency (F)	●			0.05 %
Active energy (KWH) **	●	●		0.5 % (IEC62053-22,Cl.0.5S)
Reactive energy (KVARH) **	●	●		2 % (IEC 62053-23, Cl. 2)
Harmonic (THD-I)	●	●*		2 %
Harmonic (THD-V)	●	●*		2 %

* Average value ** KWH : Import & Export , KVAR : Ind and Cap, KW : "+" and "–"

Accuracy Performance range
Current range : 0.2 ~ 120 %
Voltage range : 0.6 ~ 120 %
Power & energy range : 0.2 ~ 120 % (Amp) 0.6 ~ 120 % (Volt.)
Power factor range : Cos θ : 0.5 ~ 1 Sin θ : 0.5 ~ 1
Frequency range : 45 ~ 70 Hz
Distortion level : From 10% to 120% (Volt.) From 1 % to 120% (Amp)

Characteristics

Dielectric strength	IEC688,AC2.3KV 1min. Between input/output/power AC3KV 1min. between all terminals/case	Sampling time	1sec.
		Measurements	1 φ 2W, 1 φ 3W, 3 φ 3W, 3 φ 4W
		Actual / Max. demand	Amp, Watt
Operating temperature	0 ~ 60℃	Demand time of period	1 ~ 60min. (programmable)
Storage temperature	-10 ~ 70℃	Total harmonic distortion	Up to 31st
Temperature coefficient	≦100PPM / ℃	Harmonic analysis	Volt, Amp
Max. humidity	95%	Auxiliary power supply	AC / DC 85~265V DC 20~60V (option)
Enclosure	IP52 (Front plate) IP30(Casing)		

Input

Voltage range (L-N)	AC 2 ~ 300V	Max. overload	Continuous AC6A, 50A 5sec. Option : Continuous AC15A,250A 1sec.
Max. overload	AC 750V		
Impedance	≧ 800KΩ		
Current range	AC 5A or 1A (option)	Burden	≦ 0.1VA
Starting current	0.2% F.S.	Isolation	Each phase AC600V

Electromagnetic compatibility (EMC)

Electrostatic discharge	IEC 61000-4-2	Power frequency magnetic field immunity	IEC 61000-4-8
Electromagnetic field immunity	IEC 61000-4-3	Short interruptions and voltage variations immunity	IEC 61000-4-11
Electrical fast transient / burst immunity	IEC 61000-4-4	Harmonic current emissions	IEC 61000-3-2
Surge immunity	IEC 61000-4-5	Voltage changes, voltage fluctuations and flicker	IEC 61000-3-3
Immunity to conducted disturbances	IEC 61000-4-6		

Display

Format	Backlit LCD display / One line of 9 digits (Energy) / 3 vertical bar-graphs at % for current 4 rows of 4 digits (Electrical parameter measurements)

Plugable modules (Option)

Extended Modules

Aextended function can flexible be requested for installation in a way of the designed-pluggable modules.

Fastened Installation

SPM300 is designed to be attached with Flexible mounting clips for a secure Installation onto all types of panels without using any hand tool .

Relay contacts			
Energized value	1,10,100,1000pulses for 1KWH or 1KVAR	Alarm selected	V, A, W, demand A, Hz, demand Watt,THD-I, THD-V
Setting point	2 programmable setting points	Relay contact	AC 240V, 5A DC 24V , 5A
Max.installation	2 pluggable modules		

RS 485 Communication interface			
Protocol	MODBUS , RTU	Data format	N.8.1, N.8.2, O.8.1, E.8.1
Baud rate	1200 ~ 38400	Number of meters	Up to 32 meters via RS485
Address range	1 ~ 255	Max. installation	1 pluggable module

Analog			
Output range	DC 4-20mA	Number of outputs	2 programmable parameters
Output resistance	500Ω	Max. installation	2 pluggable modules

Digital input	
Input detecting status on each module	Programming via RS485 interface on SPM 300
Input format	SPST contact
Max. installation	2 pluggable modules

Ordering Code

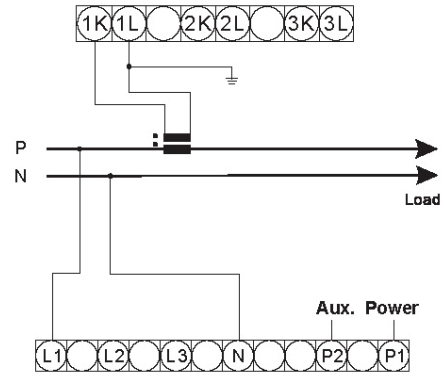
SPM 300 – 00

Option :

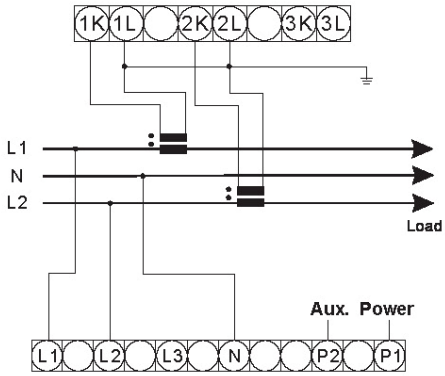
01 : RS 458 02 : Relay contacts
03 : Dual analog 04 : Digital inputs

CONNECTIONS

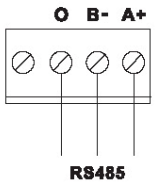
1 Phase 2 Wire



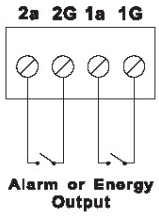
1 Phase 3 Wire



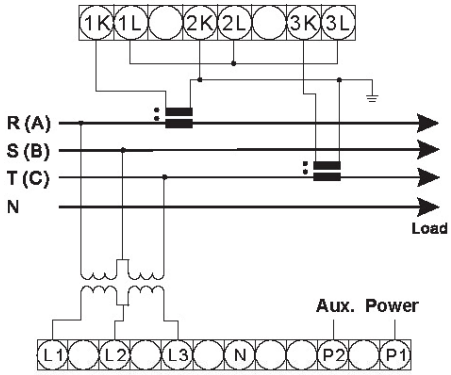
RS485 Output



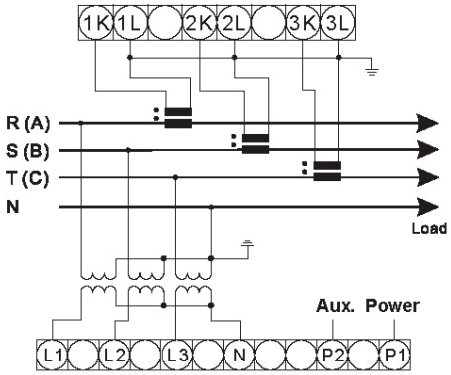
Relay Contacts



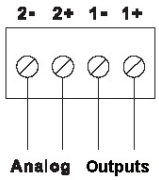
3 Phase 3 Wire (2CT)



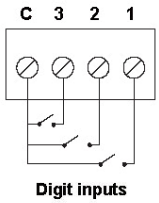
3 Phase 4 Wire



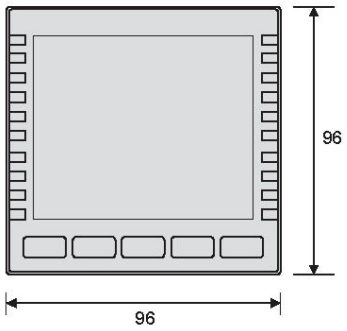
Analog Outputs

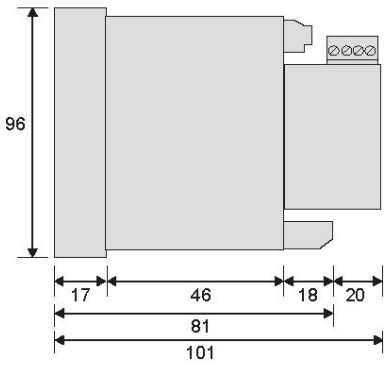


Digit Inputs

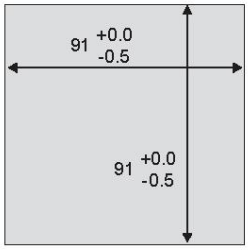


DIMENSIONS (mm)





PANEL CUT-OUT



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