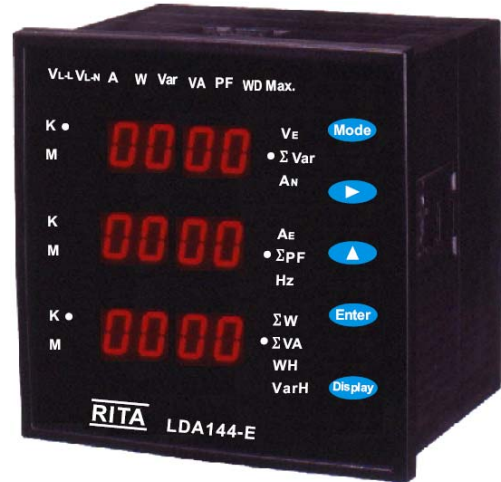


RITA

MULTI - POWER METER LDA-110E LDA-144E



LDA-110E



LDA-144E

- Panel size : 110 x 110mm (LDA-110E), 144 x 144mm (LDA-144E)
- Display of all the electric parameters – V, A, W, Var, VA, PF, Hz, WH, VarH...etc.
- True RMS conversion.
- Maximum value recording function (V, A, and W).
- Programmable PT and CT ratio.
- Data memory for all setup and electric parameters.
- Option : 2 channels of D/O.
- Manufactured in TAIWAN.

RS-485 Interface

We use the most convenient and easiest RS-485 as our standard output port. Besides, we adopt Modbus RTU mode, one of the most popular protocol in the world, as our standard protocol.

RS-485 communication allows multiple devices to be connected to the same bus. Up to 30 devices can be connected to a single RS-485 bus, which consists of a shielded twisted pair cable.

The overall length of the RS-485 cable connecting all devices cannot exceed 4000ft (1219m).

Option

- 2 Channels of Relay Output
- Contact Capacity : AC 250V, 1A resistive load
DC 30V, 2A resistive load

Specifications

Display	Red LED 0.4" high -----LDA-110E	CT , PT Ratio	1~9999
	Red LED 0.6" high -----LDA-144E	Interface	RS-485 (Standard) or RS-232
Over range Indication	"o.L"	Power Supply	AC 90~260V , 50 / 60Hz
Conversion Rate	1 / sec.		DC 24 , 120V , ±20% (option)
Isolation	Input / Output / Power / Case	Power Consumption	Approx. 7VA
Operating Temp.	0~60°C / Below 90% R.H.	Dielectric Strength (DIN-IEC688)	AC 2.3kV / 1min between terminals
Storage Temp.	-10~70°C / Below 80% R.H.		AC 2.8kV / 1min between terminals and case
Temp. Coefficient	±0.1% F.S / °C	Isolation Resistance	DC 500V , 100MΩ at above terminals
Dimensions (mm) (W) x (H) x (D)	110 x 110 x 140 --- LDA-110E	Weight	750g (144E) , 600g (110E)
	144 x 144 x 100 --- LDA-144E	Protection Level	IP42

Input

Voltage	V ₁ , V ₂ , V ₃ , Neutral (3 phases voltages & neutral)	Overload	Voltage.....750V continuous or 1.25 x rated continuous
Range	600V _{L-L} / 347V _{L-N}		Current.....3 x rated continuous , 10 x rated for 10 sec.
Current	1 _s , 1 _L ,2 _s , 2 _L , 3 _s , 3 _L (3 phases currents)	Burden	≤0.2VA per voltage circuit , ≤0.2VA per current circuit
Range	0~1A , 0~5A	Frequency	45~65Hz

Programmable Measurement & Indicating

Items	L ₁	L ₂	L ₃	Total	Average	Accuracy (F.S)	Display (Max.)
V _{L-N}	V ₁	V ₂	V ₃		V _E	±0.25%	9999 V / KV
V _{L-L}	V ₁₂	V ₂₃	V ₁₃				
A	A ₁	A ₂	A ₃		A _E	±0.25%	9999 A / KA
W	W ₁	W ₂	W ₃	ΣW		±0.5%	±9999 W / KW / MW
Var	Var ₁	Var ₂	Var ₃	ΣVar		±0.5%	±9999 Var / KVar / MVar
VA	VA ₁	VA ₂	VA ₃	ΣVA		±0.5%	9999 VA / KVA / MVA
PF	PF ₁	PF ₂	PF ₃	ΣPF		±0.5%	±0.999
WH				WH		±0.5%	9999999999 KWH
VarH				VarH		±0.5%	9999999999 KVarH
Hz						±0.1%	45.0 ~ 65.0 Hz
Accuracy Performance Range							Measurement Range
				V : 10 ~ 100%	PF : 0.5 ~ ±1.0	V : 0 ~ 120%	
				A : 5 ~ 100%	Hz : 45 ~ 65Hz	A : 0 ~ 120%	

$$V_E = (V_{12} + V_{23} + V_{13}) / 3$$

$$\Sigma PF = \Sigma W / (V_1 A_1 + V_2 A_2 + V_3 A_3)$$

$$A_E = (A_1 + A_2 + A_3) / 3$$

$$\Sigma Var = \sqrt{VA_1^2 - W_1^2} + \sqrt{VA_2^2 - W_2^2} + \sqrt{VA_3^2 - W_3^2}$$

$$\Sigma W = W_1 + W_2 + W_3$$

Ordering Code

Model —

Input ACV

1 : 600VL-L / 347VL-N

Input ACA

1 : AC 5A

2 : AC 1A

Y : Option

Interface

1 : RS-485

2 : RS-232

N : None

Power Supply

1 : AC 90~260V, 50/60Hz

2 : DC 24V

3 : DC 120V

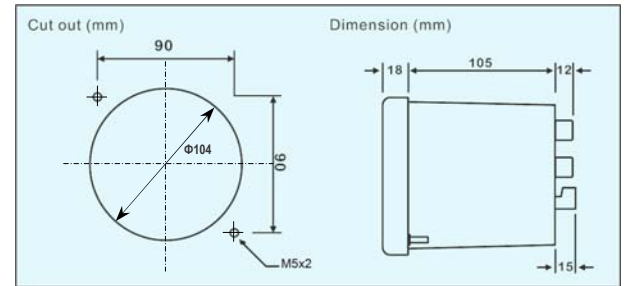
Option

1 : 2 Relay output (DO) + 2 Digital input (DI)

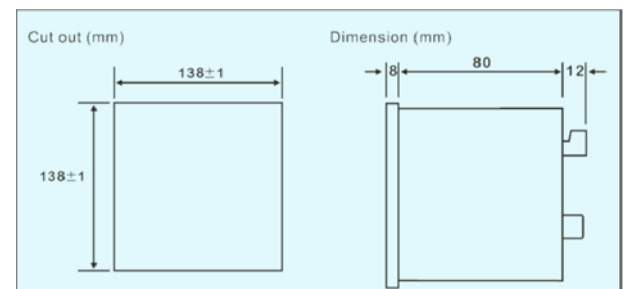
N : None

Dimensions (mm)

Model : LDA-110E

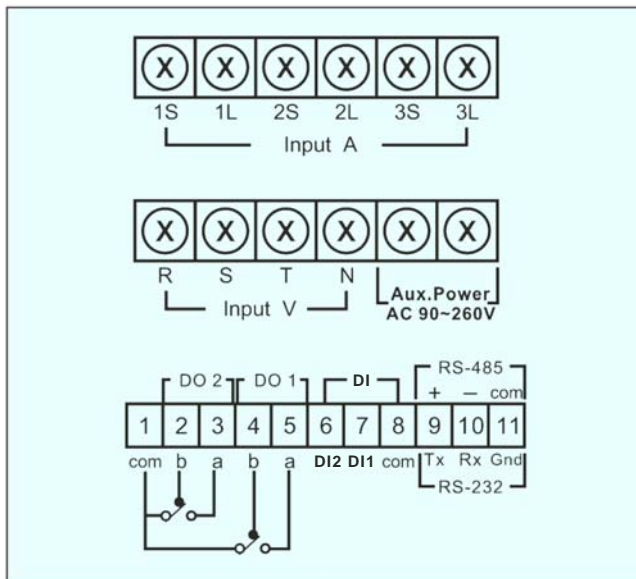


Model : LDA-144E

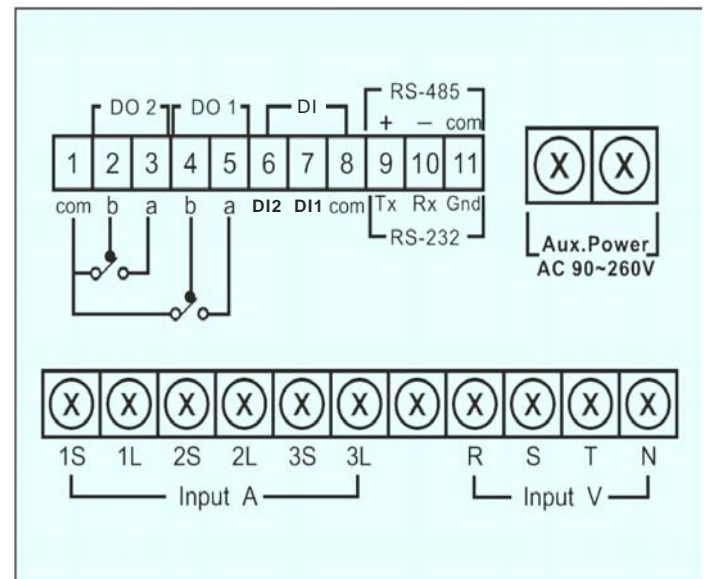


Connection Diagram

Model : LDA-110E

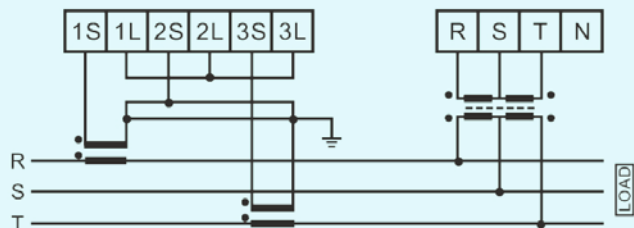


Model : LDA-144E

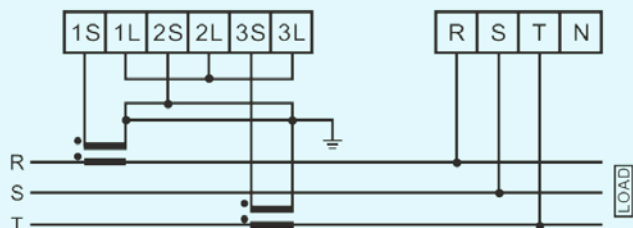


Wiring Diagrams of Input (LDA-110E/144E)

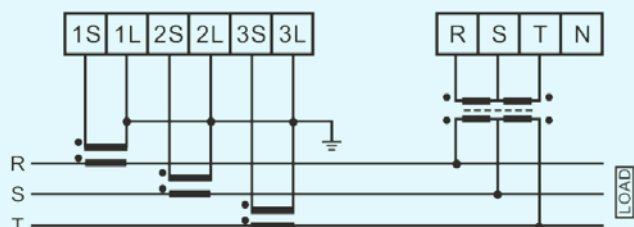
3phase 3wire (2CT. 2PT)



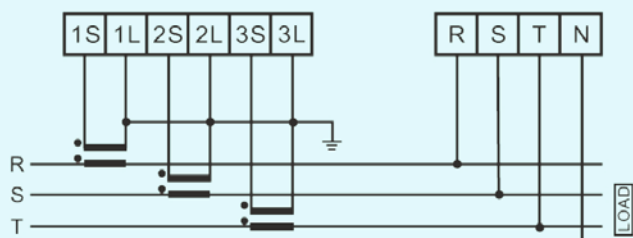
3phase 3wire (2CT. no PT)



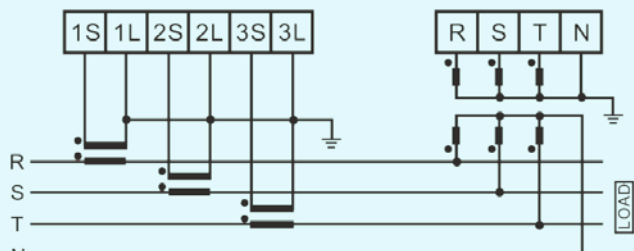
3phase 3wire (3CT. 2PT)



3phase 4wire (no PT)



3phase 4wire



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