

Data Sheet

Digital Panel Meter for
measurement of AC voltage/current

**396A : 3PH Voltage measurement (AC)
396V : 3PH. Current measurement (AC)**

Size: 96 x 96

**3 Phase 3 Wire AC voltage
RISH DPM 396V**



**3 Phase 4 Wire AC voltage
RISH DPM 396V**



**3 Phase AC current
RISH DPM 396A**

Applications:

The digital panel meters **RISH DPM 396 A/V** have been designed for industrial applications, which frequently require precise and onsite adjustment of the display range.

It can be used in industrial automation and for laboratory uses.

Features:

- Available in size 96mm x 96mm and 96mm x 48mm.
- 3PH. AC Voltage ranges and Current ranges.
- On site Programmable CT/ PT ratio.
- Built in selector switch to Display:
 - 396A: Line Currents,
 - 396V: Line to neutral Voltages (R, Y, B) and Line to Line Voltages (RY, YB, BR).
- Available in 3PH. 3 WIRE and 3PH. 4 WIRE Versions.
- 3 ½ digit ultra bright Display.
- User defined caption

Auxiliary Power Supply :

- DC – *1) 12 V (+ 10 % . -10 %), 2) 24 V (21...30V)
 *3) 48 V (+ 10 % . -10 %), 4) 110 V (+ 10 % . -15 %)
 AC – 1) 110 V (+ 10% / -15%), 2) 230 V (+ 10% / -15%)
 Universal :
 1) 45-450V AC/DC, 2) 45-300V AC/DC

Highly adaptable DPMs suitable for a wide range of measuring applications.

Versions available for 3PH. AC Voltage inputs and Current Inputs.

The chosen input range is user adjustable, from 5% to 100% of the full-scale value, for simple adaptation of the digital readout to the input value.

Specifications:

Display:

Display range	1999
Decimal point position	Selectable by short links at the front side of Display.
Negative display indication	"_"
Digit height	14 mm / 7- segment digits.
Overload indication	Last 3 digits blank.

Measuring ranges :

Model	396A
System	3PH. 3 WIRE or 3PH. 4 WIRE
Input Current Ranges (Voltage Drop < 600 mV per phase)	0...1A [45 65 Hz] or 0...1A [400 Hz] or 0...5A [45 65 Hz] or 0...5A [400 Hz]

Model	396V
System	3PH. 3 WIRE or 3PH. 4 WIRE
Voltage Ranges Available (Input current < 600 µA per Phase)	0...110 V L-L [45 65 Hz] or 0...110 V L-L [400 Hz] or 0...240 V L-L [45 65 Hz] or 0...240 V L-L [400 Hz] or 0...415 V L-L [45 65 Hz] or 0...415 V L-L [400 Hz]

Accuracy :

Versions 396 A / V:

Measuring accuracy :

Current	< 0.5% + 1 digit.
(Voltage drop < 600 mV per Phase)	
Voltage	< 0.5% + 1 digit.
(Input current < 600 µA per Phase)	
Temperature coefficient	300 ppm / °C, plus.
Zero point drift	200 ppm / °C.
Range adjustment span	from 5% to 100% of range.

Continuous Over Load 120% of input

Short Duration Over Load Rated Current : 10 times for 0.5 sec max.
 Rated Voltage : 2 times for 0.5 sec max.

Power supply :

Direct voltage DC	*12 V (+ 10 % . -10 %), 24 V (21...30V) *48 V (+ 10 % . -10 %), 110 V (+ 10 % . -15 %)
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(*not available in 396 V, 3PH. 4Wire)

*For DC voltage version isolation is 1 KV, for AC voltage version isolation is 2 KV

Burden	≤ 5.5W (isolated).
Alternating voltage AC	110V AC (+10% / -15%) isolated. 230V (+ 10% / -15%) isolated.
Burden	≤ 5.5VA
Universal :	45-450V AC/DC 45-300V AC/DC
Frequency	47...60 Hz.

Ambient conditions

Operating temperature	0 ... 55 °C.
Storage temperature	- 25 ... 70 °C.

Dimensions and Weights

Bezel size :	96 mm x 96 mm DIN 43 700
Panel cut-out :	92 + 0.8 mm x 92 + 0.8 mm
Overall depth :	55 mm.
Weight :	500 gm. Approx.

Sundry

Connections Plug-in screw terminal blocks.

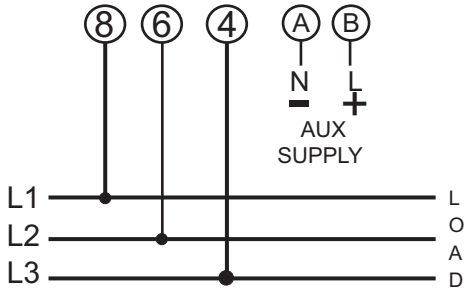
Applicable Regulations and Standards

Protection Class	IP 20 to IEC EN 60 529
Front	IP 50
Device safety	IEC EN 61 010
EMC immunity	IEC/ EN 61 000-4-1 to 4
EMC radiated interference	IEC/ EN 61326 Class B

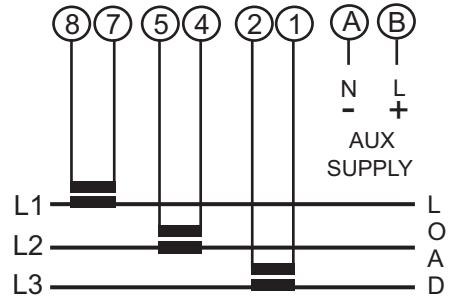
Connection Diagram :

CONNECTION FOR 3PH. 3 WIRE DPM 396V

Connections for 3PH.3W ACV,
415VL-L, Aux. 230V 50Hz.

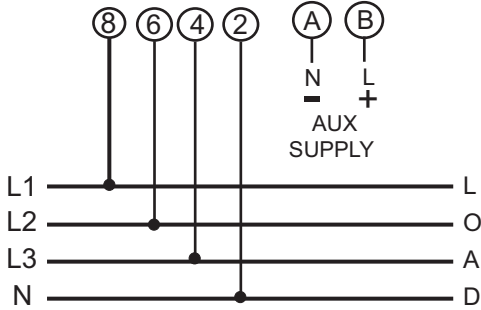


CONNECTION FOR 3PH 3 wire/ 4 wire DPM 396A



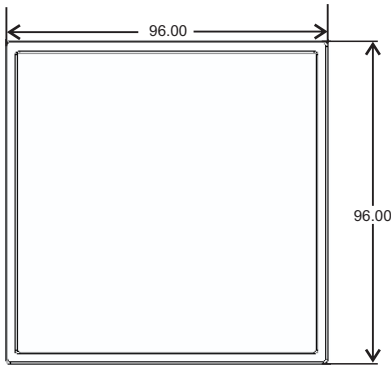
CONNECTION FOR 3PH. 4 WIRE DPM 396V

Connections for 3PH.4W ACV,
415VL-L, Aux. 230V 50Hz.

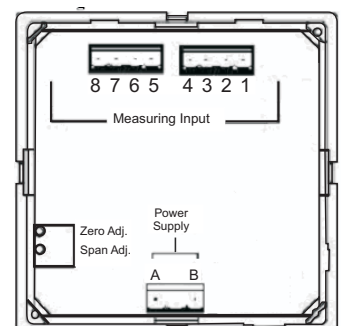
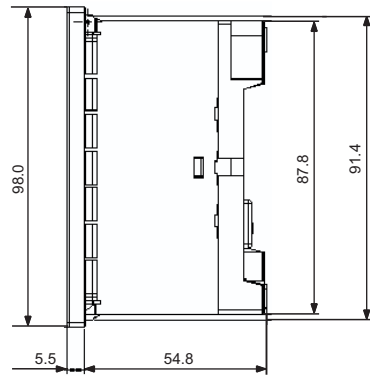
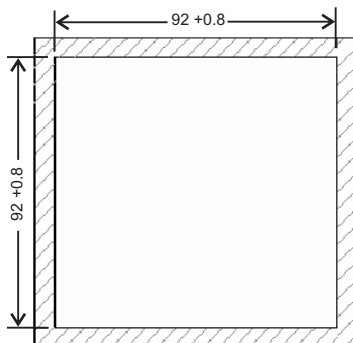


CONNECTION FOR 3PH 3 wire/ 4 wire DPM 396A





Design & Installation:



Panel Cut-out:



Decimal Point Selection

Decimal point position on Display	Short Link Position
	XXXX
	X.XXX
	XX.XX
	XXX.X

Order Details:

	Example 1	Example 2
Type :	..... RISH DPM 396V	RISH DPM 396A
System Type :	..... 3PH. 4WIRE	3PH. 3 WIRE
Measuring Input :	..... 0 ... 415 VL-L	0....1 A
Input Frequency :	..... 50Hz	55 Hz
Display Full-Scale :	..... 0 ... 500	0.....100
Display caption :	..... V	A
Aux. Supply :	..... 230 V AC, 50 Hz.	230 V AC, 50 Hz

