

DIGITAL PANEL METERS

NEW



Note: Refer Page no. 23 for more details of New RISH DPM.

RISH DPM SERIES FOR DC VOLTAGE

FEATURES :

- ▲ Ultra Bright Red LED Display
- ▲ Auxiliary Supply:-24, 110, 230VAC or 5/12/24/48/110 VDC
- ▲ Changeable 'UNIT' Caption on Front display
- ▲ Full scale adjustment with SPAN pot
- ▲ Onsite decimal point selection
- ▲ Aux. Supply is electrically isolated from measuring circuit



24 x 48 mm



24 x 96 mm



48 x 96 mm



48 x 96 mm



72 x 144 mm



96 x 96 mm



96 x 96 mm



96 x 96 mm
14 mm Display



96 x 96 mm
20 mm Display

Type	DC VOLTAGE								
Model	48/96C	48/96F	24/48 F	96/96VDC-C	96/96 VDC-F	72/144 C	48/96 VDCN	96/96 VDCN	72/144 CN
Size in mm	48 X 96	48 X 96	24 X 48	96 X 96	96 X 96	72/144	48 X 96	96 X 96	72/144
Display Range	+/- 1999	+/- 1999	+/- 1999	+/- 1999	+/- 1999	1999	+/-19999	+/-19999	+/-19999
Digit Height	14mm	14mm	8mm	14/20mm	14/20mm	25.4mm	14mm	14mm	25.4mm
Selectable Input Range	0...75mV 0...150mV	0...2V 0...20V 0...200V 0...500V	0...0.2V 0...2V 0...20V	0...75mV 0...150mV	0...2V 0...20V 0...200V 0...500V 0...1000V	0...75mV 0...150mV	0-60mV to 200mV, 0-2V to 1000V	0-60mV to 200mV, 0-2V to 1000V	0...75mV 0...150mV
Range Selection	Input Terminals	Input Terminals	DIP Switches	Input Terminals	Input Terminals	Input Terminals	Input Terminals	Input Terminals	Input Terminals
Decimal Point Position	Selection by external wire	Selection by external wire	Selection by DIP switch	Selection by external wire	Selectable by rear Jumper Position	Selectable by rear Jumper Position	Selectable by rear Jumper Position	Selectable by rear Jumper Position	Selectable by rear Jumper Position
Full Scale range Adjustment	10% to 100% of 1999 counts	20% to 100% of 1999 counts	10% to 100% of 1999 counts	10% to 100% of 1999 counts	0 - 100% of 1999 counts	10 - 100% of 1999 counts	10 - 100% of 1999 counts	10 - 100% of 1999 counts	10 - 100% of 1999 counts
Accuracy	0.1% +1D	0.2% +1D	0.2% +1D	0.2% +1D	0.2% +1D	0.1% +1D	<0.1% +1D	<0.1% +1D	0.1% +1D
Power Supply(AC)	24V/110V 230V	24V/110V 230V	-	100V/230V	100V/230V	24V/11V/ 230V	110V/ 230V	110V/ 230V	110V/ 230V
Power Supply(DC)	12V/24V 48V/110V	12V/24V 48V/110V	12V/24V/ 48V	12V/24V 48V/110V	12V/24V 48V/110V	12V/24V/ 48V/110V	24V/ 110V	24V/ 110V	24V/110V 230V
HOLD Function	YES	OPTIONAL	-	YES	-	-	-	-	YES

RISH DPM SERIES FOR AC VOLTAGE & FREQUENCY

TYPE	AC VOLTAGE				Frequency	
Model	48 /96 ACV	48 /96 3PH ACV	96 /96 396 V	96 /96 196V	48/96 AK	196 Hz
Size in mm	48 x 96	48 x 96	96 x 96	96 x 96	48x96	96 x 96
Display Range	+/- 1999	+/- 1999	+/- 1999	+/- 1999	+/-1999	+/- 1999
Digit Height	14mm	14mm	14mm/20mm	14mm/20mm	14mm	14mm/20mm
Selectable Input Range	0...500V	0...110V 0...240V 0...415V	0...110V 0...240V 0...415V	0...500V	12...199.9Hz 12...500Hz Wide I/P voltage 80V.. 700V AC	12...199.9Hz 12...500Hz Wide I/P voltage 80V...700V AC
Range Selection	-	-	-	-	Short Link	-
Decimal Point Position	Selection by Short Links	Selection by Short Links	Selection by Short Links	Selection by Short Links	Selection by Short Links	Selection by Short Links
Full Scale range Adjustment	5 - 100% of 1999 counts	5 - 100% of 1999 counts	5 - 100% of 1999 counts	5 - 100% of 1999 counts	Fine Adjustment	Fine Adjustment
Accuracy	0.5% +1D	0.5% +1D	0.5% +1D	0.5% +1D	0.25% +5D	+0.25%+D5
Power Supply(AC)	110V/230V	110V/230V	110V/230V	110V/230V	24V/110V/ 230V	110V/230V
Power Supply (DC)	12V/24V/ 48V/110V	12V/24V/ 48V/110V	12V/24V/ 48V/110V	12V/24V/ 48V/110V	24V, 48V	24V
HOLD Function	-	-	-	-	YES	OPTIONAL

RISH DPM - CURRENT AND VOLTAGE MEASUREMENT & TEMPERATURE

Type	DC CURRENT / VOLTAGE		AC CURRENT/ VOLTAGE	TEMPERATURE	
Model	24/96S	24/48 D	48/96 AC	48/96T	
Size in mm	24 X 96	24 X 48	48 x 96	48 x 96	
Display Range	+/- 1999	+/- 1999	+ / - 1999	1999	1999
Digit Height	8mm	8mm	14mm	14mm	14mm
Selectable Input Range	0..1mA 0..20mA 0...200mA 4..20mA 0..0.2V 0..1V 0..5V 0..25V 0..100V 0..300V	0..10V 0..1mA 0..20mA 4..20mA	0...500V 0...1A 0...5A	Selectable Sensor Pt100 -100°C to 850°C -100°C to 199.9°C Selectable 2 wire/ 3 wire/ 4 wire Ni100 -20°C to 130°C Selectable 2 wire/ 3 wire/ 4 wire	
Range Selection	Short Link & external wire	DIP Switches	I/P Terminals / DIP Switches	DIP Switches	
Decimal Point Position	Selection by Short Links	Selection by DIP switch	Selection by DIP switch	Selection by external wire	
Full Scale range Adjustment	20% to 100% of 1999 counts	10% to 100% of 1999 counts	10 - 100% of 1999 counts	+/- 5%	
Accuracy	0.2% +1D	0.2% +1D	0.5% +1D	0.2% + 1 Digit	
Power Supply(AC)	230V AC	-	24V/110V/ 230V	24V/110V/ 230V	
Power Supply(DC)	110V/48V 24V/12V/5V	12V/24V/ 48V	12V/24V 48V/110V	12V/24V 48V/110V	
HOLD Function	OPTION	-	-	YES	

RISH DPM SERIES FOR DC CURRENT

Type	DC CURRENT									
Model	48/96A	48/96 B	48/96 DCA	96/96 ADC-B	72/144 A	72/144 B	48/96 ADCN	96/96 ADCN	72/144 AN	72/144 BN
Size in mm	48 X 96	48 X 96	48 X 96	96 X 96	72/144	72/144	48 X 96	96 X 96	72/144	72/144
Display Range	+/- 1999	+/- 1999	+/- 1999		+/- 1999	+/- 1999	+/-19999	+/-19999	+/-19999	+/-19999
Digit Height	14mm	14mm	14mm	14/20mm	25.4mm	25.4mm	14mm	14mm	25.4mm	25.4mm
Selectable Input Range	0...2mA 0...20mA 0...200mA	0...20mA 4...20mA	0...20A	0...20mA 4...20mA	0...2mA 0...20mA 0...200mA	0...20mA 4...20mA	0...20mA 4...20mA	0...20mA 4...20mA	0...2mA 0...20mA 0...200mA	0...20mA 4...20mA
Range Selection	Input Terminals	Input Terminals	N/A	By Jumpers	Input Terminals	Input Terminals	Input Terminals	Input Terminals	Input Terminals	Input Terminals
Decimal Point Position	Selection by external wire	Selection by external wire	Short Links	Short Links	Selectable by rear Jumper Position	Selectable by rear Jumper Position	Selectable by rear Jumper Position	Selectable by rear Jumper Position	Selectable by rear Jumper Position	Selectable by rear Jumper Position
Full Scale range Adjustment	10% to 100% of 1999 count	10% to 100% of 1999 count	5% to 100% of 1999 counts	10 - 100% of 1999 counts	10% to 100% of 1999 count	10% to 100% of 1999 count	10% to 100% of 1999 count	10% to 100% of 1999 count	10% to 100% of 1999 count	10% to 100% of 1999 count
Accuracy	0.1% +1D	0.1% +1D	0.5% +1D	0.1% +1D	0.1% +1D	0.1% +1D	0.1% +1D	<0.1% +1D	0.1% +1D	0.1% +1D
Power Supply (AC)	24V/ 110V/ 230V	24V/ 110V/ 230V	110V / 230V	110V / 230V	24V/ 115V/ 230V	24V/ 115V/ 230V	110V / 230V	110V / 230V	110V / 230V	110V / 230V
Power Supply (DC)	110V/ 48V/ 24V/ 12V/	110V/ 48V/ 24V/ 12V/	24V	12V/24V/ 48V/110V	5V/12V/ 24V/ 48V/110V	12V/24V/ 48V/110V	24V/ 110V	24V/ 110V	5V/12V/ 24V/ 48V/110V	24V/110V/ 230V/220V
HOLD Function	YES	YES	-	-	-	-	-	-	YES	YES

RISH DPM SERIES FOR AC CURRENT

Type	AC CURRENT				
Model	48/96 ACI	48/96 3PH ACI	96/96 396 A	96/96 196A	48/96 ACA
Size in mm	48 x 96	48 x 96	96 x96	96 x 96	48 x 96
Display Range	+ / - 1999	+ / - 1999	+ / - 1999	+ / - 1999	+ / - 1999
Digit Height Optional	14mm -	14mm -	14mm 20mm	14mm 20mm	14mm -
Selectable Input Range	0...1A or 0...5A	0...1A or 0...5A	0...1A or 0...5A	0...1A 0...5A	0...20A
Range Selection	-	-	-	-	-
Decimal Point Position	Selection by Short Links	Selection by Short Links	Selection by Short Links	Selection by Short Links	Selection by Short Links
Full Scale range Adjustment	5 - 100% of 1999 counts	5 - 100% of 1999 counts	5 - 100% of 1999 counts	5 - 100% of 1999 counts	5 - 100% of 1999 counts
Accuracy	0.5% +1D	0.5% +1D	0.5% +1D	0.5% +1D	0.5% +1D
Power Supply(AC)	110V/230V	110V/230V	110V/230V	110V/230V	110V/230V
Power Supply(DC)	12V/24V/ 48V/110V	12V/24V/ 48V/110V	12V/24V 48V/110V	12V/24V 48V/110V	24V
HOLD Function	-	-	-	-	-

PRODUCT FEATURES

- ▲ On site programmable PT/CT ratios
- ▲ User selectable CT Secondary 5A/1A
- ▲ User selectable PT Secondary
- ▲ User selectable CT Primary
- ▲ User selectable PT Primary
- ▲ Onsite selection of Auto scroll / Fixed Screen
- ▲ Auxillary Power Supply
- ▲ Low back depth
- ▲ True RMS measurement
- ▲ 4 Digits LED Display
- ▲ Function keys
- ▲ Enclosure Protection for dust and water
- ▲ EMC Compatibility
- ▲ Screen No. storage
- ▲ Min Max storage of parameters possible



TECHNICAL SPECIFICATIONS:

	Input Voltage (PGDV)	Input Voltage (PGD3V)
Nominal input voltage (AC RMS)	Phase -Neutral 290VL-N .	Phase -Neutral 290V L-N , Line-Line 500V L-L
Max continuous input voltage	120% of rated value	120% of rated value
Nominal input voltage burden	< 0.3 VA approx.	< 0.3 VA approx. per phase
System PT secondary values	60VLN to 290VLN programmable on site.	100VLL to 500VLL programmable on site.
System PT primary values	60VLN to 999kVLN programmable on site.	100VLL to 999kVLL programmable on site.
	Input Current (PGDA)	Input Current (PGD3A)
Nominal input current	5A AC RMS	5A AC RMS
System CT secondary values	1A & 5A programmable on site.	1A & 5A programmable on site.
System CT primary values	From 1A up to 999kA (for 1 or 5 Amp)	From 1A up to 999kA (for 1 or 5 Amp)
Max continuous input current	120% of rated value	120% of rated value
Nominal input current burden	< 0.2 VA approx. per phase	< 0.2 VA approx. per phase

Accuracy:	
Voltage	±0.5% of range + 1 Digit (10... 100% of Nominal value)
Current	±0.5% of range + 1 Digit (10... 100% of Nominal value)
Operating Measuring Ranges:	
Voltage Range	10... 120% of rated value
Current Range	10 ... 120% of rated value
Frequency	45...65 Hz
Auxiliary Supply:	
External Aux	40 V – 300V AC/DC (± 5 %)
Frequency range	45 to 65 Hz
VA burden	3 VA Approx.
Dimensions and Weights :	
a) 96x96 DPM	
Bezel size	96 mm x 96 mm DIN 43 718.
Panel cut-out	92 +0.8 mm x 92 + 0.8 mm.
Overall depth	55 mm.
Weight	300 gm. Approx.
b) 48x96 DPM	
Bezel size	96 mm x 48 mm DIN 43 718
Panel cut-out	92 + 0.8 mm x 43.5 + 0.6 mm.
Overall depth	68 mm.
Weight	250 gm. Approx.

Ordering information	Ordering Code
PROGRAMMABLE RISH DPM	
DPM Cutout Type	
96x96 DPM	96x96
48x96 Low Depth DPM	48x96
Parameter Type	
1 Phase Current	PGDA
1 Phase Voltage	PGDV
Display Type	
14mm Display digit height	14mm
20mm Display digit height	20mm
Note: In case of 48x96 Low Depth DPM only 14mm Display digit height is available.	
Order Code Example:	
PROGRAMMABLE RISH DPM- 96x96 - PGDV – 20mm	
PROGRAMMABLE RISH DPM, 96x96, 1 Phase Voltage, 20mm display digit height.	



RISH DPM 96 x 96 mm
kW/kVAr/kVA



RISH COS φ 96 x 96 mm

New RISH DPM 96 x 96 Series measures Active Power, Reactive Power, Apparent Power and Power factor of Three Phase and Single Phase network.

PRODUCT RANGE :

- ▲ Active Power (kW) DPM
- ▲ Reactive Power DPM (kVAr)
- ▲ Apparent Power (kVA) DPM
- ▲ Power Factor (PF) DPM

FEATURES:

- ▲ Onsite programmable PT/CT ratios.
- ▲ User selectable CT secondary 5A/1A.
- ▲ Onsite user selectable Power Parameters
- ▲ TRMS measurement.
- ▲ Enclosure Protection Conforms to IP 54 for Front Panel.

RISH DPM POWER (ACTIVE, REACTIVE, APPARENT) AND POWER FACTOR

Type	Power (Active, Reactive, Apparent)			Power Factor
	kW	kVAr	KV A	PF
Model				
Size in mm	96 x 96			
Digit Height	11 mm or 20mm			
Input Voltage	110VL-L (63.5VL-N)			
	230VL-L (133VL-N)			
	415VL-L (239.6VL-N)			
	440VL-L (254VL-N)			
Onsite Selection	Primary PT/CT, CT Secondary 1/5A, 3PH 3W/4W			NA
	Onsite Selection of Power Parameter			
Accuracy	Accuracy	-/+ 0.5%	-/+ 1%/+ 0.5%	+/- 2%
Aux Supply(AC)	110VAC , 230VAC, 380VAC (-15%/+ 20%)			
Aux Supply(AC/DC)	100 - 250V AC / DC +/-10%			
Power Supply(DC)	12 - 48VDC +/-10%			

Ordering Information	Ordering Code
	DPM
Parameter	
Power Factor	PF
Power (Active / Reactive / Apparent)*	PW
System Type**	
3Phase 3Wire	3
3Phase 4Wire	4
1Phase	1
Input Voltage	
110VL-L (63.5VL-N)	110
230VL-L (133VL-N)	230
415VL-L (239.6VL-N)	415
440VL-L (254VL-N)	440
Input Current	
1 Amp	1
5 Amp	5
Aux Supply	
110VAC (-15%/+ 20%)	L
230VAC (-15%/+ 20%)	M
380VAC (-15%/+ 20%)	H
100 - 250V AC/DC +/-10%	AD
12 - 48VDC +/-10%	D
Digit Height	
11 mm	11
20m	20

* Any One of the parameter can be selected to be displayed on site

** CT ratio/ PT ratio / System type programmable on site only for Power DPM