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Digital Expertise



RISHABH

**Rishabh Instruments Limited**  
Pricelist w.e.f January 2023

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0100

# Digital Panel Meters



KMAT	Model	Size (H x W x D)	Description	Auxiliary Supply	LP (INR)
<b>Programmable AC Ammeter</b>					
EP99	RISH EINE I	48 x 96 x 68 mm 96 x 96 x 40 mm	Input : 1A /5A (Programmable) Display : 14 mm LED Display 1 Phase Network Accuracy Class : 1.0 4 Digit	40...300V AC/DC or 20...40V AC / 20...60V DC	845
			Input 1A /5A (Programmable) Display : 14 mm LED Display 3Ph 3W/4W Network Accuracy Class : 1.0 4 Digit		1,410
		48 x 96 x 68 mm	Input : 100mA (Primary - 63 / 125 / 250A programmable) Display : 14 mm LED Display 3Ph 3W/4W Network Accuracy Class : 0.5 4 Digit		1,555
ED99	RISH EINE NX	96 x 96 x 40 mm	Input : 1A /5A (Programmable) 1 Phase Network Accuracy Class : 0.5 4 Digit	60...300V AC/DC	Available from Apr'23
			Input : 1A /5A (Programmable) 3Ph 3W/4W Network Accuracy Class : 0.5 4 Digit		
<b>Programmable AC Voltmeter</b>					
EP99	RISH EINE V	48 x 96 x 68 mm 96 x 96 x 40 mm	Input : 57.5 -300 V L-N (Programmable) & 600V LN (Fixed) Display : 14 mm LED Display 1 Phase Network Accuracy Class : 1.0 4 Digit	40...300V AC/DC or 20...40V AC / 20...60V DC	845
			Input : 100- 500 V L-L (Programmable) Display : 14 mm LED Display 3Ph 3W/4W Network Accuracy Class : 1.0 4 Digit		1,410
ED99	RISH EINE NX		Input : 57.5 -480 V L-N (Programmable) 1 Phase Network Accuracy Class : 0.5 3 Digit	60...300V AC/DC	Available from Apr'23
			Input : 100- 500 V L-L (Programmable) 3Ph 3W/4W Network Accuracy Class : 0.5 4 Digit		
<b>Non- Programmable AC Ammeter</b>					
DA14	RISH ACI	72 x 144 x 94 mm	Input : 1 / 5A (To be specified while ordering only) Display : 26 mm LED Display Single Phase Network Accuracy Class : 1 4 1/2 Digit	110 / 230V AC	3,980
				24 / 110 / 220V DC	5,030
<b>Non- Programmable AC Voltmeter</b>					
DA14	RISH ACV	72 x 144 x 94 mm	Input : 110 / 240 / 500V (To be specified while ordering only) Display : 26 mm LED Display Single Phase Network Accuracy Class : 1 4 1/2 Digit	110 / 230V AC	3,980
				24 / 110 / 220V DC	5,030
Optional Accessories					
Accuracy Class 0.5 for RISH EINE & RISH ACI / ACV 72x144					210
400Hz for RISH EINE & RISH ACI/ACV 72 x 144 only					200
Side mounting clamp (Applicable for 96 x 96mm size, including EINE +)					
IP54 Kit (48 x 96 & 96 x 96)					20



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# Digital Panel Meters



KMAT	Model	Size (H x W x D)	Description	Auxiliary Supply	LP (INR)
<b>Programmable DC Ammeter</b>					
EI99	RISH EINE +	96 x 96 x 35 mm 48 x 96 x 138 mm	Input : -10...0...+10mA / -20...0...+20mA / 4...20mA / -1...0...+1A / -5...0...+5A Accuracy Class : 0.5 4 Digit (Input range to be specified while ordering only)	40...300VAC/DC or 20...40VAC / 20...60VDC	1,300
<b>Non - Programmable DC Ammeter</b>					
		48 x 96 x 138 mm	Input : 0 - 20 & 4 - 20mA Display : 14 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC	2,190
				24 / 110 V DC	2,865
DD14	RISH ADC	96 x 96 x 55 mm	Input : 0 - 20 & 4 - 20mA Display : 14 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC	2,325
				24 / 110 V DC	2,965
		72 x 144 x 94 mm	Input : 0 - 20 & 4 - 20mA Display : 26 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC	4,365
				24 / 110 V DC	5,125
<b>Programmable DC Voltmeter</b>					
EI99	RISH EINE +	96 x 96 x 35 mm 48 x 96 x 68 mm	Input : -75...0...+75mV / -150...0...+150mV / -5...0...+5V / -10...0...+10V / 0...500V / 0...1000V Accuracy Class : 0.5 4 Digit (Input range to be specified while ordering only)	40...300VAC/DC or 20...40VAC / 20...60VDC	1,300
<b>Non - Programmable DC Voltmeters</b>					
	RISH VDC C	48 x 96 x 138 mm	Input : 0 - 60 / 75 / 150 / 200mV Display : 14 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC	2,260
				24 / 110 V DC	2,945
	RISH VDC F		Input : 0 - 2 / 20 / 200 / 500 / 1000V Display : 14 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC	2,360
				24 / 110 V DC	3,085
DD14	RISH VDC C	96 x 96 x 55 mm	Input : 0 - 60 / 75 / 150 / 200mV Display : 14 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC	2,360
				24 / 110 V DC	3,055
	RISH VDC F		Input : 0 - 2 / 20 / 200 / 500 / 1000V Display : 14 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC	2,360
				24 / 110 V DC	3,055
	RISH VDC C	72 x 144 x 94 mm	Input : 0 - 60 / 75 / 150 / 200mV Display : 26 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC	4,325
				24 / 110 V DC	5,070
	RISH VDC F		Input : 0 - 2 / 20 / 200 / 500 / 1000V Display : 26 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC	4,325
				24 / 110 V DC	5,070



# Digital Panel Meters



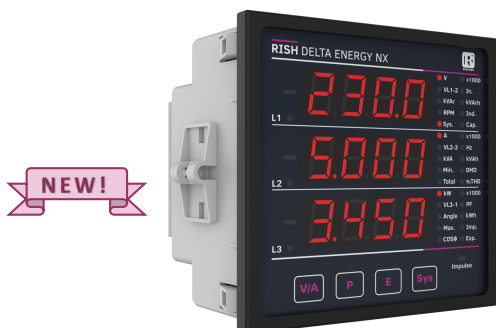
KMAT	Model	Size (H x W x D)	Description	Auxiliary Supply	LP (INR)
<b>Power DPM</b>					
		96 x 96 x 80 mm	Input : 63.5 / 133 / 239.6 / 254V L-N 110 / 230 / 415 / 440V L-L & 1 or 5A Display : 11 mm or 20 mm LED Display Single & 3Ph 3W/4W Network Accuracy Class : 1) KW / KVA - $\pm 0.5\%$ of range 2) KVAR - $\pm 1\%$ of range Power Range : Max 694.4 MVA for 3 Phase and 333 MVA for 1Phase according to CT/PT Ratio 4 Digit	110 / 230VAC	4,095
PP44	Power DPM	72 x 144 x 94 mm	Input : 63.5 / 133 / 239.6 / 254V L-N 110 / 230 / 415 / 440V L-L & 1 or 5A Display : 26 mm LED Display Single & 3Ph 3W/4W Network Accuracy Class : 1) KW / KVA - $\pm 0.5\%$ of range 2) KVAR - $\pm 1\%$ of range Max 694.4 MVA for 3 Phase and 333 MVA for 1Phase According to CT/PT Ratio 4 Digit	12 - 48VDC 100 - 250 VAC/DC	4,925
		72 x 144 x 94 mm	Input : 63.5 / 133 / 239.6 / 254V L-N 110 / 230 / 415 / 440V L-L & 1 or 5A Display : 26 mm LED Display Single & 3Ph 3W/4W Network Accuracy Class : 1) KW / KVA - $\pm 0.5\%$ of range 2) KVAR - $\pm 1\%$ of range Max 694.4 MVA for 3 Phase and 333 MVA for 1Phase According to CT/PT Ratio 4 Digit	45...300VAC/DC or 20...40VAC / 20...60VDC	5,515
<b>Power Factor DPM</b>					
		96 x 96 x 80 mm	Input : 63.5 / 133 / 239.6 / 254V L-N 110 / 230 / 415 / 440V L-L & 1 or 5A Display : 11 mm or 20 mm LED Display Single & 3Ph 3W/4W Network Accuracy Class : $\pm 2^\circ$ 4 Digit	110 / 230VAC	4,280
PF44	PF DPM	72 x 144 x 94 mm	Input : 63.5 / 133 / 239.6 / 254V L-N 110 / 230 / 415 / 440V L-L & 1 or 5A Display : 26 mm LED Display Single & 3Ph 3W/4W Network Accuracy Class : $\pm 2^\circ$ 4 Digit	12 - 48VDC 100 - 250 VAC/DC	4,925
		72 x 144 x 94 mm	Input : 63.5 / 133 / 239.6 / 254V L-N 110 / 230 / 415 / 440V L-L & 1 or 5A Display : 26 mm LED Display Single & 3Ph 3W/4W Network Accuracy Class : $\pm 2^\circ$ 4 Digit	45...300VAC/DC or 20...40VAC / 20...60VDC	5,670
<b>Frequency DPM</b>					
		48 x 96 x 68 mm			
DH10	RISH DPM Hz	96 x 96 x 55 mm	Input : 50...500V Range: 10...500Hz Accuracy : $\pm 0.5\text{Hz} \pm 1$ Digit 4 Digit	40...300VAC/DC or 20...40VAC / 20...60VDC	1,420
		72 x 144 x 94 mm			3,675



# Multi-Function Meters



KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>LED Meters</b>				
<b>Basic Range</b>				
NEW! AV00	RISH CD30	Input : 57.7...300 V L-N 30A or 60A		1,370
	RISH CD60	2 Line LED Display 4Digit		1,410
	RISH CD30 - with RS485	Single Phase Network		2,220
	RISH CD60 - with RS 485	Accuracy Class : 1		2,260
	RISH CR12	Parameters : VAF + THD+ RH + OH + NI + MM + RPM	60 - 280V AC/DC or 20-60 V AC/DC	1,370
	RISH CR12 - with RS485 + 1 Relay	Input : 100...500 V L-L 100mA 2 Line LED Display 4Digit Single Ph & 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + THD+ RH + OH + NI + MM + RPM		2,370
VF10	RISH OPTIMA VAF	Input : 100...500 V L-L 1 / 5A 3 Line LED Display 3Digit Single Ph & 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + RH + OH + NI + MM + RPM	40 - 300V AC/DC or 20-40 V AC / 20-60 V DC	1,610
DL10	RISH DELTA VAF	Input : 100...500 V L-L 1 / 5A 3 Line LED Display 4 Digit Single Ph & 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + RH + OH + NI + MM + RPM		2,245
DL20	RISH DELTA Power	Input : 100...500 V L-L 1 / 5A 3 Line LED Display Single Ph & 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + kW + kVA + kVA + PF + PA + RH + OH + NI + MM + RPM	40 - 300V AC/DC or 12- 48 V DC	3,380
DL30	RISH DELTA Energy	Input : 100...500 V L-L 1 / 5A 3 Line LED Display Single Ph & 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + kW + kVA + kVA + kWh + kVAh + kVAh + PF + PA + RH + OH + NI + MM + RPM + DM + MD		5,820
DE30	RISH DELTA Energy NX NEW!	Input : 100...500 V L-L 1 / 5A 3 Line LED Display Single Ph & 3Ph 3W/4W Network Accuracy Class : 1, as per 62053-21 Parameters : VAF + kW + kVA + kVA + kWh + kVAh + kVAh + PF + PA + RH + OH + NI + MM + RPM + DM + MD + THD + NC	60 - 300V AC/DC or 20 - 60 V AC/DC	Available from Apr23
<b>AC Energy Meter</b>				
EM91	EM 3490SS	Input : 100 / 230 / 415 / 440 V L-L 1 / 5A Energy Meter with LED Display Single Ph & 3Ph 3W/4W Network Accuracy Class : 1 Parameters : kWh	110V/230V/380V AC or 12 - 48V DC / 100- 250V AC/DC	4,490
EM92	EM 3490DS	Input : 100 / 230 / 415 V L-L 1 / 5A Dual Source Energy Meter with LED Display Single Ph & 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + kW + kVA + kWh + kVAh + PF + RH + OH + NI		5,635
<b>DC Energy Meter</b>				
EM93	RISH EMDC -6001	Basic Model 6001 4 Channel (without USB RTC & In-built Memory for Data logging) Input Voltage : 10-60 / 61-200 / 201-1000V DC Accuracy Class : 1 Parameters : VA + kW + kWh + RH + OH + NI + DM	60...300V AC/DC or 12 - 70 VDC	8,010
	RISH EMDC -6002	Higher Model 6002 4 Channel (with USB + RTC + In-built Memory for Data logging) Input Voltage : 10-60 / 61-200 / 201-1000V DC Accuracy Class : 1 Parameters : VA + kW + kWh + RH + OH + NI + DM + MD		11,210
EM94	RISH EMDC -6000	Basic Model 6000 1 Channel Input Voltage : 10-60 / 61-200 / 201-1000V DC Shunt Input : 50-150mV Accuracy Class : 0.5 Parameters : VA + kW + kWh + RH + OH + NI + DM	60 - 300 V AC / DC or 12 - 60 VDC	3,880



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# Multi-Function Meters



KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>LED Meters - Advance Range</b>				
MA3A	RISH MASTER 3430	Input : On site Programmable - Voltage - 57.7 - 346 VL-N, Current - 1/5A Single Phase Network Accuracy Class : 1 Parameters : VAF + kW + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + MM + NC + THD	60- 300V AC/DC or 12-60 V AC/DC or For meter with Ethernet port the aux. supply will be 65...300V AC/DC	6,805
		Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + kW + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + MM + NC + THD		7,205
MA4A	RISH MASTER 3440	Input : On site Programmable - Voltage - 57.7 - 346 VL-N, Current - 1/5A Single Phase Network Accuracy Class : 1 Parameters : VAF + kW + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD	60- 300V AC/DC or 12-60 V AC/DC Aux supply will be 100-550 VAC/DC for accuracy class 0.2s or For meter with Ethernet port the aux. supply will be 65...300V AC/DC	8,815
		Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + kW + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD		9,590
<b>LCD Meters</b>				
	RISH EM 1320	Input : On site Programmable - Voltage - 100 - 500 VL-L, Current - 1/5A Single Phase 3Ph 3W/4W Network with LCD Display Accuracy Class : 1 Parameters : kWh + kVAh		2,815
WHOP	RISH EM 1330	Input : On site Programmable - Voltage - 100 - 500 VL-L, Current - 1/5A Single Phase 3Ph 3W/4W Network with LCD Display Accuracy Class : 1 Parameters : VAF + kW + kVA + kWh + kVAh + PF + PA + RH + OH + NI + MM + NC	60...300VAC/DC or 20...40VAC or 20...60VDC	3,405
	RISH EM 1340	Input : On site Programmable - Voltage - 100 - 500 VL-L, Current - 1/5A Single Phase 3Ph 3W/4W Network with LCD Display Accuracy Class : 1 Parameters : VAF + kW + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD		5,130
	RISH EM 2340DS	Input : On site Programmable - Voltage - 100 - 500 VL-L, Current - 1/5A Dual Source Energy Meter with LCD Display Single Phase 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + kW + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD		4,075
MA3L	RISH LM 1340 <b>NEW!</b>	Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A Big LCD Display, 3 Line 5 Digits 3Ph 3W/4W Network Accuracy Class : 0.5S Energy Parameters - Individual phasewise and system Energy Measurement as per IEC 62053-22 / 23 and IEC 61557-12 Parameters : VAF + kW + kVAr + kVA + kWh + kVArh + kVAh + PF + DPF + PA + RH + OH + NI + MM + NC + THD + RPM + IH + TF + UB		8,500
MA4L	RISH LM 1360	Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A Big LCD Display 3Ph 3W/4W Network Accuracy Class : 0.5S Parameters : VAF + kW + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + RPM + IH	100-550V AC/DC or 12-60V AC/DC	9,485
		Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 100mA over RJ12 Big LCD Display 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + kW + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + RPM + IH		8,365



**NEW!**



**NEW!**

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# Multi-Function Meters



KMAT	Model	Description	Auxiliary Supply	LP (INR)
		Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A Big LCD Display 3Ph 3W/4W Network Accuracy Class : 0.2S, RS 485 Modbus communication Energy Parameters - Individual phasewise and system Energy Measurement as per IEC 62053-22 / 23 and IEC 61557-12 %THD and individual Harmonics Measurement ( upto 63rd Harmonic) Parameters : VAF + kW + kVA + kWh + kVAh + kVAh + PF + DPF + PA + RH + OH + NI + MM + NC + THD + RPM + IH + TF + UB		21,000
MA8L	RISH LM 1380 <b>NEW!</b>	Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A Big LCD Display 3Ph 3W/4W Network Accuracy Class : 0.2S, Ethernet Interface (MODBUS TCP/IP Protocol) Energy Parameters - Individual phasewise and system Energy Measurement as per IEC 62053-22 / 23 and IEC 61557-12 %THD and individual Harmonics Measurement ( upto 63rd Harmonic) Parameters : VAF + kW + kVA + kWh + kVAh + kVAh + PF + DPF + PA + RH + OH + NI + MM + NC + THD + RPM + IH + TF + UB	100-550V AC/DC or 12-60V AC/DC	23,600
		Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A Big LCD Display 3Ph 3W/4W Network Accuracy Class : 0.2S, RS 485 + Ethernet Interface (MODBUS TCP/IP Protocol) + 4Digital Inputs + 2 Digital Outputs Energy Parameters - Individual phasewise and system Energy Measurement as per IEC 62053-22 / 23 and IEC 61557-12 %THD and individual Harmonics Measurement ( upto 63rd Harmonic) Parameters : VAF + kW + kVA + kWh + kVAh + kVAh + PF + DPF + PA + RH + OH + NI + MM + NC + THD + RPM + IH + TF + UB		38,000
	Multiloading Monitor RISH ML 1400 (Class 1)	Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 100mA over RJ12 Big LCD Display 3Ph 3W/4W Network Parameters : VAF + kW + kVA + kWh + kVAh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + RPM + IH + RCM + TAR + 3HL	100-550V AC/DC	16,500
MLM1	Multiloading Monitor RISH ML 1410 (Class 0.5s)	RS485 (Modbus RTU) - 2 Relay		17,880
	Optional Modules	RS485 (Modbus RTU) - 2 Relay - USB RS485 (Modbus RTU) - 4 Relay (USB not possible) Ethernet (Modbus TCP/IP) (USB & Relay not possible) Data-logging <b>QuickFix Module - RJ00 - 3x single phase CTs with 100mA to 100mA (via RJ12)</b> <b>QuickFix Module - RJ01 - 3x CTs with 1A to 100mA (via RJ12)</b> <b>QuickFix Module - RJ05 - 3x CTs with 5A to 100mA (via RJ12)</b> <b>QuickFix Module - RC30 - 3x CBCT to RJ12</b>		1,450 1,500 2,555 2,080 500 990 1,050 600



**MultiLoad Monitor**



**QuickFix Module**



# Multi-Function Meters



KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>Touch Screen Meters</b>				
MA3I	RISH MASTER 3430 i	Input : On site Programmable - Voltage - 57.7 - 346 VL-N, Current - 1/5A Single Phase Network Accuracy Class : 1 Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + MM + NC + THD	60- 300V AC/DC or 12-60 V AC/DC or For meter with Ethernet port the aux. supply will be 65...300V AC/DC	8,915
		Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + MM + NC + THD		9,520
MA4I	RISH MASTER 3440 i	Input : On site Programmable - Voltage - 57.7 - 346 VL-N, Current - 1/5A Single Phase Network Accuracy Class : 1 Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD	60- 300V AC/DC or 12-60 V AC/DC Aux supply will be 100- 550 VAC/DC for accuracy class 0.2s or For meter with Ethernet port the aux. supply will be 65...300V AC/DC	11,705
		Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD		12,315
MA4S	RISH MASTER 3440 IDL	Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A 3Ph 3W/4W Network With Data logging Accuracy Class : 0.2s Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC Output - RS485 - 2 Pulse Output	100-550V AC/DC or 12- 60V AC/DC	18,975
		Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A 3Ph 3W/4W Network With Data logging Accuracy Class : 0.2s Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC Output - RS485 - 1 Pulse Output - 2 Analog Output		21,030
		Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A 3Ph 3W/4W Network With Data logging Accuracy Class : 0.2s Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC Output - Ethernet (MODBUS TCP/IP)		24,270
<b>Power Quality Monitor (Touch Screen)</b>				
PA00	RISH PQM	Input : On site Programmable - Voltage - 100 - 500 VL-L, Current - 1/5A 3Ph 3W/4W Network Accuracy Class : 0.5s Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC + SG + SW + OC	60-300V AC/DC	17,325
<b>Advance Dual Source Energy Meter (Touch Screen)</b>				
WH10	RISH 3490DS i	Input : On site Programmable - Voltage - 100 - 500 VL-L, Current - 1/5A 3Ph 3W/4W Network or 1 Phase Accuracy Class : 0.5s Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC + GE	60-300V AC/DC	18,270
<b>Smart Demand Controller (Touch Screen)</b>				
DM82	RISH DMC i	Input : On site Programmable - Voltage - 100 - 500 VL-L, Current - 1/5A 3Ph 3W/4W Network or 1 Phase Accuracy Class : 0.5s , 4 Relay output Parameters : VAF + kW + kVA <sub>r</sub> + kVA + kWh + kVA <sub>rh</sub> + kVA <sub>h</sub> + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC	60-300V AC/DC	26,685
<b>Power Quality Analyzer (Touch Screen)</b>				
PA10	RISH POA	Input : On site Programmable - Voltage - 100 -866 VL-L, Current - 1/5A 3Ph 3W/4W Network Accuracy Class : 0.2s 8GB External memory card with 2 Relay RS 485 Parameters : Refer to the datasheet for details	85-265V AC/DC	1,00,140

# Multi-Function Meters

KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>Optional Accessories for Multi-function Meters*</b>				
1	Accuracy class 0.5	RM 3430, RM 3440, RM 3430i, RM 3440i, EM 3490SS, EM 3490DS		1,450
2	Accuracy class 0.2	RM 3430, RM 3440, RM 3430i, RM 3440i		2,405
3	Accuracy class 0.2s	RM 3440, RM 3440i, LM 1350/1360 (Aux supply will be 100-550 VAC/DC)		2,625
4	RS485 (Modbus )	EM 1320, EM 1330, EM 1340, EM 3490SS, EM 3490DS, EM 2340DS, DELTA Energy, PQM, DMCI, EM 3490DSi, RISH EMDC 6001/2, RISH LM 1340		1,155
5	RS485 + 2 Relay / Pulse	RM 3430, RM 3440, RM 3430i, RM 3440i, LM 1360, PQM, EM 3490DSi,		1,155
6	RS485 + 2 Relay / Pulse	RISH EM DC 6000		1,575
7	RS485 + 1 Relay / Pulse + 2 Analog	RM 3430, RM 3440, RM 3430i, RM 3440i		3,005
8	RS 485 MODBUS RTU + 2 Digital Input + 2 Digital Output	RISH LM 1340 (Available with Accuracy Class 0.2S only)		2,430
9	4 Digital Input + 2 Digital Output	RISH LM 1380		2,000
10	1 Relay o/p (Pulse /Limit)	EM1320, EM 1330, EM 1340, EM 2340DS, EM 3490SS, EM 3490DS, DELTA Energy, OPTIMA / DELTA VAF, DELTA Power		1,065
11	2 Pulse /Relay	EM 1330, EM 1340, EM 2340DS, EMDC 6001/2		1,450
12	Ethernet Interface (MODBUS TCP/IP Protocol)	RM 3430, RM3430i, RM 3440, RM 3440i, PQM, LM 1360, LM 1340		3,900
13	Ethernet MODBUS TCP/IP + 2 Digital Input + 2 Digital Output	RISH LM 1340 (Available with Accuracy Class 0.2S only)		4,985
14	Terminal Sealing	3490SS		105
15	Converter 1	RS 485 to RS 232 Converter (Self Powered)		2,405
16	Converter 2	RS 485 to USB Converter (Self Powered)		5,775
17	4 Relay	RISH EM DC 6001/2		2,405
18	Data logging + Ethernet + RTC	LM 1360		4,635
19	Data logging + USB + RTC + RS 485 + 2 Relay	LM 1360 / EMDC 6000		3,530
20	IP 65 Kit	For 96x96 size models		130
21	Side mounting clamp	OPTIMA VAF / DELTA Series / LM 13xx Series / EM 13xx Series / EM 2340		20
22	SPAR-SD00-0707	GSM MODULE LM 13xx 0.5S		
23	SPAR-SD00-0709	GSM MODULE EM 13xx		17,345 (Including The software)
24	SPAR-SD00-0710	GSM MODULE EM 2340		
25	SPAR-SD00-0708	GSM MODULE LM13xx 0.2S		
26	SPAR-SD00-0717	SIM CARD (2 YEARS DATA)	Standard Discount is not applicable	2,300
27	SPAR-SD00-0718	SIM CARD (5 YEARS DATA)		5,000
28	Additional nodes	Additional Report / Notification / Alarm facility - required. For additional node get in touch with RIPL/ESL sales team.		2,500
29	DIN Rail Kit	Applicable for 96 x 96 Products		240

\*Before selecting any single or multiple optional accessories / outputs please refer to the respective datasheets to check feasibility

## List of abbreviations

VAF - Voltage Current & Frequency

kW - Active Power

kVAr - Reactive Power

kVA - Apparent Power

kWh - Active Energy

kVArh - Reactive energy

kVAh - Apparent Energy

PF - Power Factor

TAR - Tariff

UB - Unbalance (Voltage and Current - Over Modbus)

PA - Phase Angle

RH - Run Hour

OH - On Hour

NI - No. of interruptions

MM - Min / Max Parameters

DM - Demand

MD - Max Demand

NC - Neutral Current

3HL - 3 Phase Health Monitoring

THD - % Total Harmonics distortion

IH - Individual Harmonics

RTC - Real time clock

SG - Sag

SW - Swell

OC - Over Current

GE - Generator Event

RCM - Residual Current Monitoring

DPF - Distorted Power Factor (Over Modbus)

# Electrical Transducers



KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>Programmable RISH CON Series</b>				
CM41	RISH CON I	Type : Current (TRMS) Input : 1...5A Output : 0...20mA / 4...20mA OR 0...10V Accuracy Class : 0.2		3,745
	RISH CON V	Type : Voltage (TRMS) Input : 57...500V Output : 0...20mA / 4...20mA OR 0...10V Accuracy Class : 0.2	60...300VAC/DC or 24...60VAC/DC	
CF41	RISH CON Hz	Type : Frequency (TRMS) Input : 45...55 / 48...52 / 55...65 / 45...65 Hz (57...500V) Output : 0...20mA / 4...20mA OR 0...10V Accuracy Class : 0.2		4,165
CP41	RISH CON P	Type : Power / Power Factor (TRMS) Input : 100...500V LL 1...5A Output : 0...20mA / 4...20mA OR 0...10V / -20mA...0...+20mA / -10V...0...+10V Accuracy Class : 0.2, Class 0.5 for PF and Phase angle		8,020
PR43	RISH CON M	Type : Multi-transducer (TRMS) Input : 100 or 400V L-L 1 or 5A (To be selected while ordering only) Output : 0 / 2 / 4 Analog -20...0...20mA & 0 / 2 / 4 Relay (M-04 M-22 M-40) Communication Port : MODBUS RS 485 & USB Accuracy Class : 0.5	85...253 VAC / 90...320 VDC or 20...40 VAC / 20...60 VDC	14,950
CM44	RISH CON M+ 	Type : Multi-transducer (TRMS) Input : 100 to 600V L-L, 1 or 5A Output : Analog Outputs 0...20mA OR 0...10V & 0 / 2 Relay (M-42 M-22 M-40) Communication Port : MODBUS RS 485 & USB Accuracy Class : 0.2 for Voltage & Current Class : 0.2 for Frequency Class : 0.5 for Power & Power Factor Active Energy Class 0.5s as per 62053-22	85...285V AC / DC	<b>Available on request</b>
<b>Programmable RISH DUCER MXX Series</b>				
	RISH DUCER M20	Type : Multi-transducer Input : 100 to 693V L-L 1 to 6A (Configurable) Output : 2 Analog Outputs 0...20mA OR 0...10V Communication Port : RS 232 Accuracy Class : 0.2 for Voltage & Current Class : 0.15 for Frequency Class : 0.25 for Power & Power Factor		16,490
	RISH DUCER M30	Type : Multi-transducer Input : 100 to 693V L-L 1 to 6A (Configurable) Output : 3 Analog Outputs 0...20mA OR 0...10V Communication Port : RS232 Accuracy Class : 0.2 for Voltage & Current Class : 0.15 for Frequency Class : 0.25 for Power & Power Factor		21,460
PM11	RISH DUCER M24	Type : Multi-transducer Input : 100 to 693V L-L 1 to 6A (Configurable) Output : 2 Analog Outputs 0...20mA OR 0...10V 4 Digital Outputs Communication Port : RS 232 Accuracy Class : 0.2 for Voltage & Current Class : 0.15 for Frequency Class : 0.25 for Power & Power Factor	24...60 or 85...230VAC/DC	21,075
	RISH DUCER M42	Type : Multi-transducer Input : 100 to 693V L-L 1 to 6A (Configurable) Output : 4 Analog Outputs 0...20mA OR 0...10V 2 Digital Outputs Communication Port : RS 232 Accuracy Class : 0.2 for Voltage & Current Class : 0.15 for Frequency Class : 0.25 for Power & Power Factor		22,155
	RISH DUCER M40	Type : Multi-transducer Input : 100 to 693V L-L 1 to 6A (Configurable) Output : 4 Analog Outputs 0...20mA OR 0...10V Communication Port : RS 232 & MODBUS RS 485 Accuracy Class : 0.2 for Voltage & Current Class : 0.15 for Frequency Class : 0.25 for Power & Power Factor		25,755

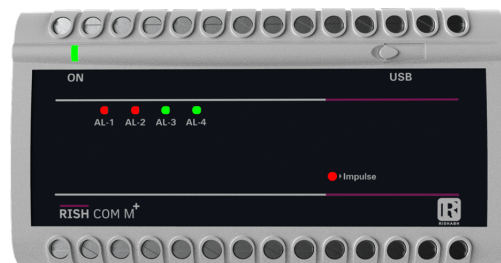
KMAT	Model	Description	Auxiliary Supply	LP (INR)
	RISH DUCER M01	Type : Multi-transducer Input : 100 to 693V L-L 1 to 6A (Configurable) Communication Port : RS 232 & MODBUS RS 485 Accuracy Class : 0.2 for Voltage & Current Class : 0.15 for Frequency Class : 0.25 for Power & Power Factor		18,395
PM11			24...60 or 85...230VAC/DC	
	RISH DUCER M00	Type : Multi-transducer Input : 100 to 693V L-L 1 to 6A (Configurable) Communication Port : RS 232 & LONBUS (LonWorks) Accuracy Class : 0.2 for Voltage & Current Class : 0.15 for Frequency Class : 0.25 for Power & Power Factor		22,950

### Non - Programmable RISH CON Series

CM22	RISH CON CA	Type : Current AVG (Single input Single output) Input : 0...1 / 0...5A Output : 0..10mA / 0...20mA / 2..10mA / 4...20mA / 0...5V / 0...10V Accuracy Class : 0.2		2,570
CM21		Type : Current TRMS (Single input Single output) Input : 0...1 / 0...5A Output : 0..10mA / 0...20mA / 2..10mA / 4...20mA / 0...5V / 0...10V Accuracy Class : 0.2		3,430
CM22	RISH CON CV	Type : Voltage AVG (Single input Single output) Input : 0...63.5V to 0...500V Output : 0..10mA / 0...20mA / 2..10mA / 4...20mA / 0...5V / 0...10V Accuracy Class : 0.2		2,570
CM21		Type : Voltage TRMS (Single input Single output) Input : 0...63.5V to 0...500V Output : 0..10mA / 0...20mA / 2..10mA / 4...20mA / 0...5V / 0...10V Accuracy Class : 0.2		3,430
CM23	RISH CON CA	Type : Current - AVG (Single input Dual output) Input Range : 0...1 / 0...5A Output : 0..10mA / 0...20mA / 2..10mA / 4...20mA / 0...5V / 0...10V Accuracy Class : 0.2		
	RISH CON CV	Type : Voltage - AVG (Single input Dual output) Input Range : 0-63.5 / 0-100 / 0-110 / 0-150 / 0-220 / 0-230 / 0-240 / 0-250 / 0-300 / 0-330 / 0-415 / 0-450 / 0-500V AC Output : 0..10mA / 0...20mA / 2..10mA / 4...20mA / 0...5V / 0...10V Accuracy Class : 0.2	60...300 VAC/DC or 20...40VAC / 20...60VDC	3,760

### Optional Accessories for Electrical Transducers

400Hz	RISH CON P	560
RS 485		1,155
Display Module	RISH CON V, RISH CON I, RISH CON Hz, RISH CON P	780
Dual Output		700
Non Standard Input / Output	RISH CON CA / CV	970
PRKAB 601	Programming RS232 / USB & Configuration Adapter + Cable for RISH CON V, RISH CON I, RISH CON Hz, RISH	1,260



# Electrical Transducers



KMAT	Model	Description	Auxiliary Supply	LP (INR)			
<b>CT with Inbuilt Transducers</b>							
CCT1	RISH CTDUCER 70 x 30mm	Type : Current TRMS (Single input Single output) Input : 0 - 50A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	24V DC ± 15%	3,595			
		Type : Current AVG (Single input Single output) Input : 0 - 50A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,175			
		Type : Current TRMS (Single input Single output) Input : 0 - 100A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,655			
		Type : Current AVG (Single input Single output) Input : 0 - 100A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,230			
		Type : Current TRMS (Single input Single output) Input : 0 - 150A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,705			
		Type : Current AVG (Single input Single output) Input : 0 - 150A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,290			
		Type : Current TRMS (Single input Single output) Input : 0 - 200A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,760			
		Type : Current AVG (Single input Single output) Input : 0 - 200A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,340			
		Type : Current TRMS (Single input Single output) Input : 0 - 250A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,815			
		Type : Current AVG (Single input Single output) Input : 0 - 250A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,395			
		Type : Current TRMS (Single input Single output) Input : 0 - 300A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,870			
		Type : Current AVG (Single input Single output) Input : 0 - 300A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,450			
		Type : Current TRMS (Single input Single output) Input : 0 - 150A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,795			
		Type : Current AVG (Single input Single output) Input : 0 - 150A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,385			
		Type : Current TRMS (Single input Single output) Input : 0 - 200A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,850			
		Type : Current AVG (Single input Single output) Input : 0 - 200A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,440			
		CCT1		RISH CTDUCER 90 x 40 mm	Type : Current TRMS (Single input Single output) Input : 0 - 250A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	24V DC ± 15%	3,900
					Type : Current AVG (Single input Single output) Input : 0 - 250A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,495
Type : Current TRMS (Single input Single output) Input : 0 - 300A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	3,960						
Type : Current AVG (Single input Single output) Input : 0 - 300A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	2,545						
Type : Current TRMS (Single input Single output) Input : 0 - 400A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	4,015						
Type : Current AVG (Single input Single output) Input : 0 - 400A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	2,605						
Type : Current TRMS (Single input Single output) Input : 0 - 500A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	4,065						
Type : Current AVG (Single input Single output) Input : 0 - 500A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	2,660						
Type : Current TRMS (Single input Single output) Input : 0 - 600A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	4,120						
Type : Current AVG (Single input Single output) Input : 0 - 600A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	2,710						
Type : Current TRMS (Single input Single output) Input : 0 - 750A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	4,210						
Type : Current AVG (Single input Single output) Input : 0 - 750A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	2,790						
		Type : Current TRMS (Single input Single output) Input : 0 - 50A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	230V AC, -50 / +15 %, 50/60 Hz	5,670			
		Type : Current AVG (Single input Single output) Input : 0 - 50A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		4,470			
		Type : Current TRMS (Single input Single output) Input : 0 - 100A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		5,705			
		Type : Current AVG (Single input Single output) Input : 0 - 100A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		4,505			
<b>Optional Accessory</b>							
Accessory		Din Rail Mounting Kit		75			

KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>Process Transducers</b>				
PI01	RISH PI 101	Type : Programmable Single output DC Isolator 1 Input-1 Output Input Range - DC Current : 0...20 / 0...10 / 4...20 / 0...24 mA DC DC Voltage : 0...12 / 0...10 / 0...5 / 1...5 VDC, Output - DC Current : 0..10mA / 0...20mA / 2..10mA / 4...20mA DC Voltage : 0...5 / 1...5 / 0...10 / 2...10V Accuracy Class : 0.2	60...300 VAC/DC or 20...40VAC / 20...60VDC	2,155
PI02	RISH PI 102	Type : Programmable Dual output DC Isolator 1 Input-2 Output Input Range - DC Current : 0...20 / 0...10 / 4...20 / 0...24 mA DC DC Voltage : 0...12 / 0...10 / 0...5 / 1...5 VDC, Output - DC Current : 0..10mA / 0...20mA / 2..10mA / 4...20mA DC Voltage : 0...5 / 1...5 / 0...10 / 2...10V Accuracy Class : 0.2		3,235
SI01	RISH CON SI-101	Type : Powerful DC Signal Isolator 1 Input-1 Output Input - DC Current : 0...20mA / 4...20mA / 1...5mA DC Voltage : 0...10V / 2...10V / 1...5V Output - DC Current : 0...20mA / 4...20mA DC Voltage : 0...10V / 2...10V Accuracy Class : 0.2	24...60V AC/DC or 60 ...300V AC/DC	2,135
SI02	RISH CON SI-102	Type : Powerful DC Signal Isolator 1 Input-2 Output Input - DC Current : 0...20mA / 4...20mA / 1...5mA DC Voltage : 0...10V / 2...10V / 1...5V Output - DC Current : 0...20mA / 4...20mA DC Voltage : 0...10V / 2...10V Accuracy Class : 0.2		3,205
	TV 808	Type : DC Isolator 1 Input-1 Output (S17 or E8 Housing) Input - 0.1mA...20mA & 4...20mA & 0.06V...40V Output - DC Current : 0...20mA, 4...20mA DC Voltage : 0...5V, 0...10V Accuracy Class : 0.2 for S17Housing, Class 0.5 for E8 Housing		2,695
TV 08	TV 808	Type : DC Isolator 1 Input-2 Output (S17 or E8 Housing) Input - 0.1mA...20mA & 4...20mA & 0.06V...40V Output - DC Current : 0...20mA, 4...20mA DC Voltage : 0...5V, 0...10V Accuracy Class : 0.2 for S17Housing, Class 0.5 for E8 Housing	24...60V AC/DC or 85 ...230V AC/DC	3,775
	TV 808	Type : DC Isolator 2 Input-2 Output (S17 Housing) Input - 0.1mA...20mA & 4...20mA & 0.06V...40V Output - DC Current : 0...20mA, 4...20mA DC Voltage : 0...5V, 0...10V Accuracy Class : 0.2 for S17 Housing		4,320

KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>Tap Position Transducers</b>				
	RISH CON TPT	Type : Tap Position Input - 0-17kOhm, 0-18kOhm, 0-20kOhm, 0-25kOhm Output - DC Current : 0...20mA / 4...20mA DC Voltage : 0...10V / 2...10V Accuracy Class : 0.2		4,965
CT25	RISH CON TPT	Type : Tap Position with display Input - 0-17kOhm, 0-18kOhm, 0-20kOhm, 0-25kOhm Output - DC Current : 0...20mA / 4...20mA DC Voltage : 0...10V / 2...10V Accuracy Class : 0.2	24...60V AC/DC or 60 ...300V AC/DC	5,945
	RISH CON TPT (96x96)	Type : Tap Position with display (96 X 96) Input - 0-17kOhm, 0-18kOhm, 0-20kOhm, 0-25kOhm Output - DC Current : 0...20mA / 4...20mA DC Voltage : 0...10V / 2...10V Accuracy Class : 0.2		5,460
<b>Universal Transmitter</b>				
V604	RISH DUCER V604	Type : Programmable Transmitter Input - DC Voltage/Current / Resistance / Temp. etc. Output - DC Current : 0...20mA / 4...20mA DC Voltage : 0...5V / 1...5V / 0...10V / 2...10V Accuracy Class : 0.2	24...60V AC/DC or 85 ...230V AC/DC	8,365
<b>Temperature Transmitter</b>				
PT02	PT 602	Type : 1 Channel Temperature transmitter (1 I/P / 1 O/P) Input - Temperature (PT100) Output - DC Current : 0...20mA / 4...20mA DC Voltage : 0...10V Accuracy Class : 0.5	24...60V AC/DC or 85 ...230V AC/DC	6,120
		Type : 2 Channel Temperature transmitter (2 I/P / 2 O/P) Input - Temperature (PT100) Output - DC Current : 0...20mA / 4...20mA DC Voltage : 0...10V Accuracy Class : 0.5		7,665
<b>Optional Accessories for Process Transducers</b>				
RS 485		RISH CON TPT 96 X 96		1,155
Non Standard Input / Output		RISH DUCER TV808 and RISH CON SI 101 / SI 102		780
PRKAB 600		Programming RS232 & Configuration Adapter + Cable for RISH DUCER V604		1,260
PRKAB 601		Programming RS232 & Configuration Adapter + Cable for RISH CON TPT		



# Controllers



Group	Size	Description	Auxiliary Supply	LP (INR)
<b>PID Controllers - Basic</b>				
TC41	RE56 - 48 x 48 x 87.35 mm	Input: RTD Sensors: PT100 Thermocouple Sensors: J T K S R Output: 1x SSR driving & 1x Relay Output; Accuracy Class as per Datasheet;	60 ... 280 V AC/DC	1,350
TC40	RE57 - 48 x 48 x 87.35 mm	Input: RTD Sensors: PT100 PT1000,	60 ... 280 V AC/DC or 20 ... 60V DC / 20 V - 40V AC	2,320
	RE96 - 96 x 96 x 72.15 mm	Thermocouple Sensors: J T K S R B N E, Standard Signals: 0/4 ... 20mA or 0 ... 5 / 10V;		2,550
	RE77 - 48 x 96 x 72.15 mm	Output: 1x SSR driving Output or / Additional as with Extra Charges*		2,420
*Extra Charges for TC40 – Output combination to be specified while ordering and maximum 2 outputs are possible.		1x Relay Output		140
		2x SSR Outputs		170
		2x Relay Outputs		300



Group	Model	Order Code	LP (INR)
<b>Genset Controllers</b>			
GC10	AMF	GC10-A000000000000 - AUTOMATIC MAINS FAILURE	20,860
	ATS	GC10-AT000000000000 - AUTO TRANSFER SWITCH	19,850
	DGC	GC10-G000000000000 - GENSET CONTROLLER	19,360





# Protection and Monitoring Relays



## Analog Protection Relay

Product Code	System	Relay	LP (INR)		
<b>Phase Failure Relay - Rish Relay PHR</b>					
PR10-P411110000000	PhR 3P3W 110VLL 50Hz NE 1 Relay	3Ø3W	1 Relay 930		
PR10-P411210000000	PhR 3P3W 110VLL 50Hz ND 1 Relay				
PR10-P412110000000	PhR 3P3W 110VLL 60Hz NE 1 Relay				
PR10-P412210000000	PhR 3P3W 110VLL 60Hz ND 1 Relay				
PR10-P421110000000	PhR 3P3W 240VLL 50Hz NE 1 Relay				
PR10-P421210000000	PhR 3P3W 240VLL 50Hz ND 1 Relay				
PR10-P422110000000	PhR 3P3W 240VLL 60Hz NE 1 Relay				
PR10-P422210000000	PhR 3P3W 240VLL 60Hz ND 1 Relay				
PR10-P431110000000	PhR 3P3W 415VLL 50Hz NE 1 Relay				
PR10-P431210000000	PhR 3P3W 415VLL 50Hz ND 1 Relay				
PR10-P432110000000	PhR 3P3W 415VLL 60Hz NE 1 Relay				
PR10-P432210000000	PhR 3P3W 415VLL 60Hz ND 1 Relay				
PR10-P441110000000	PhR 3P3W 440VLL 50Hz NE 1 Relay				
PR10-P441210000000	PhR 3P3W 440VLL 50Hz ND 1 Relay				
PR10-P442110000000	PhR 3P3W 440VLL 60Hz NE 1 Relay				
PR10-P442210000000	PhR 3P3W 440VLL 60Hz ND 1 Relay				
PR10-P511110000000	PhR 3P4W 110VLL 50Hz NE 1 Relay			3Ø4W	1 Relay 930
PR10-P511210000000	PhR 3P4W 110VLL 50Hz ND 1 Relay				
PR10-P512110000000	PhR 3P4W 110VLL 60Hz NE 1 Relay				
PR10-P512210000000	PhR 3P4W 110VLL 60Hz ND 1 Relay				
PR10-P521110000000	PhR 3P4W 240VLL 50Hz NE 1 Relay				
PR10-P521210000000	PhR 3P4W 240VLL 50Hz ND 1 Relay				
PR10-P522110000000	PhR 3P4W 240VLL 60Hz NE 1 Relay				
PR10-P522210000000	PhR 3P4W 240VLL 60Hz ND 1 Relay				
PR10-P531110000000	PhR 3P4W 415VLL 50Hz NE 1 Relay				
PR10-P531210000000	PhR 3P4W 415VLL 50Hz ND 1 Relay				
PR10-P532110000000	PhR 3P4W 415VLL 60Hz NE 1 Relay				
PR10-P532210000000	PhR 3P4W 415VLL 60Hz ND 1 Relay				
PR10-P541110000000	PhR 3P4W 440VLL 50Hz NE 1 Relay				
PR10-P541210000000	PhR 3P4W 440VLL 50Hz ND 1 Relay				
PR10-P542110000000	PhR 3P4W 440VLL 60Hz NE 1 Relay				
PR10-P542210000000	PhR 3P4W 440VLL 60Hz ND 1 Relay				
<b>Current Relay - Rish Relay AR</b>					
PR10-A100110000000	AR 1P NE 1 Relay	1Ø	1 Relay 1,660		
PR10-A100120000000	AR 1P NE 2 Relay		2 Relay 1,815		
PR10-A100210000000	AR 1P ND 1 Relay	1Ø	1 Relay 1,660		
PR10-A100220000000	AR 1P ND 2 Relay		2 Relay 1,815		
PR10-A300110000000	AR 3P NE 1 Relay	3Ø	1 Relay 1,815		
PR10-A300120000000	AR 3P NE 2 Relay		2 Relay 1,970		
PR10-A300210000000	AR 3P ND 1 Relay		1 Relay 1,815		
PR10-A300220000000	AR 3P ND 2 Relay		2 Relay 1,970		
<b>Voltage Relay - Rish Relay VR</b>					
PR10-V150110000000	VR 1P 58-138VLN NE 1 Relay	1Ø	1 Relay 1,195		
PR10-V150120000000	VR 1P 58-138VLN NE 2 Relay		2 Relay 1,355		
PR10-V180110000000	VR 1P 220-254VLN NE 1 RELAY	1Ø	1 Relay 1,195		
PR10-V180120000000	VR 1P 220-254VLN NE 2 RELAY		2 Relay 1,355		
PR10-V310110000000	VR 3P 110-240VLL NE 1 RELAY	3Ø	1 Relay 1,355		
PR10-V310120000000	VR 3P 110-240VLL NE 2 RELAY		2 Relay 1,505		
PR10-V360110000000	VR 3P 415-480VLL NE 1 Relay		1 Relay 1,355		
PR10-V360120000000	VR 3P 415-480VLL NE 2 Relay		2 Relay 1,505		
PR10-V370110000000	VR 3P 381-415VLL NE 1 RELAY	3Ø	1 Relay 1,355		
PR10-V370120000000	VR 3P 381-415VLL NE 2 RELAY		2 Relay 1,505		
Note NE - Normally Energized ND - Normally Denergized					
<b>Earth Leakage Relay - Rish ELPR</b>					
ELR2-XXMBZ00000000	ELR2 SMART 60 - 300 AC / DC	Available from Apr'23 <b>NEW!</b>			
ELR2-XXLBZ00000000	ELR2 SMART 20 - 60 DC / 20 - 40 AC				
ELR2-XXMBR00000000	ELR2 SMART WITH ALARM RELAY 60 - 300 AC / DC				
ELR2-XXLBR00000000	ELR2 SMART WITH ALARM RELAY 20 - 60 DC / 20 - 40 AC				
ELR2-XXMAR00000000	ELR2 SMART+ WITH 1 NO RELAY 60 - 300 AC / DC				
ELR2-XXLAR00000000	ELR2 SMART+ WITH 1 NO RELAY 20 - 60 DC / 20 - 40 AC				



# Protection and Monitoring Relays



## Advance Digital Monitoring Relay

KMAT Model	Description	Auxiliary Supply	LP (INR)
RISH Relay - I	Prog. 1PH Current 1-5A 1CO+1CO		2,980
	Prog. 1PH Current 1-5A 2CO		
	Prog. 1PH Current 1-5A 1CO		2,925
	Prog. 3PH Current 1-5A 1CO+1CO		3,020
	Prog. 3PH Current 1-5A 2CO		
TR10	Prog. 3PH Current 1-5A 1CO		2,970
	Prog. 1PH & 3PH V 100-600V L-L 1CO+1CO		2,720
	Prog. 1PH & 3PH V 100-600V L-L 2CO		
RISH Relay V/Hz	Prog. 1PH & 3PH V 100-600V L-L 1CO		2,665
	Prog. 1PH & 3PH VOLT 100-600V L-L 1CO+1CO		2,220
	Prog. 1PH & 3PH VOLT 100-600V L-L 2CO		2,165
RISH Relay V	Prog. 1PH & 3PH VOLT 100-600V L-L 1CO+1CO		2,220
	Prog. 1PH & 3PH VOLT 100-600V L-L 2CO		2,165
	ELR SINGLE CBCT 1CO+1CO		2,655
RISH ELR (Din)	ELR SINGLE CBCT 2CO		2,655
	ELR SINGLE CBCT 1CO	60-300V AC/DC or 20-60V DC / 20-40V AC	2,600
	ELR SINGLE CBCT 1CO		2,600
RISH ELR+ (Din)	ELR+ Dual CBCT 1CO+1CO		3,620
RISH ELR VI (NE) (Din)	ELR VI (NE) CBCT+E to N V+I 1CO+1CO		3,955
ELR1	RISH ELR VI (Din)	ELR VI CBCT+V+I 1CO+1CO	3,910
	ELR SINGLE CBCT 1CO		2,600
	RISH ELR (96x96mm)	ELR SINGLE CBCT 1CO+1CO	2,655
	ELR SINGLE CBCT 2CO		2,655
	RISH ELR+ (96x96mm)	ELR+ DUAL CBCT 1CO+1CO	3,620
RISH ELR VI (96x96mm)	ELR VI CBCT+V+I 1CO+1CO	3,910	
RISH ELR VI (NE) (96x96mm)	ELR VI (NE) CBCT+E to N V+I 1CO+1CO	3,955	
CB01	TW-E CBCT 73/30 (50) 30mA-30A 600:1		945
CB02	TW-E CBCT 95/50 (40) 30mA-30A 600:1		1,320
CB03	RISH CBCT TW-E CBCT 135/85 (30) 30mA-30A 600:1		1,495
CB04	TW-E CBCT 165/130 (30) 30mA-30A 600:1		1,615
CB05	TW-E CBCT 260/200 (20) 30mA-30A 600:1		2,340
<b>Optional Accessory</b>			
Extra charges for PRKAB 600 programming cable			1,260



Rishabh Instruments Ltd.

\$ For productwise approbations, please contact local sales office

# Protection and Monitoring Relays



## Static Relay

KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>AC Current Relay</b> Input - 2 / 3 / 4 / 6 / 8 / 10A or 1A / 5A CT Operated				
LA21	252 - PAU	Single Phase Under Current	AC : 120 / 230 / 240 / 400 / 415V	1,125
	252 - PAO	Single Phase Over Current		
LA31	253 - PAD	Single Phase Combined Under/Over Current		
	253 - PAV	Three Phase Under Current		2,680
	253 - PAP	Three Phase Over Current		2,680

### Optional Accessories

Extra charges for DC Aux : 12 / 24 / 48 / 110V

120

Extra charges for any non-standard settings other than Datasheet

## AC Voltage Relay With Adjustable Differential

LK21	252 - PVU	Single Phase Under Voltage	Self Powered	1,480
	252 - PVO	Single Phase Over Voltage		
LK31	253 - PVB	Single Phase Combined Under/Over Voltage.		2,220
LK21	252 - PVV	3 Phase 4 Wire Under Voltage		1,480
	252 - PVP	3 Phase 4 Wire Over Voltage		
LK31	253 - PVE	3 Phase 4 Wire Combined Under/Over Voltage		2,220
LK21	252 - PVK	3 Phase 3 Wire Under Voltage	1,480	
	252 - PVA	3 Phase 3 Wire Over Voltage		
LK31	253 - PVM	3 Phase 3 Wire Combined Under/Over Voltage	2,220	

### Optional Accessories

Extra charges for Aux supply / Time Delay

120

## AC Voltage Relay With Adjustable Time Delay

LJ21	252 - PVZ	Single Phase Under Voltage	Self Powered	1,480
	252 - PVH	Single Phase Over Voltage		
	252 - PVX	3 Phase 4 Wire Under Voltage		
	252 - PVS	3 Phase 4 Wire Over Voltage		
	252 - PVJ	3 Phase 3 Wire Under Voltage		
	252 - PVC	3 Phase 3 Wire Over Voltage		

### Optional Accessory

Extra charges for Aux supply

120

## Frequency Relay With Adjustable Time Delay

Range - 40/60Hz, 50/70Hz, 360/440Hz  
Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V

LF21	252 - PHU	Under Frequency	Self Powered	1,300
	252 - PHO	Over Frequency		
LF31	253 - PHD	Combined Under/Over Frequency		2,220

### Optional Accessory

Extra charges for Aux supply

120

## Combined Under / Over Voltage & Frequency

LC61	256 - PHV	Single Phase Combined Under/Over Voltage and Frequency.	Self Powered	4,475
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## Phase Sequence & Phase Failure

LP21	252 - PVR	3 Phase 3 Wire or 4 Wire	Self Powered	1,025
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# Protection and Monitoring Relays



## Static Relay

KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>Thermistor Trip Relay</b> Range : Tri p 2500-3500 Ohm Reset :1500 -2300 Ohm.				
LT21	252 - PMT	Automatic Reset	AC : 110 / 120 / 220 / 230 / 240V	1,240
	252 - PMM	Manual Reset		
<b>Synchro Check Relay (Paralleling)</b> Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V				
LS61	256 - PLL	1 Generator 1 Bus or 2 Generator Systems.	Self Powered	2,395
	256 - PLD	1 Generator with 'DEAD BUS' facility		3,000
<b>Phase Balance Relay</b> Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V				
LB21	252 - PSF	Phase loss and Unbalance	Self Powered	1,240
	252 - PSG	Phase loss Unbalance and Under Voltage.		1,625
<b>Reverse Power (Current) Relay</b> Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V Input - 1/2/3/4/5/6/8/10A				
LR61	256 - PAS	Single Phase or 3 Phase 4 Wire.	Self Powered	2,590
	256 - PAT	3 Phase 3 Wire.		2,640
	256 - PAQ	Single Phase or 3 Phase 4 Wire with test push button.		4,380
	256 - PAR	3 Phase 3 Wire with test push button.		
<b>DC Voltage Relay</b> DC Vol tage -18 to 20 or 20 to 32Vdc				
LD21	252 - PDU	DC Under Voltage with external time delay	Self Powered	1,625
	252 - PDO	DC Over Voltage with external time delay		1,760
	253 - PDE	DC Under Voltage with external external differential		1,480
<b>DC Milivolt Relay</b> Input-50/60/75/100/150mV ( Span- Min. 10mV )				
LM21	252 - PBS	DC Miliv olt Low Trip	AC : 120 / 240V	2,035
	252 - PBT	DC Miliv olt High Trip		
	Extra charges for DC Aux : 12 / 24 / 48 / 110V			
<b>Transducer Trip Relay</b> Input - DC current - 1 / 5 / 10 / 20 / 4 - 20mA & DC v oltage - 1 to 50V				
LX21	252 - PBA	Low Trip	AC : 120 / 240V	1,810
	252 - PBB	High Trip		
LX31	253 - PBV	Combined High/Low		3,600
Extra charges for DC Aux : 12 / 24 / 48 / 110V				120
<b>Motor Protection Relay</b> Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V				
LL31	253 - MPR	Motor Protection Relay ( Phase Loss Reversal Unbalanced)	AC : 110 / 220 / 230 / 240 / 380 / 415V	1,945
<b>Earth Fault Relay</b> Input - 1A / 5A				
LE31	253 - EFR	Earth Fault Relay	AC : 230V	2,340

# Battery Chargers & Power Supplies



## Battery Charger

Order Code	Model No	Input Voltage	Output Voltage	Power Range	LP (INR)
BC03-1D0000000000	1P Elite 3612A	115 V AC/ 230V AC	12 V DC	36 W	2,800
BC03-1F0000000000	1P Elite 7212A		24 V DC	72 W	3,050
BC03-1G0000000000	1P Elite 7224A		24 V DC	120 W	3,150
BC03-1A0000000000	1P Elite 12012A		12 V DC		
BC03-1B0000000000	1P Elite 12024A		24 V DC		
BC03-1E0000000000	1P Elite 12030A		30 V DC		



## Power Supply

Order Code	Model No	Input Voltage	Output Voltage	Output Current	Power Range	LP (INR)	
<b>RISH FLEX - E SERIES</b>							
<b>Single Phase - Plastic Housing</b>							
RF14-1N0000000000	1P FLEX - e 1515A	115 V AC/ 230V AC	15 V DC	1.0 A			
RF14-1M0000000000	1P FLEX - e 1512A		12 V DC	1.25 A	15 W	1,460	
RF14-1P0000000000	1P FLEX - e 1524A		24 V DC	0.63 A			
RF14-1S0000000000	1P FLEX - e 3012A		12 V DC	3.0 A	30 W	1,620	
RF14-1K0000000000	1P FLEX - e 3024A		24 V DC	1.5 A			
RF14-1R0000000000	1P FLEX - e 4512A		12 V DC	3.75 A	45 W	1,770	
RF14-1L0000000000	1P FLEX - e 4524A		24 V DC	1.75 A			
RF14-1Q0000000000	1P FLEX - e 6012A		12 V DC	5.0A	60 W	1,855	
RF14-1A0000000000	1P FLEX - e 6024A		24 V DC	2.5 A			
<b>Single Phase - Metal Housing</b>							
RF14-1B0000000000	RISH FLEX - e 9024A	115 V AC/ 230V AC	24 V DC	5 A	95 to 120 W	2,420	
RF14-1C0000000000	RISH FLEX - e 17024A		24 V DC	7.5 A	120 to 180 W	2,550	
<b>Two Phase - Metal Housing</b>							
RF14-2I0000000000	RISH FLEX - e 9024B	230V AC / 400V AC	24 V DC	5 A	95 to 120 W	3,385	
RF14-2J0000000000	RISH FLEX - e 17024B		24 V DC	7.5 A	120 to 180 W	3,540	
<b>RISH FLEX SERIES</b>							
<b>Single Phase - Metal Housing</b>							
RF13-1T0000000000	RISH FLEX 6005A	115 V AC/ 230V AC	5 V DC	5 A	35 W		
RF13-1S0000000000	RISH FLEX 6012A		12 V DC	6 A	72 W	2,240	
RF13-1A0000000000	RISH FLEX 6024A		24 V DC	3 A			
RF13-1Y0000000000	RISH FLEX 9012A		12 V DC	10 A	120 W	3,235	
RF13-1B0000000000	RISH FLEX 9024A		24 V DC	5 A		3,490	
RF13-120000000000	RISH FLEX 15012A		12 V DC	12.5 A			
RF13-130000000000	RISH FLEX 15024A		24 V DC	6.25 A	150 W	3,420	
RF13-140000000000	RISH FLEX 15048A		48 V DC	3.13 A			
RF13-1R0000000000	RISH FLEX 17012A		12 V DC	14 A		3,595	
RF13-1C0000000000	RISH FLEX 17024A		24 V DC	7.5 A	180 W		
RF13-1F0000000000	RISH FLEX 17048A		48 V DC	3.75 A		4,165	
RF13-1Z0000000000	RISH FLEX 24024A		24 V DC	10 A	240 W	6,090	
RF13-1P0000000000	RISH FLEX 28012A		12 V DC	16 A		6,765	
RF13-1D0000000000	RISH FLEX 28024A		24 V DC	14 A	336 W	6,765	
RF13-1G0000000000	RISH FLEX 28048A		48 V DC	7 A			
RF13-1I0000000000	RISH FLEX 48024A		24 V DC	20 A	480 W	7,495	
RF13-1E0000000000	RISH FLEX 50024A		24 V DC	25 A	600 W	8,325	
RF13-1H0000000000	RISH FLEX 50048A		48 V DC	12 A			
<b>Two Phase - Metal Housing</b>							
RF13-2I0000000000	RISH FLEX 9024B		230V/ 400V/ 500 V AC	24 V DC	5 A	120 W	4,270
RF13-2J0000000000	RISH FLEX 17024B			24 V DC	7.5 A	180 W	4,375
RF13-2K0000000000	RISH FLEX 28024B			24 V DC	14 A	336 W	7,285
<b>Three Phase - Metal Housing</b>							
RF13-3L0000000000	RISH FLEX 50024B	400 – 500 V AC	24 V DC	25 A	600 W	9,265	
RF13-3M0000000000	RISH PST 2430B	400 – 480 V AC	24 V DC	30 A	720 W	19,815	
RF13-3N0000000000	RISH PST 2440B		24 V DC	40 A	960 W	23,830	
<b>Redundancy Module</b>							
RF13-00M0000000000	RISH MR220	10 – 60 V DC	10 – 60 V DC	0 – 25 A (max)	----	2,030	

# Product End-Of-Life



KMAT	Model	Description	Auxiliary Supply
<b>RISH LM 13xx</b>			
MA4L	RISH LM 1350	Input : On site Programmable - Voltage - 100 - 600 VL-L, Current - 1/5A Big LCD Display 3Ph 3W/4W Network Accuracy Class : 0.5S Parameters : VAF + kW + kVAR + kVA + kWh + kVAh + PF + PA + RH + OH + NI + MM + NC + THD + RPM	100-550V AC/DC or 12-60V AC/DC

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## Terms and conditions

- This issue of Price List supersedes all previous Price Lists
- All Prices are in INR
- The prices are subject to change without prior notice
- List Prices mentioned are exclusive of all taxes & duties
- Prices charged will be as prevailing on the date of dispatch
- Minimum order value criterion should be observed while ordering
- The company reserves the right to supply goods at its discretion
- For any nonstandard requirement, please contact nearest sales office regarding technical feasibility, price & delivery

## Warranty

- All the products listed in the Price List carry a warranty of 18 months against manufacturing defects (unless otherwise specified) from the date of purchase or 12 months from the date of commissioning, whichever is earlier

## Note

- To facilitate the ordering kindly make use of product configurator
- Kindly refer respective datasheets for detailed technical specifications. Technical specs given in this price list are in abbreviated form only for easy understanding. Selection of products must be done from the datasheets.
- Since the product approvals mentioned in the price list are on generic header level, kindly contact to our nearest sales office for product-wise approvals
- For any enquiry regarding Energy Measurement Software and Solar Inverters, kindly contact our sales office.



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Rev : LP / 2023 / DE / 01

Product upgradation is a continuous process. Hence data in this price list is subject to change without prior notice. For the latest information, please get in touch with our sales of fices.



Measure



Control



Record



Analyze

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