



Way Ahead

Digital Expertise

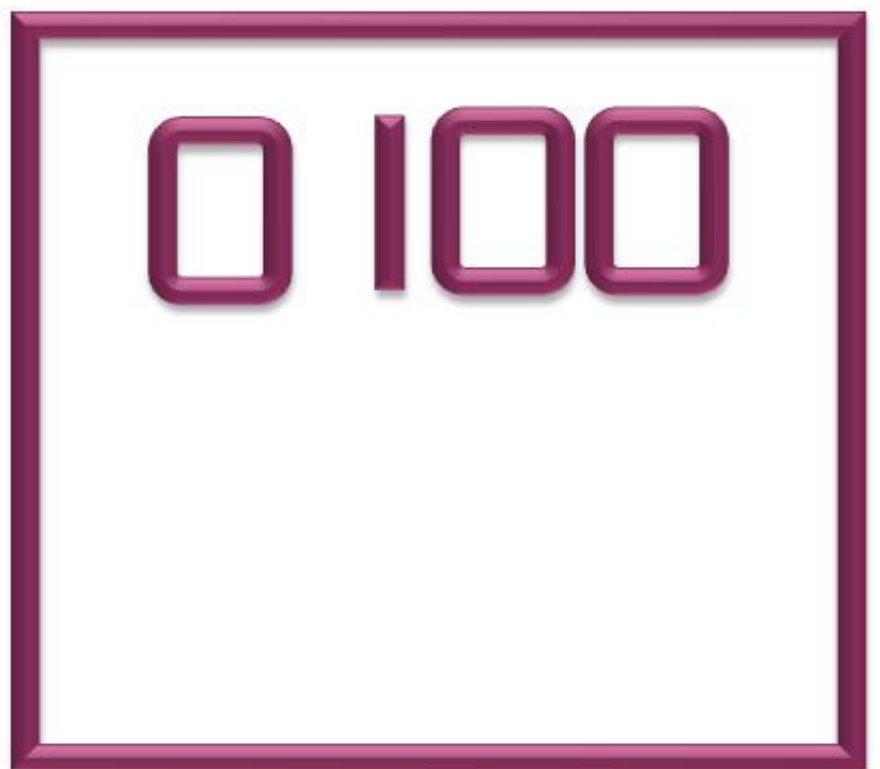


**Rishabh Instruments Pvt. Ltd.**

Price List w.e.f July 2021

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Model	KMAT	Size (H x W x D)	Description	Auxiliary Supply	LP (INR)
<b>Programmable AC Ammeter</b>					
RISH EINE I	EP99	48 x 96 x 68 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	795
		96 x 96 x 40 mm	Input 1A /5A (Programmable) Display : 14 mm LED Display 3Ph 3W/4W Network Accuracy Class : 1.0 4 Digit		1,325
		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		1,460
<b>Programmable AC Voltmeter</b>					
RISH EINE V	EP99	48 x 96 x 68 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	795
		96 x 96 x 40 mm	Input : 100- 500 V L-L (Programmable) Display : 14 mm LED Display 3Ph 3W/4W Network Accuracy Class : 1.0 4 Digit		1,325
<b>Non- Programmable AC Ammeter</b>					
RISH ACI	DA14	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	3,745
			24 / 110 / 220V DC	4,735	
<b>Non- Programmable AC Voltmeter</b>					
RISH ACV	DA14	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	3,745
			24 / 110 / 220V DC	4,735	
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 +)		20
			IP54 Kit (48 x 96 & 96 x 96)		20
<b>Programmable DC Ammeter</b>					
RISH EINE +	EI99	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	1,220
<b>Non - Programmable DC Ammeter</b>					
RISH ADC	DD14	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	2,060
			24 / 110 V DC	2,695	
RISH ADC	DD14	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	2,185
			24 / 110 V DC	2,790	
RISH ADC	DD14	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	4,110
			24 / 110 V DC	4,830	

# Digital Panel Meters



Model	KMAT	Size (H x W x D)	Description	Auxiliary Supply	LP (INR)
<b>Programmable DC Voltmeter</b>					
RISH EINE +	EI99	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	1,220
<b>Non - Programmable DC Voltmeters</b>					
RISH VDC C	DD14	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 24 / 110 V DC	2,125 2,770
RISH VDC F	DD14	48 x 96 x 138 mm	Input : 0 - 2 / 20 / 200 / 500 / 1000V Display : 14 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC 24 / 110 V DC	2,220 2,905
RISH VDC C	DD14	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 24 / 110 V DC	2,220 2,875
RISH VDC F	DD14	96 x 96 x 55 mm	Input : 0 - 2 / 20 / 200 / 500 / 1000V Display : 14 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC 24 / 110 V DC	2,220 2,875
RISH VDC C	DD14	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 24 / 110 V DC	4,070 4,775
RISH VDC F	DD14	72 x 144 x 94 mm	Input : 0 - 2 / 20 / 200 / 500 / 1000V Display : 26 mm LED Display Accuracy Class : 0.1 4 1/2 Digit	110 / 230V AC 24 / 110 V DC	4,070 4,775
<b>Power DPM</b>					
Power DPM	PP44	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 12 - 48VDC 100 - 250 VAC/DC	3,890 4,680
Power DPM	PP44	72 x 144 x 78 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	5,245



# Digital Panel Meters



Model	KMAT	Size (H x W x D)	Description	Auxiliary Supply	LP (INR)
<b>Power Factor DPM</b>					
PF DPM	PF44	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	4,070
				12 - 48VDC 100 - 250 VAC/DC	4,680
PF DPM	PF44	72 x 144 x 78 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	5,390
<b>Frequency DPM</b>					
RISH DPM Hz	DH10	48 x 96 x 68 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	1,345
RISH DPM Hz	DH10	96 x 96 x 55 mm			
RISH DPM Hz	DH10	72 x 144 x 78 mm			



# Multi-Function Meters



KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>LED Meters</b>				
<b>Basic Range</b>				
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	1,560
DL10	RISH DELTA VAF	Input : 100...500 V L-L 1 / 5A 3 Line LED Display Single Ph & 3Ph 3W/4W Network Accuracy Class : 1 Parameters : VAF + RH + OH + NI + MM + RPM		2,175
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 + PF + PA + RH + OH + NI + MM + RPM	40 - 300V AC/DC or 12- 48 V DC	3,280
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 + kWh + kVAh + PF + PA + RH + OH + NI + MM + RPM + DM + MD		5,650
<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	4,275
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		5,365
<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	7,625
EM93	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		10,675
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	<b>NEW!</b> 60 - 300 V AC / DC or 12 - 60 VDC	3,800



# Multi-Function Meters



KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>Advanced 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	6,480
		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		6,860
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	8,555
		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		9,310
<b>LCD Meters</b>				
WH0P	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		2,730
WH0P	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		3,240
WH0P	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	60...300VAC/DC or 20...40VAC or 20...60VDC	4,980
WH0P	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		3,805
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 + kVArh + kVAh + PF + PA + RH + OH + NI + MM + NC + THD + RPM		7,880
		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 + NC + THD + RPM	100-550V AC/DC or 12-60V AC/DC	6,830
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		8,935
		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		7,880



# Multi-Function Meters



KMAT	Model	Description	Auxiliary Supply	LP (INR)
	MultiLoad 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	100-550V AC/DC	16,500
	MultiLoad Monitor RISH ML 1410 (Class 0.5s)	Parameters : VAF + kW + kVA + kVAr + kVA + kWh + kVAh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + RPM + IH + RCM + TAR + 3HL		17,880
MLM1		RS485 (Modbus RTU) - 2 Relay - USB		1,400
		RS485 (Modbus RTU) - 4 Relay (USB not possible)		1,500
		Ethernet (Modbus TCP/IP) (USB & Relay not possible)		2,430
	Optional Modules	Data-logging		On request
		QuickFix Module - RJ00 - 3 single phase CTs with 100mA to 100mA (via RJ12)		500
		QuickFix Module - RJ01 - 3 CTs with 1A to 100mA (via RJ12)		990
		QuickFix Module - RJ05 - 3 CTs with 5A to 100mA (via RJ12)		1,050
		QuickFix Module - RC30 - 3x CBCT to RJ12		600



MultiLoad Monitor



QuickFix Module



32 Slave  
Multi Function Meter with GSM Module (RISH LM 13xx & EM 13xx)



# 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 + 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	8,490
		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		9,065
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 + 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	10,815
		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		11,385
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 + kVAr + kVA + kWh + kVArh + kVAh + 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	17,540
		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 + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC Output - RS485 - 1 Pulse Output - 2 Analog Output		19,440
		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 + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC Output - Ethernet (MODBUS TCP/IP)		22,435
<b>Power Quality Monitor</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 + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC + SG + SW + OC	60-300V AC/DC	15,710
<b>Advanced Dual Source Energy Meter</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 + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC + GE	60-300V AC/DC	16,570
<b>Smart Demand Controller</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 + kVAr + kVA + kWh + kVArh + kVAh + PF + PA + RH + OH + NI + MM + DM + MD + NC + THD + IH + RTC	60-300V AC/DC	25,410
<b>Power Quality Analyzer</b>				
PA10	RISH PQA	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	90,825

# 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 1330, EM 1340, EM 3490SS, EM 3490DS, EM 1320, EM 2340DS, DELTA Energy, PQM, DMCI, EM 3490DSi, RISH EMDC		1,155
5	RS485 + 2 Relay / Pulse	RM 3430, RM 3440, RM 3430i, RM 3440i, LM 1350/1360, 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	1 Relay o/p (Pulse /Limit)	EM 1330, EM 1340, EM 3490SS, EM 3490DS, EM1320, EM 2340DS, DELTA Energy, Optima VAF, DELTA Power		1,065
9	2 Pulse /Relay	EM 1330, EM 1340, EM 1320, EM 2340DS, EMDC		1,450
10	Ethernet Interface (MODBUS TCP/IP Protocol)	RM 3430, RM3430i, RM 3440, RM 3440i, PQM, LM 1350/60		3,710
11	Terminal Sealing	3490SS		105
12	Converter 1	RS 485 to RS 232 Converter (Self Powered)		2,405
13	Converter 2	RS 485 to USB Converter (Self Powered)		5,775
14	4 Relay	RISH EM DC		2,405
15	Data logging + Ethernet + RTC	LM 1350/1360		4,410
16	Data logging + USB + RTC + RS 485 + 2 Relay	LM 1350/1360		3,360
17	IP 65 Kit	For 96x96 size models		130
18	Side mounting clamp	Optima VAF / DELTA Series / LM 13xx Series / EM 13xx / EM 2340		20
19	SPAR-SD00-0707	GSM MODULE LM 13xx 0.5S		
20	SPAR-SD00-0709	GSM MODULE EM 13xx		17,345 (Including The software)
21	SPAR-SD00-0710	GSM MODULE EM 2340		
22	SPAR-SD00-0708	GSM MODULE LM13xx 0.2S		
23	SPAR-SD00-0717	SIM CARD (2 YEARS DATA)		2,300
24	SPAR-SD00-0718	SIM CARD (5 YEARS DATA)		5,000
25	Additional nodes	Additional Report / Notification / Alarm facility – required. For additional node get in touch with RIPL/ESL sales team.		2,500

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

## List of abbreviation

### List of abbreviation

VAF - Voltage Current & Frequency	PA - Phase Angle	THD - % Total Harmonics distortion
kW - Active Power	RH - Run Hour	IH - Individual Harmonics
kVAr - Reactive Power	OH - On Hour	RTC - Real time clock
kVA - Apparent Power	NI - No. of interruptions	SG - Sag
kWh - Active Energy	MM - Min / Max Parameters	SW - Swell
kVArh - Reactive energy	DM - Demand	OC - Over Current
kVAh - Apparent Energy	MD - Max Demand	GE - Generator Event
PF - Power Factor	NC - Neutral Current	RCM - Residual Current Monitoring
TAR - Tariff	3HL - 3 Phase Health Monitoring	

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		3,565
CM41	RISH CON V	Type : Voltage (TRMS) Input : 57...500V Output : 0...20mA / 4...20mA OR 0...10V Accuracy Class : 0.2		3,565
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	60...300VAC/DC or 24...60VAC/DC	3,965
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		7,785
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	13,590
<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		14,990
	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		19,505
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	19,155
	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		20,140
	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		23,410

KMAT	Model	Description	Auxiliary Supply	LP (INR)
PM11	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	24...60 or 85...230VAC/DC	16,720
	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		20,860

### 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	40...300VAC/DC or 24...60VAC/DC	2,495
		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		3,330
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	40...300VAC/DC or 24...60VAC/DC	2,495
		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		3,330
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	60...300 VAC/DC or 20...40VAC / 20...60VDC	3,615
	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		3,615

### Optional Accessories for Electrical TransDUCERS

400Hz	RISH CON P	560
RS 485	RISH CON V RISH CON I RISH CON Hz RISH CON P	1,155
Display Module	RISH CON V RISH CON I RISH CON Hz RISH CON P	780
Dual Output	RISH CON V RISH CON I RISH CON Hz RISH CON P	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 CON P	1,260

### CT with Inbuilt TransDUCER

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%	3,490
		Type : Current AVG (Single input Single output) Input : 0 - 50A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,110
		Type : Current TRMS (Single input Single output) Input : 0 - 100A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,545
		Type : Current AVG (Single input Single output) Input : 0 - 100A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,165
		Type : Current TRMS (Single input Single output) Input : 0 - 150A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,595
		Type : Current AVG (Single input Single output) Input : 0 - 150A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,220
		Type : Current TRMS (Single input Single output) Input : 0 - 200A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,650
		Type : Current AVG (Single input Single output) Input : 0 - 200A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,270
		Type : Current TRMS (Single input Single output) Input : 0 - 250A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,700
		Type : Current AVG (Single input Single output) Input : 0 - 250A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,325
		Type : Current TRMS (Single input Single output) Input : 0 - 300A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,755
		Type : Current AVG (Single input Single output) Input : 0 - 300A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,375

KMAT	Model	Description	Auxiliary Supply	LP (INR)
CCT1	RISH CTDUCER 90 x 40 mm	Type : Current TRMS (Single input Single output) Input : 0 - 150A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	24V DC $\pm$ 15%	3,680
		Type : Current AVG (Single input Single output) Input : 0 - 150A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,315
		Type : Current TRMS (Single input Single output) Input : 0 - 200A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,735
		Type : Current AVG (Single input Single output) Input : 0 - 200A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,365
		Type : Current TRMS (Single input Single output) Input : 0 - 250A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,785
		Type : Current AVG (Single input Single output) Input : 0 - 250A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,420
		Type : Current TRMS (Single input Single output) Input : 0 - 300A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,840
		Type : Current AVG (Single input Single output) Input : 0 - 300A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,470
		Type : Current TRMS (Single input Single output) Input : 0 - 400A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,895
		Type : Current AVG (Single input Single output) Input : 0 - 400A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,525
		Type : Current TRMS (Single input Single output) Input : 0 - 500A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		3,945
		Type : Current AVG (Single input Single output) Input : 0 - 500A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,580
		Type : Current TRMS (Single input Single output) Input : 0 - 600A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		4,000
		Type : Current AVG (Single input Single output) Input : 0 - 600A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		2,630
		Type : Current TRMS (Single input Single output) Input : 0 - 750A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%		4,085
Type : Current AVG (Single input Single output) Input : 0 - 750A Output : 0...20mA / 4...20mA Accuracy Class : 0.5%	2,705			
<b>Optional Accessory</b>				
Accessory		Din Rail Mounting Kit		75



KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>Process TransDUCER</b>				
PI01	RISH PI 101	Type : Programmable Single output DC Isolator 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	2,090
PI02	RISH PI 102	Type : Programmable Dual output DC Isolator 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		3,140
SI01	RISH CON SI-101	Type : Powerful DC Signal Isolator 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	2,070
SI02	RISH CON SI-102	Type : Powerful DC Signal Isolator 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		3,110



KMAT	Model	Description	Auxiliary Supply	LP (INR)
	TV 808	Type : DC Isolator 1 Input-1 Output (\$17 or E8 Housing) Input - 0.1mA...20mA & 4...20mA & 0.06V...40V Output - DC Current : 0...20mA 4...20m. DC Voltage : 0...5V 0...10V Accuracy Class : 0.2 for \$17Housing, Class 0.5 for E8 Housing		2,615
TV 08	TV 808	Type : DC Isolator 1 Input-2 Output (\$17 or E8 Housing) Input - 0.1mA...20mA & 4...20mA & 0.06V...40V Output - DC Current : 0...20mA 4...20m. DC Voltage : 0...5V 0...10V Accuracy Class : 0.2 for \$17Housing, Class 0.5 for E8 Housing	24...60V AC/DC or 85 ...230V AC/DC	3,665
	TV 808	Type : DC Isolator 2 Input-2 Output (\$17 Housing) Input - 0.1mA...20mA & 4...20mA & 0.06V...40V Output - DC Current : 0...20mA 4...20m. DC Voltage : 0...5V 0...10V Accuracy Class : 0.2 for \$17 Housing		4,190
<b>Tap Position TransDUCER</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		4,820
CT25	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	24...60V AC/DC or 60 ...300V AC/DC	5,770
	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		5,300
<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	8,120



KMAT	Model	Description	Auxiliary Supply	LP (INR)
<b>Temperature Transmitter</b>				
PT02	PT 602	Type : 1 Channel Temperature transmitter 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	5,940
		Type : 2 Channel Temperature transmitter Input - Temperature (PT100) Output - DC Current : 0...20mA 4...20mA DC Voltage : 0...10V Accuracy Class : 0.5		7,440
<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		1,260



Group	Size	Description	Auxiliary Supply	LP (INR)
<b>PID Controllers - Basic</b>				
TC41	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	48 x 48 x 87.35 mm	Input: RTD Sensors: PT100 PT1000, Thermocouple Sensors: J T K S R B N E, Standard Signals: 0/4 ... 20mA or 0 ... 5 / 10V; Output: 1x SSR driving Output or / Additional as with Extra Charges*	60 ... 280 V AC/DC or 20 ... 60V DC / 20 V – 40V AC	2,320
	96 x 96 x 72.15 mm			2,550
	48 x 96 x 72.15 mm			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>			
	AMF	GC10-A000000000000 - AUTOMATIC MAINS FAILURE	20,860
GC10	ATS	GC10-AT000000000000 - AUTO TRANSFER SWITCH	19,850
	DGC	GC10-G000000000000 - GENSET CONTROLLER	19,360



# Protection and Monitoring Relays



## Basic Protection Relay

NEW!

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 910
PR10-P411210000000	PhR 3P3W 110VLL 50Hz ND 1 Relay	3Ø3W	1 Relay 910
PR10-P412110000000	PhR 3P3W 110VLL 60Hz NE 1 Relay	3Ø3W	1 Relay 910
PR10-P412210000000	PhR 3P3W 110VLL 60Hz ND 1 Relay	3Ø3W	1 Relay 910
PR10-P421110000000	PhR 3P3W 240VLL 50Hz NE 1 Relay	3Ø3W	1 Relay 910
PR10-P421210000000	PhR 3P3W 240VLL 50Hz ND 1 Relay	3Ø3W	1 Relay 910
PR10-P422110000000	PhR 3P3W 240VLL 60Hz NE 1 Relay	3Ø3W	1 Relay 910
PR10-P422210000000	PhR 3P3W 240VLL 60Hz ND 1 Relay	3Ø3W	1 Relay 910
PR10-P431110000000	PhR 3P3W 415VLL 50Hz NE 1 Relay	3Ø3W	1 Relay 910
PR10-P431210000000	PhR 3P3W 415VLL 50Hz ND 1 Relay	3Ø3W	1 Relay 910
PR10-P432110000000	PhR 3P3W 415VLL 60Hz NE 1 Relay	3Ø3W	1 Relay 910
PR10-P432210000000	PhR 3P3W 415VLL 60Hz ND 1 Relay	3Ø3W	1 Relay 910
PR10-P441110000000	PhR 3P3W 440VLL 50Hz NE 1 Relay	3Ø3W	1 Relay 910
PR10-P441210000000	PhR 3P3W 440VLL 50Hz ND 1 Relay	3Ø3W	1 Relay 910
PR10-P442110000000	PhR 3P3W 440VLL 60Hz NE 1 Relay	3Ø3W	1 Relay 910
PR10-P442210000000	PhR 3P3W 440VLL 60Hz ND 1 Relay	3Ø3W	1 Relay 910
PR10-P511110000000	PhR 3P4W 110VLL 50Hz NE 1 Relay	3Ø4W	1 Relay 910
PR10-P511210000000	PhR 3P4W 110VLL 50Hz ND 1 Relay	3Ø4W	1 Relay 910
PR10-P512110000000	PhR 3P4W 110VLL 60Hz NE 1 Relay	3Ø4W	1 Relay 910
PR10-P512210000000	PhR 3P4W 110VLL 60Hz ND 1 Relay	3Ø4W	1 Relay 910
PR10-P521110000000	PhR 3P4W 240VLL 50Hz NE 1 Relay	3Ø4W	1 Relay 910
PR10-P521210000000	PhR 3P4W 240VLL 50Hz ND 1 Relay	3Ø4W	1 Relay 910
PR10-P522110000000	PhR 3P4W 240VLL 60Hz NE 1 Relay	3Ø4W	1 Relay 910
PR10-P522210000000	PhR 3P4W 240VLL 60Hz ND 1 Relay	3Ø4W	1 Relay 910
PR10-P531110000000	PhR 3P4W 415VLL 50Hz NE 1 Relay	3Ø4W	1 Relay 910
PR10-P531210000000	PhR 3P4W 415VLL 50Hz ND 1 Relay	3Ø4W	1 Relay 910
PR10-P532110000000	PhR 3P4W 415VLL 60Hz NE 1 Relay	3Ø4W	1 Relay 910
PR10-P532210000000	PhR 3P4W 415VLL 60Hz ND 1 Relay	3Ø4W	1 Relay 910
PR10-P541110000000	PhR 3P4W 440VLL 50Hz NE 1 Relay	3Ø4W	1 Relay 910
PR10-P541210000000	PhR 3P4W 440VLL 50Hz ND 1 Relay	3Ø4W	1 Relay 910
PR10-P542110000000	PhR 3P4W 440VLL 60Hz NE 1 Relay	3Ø4W	1 Relay 910
PR10-P542210000000	PhR 3P4W 440VLL 60Hz ND 1 Relay	3Ø4W	1 Relay 910
<b>Current Relay - Rish Relay AR</b>			
PR10-A100110000000	AR 1P NE 1 Relay	1Ø	1 Relay 1,625
PR10-A100120000000	AR 1P NE 2 Relay	1Ø	2 Relay 1,775
PR10-A100210000000	AR 1P ND 1 Relay	1Ø	1 Relay 1,625
PR10-A100220000000	AR 1P ND 2 Relay	1Ø	2 Relay 1,775
PR10-A300110000000	AR 3P NE 1 Relay	3Ø	1 Relay 1,775
PR10-A300120000000	AR 3P NE 2 Relay	3Ø	2 Relay 1,930
PR10-A300210000000	AR 3P ND 1 Relay	3Ø	1 Relay 1,775
PR10-A300220000000	AR 3P ND 2 Relay	3Ø	2 Relay 1,930
<b>Voltage Relay - Rish Relay VR</b>			
PR10-V150110000000	VR 1P 58-138VLN NE 1 Relay	1Ø	1 Relay 1,170
PR10-V150120000000	VR 1P 58-138VLN NE 2 Relay	1Ø	2 Relay 1,325
PR10-V180110000000	VR 1P 220-254VLN NE 1 RELAY	1Ø	1 Relay 1,170
PR10-V180120000000	VR 1P 220-254VLN NE 2 RELAY	1Ø	2 Relay 1,325
PR10-V310110000000	VR 3P 110-240VLL NE 1 RELAY	3Ø	1 Relay 1,325
PR10-V310120000000	VR 3P 110-240VLL NE 2 RELAY	3Ø	2 Relay 1,475
PR10-V360110000000	VR 3P 415-480VLL NE 1 Relay	3Ø	1 Relay 1,325
PR10-V360120000000	VR 3P 415-480VLL NE 2 Relay	3Ø	2 Relay 1,475
PR10-V370110000000	VR 3P 381-415VLL NE 1 RELAY	3Ø	1 Relay 1,325
PR10-V370120000000	VR 3P 381-415VLL NE 2 RELAY	3Ø	2 Relay 1,475

Note

NE - Normally Energized

ND - Normally D-Energized



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\$ For productwise approbations, please contact local sales office

# Protection and Monitoring Relays



## Advanced Digital Monitoring Relay

KMAT	Model	Description	Auxiliary Supply	LP (INR)
TR10	RISH Relay - I	Prog. 1PH Current 1-5A 1CO+1CO	60-300V AC/DC or 20-60V DC / 20-40V AC	2,890
		Prog. 1PH Current 1-5A 2CO		2,890
		Prog. 1PH Current 1-5A 1CO		2,835
		Prog. 3PH Current 1-5A 1CO+1CO		2,930
		Prog. 3PH Current 1-5A 2CO		2,930
	RISH Relay V/Hz	Prog. 3PH Current 1-5A 1CO		2,880
		Prog. 1PH & 3PH V 100-600V L-L 1CO+1CO		2,640
		Prog. 1PH & 3PH V 100-600V L-L 2CO		2,640
		Prog. 1PH & 3PH V 100-600V L-L 1CO		2,585
		Prog. 1PH & 3PH VOLT 100-600V L-L 1CO+1CO		2,155
RISH Relay V	Prog. 1PH & 3PH VOLT 100-600V L-L 2CO	2,155		
	Prog. 1PH & 3PH VOLT 100-600V L-L 1CO	2,100		
	RISH ELR (Din)	ELR SINGLE CBCT 1CO+1CO	2,575	
ELR1	RISH ELR (Din)	ELR SINGLE CBCT 2CO	2,575	
	RISH ELR (Din)	ELR SINGLE CBCT 1CO	2,520	
	RISH ELR+(Din)	ELR+ Dual CBCT 1CO+1CO	3,510	
	RISH ELR VI(NE) (Din)	ELR VI(NE) CBCT+E to N V+I 1CO+1CO	3,795	
	RISH ELR VI (Din)	ELR VI CBCT+V+I 1CO+1CO	3,835	
	RISH ELR (96x96mm)	ELR SINGLE CBCT 1CO	2,520	
	RISH ELR (96x96mm)	ELR SINGLE CBCT 1CO+1CO	2,575	
	RISH ELR (96x96mm)	ELR SINGLE CBCT 2CO	2,575	
	RISH ELR+ (96x96mm)	ELR+ DUAL CBCT 1CO+1CO	3,510	
	RISH ELR VI (96x96mm)	ELR VI CBCT+V+I 1CO+1CO	3,795	
RISH ELR VI (NE) (96x96mm)	ELR VI(NE) CBCT+E to N V+I 1CO+1CO	3,835		
CB01	RISH CBCT	TW-E CBCT 73/30 (50) 30mA-30A 600:1	915	
CB02	RISH CBCT	TW-E CBCT 95/50 (40) 30mA-30A 600:1	1,280	
CB03	RISH CBCT	TW-E CBCT 135/85 (30) 30mA-30A 600:1	1,450	
CB04	RISH CBCT	TW-E CBCT 165/130 (30) 30mA-30A 600:1	1,565	
CB05	RISH CBCT	TW-E CBCT 260/200 (20) 30mA-30A 600:1	2,270	
<b>Optional Accessory</b>				
Extra charges for PRKAB 600 programming cable				1,260



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\$ 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	1070
	252 - PAO	Single Phase Over Current		1070
LA31	253 - PAD	Single Phase Combined Under/Over Current		2110
	253 - PAV	Three Phase Under Current		2550
	253 - PAP	Three Phase Over Current		2550
<b>Optional Accessories</b>				
Extra charges for DC Aux : 12 / 24 / 48 / 110V				110
Extra charges for any non-standard settings other than Datasheet				110
<b>AC Voltage Relay With Adjustable Differential</b> Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V				
LK21	252 - PVU	Single Phase Under Voltage	Self Powered	1405
	252 - PVO	Single Phase Over Voltage		1405
LK31	253 - PVB	Single Phase Combined Under/Over Voltage.		2110
LK21	252 - PVV	3 Phase 4 Wire Under Voltage		1405
	252 - PVP	3 Phase 4 Wire Over Voltage		1405
LK31	253 - PVE	3 Phase 4 Wire Combined Under/Over Voltage		2110
LK21	252 - PVK	3 Phase 3 Wire Under Voltage		1405
	252 - PVA	3 Phase 3 Wire Over Voltage		1405
LK31	253 - PVM	3 Phase 3 Wire Combined Under/Over Voltage		2110
<b>Optional Accessories</b>				
Extra charges for Aux supply / Time Delay				110
<b>AC Voltage Relay With Adjustable Time Delay</b> Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V				
LJ21	252 - PVZ	Single Phase Under Voltage	Self Powered	1405
	252 - PVH	Single Phase Over Voltage		1405
	252 - PVX	3 Phase 4 Wire Under Voltage		1405
	252 - PVS	3 Phase 4 Wire Over Voltage		1405
	252 - PVJ	3 Phase 3 Wire Under Voltage		1405
	252 - PVC	3 Phase 3 Wire Over Voltage		1405
	<b>Optional Accessory</b>			
Extra charges for Aux supply				110
<b>Frequency Relay With Adjustable Time Delay</b> Range - 40/60Hz 50/70Hz, 360/440Hz Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V				
LF21	252 - PHU	Under Frequency	Self Powered	1235
	252 - PHO	Over Frequency		1235
LF31	253 - PHD	Combined Under/Over Frequency		2110
<b>Optional Accessory</b>				
Extra charges for Aux supply				110
<b>Combined Under / Over Voltage &amp; Frequency</b> Range - 40/60Hz 50/75Hz 360/440Hz Input - 120 / 240V				
LC61	256 - PHV	Single Phase Combined Under/Over Voltage and Frequency.	Self Powered	4260
<b>Phase Sequence &amp; Phase Failure</b> Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V				
LP21	252 - PVR	3 Phase 3 Wire or 4 Wire	Self Powered	975

# 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	1180
	252 - PMM	Manual Reset		1180
<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	2280
	256 - PLD	1 Generator with 'DEAD BUS' facility		2855
<b>Phase Balance Relay</b> Input - 100 / 110 / 220 / 230 / 240 / 380 / 400 / 415 / 440V				
LB21	252 - PSF	Phase loss and Unbalance	Self Powered	1180
	252 - PSG	Phase loss Unbalance and Under Voltage.		1545
<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	2465
	256 - PAT	3 Phase 3 Wire.		2510
	256 - PAQ	Single Phase or 3 Phase 4 Wire with test push button.		4170
	256 - PAR	3 Phase 3 Wire with test push button.		4170
<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	1545
	252 - PDO	DC Over Voltage with external time delay		1675
	253 - PDE	DC Under Voltage with external external differential		1405
<b>DC Milivolt Relay</b> Input-50/60/75/100/150mV ( Span- Min. 10mV )				
LM21	252 - PBS	DC Milivolt Low Trip	AC : 120 / 240V	1935
	252 - PBT	DC Milivolt High Trip		1935
	Extra charges for DC Aux : 12 / 24 / 48 / 110V			110
<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	1720
	252 - PBB	High Trip		1720
LX31	253 - PBV	Combined High/Low		3425
Extra charges for DC Aux : 12 / 24 / 48 / 110V				110
<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	1850
<b>Earth Fault Relay</b> Input - 1A / 5A				
LE31	253 - EFR	Earth Fault Relay	AC : 230V	2225

# Battery Chargers & Power Supplies



## Battery Charger

Order Code	Model No	Input Voltage	Output Voltage	Power Range	LP (INR)
BC03-1D00000000000	1P Elite 3612A	115 V AC/ 230V AC	12 V DC	36 W	2,800
BC03-1F00000000000	1P Elite 7212A	115 V AC/ 230V AC	12 V DC	72 W	3,050
BC03-1G00000000000	1P Elite 7224A	115 V AC/ 230V AC	24 V DC	72 W	3,050
BC03-1A00000000000	1P Elite 12012A	115 V AC/ 230V AC	12 V DC	120 W	3,150
BC03-1B00000000000	1P Elite 12024A	115 V AC/ 230V AC	24 V DC	120 W	3,150
BC03-1E00000000000	1P Elite 12030A	115 V AC/ 230V AC	30 V DC	120 W	3,150



## 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>						
RF14-1N00000000000	1P FLEX - e 1515A	115 V AC/ 230V AC	15 V DC	1.0 A	15 W	1,430
RF14-1M00000000000	1P FLEX - e 1512A	115 V AC/ 230V AC	12 V DC	1.25 A	15 W	1,430
RF14-1P00000000000	1P FLEX - e 1524A	115 V AC/ 230V AC	24 V DC	0.63 A	15W	1,430
RF14-1S00000000000	1P FLEX - e 3012A	115 V AC/ 230V AC	12 V DC	3.0 A	30 W	1,585
RF14-1K00000000000	1P FLEX - e 3024A	115 V AC/ 230V AC	24 V DC	1.5 A	30 W	1,585
RF14-1R00000000000	1P FLEX - e 4512A	115 V AC/ 230V AC	12 V DC	3.75 A	45 W	1,735
RF14-1L00000000000	1P FLEX - e 4524A	115 V AC/ 230V AC	24 V DC	1.75 A	45 W	1,735
RF14-1Q00000000000	1P FLEX - e 6012A	115 V AC/ 230V AC	12 V DC	5.0A	60 W	1,815
RF14-1A00000000000	1P FLEX - e 6024A	115 V AC/ 230V AC	24 V DC	2.5 A	60 W	1,815
<b>Single Phase - Metal Housing</b>						
RF14-1B00000000000	RISH FLEX - e 9024A	115 V AC/ 230V AC	24 V DC	5 A	95 to 120 W	2,370
RF14-1C00000000000	RISH FLEX - e 17024A	115 V AC/ 230V AC	24 V DC	7.5 A	95 to 180 W	2,500
<b>Two Phase - Metal Housing</b>						
RF14-2I00000000000	RISH FLEX - e 9024B	230V AC / 400V AC	24 V DC	5 A	120 to 180 W	3,315
RF14-2J00000000000	RISH FLEX - e 17024B	230V AC / 400V AC	24 V DC	7.5 A	120 to 180 W	3,470
<b>RISH FLEX SERIES</b>						
<b>Single Phase - Metal Housing</b>						
RF13-1T00000000000	RISH FLEX 6005A	115 V AC/ 230V AC	5 V DC	5 A	35 W	2,195
RF13-1S00000000000	RISH FLEX 6012A	115 V AC/ 230V AC	12 V DC	6 A	72 W	2,195
RF13-1A00000000000	RISH FLEX 6024A	115 V AC/ 230V AC	24 V DC	3 A	72 W	2,195
RF13-1Y00000000000	RISH FLEX 9012A	115 V AC/ 230V AC	12 V DC	10 A	120 W	3,170
RF13-1B00000000000	RISH FLEX 9024A	115 V AC/ 230V AC	24 V DC	5 A	120 W	3,420
RF13-1200000000000	RISH FLEX 15012A	115 V AC/ 230V AC	12 V DC	12.5 A	150 W	3,350
RF13-1300000000000	RISH FLEX 15024A	115 V AC/ 230V AC	24 V DC	6.25 A	150 W	3,350
RF13-1400000000000	RISH FLEX 15048A	115 V AC/ 230V AC	48 V DC	3.13 A	150 W	3,350
RF13-1R00000000000	RISH FLEX 17012A	115 V AC/ 230V AC	12 V DC	14 A	180 W	3,520
RF13-1C00000000000	RISH FLEX 17024A	115 V AC/ 230V AC	24 V DC	7.5 A	180 W	3,520
RF13-1F00000000000	RISH FLEX 17048A	115 V AC/ 230V AC	48 V DC	3.75 A	180 W	4,080
RF13-1P00000000000	RISH FLEX 28012A	115 V AC/ 230V AC	12 V DC	16 A	240 W	6,630
RF13-1Z00000000000	RISH FLEX 24024A	115 V AC/ 230V AC	24 V DC	10 A	240 W	5,970
RF13-1D00000000000	RISH FLEX 28024A	115 V AC/ 230V AC	24 V DC	14 A	336 W	6,630
RF13-1G00000000000	RISH FLEX 28048A	115 V AC/ 230V AC	48 V DC	7 A	336 W	6,630
RF13-1I00000000000	RISH FLEX 48024A	115 V AC/ 230V AC	24 V DC	20 A	480 W	7,345
RF13-1E00000000000	RISH FLEX 50024A	115 V AC/ 230V AC	24 V DC	25 A	600 W	8,160
RF13-1H00000000000	RISH FLEX 50048A	115 V AC/ 230V AC	48 V DC	12 A	600 W	8,160
<b>Two Phase - Metal Housing</b>						
RF13-2I00000000000	RISH FLEX 9024B	230V/ 400V/ 500 V AC	24 V DC	5 A	120 W	4,185
RF13-2J00000000000	RISH FLEX 17024B	230V/ 400V/ 500 V AC	24 V DC	7.5 A	180 W	4,285
RF13-2K00000000000	RISH FLEX 28024B	230V/ 400V/ 500 V AC	24 V DC	14 A	336 W	7,140
<b>Three Phase - Metal Housing</b>						
RF13-3L00000000000	RISH FLEX 50024B	400 – 500 V AC	24 V DC	25 A	600 W	9,080
RF13-3M00000000000	RISH PST 2430B	400 – 480 V AC	24 V DC	30 A	720 W	19,425
RF13-3N00000000000	RISH PST 2440B	400 – 480 V AC	24 V DC	40 A	960 W	23,360
<b>Redundancy Module</b>						
RF13-00M00000000000	RISH MR220	10 – 60 V DC	10 – 60 V DC	0 – 25 A (max)	----	1,990



KMAT	Model	Description	Auxiliary Supply
<b>Counter Type Energy Meter</b>			
EM90	RISH EM 3490	Input : 100 / 230 / 415 / 440 V L-L for 3Ph 3W/4W or 110 / 240 V L-N for Single Phase 1A / 5A Counter type Energy Meter with Fixed CT Ratio Accuracy Class : 1 Parameters : kWh	Self Powered AC



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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 non-standard 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 approbations mentioned in the price list are on generic header level, kindly contact to our nearest sales office for product-wise approbations
- For any enquiry regarding Energy Measurement Software and Solar Inverters, kindly contact our sales office.



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Product up-gradation 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 offices



Measure



Control



Record



Analyze

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