



Klemsan
ECPAS
Electronic Multimeter

L1 L2 L3
k V
M V_{LL}
k I
M Cos φ
k P
M Q
k S
M H
k H
M L
k SET
M Δ

000
000
000
000
000

Klemsan
KPR-SCE-230VAC/DC-1C
U_{in} = 230V ±
Relay = 60V ± COIL
6A 250V

A1
A2
A3
14 NO
11 COM
12 NC

CE
Made in TURKEY

Klemsan
KPR-SCE-230VAC/DC-1C
U_{in} = 230V ±
Relay = 60V ± COIL
6A 250V

A1
A2
A3
14 NO
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CE
Made in TURKEY

Klemsan
C1D-SA

8696066095115

INDICATOR

FAILURE	A1	A2
phase loss	—	—
phase sequence error	—	—
volt/amp	—	—
over/under voltage	—	—
under/under voltage	—	—
frequency error	—	—

COM
11 NO
12 NC

Un : 150-500V AC
max. switching current : 10A
150V AC
max. switching voltage : 1250VA

CE

Klemsan
P1-SU

8696066095405

Un : 180-250V AC
max. switching current : 10A
max. switching voltage : 250V AC
max. switching power : 1250VA

COM
11 NO
12 NC

CE

Klemsan
T1-LR

8696066095276

24-300V AC/DC
max. switching current : 10A
max. switching voltage : 250V AC
max. switching power : 1250VA

COM
11 NO
12 NC

CE

Short Form Brochure
Automation Products
03 / 2013

Klemsan[®]

RAPIDUS - POWER FACTOR CORRECTION

- LCD Screen, Turkish/English language options
- 1MByte memory
- Operates also as an energy analyzer
- Tariff meter
- Fast and easy setup
- Learns connection and steps automatically
- Compensation with low current values (10 mA)
- Capability to connect three-phase/single phase capacitor or reactor to any step
- Switch-on durations and switching counts for steps
- Phase angle entrance to compensate for system related errors
- Alarm setup for any electrical parameter
- MODBUS RTU communication with an isolated RS485 port



Supply

Voltage	85..300V AC/DC
Frequency	45..65 Hz

Measurement Inputs

Voltage	1..300 V RMS (L-N)
Current	0.01..6 A RMS
Frequency	45..65 Hz

Relay Outputs

14 pcs,	
Max. switching current:	5A
Max. switching voltage:	250 VAC
Max. switching power:	1250 VA

Power Consumption

<10VA

KLEA - ENERGY ANALYZER

LCD Screen, Turkish/English/Russian language options

Password protection

1MByte memory

Phasor diagram

Signal waveforms

Fixed current input terminal block

Active (import and export) and reactive (inductive and capacitive) energy indexes; current hour, previous hour; current day, previous day, current month, previous month energy values

MODBUS RTU communication with an isolated RS485 port



Supply

Voltage 85..300V AC/DC
Frequency 45..65 Hz

Measurement Inputs

Voltage 1..300 V RMS (L-N)
Current 0.01..6 A RMS
Frequency 45..65 Hz

Digital Input/Output (Digital IO)

2 pcs, 5...30V DC, 50mA
Protection: 3750VRMS , Insulation

Analog Output

2 pcs. (2 pcs. analog output optional model)
4 pcs. (4 pcs. analog output optional model)
0-5V, 0-10V, -5-5V, -10-10V, 0-20mA, 4-20mA

Power Consumption

<3VA

ECRAS MULTIMETER

- Existence/Non-existence of currents and voltages belonging to the related phases
- Minimum and maximum values for current, voltage (L-L, L-N), $\cos\phi$ active, reactive and apparent power
- Demand values for current, active, reactive and apparent power
- Providing 4-digit password and user entry control.
- 2 programmable alarm relay outputs. (OPTIONAL)



Supply

Voltage 85...300V AC/DC
Frequency 45...65 Hz

Power Consumption:

≤ 6 VA

Measurement Inputs

Voltage 10...300 V RMS (L-N)
Current 0.05...5.5 A RMS
Frequency 45...65 Hz

MOTOR PROTECTION RELAYS

- 17.5 mm width boxes
- Phase failure
- Phase sequence
- PTC
- Input voltage range
 - Star connected models 85 – 320 VAC (L-N)
 - Delta connected models 150 – 500 VAC (L-L)
- Adjustable or fixed high/low voltage protection
- Adjustable or fixed asymmetry
- Different models for delta and star connections
- 4 LEDs to demonstrate operation modes and/or failures



P SERIES (Protection with Fixed Parameters)

Operating Voltage (U_N)	85..320V AC (P1 Series) 150..500V AC (P1D Series) 175..320V AC (P1-SU)
Supply Input	L1-N (P1 Series) L2-L3 (P1D Series) L3-N (P1-SU)
Operating Frequency	35..70 Hz (P1,P1D Series) 50..60 Hz (P1-SU)

C SERIES (Protection with Adjustable Parameters)

Operating Voltage (U_N)	85..320V AC (C1, V1, F1 Series) 150..500V AC (C1D, V1D Series)
Supply Input	L1-N (C1, V1, F1 Series) L2-L3 (C1D, V1D Series)
Operating Frequency	35..70 Hz
Voltage Measurement Range	U_N
Voltage Adjustment Range	
Lower Limit	150..210V AC (C1, V1 Series) 270..370V AC (C1D, V1D Series)
Upper Limit	240..300V AC (C1, V1 Series) 400..500V AC (C1D, V1D Series)

TIMERS

- 17.5 mm width boxes
- LEDs to demonstrate operation modes
- Supply voltage range 24..300 VAC/DC (Star/Delta timer 150 - 500 VAC/DC)
- 10 different timer models for different requirements
- Best solution for high precision applications



Supply voltage range for T1-60S, T1-FLASH, T1-M5, T1-K, T1-M4, T1-LR, T1-XS:

24 .. 300 V AC/DC

Supply voltage range for SD1:

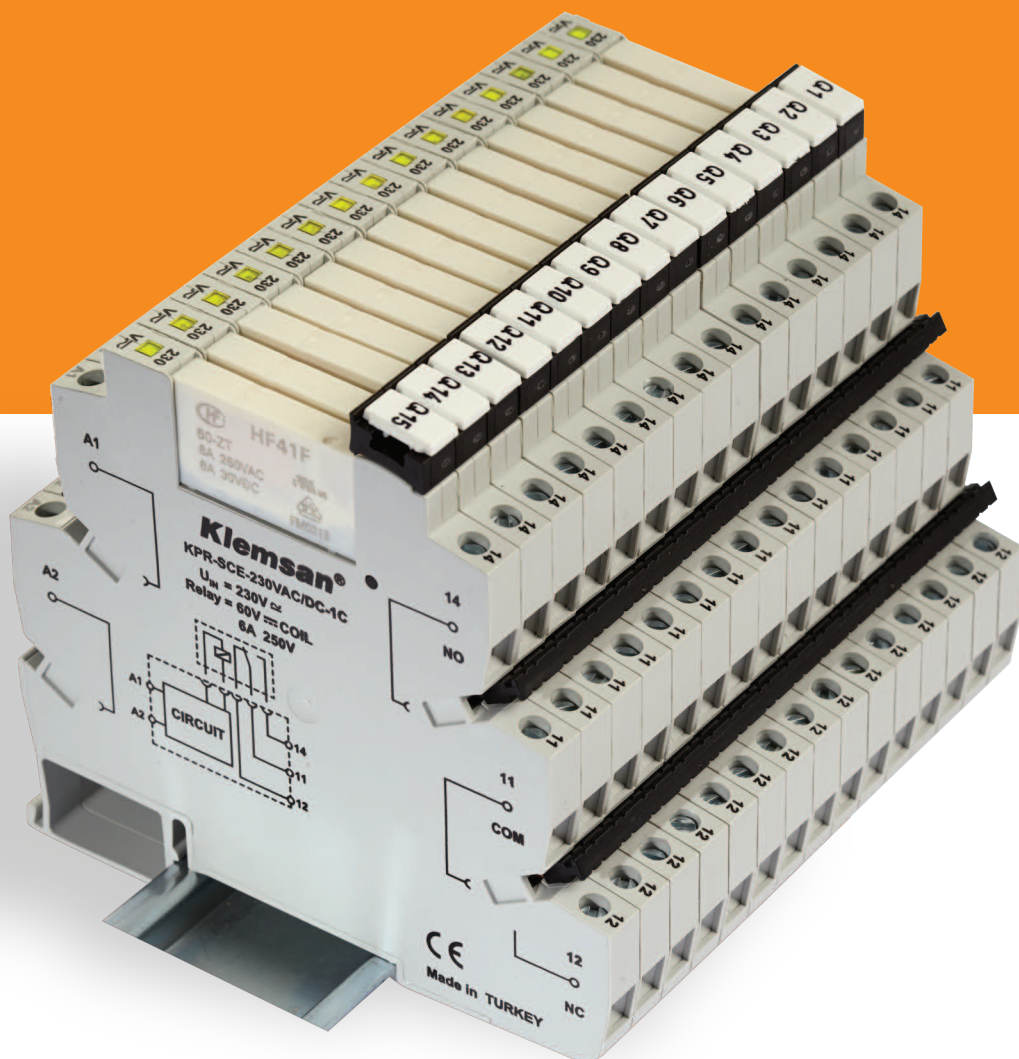
150 .. 500 V AC/DC

Supply voltage range for T1-100S:

180..265 VAC

PLC RELAY

24/110 and 220VAC/DC models
Easy installation
Width 6.2 mm



LED indicator
Easy dislocation of the relay
Long switching life

ANC SERIES

- 8 (ANC-8) or 16 (ANC-16) input channels
- Double colored; backlight illuminated indicators
- Keeping 6080 event logs with time stamp
- Battery supported real-time clock and memory (min. 5 years of battery life)
- Ability to assign input channels to HORN or ALARM relays via DIP switch
- Isolated RS-485 port
- HORN channels green and ALARM channels are in red color
- Input signal voltage values: 24V, 48V, 110V and 220V AC/DC
- Adjustable alarm recognition delay 0-30 seconds
- Front panel buttons for alarm confirmation, deletion and display tests
- Sound warning of alarms with a buzzer
- 2 relay outputs; "HORN" and "ALARM" relays



Supply voltage	110..300V AC/DC (ANC-8) 48 .. 300V AC/DC (ANC-16)
Frequency	45..65 Hz
Power consumption	< 5VA (ANC-8) < 3W (ANC-8) < 7.5VA (ANC-16) < 5W (ANC-16)
RTC Battery life	> 5 years

ALRC SERIES

Input signal voltage values: 24V, 48V, 110V and 220V AC/DC
Front panel buttons for alarm deletion, relay control and display tests
2 relay outputs; "HORN" and "ALARM" relays
96*96 mm. size box



Supply Voltage (U_N)

24V AC/DC, 48V AC/DC
110V AC/DC, 220V AC/DC

Input Signal Voltages

Same as supply voltage values

Voltage Tolerance

+/-30 x UN

Number of Inputs

6

Input Impedance

>230 K Ω

Number of Outputs

6 Channel-Relay Output

1 Horn-Relay Output

1 Alarm-Relay Output

1 NO

Output Relays

Maximum Switching Current

5A

Maximum Switching Voltage

250V AC

Maximum Switching Power

1250 VA



LSK SERIES

Input signal voltage values: 24V, 48V, 110V and 220V AC/DC

96*96 mm. size box

Easy marking

Marking with printouts

Elegant design



Operating Temperature	-20 °C...60 °C
Storage Temperature	-40 °C...75 °C
Dimensions	96*96*72 mm
Portection Class	IP50 front side IP20 rear side

RELAY MODULES

DIODE MODULES

LED indicators

Models with 1/2/4 and 8 relay(s)

Input voltage values 24V, 110V and 220V AC/DC

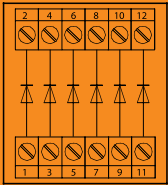
Single contact or double contact models

Models with relay sockets or directly soldered relays

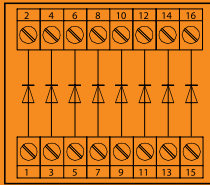
Common anode and cathode models

Models with different number of diodes

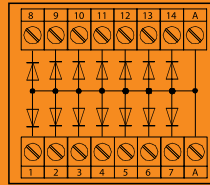
Lamp test modules



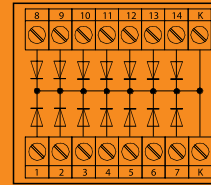
DM 6-S



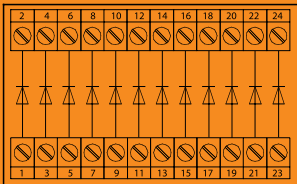
DM 8-S



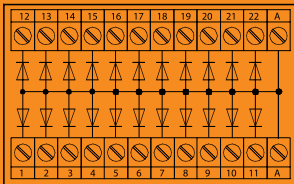
DM 14-A-S



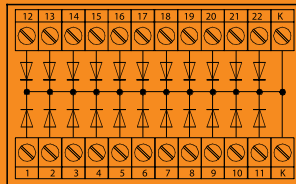
DM 14-K-S



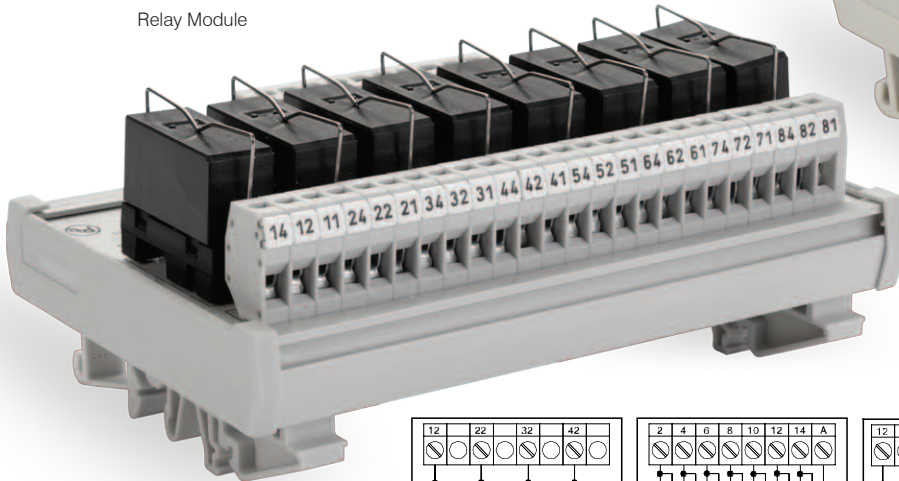
DM 12-S



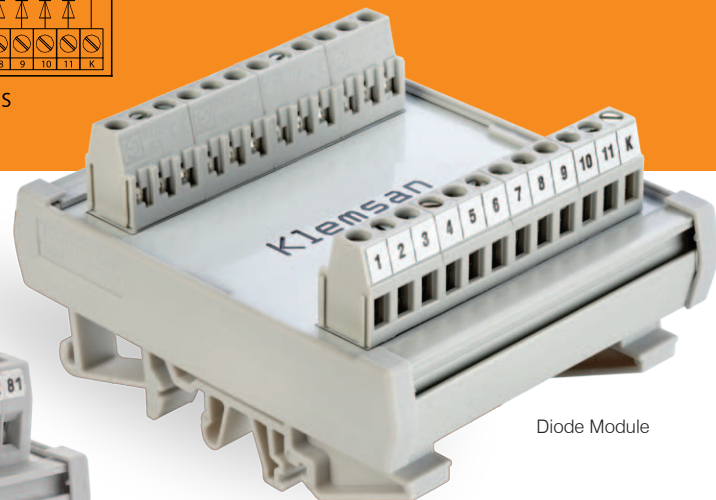
DM 22-A-S



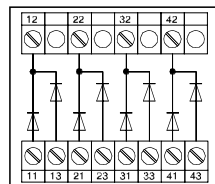
DM 22-K-S



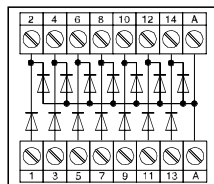
Relay Module



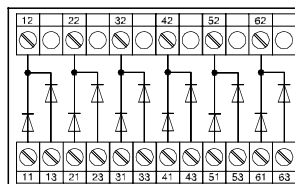
Diode Module



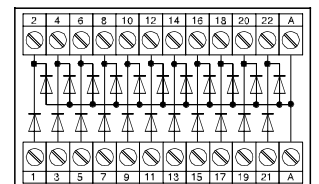
LT M 4-S



LT M 7-A-S



LT M 6-S



LT M 11-A-S

Contact Current	8A
Rated Voltage	250VAC
Max. Breaking Voltage	440VAC
Rated Breaking Capacity	2000 VA
Pick Up Time	7ms
Release Time	9ms
Min Operating Temperature	-25°C
Max. Operating Temperature	50°C



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