

Multifunctional Time Relays

MCB-100/200 - ERTC-100 Series



MCB-130

- New Generation Multifunctional Digital Time Relays;**
- **Self Supply: Operating with internal battery without power supply (MCB-200)**
 - **Battery life of 10 years or 1,000,000 switching (MCB-200)**
 - Easy setup with user-friendly menu
 - In addition to its main functions, offering flexible solutions that are tailored to objective with trigger-controlled rich sub-functions
 - With memory feature, saving time and state information in the memory when supply is cut off, and resuming on when supply is back
 - Performing functions based on real time clock with its digital time setting

PRODUCT SELECTION TABLE

Product Code	Time	Triggering Input	ON Delay	OFF Delay	Pulse	Asymmetrical Flasher	Symmetrical Flasher	Start/Stop	Counter	Left / Right	Star/Delta	2 Step ON Delay	2 Step OFF Delay	85-315 VAC/DC	Memory	10-30 VAC/DC	Self Supply	DIN II Enclosure	Pcs./Box
MCB-100	Multifunctional Time Relay	0,1s-9999min.	●							●	●	●	●	●	*			●	16
MCB-101	Multifunctional Time Relay	0,1s-9999min.	●							●	●	●	●		*	●		●	16
MCB-120	Multifunctional Time Relay	0,1s-9999min.	●	●	●	●	●							●	*			●	16
MCB-121	Multifunctional Time Relay	0,1s-9999min.	●	●	●	●	●								*	●		●	16
MCB-125	Multifunctional Time Relay	0,1s-9999min.	●	●	●	●	●	●	●					●	*			●	16
MCB-126	Multifunctional Time Relay	0,1s-9999min.	●	●	●	●	●	●	●						*	●		●	16
MCB-130	Multifunctional Time Relay	0,1s-9999min.	●	●	●	●	●	●	●	●	●	●	●	●	*			●	16
MCB-131	Multifunctional Time Relay	0,1s-9999min.	●	●	●	●	●	●	●	●	●	●	●		*	●		●	16
MCB-200	Multifunctional Time Relay (Battery operated)	0,2s-9999min-0,1m-9999min	●	○	○	○	○										●	●	16
ERTC-100	Counter / Pulse Time Relay	0,1s-9999min.	●		●				●					●	*			●	16
ERTC-101	Counter / Pulse Time Relay	0,1s-9999min.	●		●				●						*	●		●	16

△ Refer to the function table to see sub-functions included in main functions.

○ Functions with Triggering

SPECIFICATIONS	MCB-100	MCB-120	MCB-125	MCB-130	ERTC-100	MCB-200	MCB-101	MCB-121	MCB-126	MCB-131	ERTC-101
ENCLOSURE											
Dimensions	PK25(DIN II)										
Protection Class	IP 20										
INPUT											
Operating Voltage Range	85-315 VAC/DC					-	10-30 VAC/DC				
Power Consumption	<2,5VA										
Control Input	Dry Contact										
OUTPUT											
Repeat Accuracy	0,5%										
Reset Time	<120ms										
Contact Output	6A CO										
AMBIENT CONDITIONS											
Operating Temperature	-5...+55 °C ; 85%										
Humidity											
CONNECTIONS											
Mounting	Rail Mounts ; Screw Terminals										
Connection Types	Single Phase Two Wires										

Protection & Control

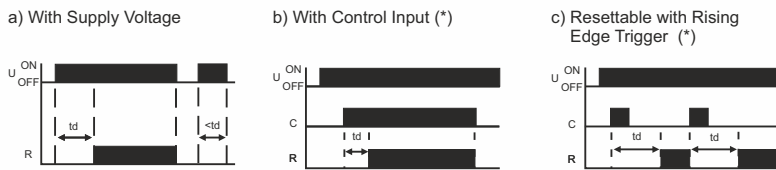


Multifunctional Time Relays

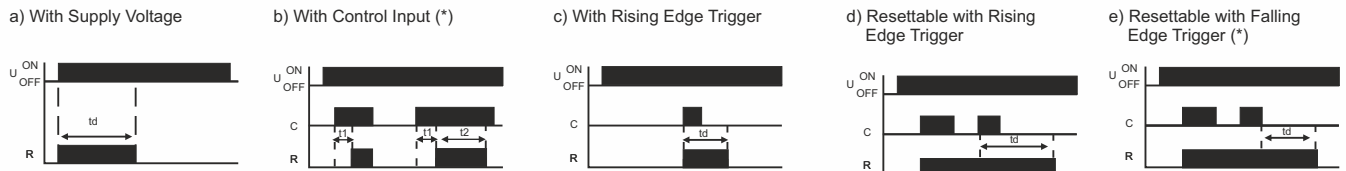
MCB-100/200 - ERTC-100 Series

Main Functions

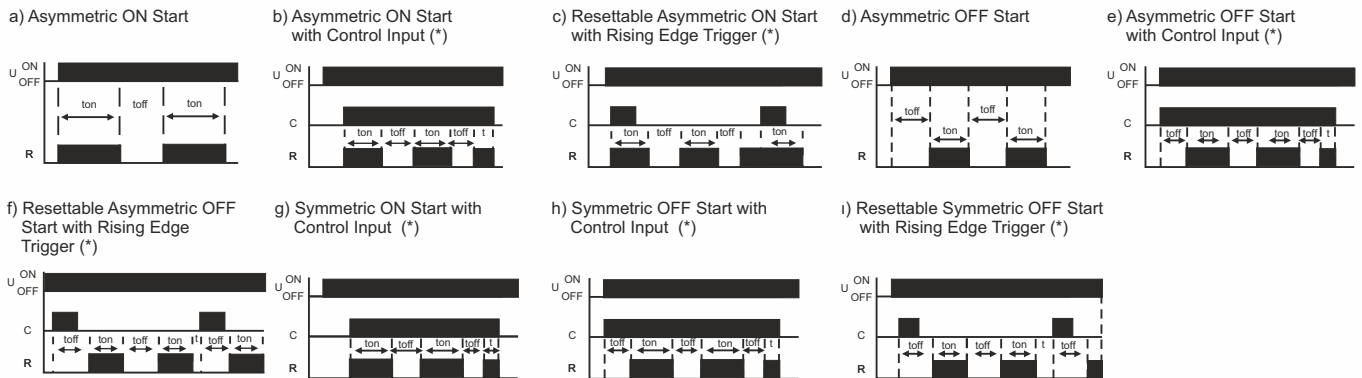
ON Delay



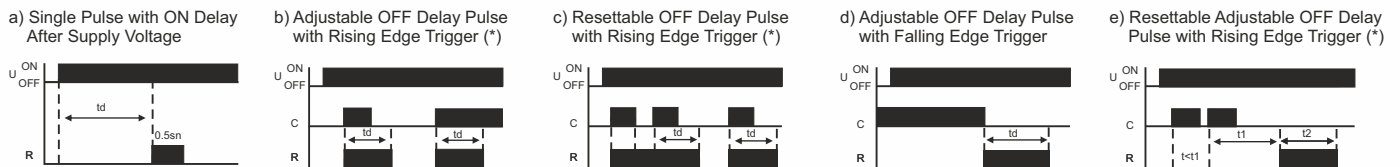
OFF Delay



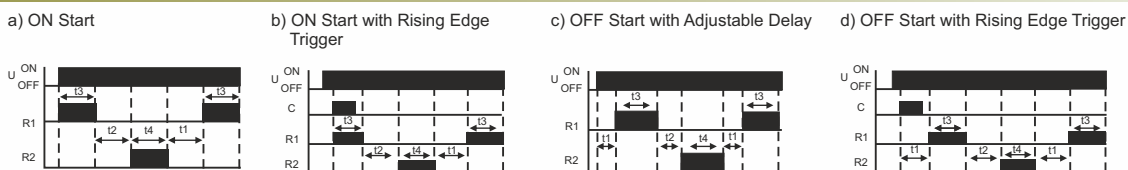
Flasher



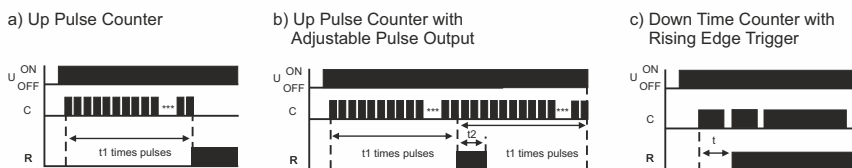
Pulse



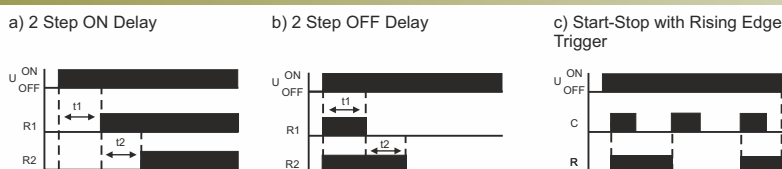
Right-Left Switcher (With Adjustable Time)



Counter



2 Step ON and OFF Delay / Start - Stop



* MCB-200 contains only the functions marked with (*) under Main Functions.



Time Relays

MCB - SER - ERTC - SSR - DG Series



SER-Y/U



DG-60



MCB-20



MCB-25



MCB-9



ERTC-01

PRODUCT SELECTION TABLE

Product Code	Time	ON Delay (Er)	OFF Delay (Em)	OFF Delay with Control Input (R)	ON Delay with Control Input (Es)	Single shot leading edge with control input (Ts)	Single shot trailing edge with control input (Ta)	Symmetric Flasher (Ef)	Control Input	ON Delay with Control Input Leading Edge	OFF Delay with Control Input Trailing Edge	Single Shot Leading and Trailing Edge with Control Input	ON Flasher	OFF Flasher	Down-timer	Star-Delta	Left-Right	No Voltage, Delayed impulse	Pcs / Box
ERT-01-72	Multi-function T. Relay	1 s - 100 Hours	●	●	●	●			●				●	●	●				16
ERTC-01-DIN	Multi-function T. Relay	1 s - 100 Hours	●	●	●	●			●				●	●	●				16
MCB-7	Time Relay	0,1 s - 30 Hours	●	●															28
MCB-8	Time Relay	0,1 s - 999 min	●	●															28
MCB-9	Time Relay	0,5 s - 30 Hours	●	●									●	●					28
MCB-15	Multi-function T. Relay	0,05 s - 100 Hours	●	●	●			●	●										10
MCB-20	Multi-function T. Relay	0,1 s - 100 Hours	●	●	●	●	●	●	●										10
MCB-25	Multi-function T. Relay	0,1 s - 999 Hours	●	●	●			●	●	●	●	●	●	●					20
MCB-30	Time Relay	2-30 s	●																28
MCB-60	Time Relay	4-60 s	●																28
SER-YU	Star - Delta Relay	(λ/U) 20-500 ms (λ) 1-60 s														●			16
SSR-2X	Right - Left Relay	0,1 s - 60 Hours															●		28
DG-10	Time Relay	0,6 s - 10 min																●	16
DG-60	Time Relay	0,1 s - 60 min																●	16
EF-10	Flasher Relay	1 - 10 s / 0,5 s											●						10
EF-10T	Flasher Relay	1 - 10 s / 0,5 s											●						10
ERB-50	Dishwasher Relay	Washing 30, 60, 90,120,180 s, Waiting 3 s, Rinsing 1-30 s																	10

SPECIFICATIONS

	MCB-15	MCB-20	MCB-25	EF-10	MCB-7/8/9	MCB-30	MCB-60	SSR-2X	ERB-50	ERT-01	ERTC-01	SER-Y/U	DG-10/60	EF-10T
ENCLOSURE														
Dimensions	PK27	PK22	PK22	PK22	PK22	PK22	PK21	PK20	PK20	PK28	PK10			
Protection Class	IP40				IP20				IP40-IP20		IP20			
Weight				0,1kg/pcs				0,1kg/pcs	0,3kg/pcs	0,25kg/pcs	0,1kg/pcs		0,3kg/pcs	
SUPPLY														
Operating Voltage	24-240 VAC/DC	12-240 VAC/DC	24-240 VAC/DC		12-240 VAC/DC			230 VAC	230 VAC	230 VAC 110 VAC	230 VAC 24 VAC/DC		230 VAC	
Operating Range	for Un±%20(AC) ; for Un±%10(DC)													
Power Consumption	< 4 VA				< 8 VA				< 4 VA	< 3 VA	< 8 VA		< 3 VA	
OUTPUT														
Repeat Accuracy	±5ms.	±%0.5			±%0.1									
Reset Time	100 ms.				< 150 ms.			100 ms.	80 ms.	120 ms.		-		
Output Contact	1 CO; 8A, 2000 VA, cos =1							2 CO; 10A, 2500VA, cos =1	1 CO; 8A, 2000VA, cos =1		2 NO; 5A,1250VA	1 CO; 16A,4000VA		Triyac; 8A,600VA
AMBIENT CONDITIONS														
Ambient Temperature; Humidity	-5 / +55 C ; %85				-10 / +55 C ; %93			-5 / +55°C ; %85						
CONNECTIONS														
Mounting	Rail Mounting, Terminals with Screw													
Connection Types	Single phase 2 wires													

Time Relays

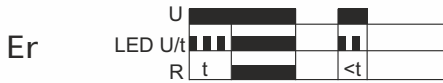
MCB - SER - ERTC - SSR - DG Series

Functions of MCB-15 and MCB-20 (12~240 VAC/DC)

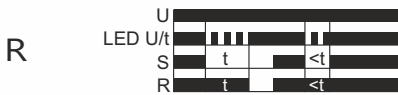
Single shot leading edge voltage controlled input (Em) [MCB-20 & MCB-8/9]



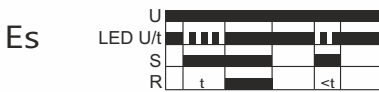
ON Delay (Er) [MCB-15 & MCB-20 & MCB-30/60/7/8/9]



OFF Delay with control input (R) [MCB-15 & MCB-20]



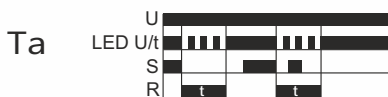
ON Delay with control input (Es) [MCB-20]



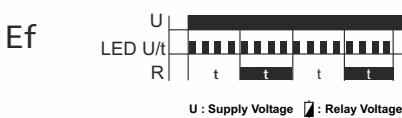
Single shot leading edge with control input (Ts) [MCB-20]



Single shot trailing edge with control input (Ta) [MCB-20]

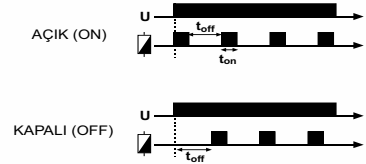


Flasher (Ef) [MCB-15 & MCB-20]

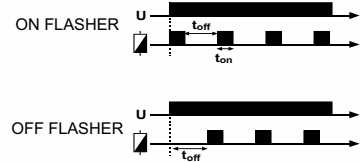


Common Functions of MCB-7/8/9; ERTC-01; EF-10/10T

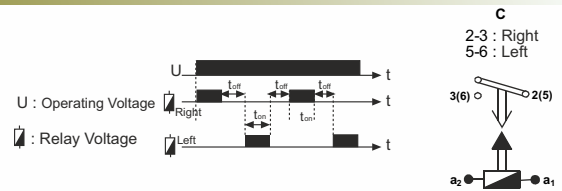
On Delay (Er)



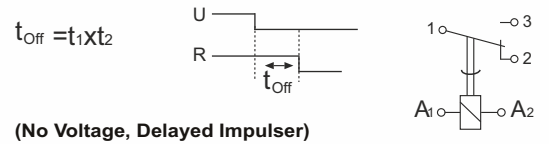
Flasher



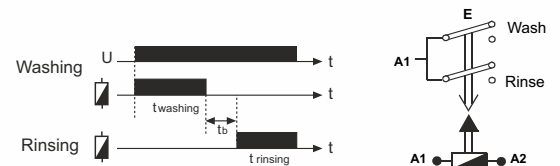
Functions of SSR-2x



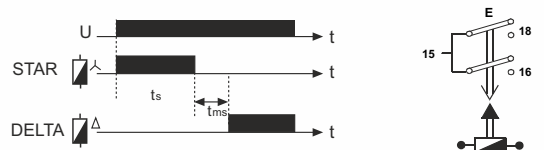
Functions of DG-06 / DG-10 / DG-60



Washing Machine Relay (ERB-30/50)



Functions of SER-Y/U

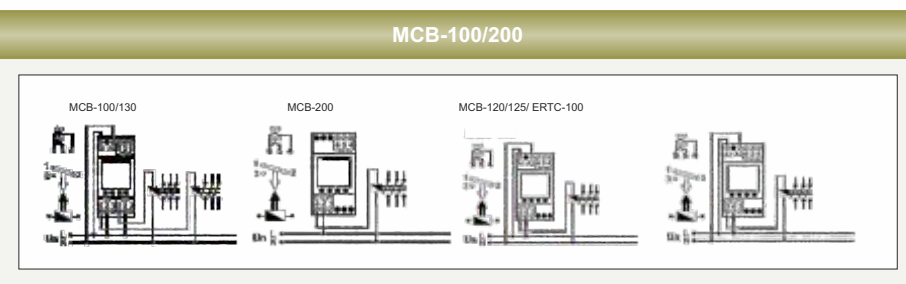
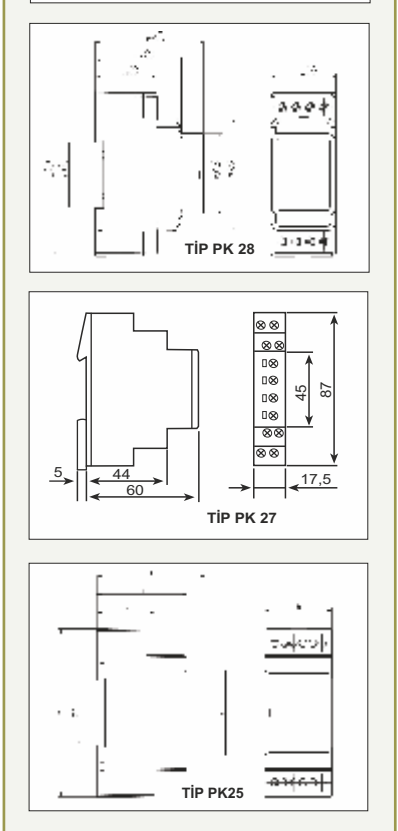
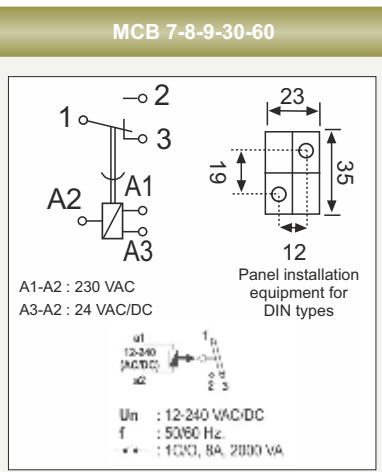
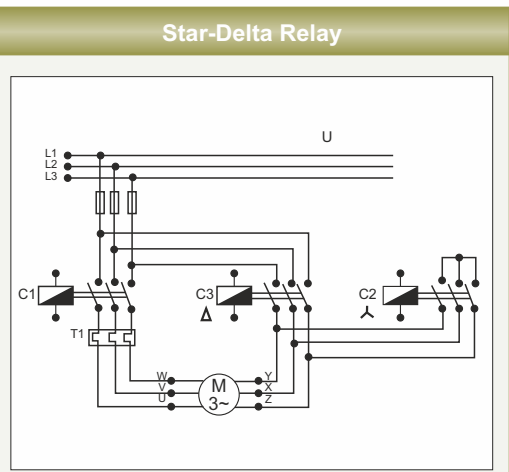
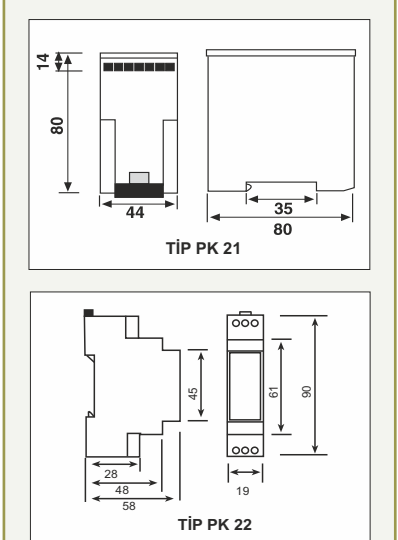
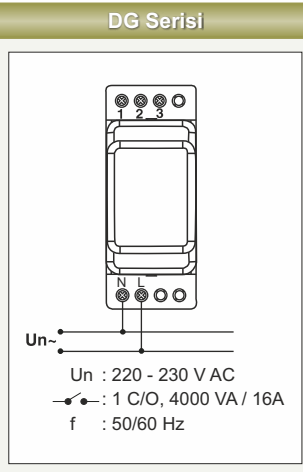
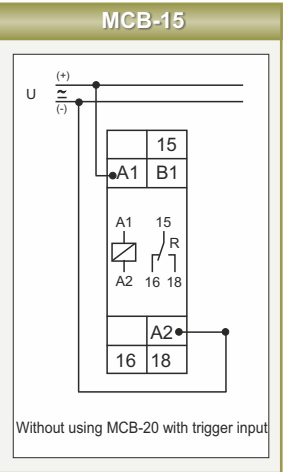
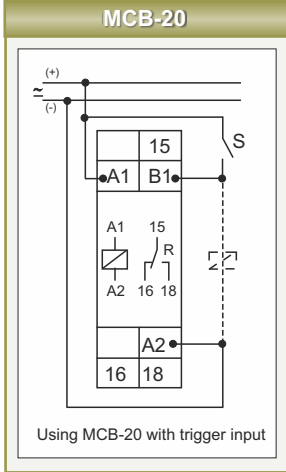
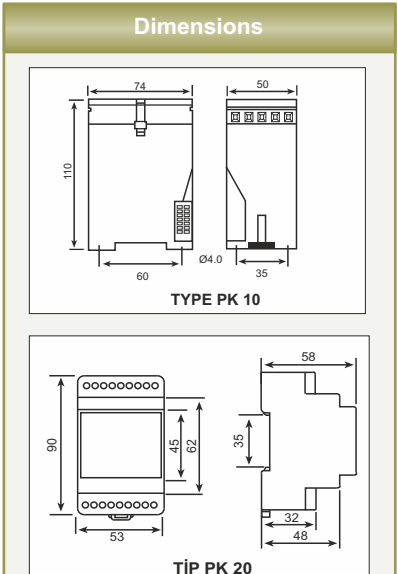
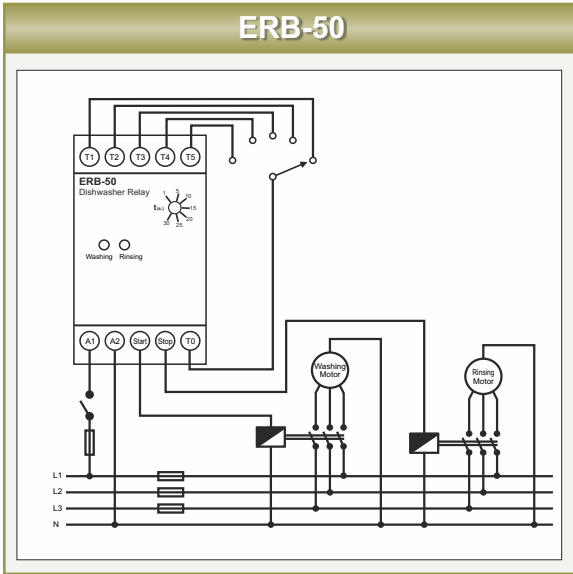
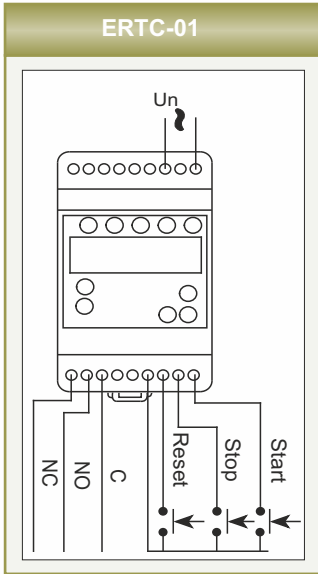


* 24 VAC/DC supply of SER - Y/U is applied between A2-A3



Time Relays

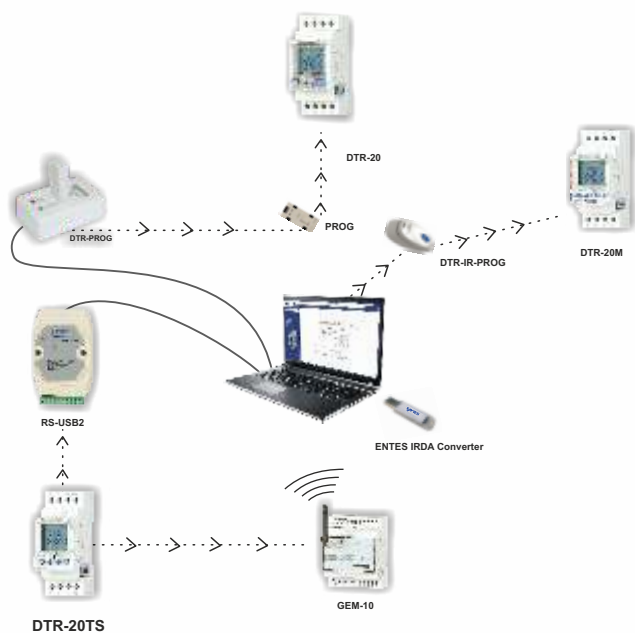
MCB - SER - ERTC - SSR - DG Series



Connection diagrams are given for reference. Please always check the latest user manual given with product or download from www.entec.com.tr

Astronomic Time Relays Electronic Timers

DTR Series / MCB-50/50t



- Automatic sunset and sunrise calculation
- Automatic DST (Daylight Saving Time) switching
- Programming based on city name and geographical coordinates
- 2 relay outputs (16A)
- Battery life of 10 years
- 32 programs, and precise timing
- 24/7 relay programming
- Vacation mode
- Backlight Display
- Password Protection



CE

Configuration Software

With DTR PROG configuration software, all parameters can be set easily and quickly in computer environment. After loading the configuration on the DTR-IR PROG device, these settings can be remotely transferred to multiple DTR-20M devices instantly with IR (Infrared).

PRODUCT SELECTION TABLE

Product Code		Data Transfer	Programmable Prayer Time	24h Time Programming	Geographical Coordinate Programming (Astronomic)	Photocell Sensor Input	15 Programs	32 Programs	1 Relay Output (16A)	2 Relay Output (8A)	2 Relay Output (16A)	Year/Battery Life (Years)	Pcs / Box
DTR-10	Astronomic Time Relay			●	●		●				●	10	16
DTR-10t	Astronomic Time Relay			●	●		●		●			10	16
DTR-14	Astronomic Time Relay				●	●	●			●		3	16
DTR-20	Astronomic Time Relay, External Memory	PROG		●	●			●			●	10	16
DTR-20S	NEW Astronomic Time Relay (Double-Contacted)	RS-485		●	●			●			●	10	16
DTR-20TS	NEW Astronomic Time Relay (With Communication)	RS-485		●	●			●	●			10	16
DTR-20M	Astronomic Time Relay, IR Programming	IR		●	●			●			●	10	16
DTR-25	Astronomic Time Relay		●	●	●			●			●	10	16
MCB-50	Electronic Timer, 32 Programs			●				●			●	10	16
MCB-50t	Electronic Timer, 32 Programs			●				●	●			10	16
Programmer													
DTR-PROG	Programmer (for DTR20)												
DTR-IR-PROG	IR Programmer (for DTR20M)												

Protection & Control



Astronomic Time Relays /Electronic Timers

DTR Series / MCB-50/50t

DTR-10/10t: Astronomic Time Relay

DTR-14: Astronomic Time Relay (with Photocell Input)

DTR-20/25: Astronomic Time Relay (External Memory)

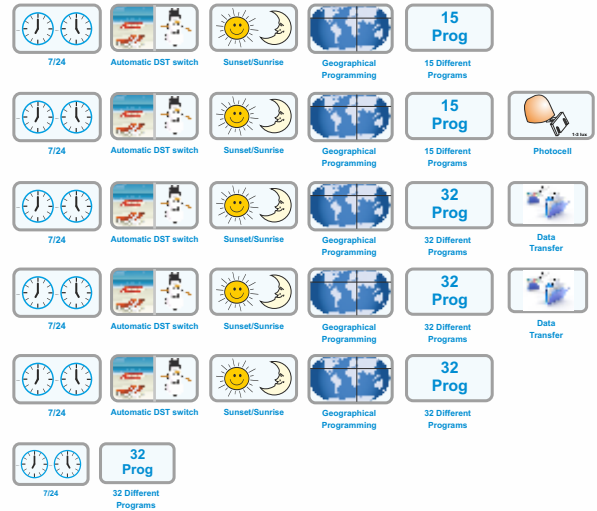
DTR-20M: Astronomic Time Relay (IR Programming)

DTR-25: Astronomic Time Relay (Praying Time Calculation)

DTR-20S/DTR-20TS: Astronomic Time Relay

(Double Contact/Communication)

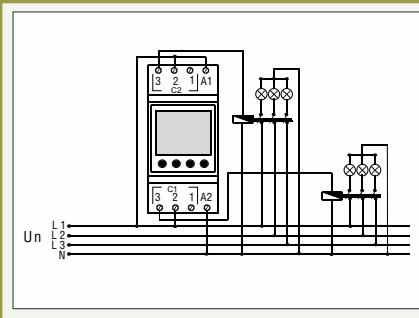
MCB-50/50t: Time Relay



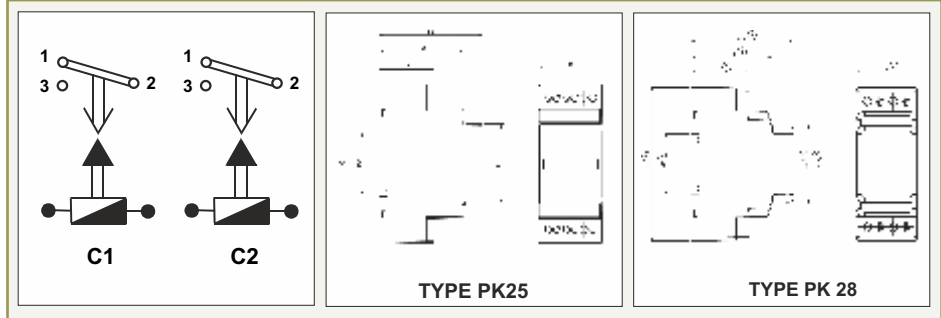
SPECIFICATIONS

	DTR-14	DTR-10/25 MCB-50	DTR-10t/ MCB-50t	DTR-20	DTR-20M	DTR-20S	DTR-20TS
ENCLOSURE							
Dimensions		Pk25			Pk28	Pk25	Pk28
Protection Class				IP20			
Weight				0,2 kg			
Display				1,3" LCD			
SUPPLY							
Operating Voltage Range				230 VAC			
Operating Frequency				50/60 Hz			
Operating Range				190-260 VAC		85-265 VAC	
Power Consumption	<3VA			<10VA		<3VA	
INPUT / OUTPUT / SETTINGS							
Output Contact	2CO 8A 250 VAC 2000VA	2CO 16A 250VAC 4000VA	1CO 16A 250VAC 4000VA		2CO 16A 250 VAC 4000VA		1 CO 16A 250 VAC 4000VA
Refresh Time	60 s.				1 s.		
Accuracy	< 1 sn./gün				<0,5sn./day		
Sensor	CdS(Light-sensitive photoresistor)				-		
Light Intensity	1-3 lux				-		
COMMUNICATION				PROG	IR	RS-485	
AMBIENT CONDITIONS							
Ambient Temperature; Humidity				-10 / +50°C ; % 85			
CONNECTIONS							
Mounting				Rail mounting; Screw Terminals			
Connection Type				Single Phase 2 Wires			

Connection Diagram



Dimensions



Connection diagrams are given for reference. Please always check the latest user manual given with product or download from www.entec.com.tr

