

B-Series 45mm Timers

B1DCA-X / B1DCA-T / B1DS / B1DH-Q / B1DF / B1DF-R

Features

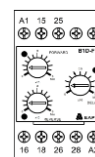
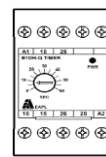
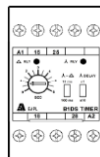
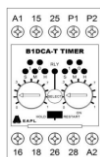
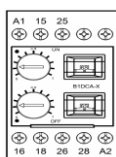
- Suitable for Din-Rail mounting.
- Terminal block safety protective cover.
- LED indication for timing in progress.



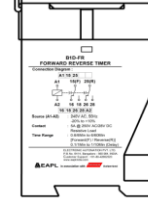
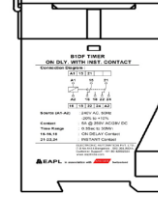
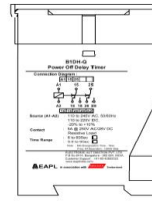
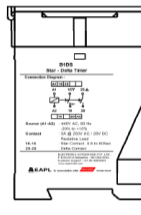
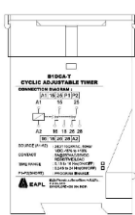
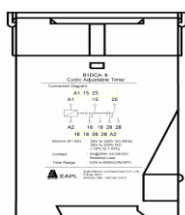
Ordering Information

Models	Function	Source Voltage	Time Selection	Output
B1DCA-X	Cyclic Adjustable On-Off	24V AC to 240V AC, 24V DC to 220V DC	0.6Secs to 60Mins	2 C/o Relay
B1DCA-T	Cyclic Adjustable On-Off	110V AC / 240V AC	0.1Secs to 10Hrs	
B1DS	Star Delta	440V AC	0.6Secs to 60Secs ##TD 40ms / 100ms	1 C/o (C-NO)Star 1 C/o (C-NO)Delta
B1DH-Q	Power-Off Delay	110V AC to 240V AC 110V DC to 220V DC**	6Secs to 60Secs	2 C/o Relay
B1D-F	On Delay with instant contact	110V AC / 240V AC	0.3Secs to 30Mins	1 C/o On Delay 1 C/o Instant
B1DF-R	Forward/Reverse with Pause Time	240V AC	Forward & Reverse - 0.6Min to 6Mins Pause- 0.1Min to 1Min	1C/o relay forward and 1c/o reverse

Front View B1DCA-X B1DCA-T B1DS B1DH-Q B1DF B1DF-R



Side View B1DCA-X B1DCA-T B1DS B1DH-Q B1DF B1DF-R



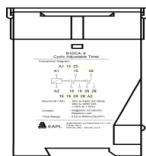
Over-all Dimension

Models	Dimension Details in mm		
	W	H	D
B1DCA-X/B1DCA-T/B1DH-Q/B1DF-R	45	75	116
B1DS/B1DF	45	77.2	115

■ Specifications

Parameters Models	B1DCA-X	B1DCA-T	B1DH-Q	B1DS	B1DF	B1DF-R
Function	Cyclic timer with ON & OFF time independently adjustable.		Power OFF delay timer	Star to Delta changeover timer with start time & transfer timer setttable	ON delay timer with instant contact	Switch two loads with delay in between in cyclic fashion
Rated supply Voltage	24 to 240V AC & 24 to 220V DC	240V AC	110V to 240VAC / 110V to 220V DC	440V AC	240V AC	
Operating voltage range	-10% to +10% of the rated voltage	-15% to +10% of rated voltage	-20% to +10% of rated voltage			
Rated Frequency	50Hz ± 5%		50/60Hz ± 5%	50Hz ± 5%		
Allowable ripple (for DC supply)	3% maximum	-	-	-	-	-
Power consumption	AC approx. 5VA / 1W DC approx.2W	AC approx. 20VA	150mA peak current 5mA once stabilized	AC approx. 20VA /4W	AC approx. 15VA DC approx. 3W	AC approx.30VA
Control output	2 c/o rated for 5A@250V AC/28VDC resistive load			Rated for 5A @250VAC/28VDC resistive load	1C/O Rated for 5A @250VAC/28VDC resistive load	1 c/o Rated for 5A@250VAC/28VDC resistive load
Time range	0.6 Sec to 60 Min	0.1 Sec to 10 Hrs	6 Sec to 60 Sec	Star Time: 0.6Sec to 60Sec Transfer time:40ms/100mssetttable	0.3 Sec to 30 Min	Forward & Reverse 0.6Min to 6Min Delay 0.1Min to 1Min
Range selection	6S, 18S, 36S, 60S, 3M, 6M, 30M, 60M	1S, 10S, 1M, 10M, 1H, 10H	-	6Sec, 60Sec/ Transfer time 40ms, 100ms setttable	3Sec, 30Sec, 3Min, 30Min	-
Setting accuracy	± 10% max. w.r.t full scale ± 100mSec					
Repeat accuracy	± 1% max. ± 100mSec		± 2% max. ± 100mSec	± 1% max. ± 100mSec		
Recovery time	100mSec minimum	500mSec minimum	-	150mSec minimum	100mSec minimum	150mSec minimum
Min Energization time	-	-	1Sec	-	-	-
Variation due to voltage change	± 2% max. ± 100mSec					
Variation due to temperature change	± 5% max. ± 100mSec					
Variation due to frequency change	± 2% max. ± 100mSec					
Temperature co-efficient	-	-	± 0.5% max. for every 1°C	-	-	-
Ambient temperature	Operation : -10°C to + 55°C Storage : -25°C to +80°C					
Humidity	MAX 85% RH @ 40°C					
Electrical life	10 ⁵ operations minimum					
Mechanical life	10 ⁶ operations minimum					
Rated frequency of operation	1800 ± 5% operations per hour max		120 ± 5% operations per hour max	1800 ± 5% operations per hour max		
Insulation resistance	>100M ohms @ 500V DC					
Dielectric strength	01) 2.5KV AC , 50Hz for 1 minute. (Between current carrying & non-current carrying parts) 02) 1.5KV AC, 50Hz for 1 minute. (Between contacts & control circuit) 03) 1 KV AC, 50Hz for 1 minute. (Between non-continuous relay contacts) for B1DCA-X, B1DCA-T,B1DH-Q,B1DF-R. 04) 750V AC , 50Hz for 1minute.(Between non-continuous contacts of the relay) for B1D-S , B1DF .					
Electrical connection	Screw type terminals with self lifting clamps					
Dimension (W x H x D)	45 x 75 x 116mm			45 x 77.2 x 115mm		45 x 75 x 116mm

Connection and Terminal Details



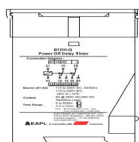
A1, A2 : Source Voltage
15, 16, 18 : C1, NC1, NO1
25, 26, 28 : C2, NC2, NO2

B1DCA-X



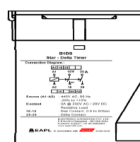
A1, A2 : Source Voltage
15, 25:Common 1 & 2
16, 26:Normally closed 1 & 2
18, 28 :Normally open 1 & 2
P1, P2 :SHORT – PROGRAM
 ENABLE
 OPEN – DISABLE

B1DCA-T



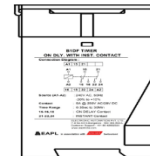
A1, A2 : Source Voltage
15, 16, 18 : C1, NC1, NO1
25, 26, 28 : C2, NC2, NO2

B1DH-Q



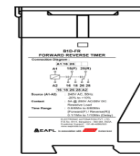
A1, A2 : Source Voltage
15, 16, 18 : C1, NC1, NO1
25, 26, 28 : C2, NC2, NO2

B1DS



A1, A2 : Source Voltage
15,16,18 : C, NC, NO (ON DELAY Contact)
21,22,24 : C, NC, NO (INSTANT Contact)

B1DF



A1, A2 : Source Voltage
15, 16,18 : C, NC, NO (Forward Contact)
25, 26, 28 : C, NC, NO (Reverse Contact)

B1DF-R