Defrost Timers

D53 (SB3)

Technical Data

Supply voltages
Standard: 220/240 V. (+10% - 15%)
On request: 24 V. 110/120 V.

Supply frequency
Standard: 50 Hz
Or 60 Hz.

Operating temperature
-10°/+55°C.

Contact rating
16(6) A – 250 vac.

Absorbed power
3,5 W max.

Electrical connections
Faston terminals 6,35 mm x 0,8 mm.

Operating position
Any.

Mounting
Standard: on panel – 2 screws ø 4 mm
On request: on din 35 rail with adaptor code
021B0300000 (optional).

Defrost Cycles Selection
From 1 to 12 per day.

Defrost Time
Adjustable from 1 to 56 minutes.

Fan Delay
Adjustable from 0 to 15 minutes
(Only for model D53.82).

Mod. D53.81
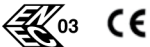Defrost with resistor.

Mod. D53.82
Defrost with fan delay

Mod. D53.92
End of defrost cycle controlled by
a thermostat(not supplied) with safety time
in case of thermostat failure

Approvals

Declaration of conformity
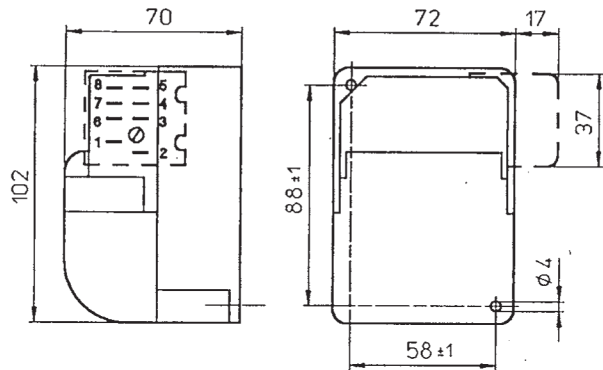ROHS (Directive 2002/95/CE)

Applications

For automatic defrosting of industrial
refrigeration plant, commercial visicoolers and
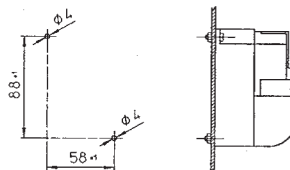display counters.

Features

- From 1 to 12 defrost cycles per day thanks
  to non detachable tabs.
- Defrost time easily adjustable from 1 to 56
  minutes.
- Fan delay easily adjustable from 0 to 15
  minutes (for D53.82).
- Independent power supplies for synchronous
  motor and for switches.
- High contact rating (SPDT).
- Safety guard for wiring terminals in
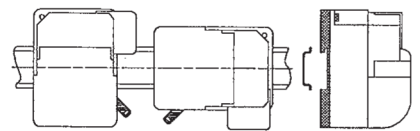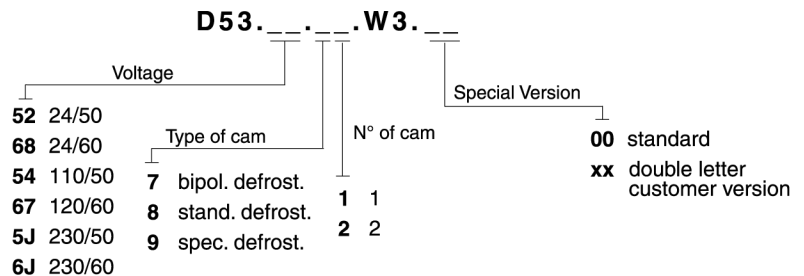 accordance with CEI 23 – 11.

Overall dimensions

Optional

PANEL MOUNTING

DIN RAIL MOUNTING

Ordering code

D53.__.__.W3.__

Voltage

52	24/50
68	24/60
54	110/50
67	120/60
5J	230/50
6J	230/60

Type of cam

7	bipol. defrost.
8	stand. defrost.
9	spec. defrost.

N° of cam

1	1
2	2

Special Version

00	standard
xx	double letter customer version

Connection and operating diagrams

Electrical Connection protection:
the cover, supplied not fastened, must be positioned and fastened with the screw after wiring.
NB: The slots for the passage of the wires can be widened removing the pre-cut central sector.

Timing:
see fig. 1 - switching intervals:
T1 and T2 adjustable (T1+T2=60 mins max)
T3 fixed (only type SB3.92).
Type SB3.72: the two contacts switch simultaneously.
From 1 to 12 defrosts per day.

Typical Applications:
see fig. 2.1: defrosting with hot gas.
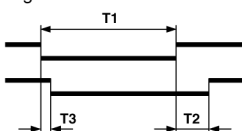see fig. 2.2: defrosting with fan delay.
see fig. 2.3: defrosting with resistor.
see fig. 2.4: defrost termination by thermostat with safety reset if thermostat fails.
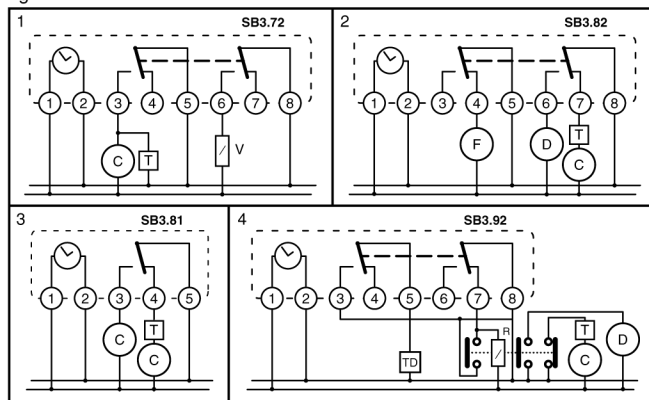
Wiring: see fig. 2
C = cooling
D = defrosting
V = reverse cycle valve
TD = defrost termination thermostat
T = cooling thermostat
R = relay
F = fan

fig. 1

mod./type	T1	T2	T3
SB3.81	1...58 min	-	-
SB3.72	2...64 min	0	0
SB3.82	1...56 min	0...15 min	0
SB3.92	2...54 min	0	2 min
tot.	± 25 sec	± 30 sec	± 10 sec

fig. 2

Setting

Programme setting:
See fig. 3 - Set defrost period T1 by aligning pointer (G) of the cam (B) to number of wanted minutes of graduation visible into window (C).
Turning the transparent dial of hours (D) align the wanted time of defrosting start to point (E) of cam (B).

Time setting:
See fig. 3 - Turn knob (F) clockwise until tip of actuator (A) aligns with the actual time on transparent hour dial (D).

Example
T1= 30 mins - Two defrosts per day, at 9.00 hrs and 21.00 hrs - Actual time = 16.00 hrs.
1) Two defrosts per day are obtainable with type ...-12H.
2) Pointer (G) on nick 30 of graduation (C)
3) Nick 9 of dial of hours (D) aligned to point (E) of cam (B).
4) Tip of actuator (A) aligned to nick 4 of the transparent dial (D).
NB: on the type 4H, 6H and 12H the PM hrs corresponds to AM hrs.