MOBATIME

Economical LED digital clocks

ECO-DC series

The ECO-DC series are digital clocks in 7 segment LED technique at an economical price, designed in an elegant and slim case, for time, date or alternating time/date display.

The ECO-DC is available in the following variants:
- Autonomous operation with internal quartz powered by mains
- NTP multicast or unicast synchronization, powered by PoE (compatible IEEE 802.3af) or mains powered

- Self-setting slave clock operation controlled by MOBALine code or by IRIG-B, mains powered
- LED display in red or green
- Single- or double-sided clock
- Black plastic case
- Ceiling suspension or wall bracket mounting for single- or double-sided clocks
- Intended for indoor use

ECO-DC series - variants

Display Features
- Time display in four digits (HH:MM), either 12 or 24 hours format
- Date display in four digits (DD:MM)
- 7 segment LED displays with 57 mm digit height for a viewing distance up to 30 m
- Alternating display of time and date
- Display available in red or green
- Sensor controlled automatic or manual adjustment of the display brightness

Mechanic
- Anti-reflection front cover made of plexiglass including a filter layer for best readability over a wide viewing angle
- Elegant and slim clock, made of ABS plastic in black (RAL 9005)
- Single- or double-sided version for wall mounting, ceiling suspension or wall bracket mounting
- Easy installation and time-saving maintenance thanks to hanging holes for wall mounting

- Connectors and state LEDs are accessible on the back side recess without the need for opening the housing
- Push-buttons placed on the top side of the frame housing
- Protection degree IP 30 (IP 40 on request)
- Equipment protection class II (no PE connection, plastic case)
- Working temperature: -5°C to +55°C

Synchronization
- Autonomous operation with internal quartz time base with programmable automatic seasonal time change
- NTP multicast or unicast synchronization powered over PoE or mains
- Slave clock operation with synchronization by self-setting MOBA-Line code or by IRIG-B, mains powered
- Precision 0,1 s/day at constant temperature - software trimming

Configuration
- Setting of the clock parameters and time, date setting by means of push buttons

For PoE and NTP version only
- DHCP / manual configuration of the clock parameters or setting over telnet
- DHCP "Private Options" to automatic configuration of all clock parameters when connected to LAN
- Firmware update remotely through LAN using TFTP
- Configuration and supervision via MOBA-NMS (Network Management System) software
- IPv6 ready

Single-sided clock dimension

back side recess

342 mm
298 mm
5 mm 44 mm
110 mm
123 mm
275
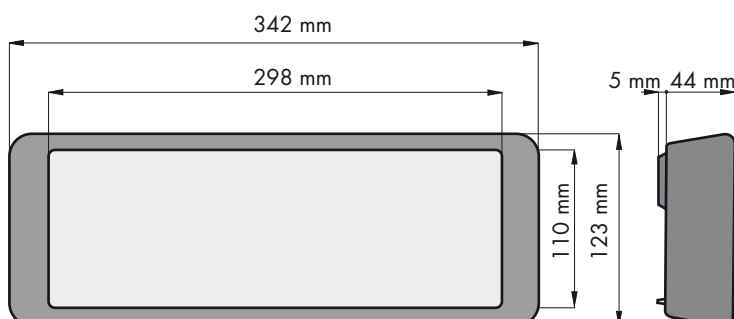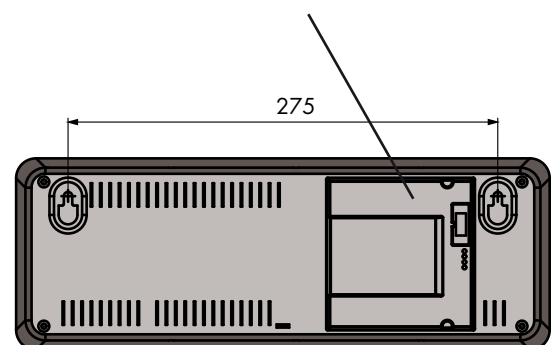
Order reference - ECO-DC

| ECO-DC | • | 1 | • | 2 | • | 3 | • | 4 | • | 5 | • | 6 | • | 7 |

|	
Height of digits	**1**
57 mm	57
Number of digits	**2**
4-digits	4
Display color	**3**
red	R
green	G
Version	**4**
single-sided	N
double-sided	D
Mounting	**5**
wall mounting	N
ceiling suspension (conventionally 5, 10, 30 and 50 cm, other lengths on request)	S
wall bracket	B
Synchronization	**6**
Autonomous operation	AUT
MOBALine, mains powered	MBL
MOBALine or DCF active code, with Real Time Clock RTC, mains powered	MBLDCF
IRIG-B, mains powered	IRIG
NTP protocol, mains powered	NTP
NTP protocol, PoE powered	PoE
Option	**7**
powered by 24 VDC (not for PoE version)	VDC

Connections
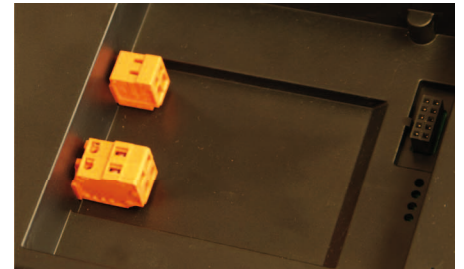
Version MOBALine or IRIG-B synchronized, mains powered
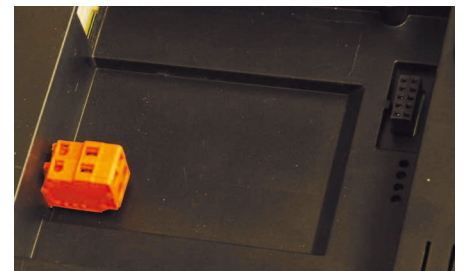
Version NTP synchronized, mains powered
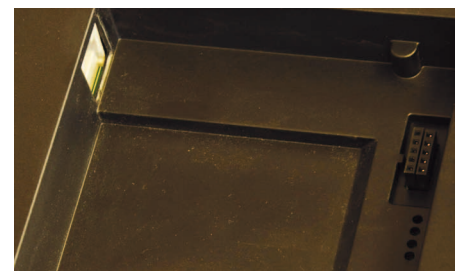
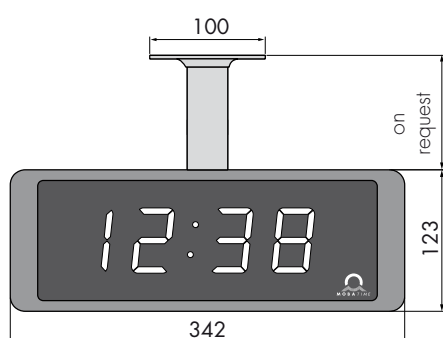Version NTP synchronized, PoE (Power over Ethernet) powered

Ordering example: ECO-DC.57.4.R.N.N.MBL

Digital clock 7-segment display, 57 mm height, 4 digits, red color, single-sided, wall surface mounting, synchronization by MOBALine, mains powered
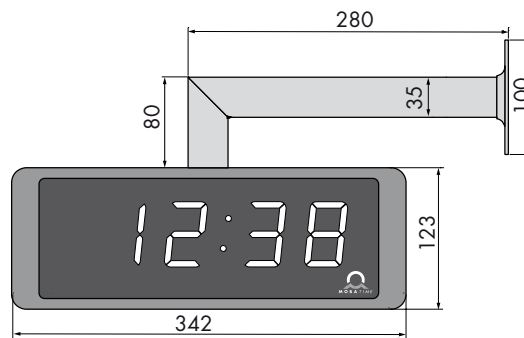
Double-sided clock dimension and mounting

Note: specify suspension rod length (5, 10, 30, 50 cm or custom length on request) in order
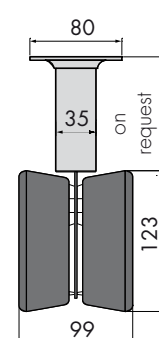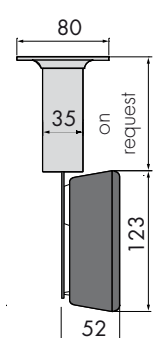
ceiling suspension mounting

100   on request   123   342

wall bracket mounting

280   35   100   80   123   342

double-sided

80   35   on request   123   99

single-sided

80   35   on request   123   52

all dimensions in mm

ECO-DC - Technical details

Technical Data		ECO-DC
Display	height of the digits [mm]	57
	number of digits	4
Time display format	HH:MM	✓
Date display format	DD:MM	✓
Automatic or manual brightness		✓
Reading distance		25 - 30 m
Autonomous operation	AUT	internal quartz base
Synchronization	MBL	MOBALine time code, mains powered
	MBLDCF (with RTC)	MOBALine or DCF active time code, mains powered
	IRIG	IRIG-B, mains powered
	NTP	NTP protocol, mains powered
	PoE	NTP protocol, PoE powered (compatible IEEE 802.3af)
Power supply		100 - 240 VAC / 50 - 60 Hz
Power consumption	single-sided	7 VA
	double-sided	12 VA
Quartz accuracy at 20°C		± 0.3 seconds / day (at a constant temperature)
Operating temperature		-5°C to +55°C
Protection degree		IP 30 (IP 40 on request)
Weight [kg] (including mounting plate)	single-sided	0.75
	double-sided	2
Dimensions [mm] (length x height x depth)	single-sided	342 x 123 x 44
	double-sided	342 x 123 x 105