Outlet Boxes

Increased comfort and lower fuel consumption are two major benefits of engine and car heaters. ABB car heating systems also offer improved energy utilisation and lower electricity costs.

You'll feel better in a warm car

Freezing winters often mean a freezing car. But with access to a car heating system you always get a warm car.

It's no fun getting into an ice-cold car first thing in the morning – or at any time. A car warmed up in good time before you start a journey makes life easier and much more comfortable.

If you also use an engine heater you will avoid unnecessary wear and tear on your engine and use less fuel, all while doing the environment a favour.
In-car and engine heaters don't always need to be turned on.

Our new car-heating units have a connection time of 3 hours. By using an electronic timer, power is connected to the heating only when needed. The time of connection is monitored by the outside temperature to ensure maximum power at the lowest possible electricity cost.

Avoid the cold this winter by connecting to an ABB car heating system.

The enclosure of the car-heating unit is made of robust aluminium throughout and is easy to install. Only two tools are needed to install the units and for ease of access the enclosure can remain open during installation.

Best of all, preparation for the installation can be made and the inserts can be jacked in afterwards. Being flexible and simple, you can change functions, service the insert and take it with you.

ADDITIONAL BENEFITS:

- **Easy connection to power feed.**
- **Same casing for all assembly processes.**
- **Effective, hidden wall attachment.**
- **Flange connection makes changing old systems easy.**
- **All inserts are the same size – easy to switch to other functions.**
- **Adapted for assembly on wall railings.**
- **Separate terminals for incoming - outgoing cables.**
- **Separate terminals makes it easy to install and change phase sequence.**
- **Separate terminals for internal cables.**
- **Connection point IP 20 protected Single or double mounting with same casings.**

Frequent use of the engine heater offers major environmental benefits. Cold engine starts produce substantial emissions. Research shows that it takes around 6 minutes for a catalytic converter in a cold car to work effectively.

Engine heaters have many environmental benefits. In densely populated areas where air pollution can cause a health risk, harmful hydrocarbon emissions can be dramatically reduced.

Designed for the city and the environment

Outlet Boxes have several functions. Their design allows them to fit into a demanding cityscape.

Aesthetics are important to us when we are designing our products. Robust aluminium throughout and emanates quality and functional reliability for urban and rural settings.

To make it easier to integrate the units into various environments, they come in several different colours. A further advantage is that empty enclosures can be installed to create a uniform effect in a car park. The enclosures can be filled with equipment as required. Being the same size there is no problem in switching from electro-mechanical to electronic timers.

In several colours

ABB's outlet boxes come in three standard colours; grey, green and black, together with a natural anodised aluminium. The colours above are not an exact copy of the actual colours. Contact ABB for more information.

Three advantages for architects

- Professional design
- Choice of three colours
- Uniform look for different functions

Three advantages for the contractor

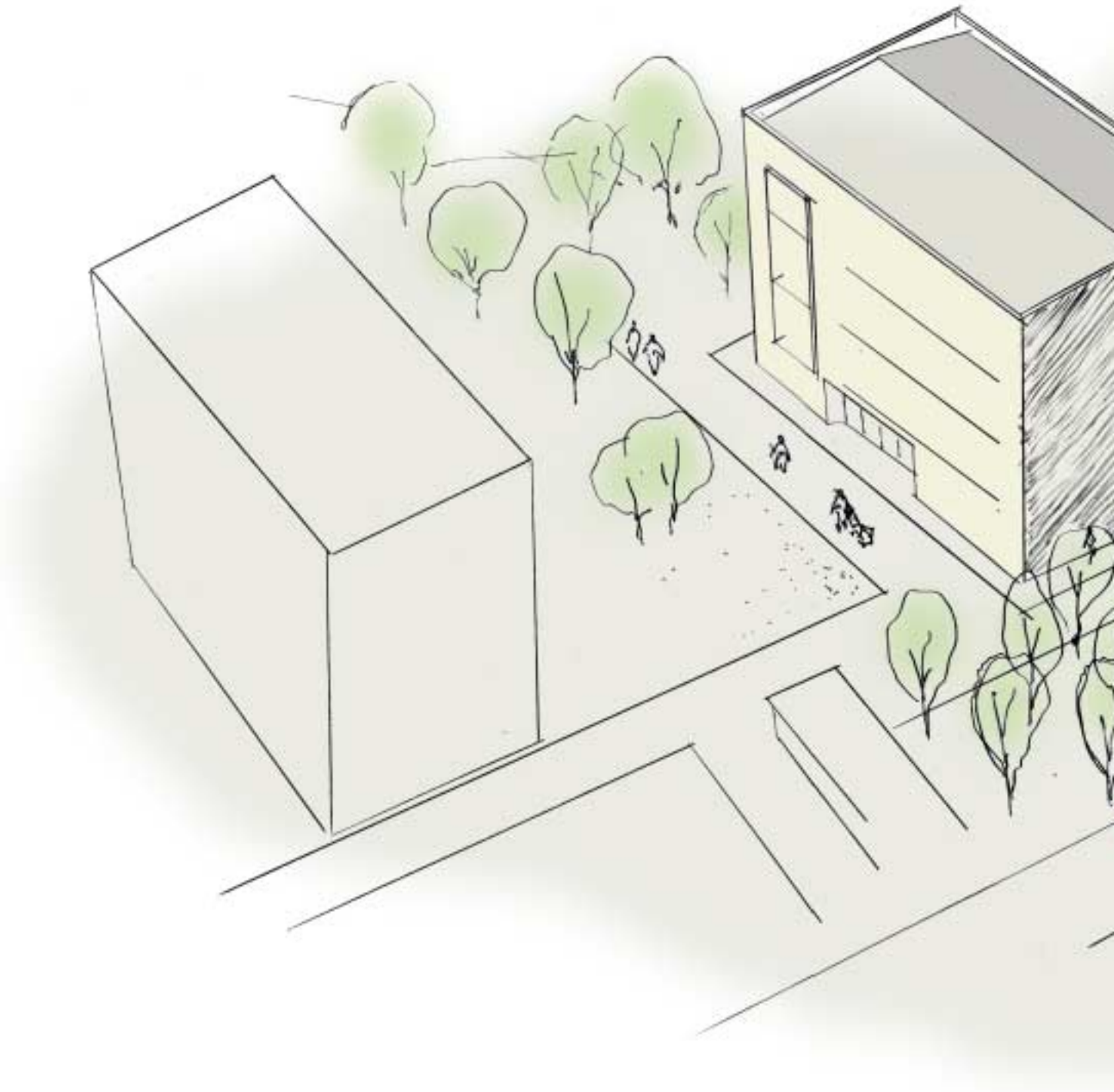
- Easy connection of power
- Short connection time

Three advantages for property owners

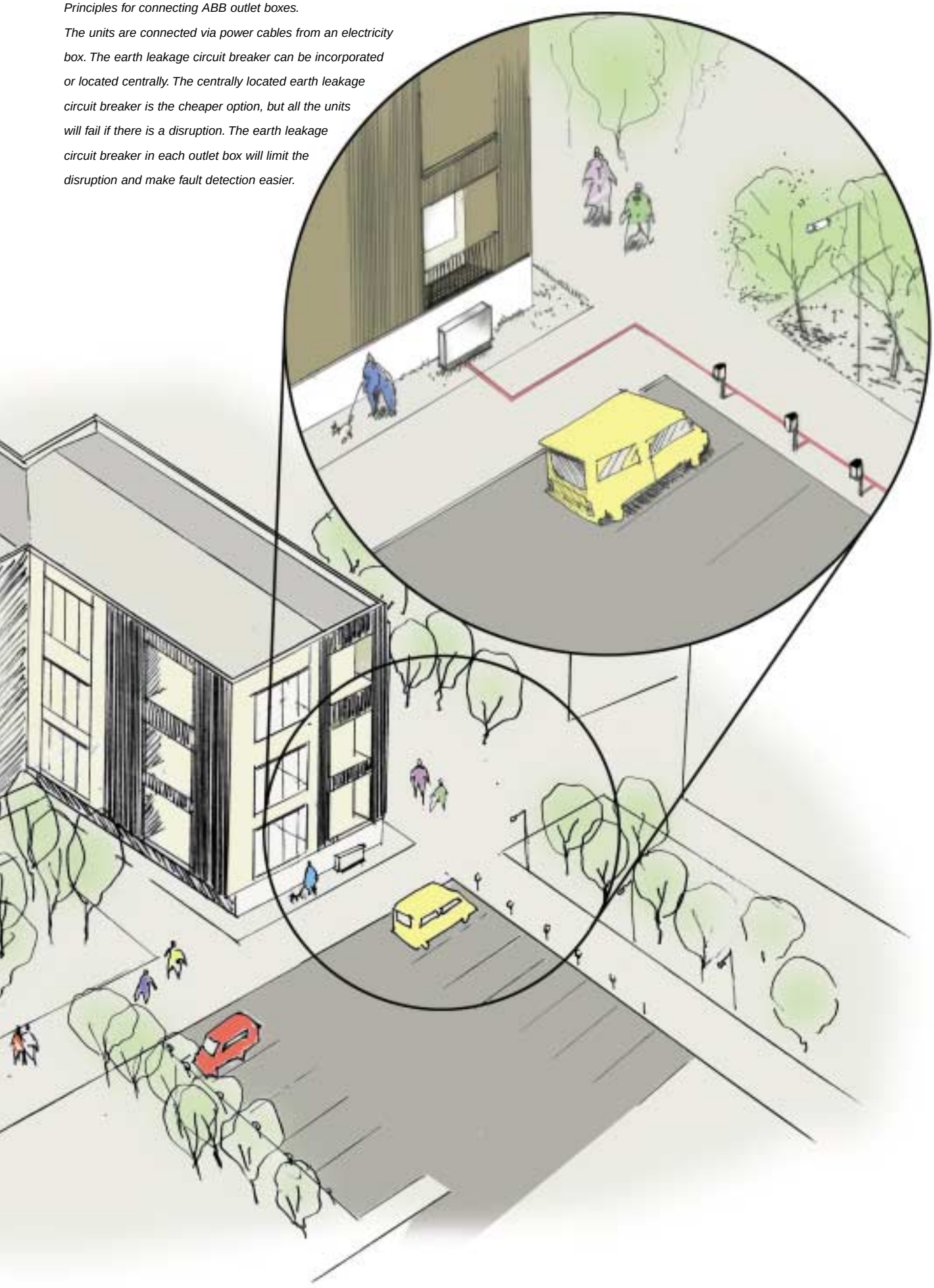
- Very low energy costs
- Inserts can be easily changed by service staff
- Automatic change from summer to wintertime (electronic timer)

Fitting in with the surroundings

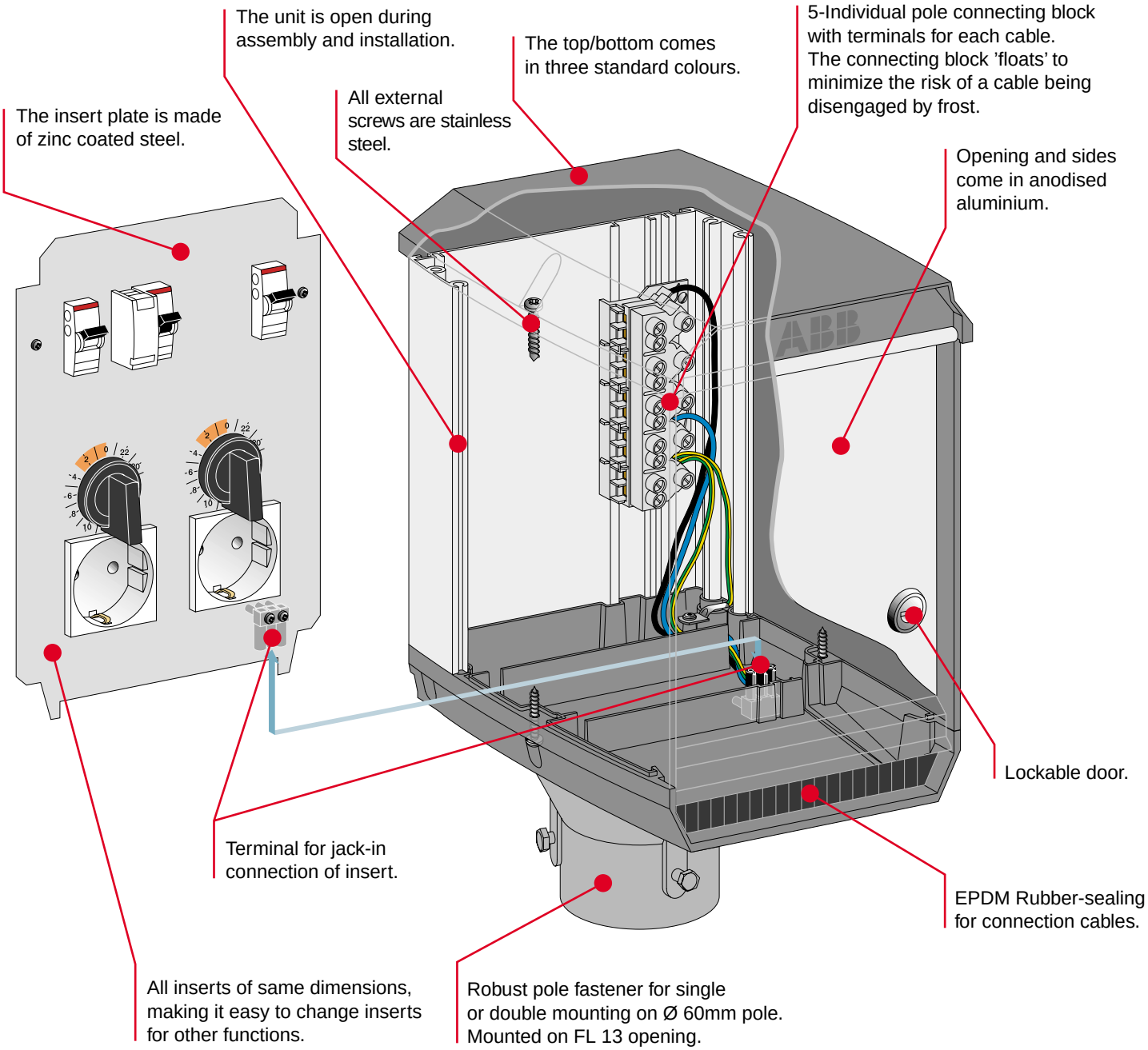
Let ABB's Outlet Boxes be part of your surroundings. An attractive design, with three colour options, allows the units to blend into the local setting. Empty units can also be installed to create a uniform look in a parking lot. And if needed, they can be filled with equipment.



Principles for connecting ABB outlet boxes.
The units are connected via power cables from an electricity box. The earth leakage circuit breaker can be incorporated or located centrally. The centrally located earth leakage circuit breaker is the cheaper option, but all the units will fail if there is a disruption. The earth leakage circuit breaker in each outlet box will limit the disruption and make fault detection easier.



Advantages of an ABB Outlet Box



Outlet Boxes for car heaters

Enclosure and accessories

General description
The outlet boxes are primarily for use in car parks, campingsites and marinas. The range covers functions that fulfil most needs.

Standards:	EN 60 439-1, -3
Rated voltage:	230/400V 50 Hz
Connectible area:	5 x (2x16) mm^2 CU for individual clamps
Degree of protection:	IP44
Opening:	FL13

Enclosure:
Enclosures with jack-in socket for standard inserts, making it very easy to put the jack in the insert.

Connecting block:	5 pole connecting blocks with individual terminals for connection(on-connection) and branch-off.
Material:	Top/bottom and looping in die, lacquered aluminium. Sides and doors in anodised aluminium sections. Rubber sealing made of EPDM rubber.
Lock:	With standard key and similar locking. Special orders can be taken.
Screws:	Stainless steel on top/bottom as well as on mounting for the pole flange.
Opening:	FL 13
Degree of protection:	IP44

List no.	Type	Colour	Connection block no. of poles	Rated area mm^2	Weight Kg	Packaging/ item
19 713 61	CWA1	Grey	5	16	3.9	1
19 713 66	CWA2	Green	5	16	3.9	1
19 713 67	CWA3	Black	5	16	3.9	1

Pole flange:
The flange has double FL 13 openings and a hole for the Ø 60mm pole which are intended to be used for both single and double-sided mounting of the unit.

List no.	Type	Colour	Material	Weight Kg	Packaging/ item
19 704 36	CWC1	Grey	Aluminium	0.7	1
19 704 37	CWC2	Green	Aluminium	0.7	1
19 704 38	CWC3	Black	Aluminium	0.7	1

Wall bracket:
The bracket is screwed onto the wall. The enclosure is fitted to the bracket and is locked by the screws that the FL 13 flange is attached with.

List no.	Type	Material	Weight Kg	Packaging/ item
19 704 39	CWC4	Steel zinc coated	0.7	5

Front cover:
Used to protect cases with no inserts.

List no.	Type	Material	Weight Kg	Packaging/ item
19 713 69	CWC5	Steel zinc coated	0.5	10

Outlet Boxes for car heaters

Inserts

Inserts:
Inserts with ”Jack-in” points, make it very easy to install the unit into the enclosure.

Inserts without monitoring:

List no.	Type	No. of sockets Schuko	Automatic fuses		Earth leakage breakers		Number of timers	Weight Kg	Packaging /item
			No. of MCB	Rated Current A	No. of RCD	Fault current mA			
1971371	CWB1	2	-	-	-	-	-	0.7	1
1971372	CWB2	2	2	16	-	-	-	1.0	1
1971373	CWB3	2	2	16	1	30	-	1.2	1
1971374	CWB4	2	1	16	1	30	-	1.0	1
1971376	CWB6	2	2	16	2	30	-	1.3	1
1971377	CWB7	2	2	6	1	30	-	1.2	1
1971378	CWB8	2	2	10	1	30	-	1.2	1
1971379	CWB9	2	2	6	2	30	-	1.4	1
1971380	CWB10	2	2	10	2	30	-	1.4	1

Types CWBI and CWB2 must be protected with external circuit breakers.

Inserts with electro-mechanical timer:

3-hour connection time. Timer repeats set time each day.

List no.	Type	No. of sockets Schuko	Automatic fuses		Earth leakage breakers		Number of timers	Weight Kg	Packaging /item
			No. of MCB	Rated Current A	No. of RCD	Fault current mA			
1971381	CWB11	2	2	6	1	30	2	1.5	1
1971382	CWB12	2	2	10	1	30	2	1.5	1
1971383	CWB13	2	2	6	2	30	2	1.6	1
1971384	CWB14	2	2	10	2	30	2	1.6	1
1971385	CWB15	2	1	16	-	-	2	1.4	1
1971386	CWB16	2	2	16	-	-	2	1.4	1
1971387	CWB17	2	1	16	1	30	2	1.4	1
1971388	CWB18	2	2	16	1	30	2	1.5	1

Types CWBI5 and CWB16 must be protected with external circuit breakers.

Inserts for camping sites and marinas:
Inserts are connected to the enclosure’s connection.

List no.	Type	No. of IEC Outlets 2P+E	Automatic fuses		Earth leakage breakers		Weight Kg	Packaging /item
			No. of MCB	Rated Current A	No. of RCD	Fault current mA		
1971395	CWB1-C	2	2	16	2	30	1.5	1

The units are equipped with IEC socket-outlets and a fuse/earth link circuit breaker for each socket-outlet.

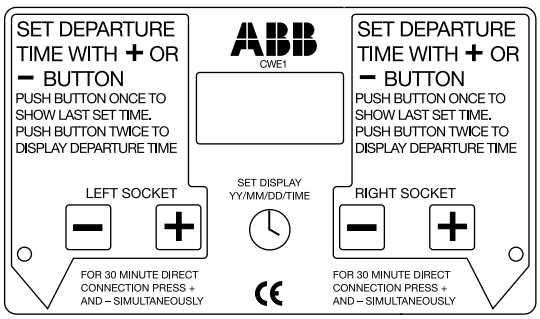
Outlet Boxes for car heaters

Inserts

Inserts:
Inserts with ”Jack-in” points, make it very easy to install the unit into the enclosure.

Inserts with electronic timer:
3-hour maximum connection time. The timer measures the outside temperature and adjusts the length of the connection time. The maximum is 3 hours/per connection. It has a time-delay function that keeps the engine and in-car heater connected for an extended period of 30 minutes following the set time, so that the car remains heated if the owner of the car is delayed. The timer makes automatic changeover from summer to wintertime and has an approximately +/- 48-hour reserve.

List no.	Type	No. of sockets Schuko	Automatic fuses No. of MCB	Automatic fuses Rated Current A	Earth leakage breakers No. of RCD	Earth leakage breakers Fault current A	Number of timers	Weight Kg	Packaging /item
1971390	CWB20	2	2	6	1	30	2	1.8	1
1971391	CWB21	2	2	10	1	30	2	1.8	1
1971392	CWB22	2	2	6	2	30	2	1.9	1
1971393	CWB23	2	2	10	2	30	2	1.9	1
1971394	CWB24	2	2	16	1	30	2	1.9	1



Standard functions:
- Clearly displayed buttons for easy setting of departure time.
- Automatic changeover from summer to wintertime.
- +/- 48 hours reserve time.
- LED display with illuminated numbers.
- LED display of ‘socket on’ indicator.
- Maximum connection time of 3 hours (excl. time delay of 30 mins).
- Time delay of 30 minutes following setting of departure time.
- Day repetition. Timer connects socket at set time each day.
- Temperature-controlled connection time with thermostat. Length of connection time is automatically controlled by outside temperature.
- 30 minutes direct connection time by pushing + and – button simultaneously.
- Down-direction LED that lights up socket

Optional functions:
- Maximum connection time of 90 minutes (excl. delay time).
- No delay. Timer disconnects when departure time is set.
- No day repetition. Timer must be set each day.

Connection times:

Outside temperature in °C	Switches on minute before departure time. 90 minutes connection time.	Switches on minute before departure time. 3 hours connection time.	Set number of minutes delay after departure time.
+5	30	30	30
0	45	65	30
-5	60	105	30
-10	75	140	30
-15	90	180	30

Outlet Boxes

Overview

CWB1

CWB2

CWB3,7,8

CWB4

CWB6,9,10

CWB11,12,18

CWB13,14

CWB15

CWB16

CWB17

CWB1-C

CWB20,21,24

CWB22,23

Outlet Boxes

Accessories and dimensions

Parts:

CWA..,CWB..

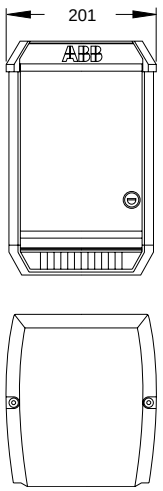
List no.	Type	Comment	Weight/Kg
19 704 82	BVU	Shuko outlet (child safe)	1
19 704 62	BVLL	lock inc. keys	1
19 704 98	CWE1	electronic timer	1
19 704 99	CWE2	electro-mechanic timer	1
77539	Key		1

BE..,BD..,MBE..,MBET..,MBDT..,BET..,BDT..,MBEE..,MBDE..,BEE..,BDE..,BEM..,BDM..,BETM..,BDTM..

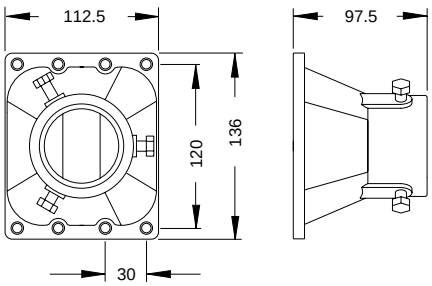
List no.	Type	Comment	Weight/Kg
77602	Gabel	single sided black	1
77605	Gabel	double sided black	1
19 704 82	BVU	Shuko outlet (child safe)	1
19 704 62	BVLL	lock inc. keys	1
19 713 98	CWE1	electronic timer	1
19 704 75	BVT	electro-mechanic timer	1
77539	Key		1

SE..,SEC..,SET..,CEC..

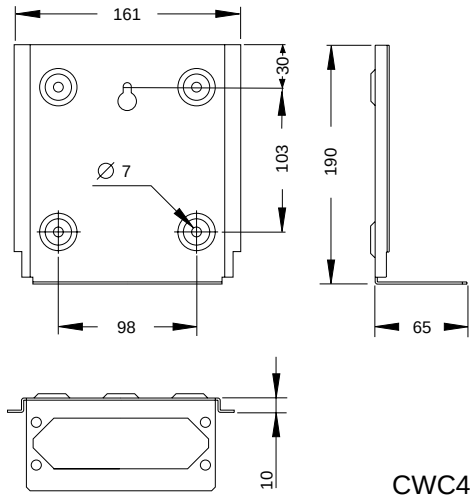
List no.	Type	Comment	Weight/Kg
19 704 82	BVU	Shuko outlet (child safe)	1
19 704 72	Lock		1



CWA1,2,3



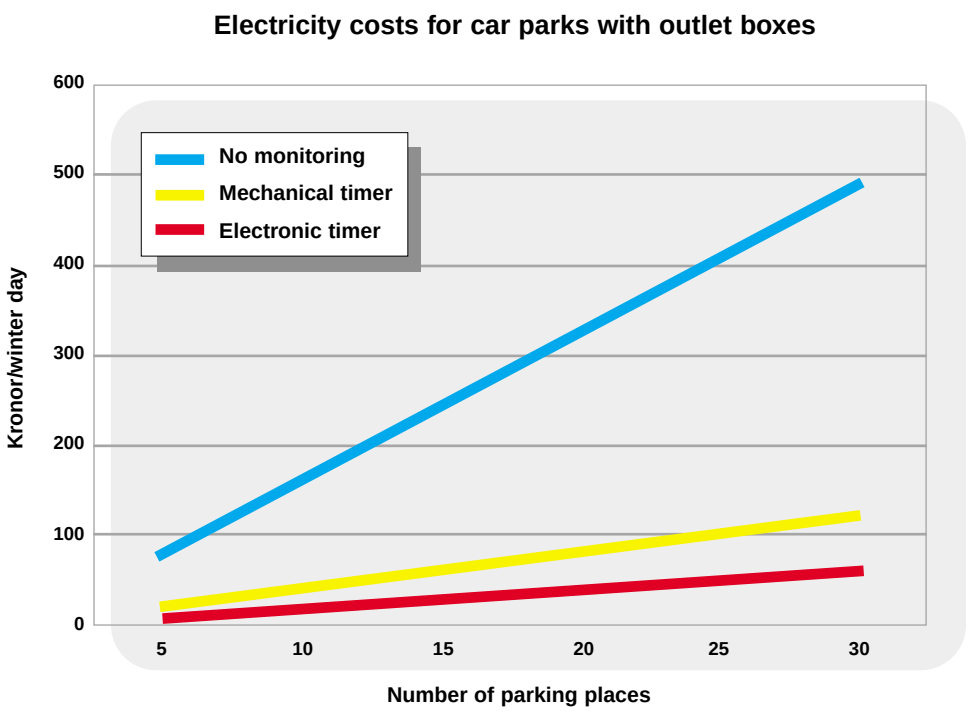
CWC1,2,3



CWC4

Make the change over and save money

There are many older outlet boxess that are still in constant operation. They consume a lot more power than the modern products, with limited connection time. The chart below displays this and shows how much money and power can be saved by switching to a modern outlet box. One of the primary goals in developing the outlet box is to utilize power effectively over a short time period, while providing sound, managed finances.
So if your existing outlet box is not satisfactory, change to the ABB range. You can use the existing poles and the new units can be assembled and cables connected straight to the new terminal block. It's a quick and easy process and in the long run you'll save money and time.



Our calculation "Without monitoring" is based on an old unit that is in constant operation. We have estimated that, during a season, such units operate for 12 hours per day. A 'mechanical timer' is a unit with an electro-mechanical timer that, on average, is in operation 3 hours per day during the season. An 'electronic timer' is a unit with an electronic timer that on average is connected 90 minutes per day during the season. We have calculated that each vehicle consumes 1700 Watts (500 W for engine heaters, 1,200 W for in-car heaters). The price of electricity, according to this calculation, is SEK 0.80/kWh (including energy tax, charges and Swedish VAT).

FORMULA FOR CALCULATION OF ELECTRICITY COST:
Connection time in hours x 1.7 kW x no. of parking spaces x electricity cost per kWh = cost in Swedish krona.

CALCULATION EXAMPLE:
ABB's outlet box with electro-mechanical timer, 20 parking spaces
3 x 1.7 x 20 x 0.8 = SEK 82.0.

Ask your electrical contractor

Contact your local electrical contractor for details and practical information about ABB’s Outlet Boxes for car-heaters in their range.

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