

ALFACHARGE WIRELESS CHARGER AL3-V

12/24VDC WIRELESS CHARGER MODULE

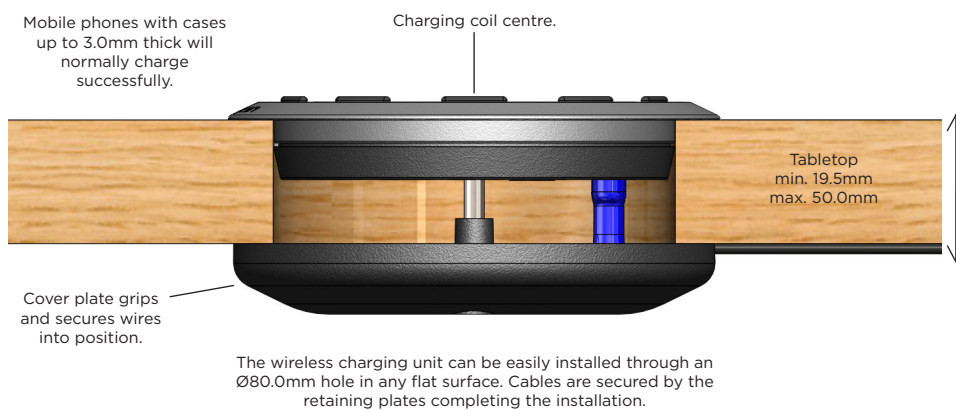
PASSENGER ACCESSIBLE WIRELESS CHARGERS FOR VEHICLE INSTALLATIONS

Wireless charging is increasingly becoming the preferred method of maintaining battery power in mobile devices, with most of the latest designs from the major manufacturers including wireless charging as standard.

The AL3-V wireless charger is designed for installation into table tops on vehicles such as buses and coaches to allow passengers the ability to charge their devices on the move. The unit is installed through an 80.0mm hole in the table and secured underneath, providing an unobtrusive and functional enhancement of the passenger experience. These units make a complementary addition to the AL1-H integrated charger modules, and can be installed at the vehicle build stage or as part of a retrofit activity, as required.

The wireless receiver of the charging unit will automatically detect the presence of suitably enabled mobile devices and will typically charge through a case up to 3.0mm thick.

Alfatronix wireless charging module AL3-V



Designed for integration into passenger vehicles.

Accepts both 12Vdc and 24Vdc.

- Approved to EN50498 & ISO7637-2. E marked (Reg10) and CE marked.
- Phone communicates every second to establish correct charge.
- Foreign object detection & activation.
- Convenient wide input of 9-32Vdc in one standard casing.
- LED to confirm correct operation.



It is recommended that these units are fused individually with a 1Amp fuse (24V systems) or a 2Amp fuse (12V Systems). Suitable in-line fuses are available.

THE RANGE

The Alfacharge range has been designed to meet the rigorous standards required for on board commercial vehicle applications including EN50498 and ISO7637-2 and is both CE and E marked (Reg10). The casings are made from V0-rated (self-extinguishing) high impact polycarbonate and the PCB is populated by computer-controlled SMT for maximum accuracy and durability.

WARRANTY

The AL3 Series of wireless chargers are manufactured using rugged components to provide years of service in demanding commercial environments and are covered by a three year return to base warranty.

SAFETY

Wireless chargers require that there is no metal between the device providing the charge and the device being charged, as this metal could heat up to a hazardous temperature.

The AL series of wireless chargers use sophisticated Foreign Object Detection (FOD) algorithms to detect metal objects placed between the charger and the device being charged and prevent the charging process from starting if metal is detected.

It is the responsibility of the installer to ensure correct operation of the FOD functions in the end application of the product, and that during use, no metal is expected to be placed between the wireless charger and the device being charged.



ALFACHARGE PART SELECTION

Part Number	Description	Dimensions (mm)	Weight
AL3-V	Integrated wireless phone charger	Ø98.0 x 15.3; Hole Ø80.0	160g

TECHNICAL DATA

Input voltage range	9-32Vdc
Output power	Nominal 5W
Application	Charging of wireless enabled devices
Transient voltage protection	Meets ISO7637-2 International standard for 12/24V vehicles
Tx-Range	Nominal 5mm
Off load current (quiescent current)	6mA
Power conversion efficiency	50% - 60%
Operating temperature	-25°C to +40°C
Storage temperature	-25°C to +100°C
Operating humidity	95% max., non-condensing
Casework	Grey polycarbonate body
Connections	Input: 6.3mm push-in flat blade connectors Output: Wireless transmission <200kHz
Output indicator	LED: Blue - standby, green - charging
Mounting method	Enclosure with underside securing plate into Ø80.0mm hole
Safe area protection:	Over Current Limited by current sensing circuit
	Over heat Limited by temperature sensing circuit
	Overvoltage and Undervoltage Limited by sensing circuit
	Reverse Polarity Limited by sensing circuit
	Transients Protected by filters and rugged component selection
	Catastrophic protection Internal fuse
Approvals	2014/30/EU The general EMC directive Regulation 10 The automotive directive 93/68/EEC The CE marking directive
Designed to	EN50498, EN45545, EN50121-3-2, ISO 7637-2 & R118
Markings	CE, UKCA and E marked
IP Rating:	IP65 when installed correctly

